INFECTION PREVENTION AND CONTROL

“It’s Everyone’s Business”
BREAKING ONLY ONE LINK IN THE CHAIN STOPS TRANSMISSION
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INFECTION PREVENTION & CONTROL – Saskatoon
POLICY AND PROCEDURE MANUAL

Royal University Hospital (RUH)
Saskatoon City Hospital (SCH)
St. Paul’s Hospital (SPH)
Affiliates & Agencies

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Printable copies of the teaching handouts are available on the Saskatoon Health Region Infection Prevention & Control Policy and Procedure Manual Website ([https://www.saskatoonhealthregion.ca/about/Pages/Policies-IPC.aspx](https://www.saskatoonhealthregion.ca/about/Pages/Policies-IPC.aspx))

- Airborne Precautions – Client, Family and Visitor Information
- Chickenpox
- Client and Family Hand Hygiene Brochure
- *Clostridium difficile*
- Contact Precautions – Client, Family and Visitor Information – For Acute Care
- Contact Precautions – LTC Family and Visitor Information
- Contacts of an Antibiotic Resistant Organism (ARO) Related to an ARO Outbreak – Client, Family and Visitor Information
- Droplet and Contact Precautions – Client, Family and Visitor Information – For Acute Care
- Droplet and Contact Precautions – LTC Family and Visitor Information
- Droplet Precautions – Client, Family and Visitor Information
- Hand Hygiene
- Influenza
- Lice
- MRSA
- Norovirus
- Scabies
- Shingles
- Visitor Information for Immune Compromised Patients
- Visitor Instructions: During an ARO Outbreak
- West Nile Virus
The goal of the Infection Prevention and Control Program is to prevent and control the spread of infections and to promote awareness of the principles of infection, and prevention control among patients/residents/clients, staff and visitors. Nosocomial (hospital-acquired) infections develop in at least 5% of patients admitted to hospitals. These nosocomial infections increase morbidity and mortality, resulting in increased hospital stays, and increased expenditures.

The Program is based on the following principles:

- Appropriate interventions can reduce transmission of infection in health care settings.
- Infection prevention & control programs are designed to reduce the risk of transmission to an acceptable level; zero risk is not attainable, and the consequences of transmission must be balanced against the consequences of precautions taken.
- Precautions should be feasible within the context of the health care facility, recognizing the ongoing changes in systems of health care delivery.
- Interventions may vary in acute care, long term care, and community health care settings. Local epidemiology should be considered in the design and application of infection prevention and control interventions.
- The patient population is becoming increasingly immune compromised and at greater risk for nosocomial infection.
- Potential pathogens may be transmitted from symptomatic and asymptomatic individuals.
- **Standard Precautions** are used for all patients regardless of diagnosis and tailored to the characteristics of the patients and their environment.
- Patients known or suspected to be infected or colonized with certain microorganisms will require **Additional Precautions** based on the modes of transmission of these microorganisms.1

**Notes:**
Patient/resident/client will be referred to as patient, throughout the manual. Refer to Abbreviations and Definitions.

Information Fact Sheets and signage referred to in this manual is available from SHR Printing Services.

“Standard Precautions” do not differ in principle from “Routine Practices” used by Health Canada.

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### Introduction

An Infection Prevention and Control Program provides and coordinates mechanisms for detecting, preventing, controlling and reporting infections that occur within the facility. The program is concerned with practices and procedures in all departments of the facility.

### Policy

1. The Infection Prevention and Control Program shall provide current, uniform standards to assist all health care workers in minimizing the risk of infection to patients, visitors and themselves.

2. The Infection Prevention & Control Manual shall be maintained by the Infection Prevention & Control program in electronic and paper format. It will provide policy direction for staff regarding infection prevention and control.

### Purpose

1. To prevent and control the spread of infectious diseases throughout the Saskatoon Health Region.

2. To promote awareness of the principles of infection prevention and control amongst health care workers, patients and visitors.

3. To provide policies and procedures.

### Procedure

1. Infection prevention and control practice

   The program consists of effective prevention and control activities that are specific to the practice setting, the population served, and the continuum of care. Activities include outcome surveillance, application of existing regulations, standards/guidelines of professional organizations and government agencies, revision of procedures based on current evidence-based infection prevention and control strategies.
2. Epidemiology
The program applies epidemiologic principles and statistical methods, including risk stratification, to identify target populations, analyze trends and risk factors, and design and evaluate prevention and control strategies. Activities include surveillance and investigations and the use of statistical techniques to describe the data, calculate rates, and critically evaluate significance of findings.

3. Surveillance
The program uses a systematic approach to surveillance to monitor the effectiveness of prevention and control strategies that are consistent with the goal and objectives of Saskatoon Health Region (SHR). Activities include development, maintenance, reporting of and, evaluation of surveillance plans based on the population served, services provided and past surveillance data.

4. Education
The program serves as an educational resource for infection prevention and control and health care epidemiology. This includes needs assessment, development, delivery and, evaluation of educational programs. The Infection Prevention and Control Manual is used as an informative reference for reflecting current practices and is updated on a continuing basis.

5. Consultation
The program provides expert knowledge and guidance in epidemiology and infection prevention and control-related issues. Activities include maintaining current knowledge base on infection prevention and control topics.

6. Performance Improvement
The program is an integral component of the plan for improvement of practice and patient outcomes. Activities include identification of opportunities for improvement based on indicators, process and outcome measures, other findings, and observations. Coordinates SHR infection prevention and control improvement activities and participates in SHR multidisciplinary improvement strategies by contributing epidemiologic skills to improvement processes.

7. Program management and evaluation
The program systematically evaluates the quality and effectiveness of the program appropriate to the practice setting. Activities include identification and coordination of opportunities for improvement based on indicators, process and outcome measures and, participation in SHR multidisciplinary improvement strategies.

8. Fiscal responsibility
The program incorporates the principles of fiscal responsibility. Activities include consideration of both clinical outcomes and financial implications when making recommendations for changes in practice, evaluation of newly developed infection surveillance, prevention, and control technology or products for cost-effectiveness, integration of cost accounting data into the analysis of nosocomial infection reports and documentation of cost reduction in SHR through program activities.
9. Research
   The program applies relevant research findings to infection prevention and control practice. Activities include dissemination of relevant published research findings through practice, education, or consultation, collation and sharing of findings from surveillance activities or outbreak investigations, participation in infection prevention and control-related research independently or collaboratively. Publishes or presents research findings to assist in advancing the field of infection prevention and control and epidemiology.

Reference:

### Introduction

The Infection Prevention and Control Committee is a standing subcommittee of the Practitioner Advisory Committee of Saskatoon Health Region and St. Paul's Hospital.

### Policy

The Infection Prevention and Control Committee shall consider, advise and recommend on health matters pertinent to infection prevention and control in the Saskatoon Health Region.

### Purpose

1. Approve the goals and objectives of the program annually.

2. Review and make recommendations regarding infection prevention and control policies and procedures, regionally and to specific programs or services as required.

3. Review and make recommendations on the focus of surveillance, education and research activities.

4. Approve Acute & Continuing Care infection prevention and control protocols and guidelines. Public Health Services is mandated to perform community prevention and control activities and may bring protocols and guidelines for information.

5. Support the Infection Prevention & Control program by encouraging compliance with approved policies and procedures.
**Procedure**

1. The Infection Prevention and Control Committee is composed of representatives from all departments concerned with the control of infection. Members disseminate information back to the groups they represent as needed.

2. Submit agenda items to the IP&C program manager two weeks prior to the meeting. Agenda of the meeting will be sent ten days prior to the scheduled meeting.

3. Meetings are held monthly or at the discretion of the Infection Prevention and Control Officer but not less than six times per year.

Reference:

Terms of Reference, IP&C Committee, SHR – Appendix A
ORGANIZATION
10-20
APPENDIX A

TERMS OF REFERENCE
Regional Infection Prevention & Control Executive Committee
Saskatoon Health Region

Purpose
To provide coordination, direction and recommendations on matters pertinent to Infection Prevention and Control in the Saskatoon Health Region. The committee will promote a common approach to Infection Prevention & Control and utilization of best-practices within the region. The committee must be sufficiently flexible as to accommodate differences and variations with the regional stakeholders.

Accountability
Reports to Senior Leadership Team through the VP of Performance Excellence. Members bring issues forward from, and disseminate information to, the groups they represent.

Membership
Core membership:
- Infection Control Officer (Co-Chair)
- IP&C Director (Co-Chair)
- Medical Health Officer or designate
- Physician representatives from: Medicine, Surgery, Seniors’ Health & Continuing Care
- Director, Acute Care
- Director, Public Health Services or designate
- Director, Nursing Affairs or designate
- Director, Worksafe and Employee Wellness or designate
- Director, Home Care or designate
- Director, Facilities Management or designate
- Director, Supply Chain Management & Support Services or designate
- Director, Seniors’ Health & Continuing Care or designate
- Director, Rural Services or designate
- Director, Pharmaceutical Services or designate
- Director, Laboratory Medicine or designate
- Chairperson from Infection Control: Acute Care Council, Long Term Care Council, Community Council

Affiliated/ Adhoc Members:
- Saskatoon Cancer Agency
- Director Risk Management
- Representatives of any group or service may be invited to attend meetings at the discretion of the Chairperson.

Responsibilities
1. Advise on the overall direction and outcomes of the RIPCC, including annual approval of a strategic plan and human resource plan.
2. Approve Acute and Seniors’ Health & Continuing Care Infection Prevention & Control policy, protocols and guidelines. Public Health Services is mandated to
perform community prevention & control activities and may bring protocols and guidelines for information.

3. Review and make recommendations regarding Infection Prevention & Control policies and procedures regionally or to specific programs or services as required.

4. Review and make recommendations on the focus of surveillance, education and research activities at the regional level.

5. Support the Infection Prevention & Control program to prioritize regional initiatives, establish project/work teams or subcommittees.

6. Receive and review reports of Infection Prevention and Control related activities, audits or education by committee members’ sector/program or service. Advise and coordinate region-wide implementation as necessary.

7. Advise and coordinate the activities of sector specific IP&C Committees.

8. Develop an effective communication strategy for dissemination of the actions and outcomes from the Regional Infection Prevention & Control Committee.

9. Act in an advisory capacity to Worksafe and Employee Wellness

Meetings

1. Will be held a minimum of 4 times per year.

2. Minutes are distributed to the membership and the VP, Quality and Interprofessional Practice. The Infection Prevention & Control program’s Administrative Assistant is responsible for minutes.

3. Submit agenda items to the Chairperson at least 2 weeks prior to the meeting.

4. The agenda will be circulated at least 1 week prior to the meeting.

Revised: September 2012
Approved: October 2, 2012
### Introduction

The Infection Prevention and Control Professional (ICP) is part of the Infection Prevention and Control team.

### Policy

1. The ICP is responsible to the Manager, Infection Prevention & Control and receives clinical direction from the Infection Prevention and Control Officer.

### Purpose

The ICP will be accountable to provide infection, prevention and control-related services within the Saskatoon Health Region (SHR) by maintaining an effective Infection Prevention & Control (IP&C) program, providing training and education related to infection prevention and control and infectious diseases, and by consulting on matters related to infection prevention and control within the region and externally as an expert resource. ICPs participate in quality improvement or research activities with the IP&C team and with departments or groups within the Saskatoon Health Region.

### Procedure

1. **Clinical Service Delivery:**
   - Participates in the IP&C team to maintain and advance a regional Infection Control program, ensuring that activities are client-centered, performed in a manner consistent with other IP&C team members and in a fiscally responsible manner.
   - Assists with the provision of related training and expert consultation within the parameters of the Region’s mission and vision.
   - Performs epidemiologic studies to identify, investigate, monitor and analyze outcomes, i.e., outbreaks, exposures. Records and reports in an accurate and timely manner.
   - Ensures consistent application of definitions of all nosocomial infections.
   - Collaborates in the development of educational tools, policies and procedures related to the program and based on current standards, guidelines or reference material.
• Prepares and delivers training/education to various groups in SHR, including clients, families, staff physicians and students on topics related to IP&C.
• Promotes the integration of infection prevention principles into design of new construction or renovation projects in SHR.
• Provides expert consultative services regarding IP&C to staff in various departments and settings, and to colleagues within and outside SHR with input from IP&C program staff. Consistent messaging within the team is crucial.
• Identifies risk management issues and influences corrective action in collaboration with affected departments.
• Conducts environmental audits related to infection control, recommends improvements based on research or current standards and shares findings in a timely way.

2. **Community and Team Relationships:**
• Develops and maintains positive working relationships with team members, care providers, and community agencies through participation on both the ICP/ICO team and the Infection Prevention and Control Committee, and by collaborating with staff in various departments on matters affecting these services.
• Participates on quality improvement teams or research projects when designated by the IP&C team.

3. **Professional Growth & Accountability:**
• Maintains and enhances personal and professional growth by continuing to build on current knowledge and through participation in professional associations.

Reference:

SHR Infection Prevention and Control Professional Job Description
POLICIES & PROCEDURES
Number: 10-40
Title: Organizational Chart

Authorization: [X] SHR Regional Infection Prevention & Control Executive Committee
Source: Infection Prevention & Control
Date Initiated: April 10, 2001
Date Reaffirmed: June 2003
Date Revised: August 2016
Scope: SHR Agencies & Affiliates

Organization Chart
Infection Prevention & Control Department

- VP Quality and Interprofessional Practice
- Director, Infection Prevention & Control
- Regional Manager, Infection Prevention & Control
- Senior* ICP 655-5306
- Provincial ** ICC 655-3643

*Infection Control Professional
**Infection Control Coordinator
<table>
<thead>
<tr>
<th><strong>Acute Care Facility (ACF)</strong></th>
<th>A hospital where lengths of stay average &lt; 30 days, and where a variety of services are provided, including surgery and intensive care.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Additional Precautions</strong></td>
<td>Precautions that are based on the method of transmission and are necessary for infections transmitted by the airborne, large droplet route or certain highly transmissible or epidemiologically important microorganisms transmitted by the direct or indirect route.</td>
</tr>
<tr>
<td><strong>Airborne Precautions</strong></td>
<td>Precautions initiated to prevent transmission of small droplet nuclei that remain suspended in the air and are widely dispersed by air currents within a room or over a long distance. Barriers such as special high efficiency tight-fitting masks are used to prevent inhalation of these minute particles.</td>
</tr>
<tr>
<td><strong>Antimicrobial Agent</strong></td>
<td>A product that kills or suppresses the growth of microorganisms.</td>
</tr>
<tr>
<td><strong>Antimicrobial Resistant Organism</strong></td>
<td>A microorganism that has developed resistance to the action of several antimicrobial agents and that is of special clinical or epidemiological significance. Organisms included in this group are MRSA, VRE, ESBL, penicillin-resistant pneumococcus, and certain Gram negative bacilli resistant to penicillins and cephalosporins, and multi-drug resistant <em>Mycobacterium tuberculosis</em>. Other microorganisms may be added to this list if antibiotic resistance is judged to be significant in a specific health care facility or patient population, at the discretion of the infection prevention &amp; control program or local, regional or national authorities.</td>
</tr>
<tr>
<td><strong>Antiseptic</strong></td>
<td>A product with antimicrobial activity that is designed for use on skin or other superficial tissues; removes both transient and resident flora. The term is used for preparations applied to living tissue.</td>
</tr>
<tr>
<td><strong>Aseptic</strong></td>
<td>Condition free of all forms of life (sterile).</td>
</tr>
<tr>
<td><strong>Aseptic Technique</strong></td>
<td>To exclude all living microorganisms from the environment and to prevent those living harmlessly on the body from reaching an open area.</td>
</tr>
<tr>
<td><strong>Bacteriostatic</strong></td>
<td>A chemical agent capable of only preventing the growth of bacteria temporarily.</td>
</tr>
<tr>
<td><strong>Barrier Techniques</strong></td>
<td>Use of items such as single rooms, gloves, masks, eye protection or gowns in health care settings to prevent transmission of microorganisms.</td>
</tr>
<tr>
<td><strong>Carrier</strong></td>
<td>An individual who is found to be persistently colonized (culture-positive) for a particular organism, at one or more body site, but has no signs or symptoms of infection.</td>
</tr>
<tr>
<td><strong>CIC</strong></td>
<td>Certification in Infection Control.</td>
</tr>
<tr>
<td><strong>Cleaning</strong></td>
<td>The physical removal of foreign material, e.g., dust, soil, organic material such as blood, secretions, excretions and microorganisms. Cleaning physically removes rather than kills microorganisms. It is accomplished with water, detergents and mechanical action. The terms “decontamination” and “sanitation” may be used for this process in certain settings, e.g., central service or dietetics. Cleaning reduces or eliminates the reservoirs of potential pathogenic organisms. Cleaning agents are the most common chemicals used in housekeeping activity.</td>
</tr>
<tr>
<td><strong>Cohort</strong></td>
<td>Two or more patients colonized or infected with the same organism who are separated physically (e.g. in a separate room or ward) from other patients who are not colonized or infected with that organism.</td>
</tr>
<tr>
<td><strong>Cohort Staffing</strong></td>
<td>The practice of assigning specified personnel to care only for patients known to be colonized or infected with the same organism. Such personnel would not participate in the care of patients who are not colonized or infected with that organism.</td>
</tr>
<tr>
<td><strong>Colonization</strong></td>
<td>Presence of microorganisms in or on a host with growth and multiplication but without tissue invasion or cellular injury.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Communicable</strong></td>
<td>Capable of being transmitted from one person to another; synonymous with “infectious” and “contagious”.</td>
</tr>
<tr>
<td><strong>Community-acquired Infection</strong></td>
<td>Infection acquired outside a health care setting.</td>
</tr>
<tr>
<td><strong>Contact Precautions</strong></td>
<td>Precautions initiated to prevent the transmission of a highly transmissible or epidemiologically important microorganism through direct or indirect contact. Barriers such as gowns and gloves are established to prevent transfer of these organisms from the source patient or contaminated environmental surfaces.</td>
</tr>
<tr>
<td><strong>Contamination</strong></td>
<td>The presence of microorganisms on inanimate objects (e.g. clothing, surgical instruments) or microorganisms transported transiently on body surfaces such as hands, or in substances (e.g. water, food, milk).</td>
</tr>
<tr>
<td><strong>Contagious</strong></td>
<td>Capable of being transmitted from one person to another; synonymous with “infectious” and “communicable”.</td>
</tr>
<tr>
<td><strong>Critical Items</strong></td>
<td>Instruments and devices that enter sterile tissues, including the vascular system. Reprocessing critical items involves meticulous cleaning followed by sterilization.</td>
</tr>
<tr>
<td><strong>Decontamination</strong></td>
<td>The removal of disease-producing microorganisms to leave an item safe for further handling.</td>
</tr>
<tr>
<td><strong>Disease</strong></td>
<td>Clinical expression of infection; signs and/or symptoms are produced.</td>
</tr>
<tr>
<td><strong>Disinfection</strong></td>
<td>The inactivation of disease-producing microorganisms. Disinfection does not destroy bacterial spores. Disinfectants are used on inanimate objects; antiseptics are used on living tissue. Disinfection usually involves chemicals, heat or ultraviolet light. Levels of chemical disinfection vary with the type of product used.</td>
</tr>
<tr>
<td><strong>Droplet Precautions</strong></td>
<td>Precautions initiated to prevent transmission of large droplets expelled from the respiratory tract, which are propelled a short distance through the air and are deposited on the nasal/oral mucosa or the conjunctiva. This droplet may also be transferred when these particles settle on objects and are transmitted by direct hand contact. Barriers such as masks, eye protection and gloves are established to prevent inhalation of or contact with these organisms.</td>
</tr>
</tbody>
</table>
**ESBL**

*ESBL (Extended Spectrum Beta Lactamase Producing Organisms)* are a group of bacteria that have the ability to produce enzymes which stop certain antibiotics from destroying them. Not only are ESBLs capable of breaking down antibiotics, they can transmit this ability to other organisms. ESBLs are found primarily in the bowel, but are also found in the urine and on skin.

**Germicide**

A chemical solution or method that will destroy most microorganisms; a disinfectant or an antiseptic.

**HAI**

Healthcare Associated Infections

**HCW**

Health Care Worker

**High Level Disinfection**

Level of disinfection required when processing semicritical items. High level disinfection processes destroy vegetative bacteria, mycobacteria, fungi and enveloped (lipid) and non enveloped (non lipid) viruses, but not necessarily bacterial spores. High level disinfectant chemicals (also called chemisterilants) must be capable of sterilization when contact time is extended. Items must be thoroughly cleaned prior to high level disinfection.

**ICP**

Infection Prevention & Control Professional

**ICO**

Infection Prevention & Control Officer

**Immune Compromised**

Increased susceptibility to infection. In this document the term refers to patients with congenital or acquired immunodeficiency or immunodeficiency due to chemotherapeutic agents or hematological malignancies.

**Infection**

The entry and multiplication of an infectious agent in the tissues of the host (a) inapparent (asymptomatic, subclinical) infection: an infectious process running a course similar to that of clinical disease but below the threshold of clinical symptoms (b) apparent (symptomatic, clinical) infection; one resulting in clinical signs and symptoms (disease).

**Infectious**

Caused by infection and capable of being transmitted. Synonymous with “communicable” and “contagious”.

**IP&C**

Infection Prevention & Control

**Isolation**

The physical separation of infected individuals from those uninfected for the period of communicability of a particular disease.
### Long Term Care Facility (LTCF)
Residential care that includes a variety of levels and types of care for clients who can no longer safely live at home (e.g. because of their need for medication supervision, 24-hour surveillance, assisted meal service, professional nursing care and/or supervision). Terminology varies provincially, e.g. nursing home; chronic care hospital, extended care unit.

### Low Level Disinfection
Level of disinfection required when processing non-critical Items or some environmental surfaces. Low level disinfectants kill most vegetative bacteria and some fungi as well as enveloped (lipid) viruses (e.g., hepatitis B, C, Hantavirus, and HIV). Low level disinfectants do not kill mycobacteria or bacterial spores. Low level disinfectants - detergents are used to clean environmental surfaces.

### MRSA
Methicillin-resistant *Staphylococcus aureus*

### Microorganism
Organism seen by a microscope, e.g. bacteria, viruses, fungi.

### Nosocomial Infection
Infection acquired in a health care setting.

### Non Critical Items
Those that either touch only intact skin but not mucous membranes or do not directly touch the patient. Reprocessing of non-critical items involves cleaning and/or low level disinfection.

### OH&S
Occupational Health & Safety

### Outbreak
An excess over the expected incidence of disease within a geographic area during a specified time period, synonymous with epidemic.

### Pasteurization
The process of subjecting equipment to a moist heat treatment that kills some, but not all, of the microorganisms contaminating that equipment.

### Pathogenic
An organism capable of producing a specific disease.

### Precautions
Interventions implemented to reduce the risk of transmission of microorganisms from patient to patient, patient to health care worker, and health care worker to patient.
**Resident Flora**
Commonly termed normal flora or commensals. They live deeply seated within the epidermis – in skin crevices, hair follicles, sweat glands and beneath fingernails. They are less susceptible than transient microorganisms to the action of antiseptics, and scrubbing will remove them slowly, but not completely.

**RUH**
Royal University Hospital

**Sanitation**
A process that reduces microorganisms on an inanimate object to a safe level (e.g., dishes and eating utensils are sanitized).

**SCH**
Saskatoon City Hospital

**SHR**
Saskatoon Health Region

**SPH**
St. Paul’s Hospital

**Semicritical Items**
Instruments and equipment which come in contact with unbroken skin or mucous membrane. These items should be sterile, but may be chemically disinfected (surgically CLEAN). If a surgically clean item comes into contact with the sterile field it will contaminate it.

**Sterilization**
Process of destroying all forms of microbial life, including spores.

**Transient Flora**
Are located on the surface of the skin. They are termed “transient” because direct contact with other people, equipment or other body sites all result in the transfer of these microorganisms to and from the hands. Can be removed by hand washing.

**VRE**
Vancomycin-resistant Enterococcus (VRE) is a bacterium that normally lives in or colonizes the bowel and genital tract. It tends to cause symptoms of infection only in people who are already seriously ill and cannot fight off infections very well and has developed a resistance to all commonly used antibiotics. VRE is found by culture test of body substances in a laboratory.

References:


Introduction

Standard precautions are interventions implemented to reduce the risk of transmission of microorganisms from patient to patient, patient to health care worker and health care worker to patient. Standard Precautions should be appropriate for the procedure being performed and the type of exposure anticipated. Standard Precautions were previously referred to as Universal Barrier Precautions. Standard Precautions do not differ in principle from routine practices used by Health Canada.

Policy

1. Standard Precautions apply to all patients receiving care regardless of their diagnosis or presumed infection status.

2. Standard precautions apply to:
   - Blood.
   - All body fluids, secretions and excretions (except sweat) regardless of whether or not they contain visible blood.
   - Non-intact skin.
   - Mucous membranes.

Purpose

1. Standard Precautions are designed to reduce the risk of transmission of microorganisms from both recognized and unrecognized sources of infection.

Procedure


2. Policy/procedures governing each of these segments follow this policy/procedure.
### Introduction

Hand hygiene education, training and auditing is an essential practice, also known as a Required Organizational Practice (ROP), integrated within the standards as defined by Accreditation Canada. As an integral part of routine practices, hand hygiene is the most important thing **all** healthcare workers (HCWs) within SHR can do to decrease healthcare-associated infections. Hand hygiene protects healthcare workers, clients, family and visitors.

The four moments of hand hygiene provides guidance to HCWs involved in direct client care. However, hand contamination is not limited to employees involved in direct client care. All objects, surfaces and persons have the potential to be contaminated by microorganisms that can lead to adverse outcomes. Once hands are contaminated they can transfer organisms between clients, other HCWs and/or environmental surfaces.

### Definitions

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol-based hand rub (ABHR)</td>
<td>Also known as hand sanitizer - A liquid, gel or foam formulation with a minimum 70% alcohol used to reduce the number of microorganisms on hands when the hands are not visibly soiled. ABHRs contain emollients to reduce skin irritation and are less time-consuming to use than washing with soap and water.</td>
</tr>
<tr>
<td>Client environment</td>
<td>Any place where contact with a client occurs or has the potential to occur (i.e., hospital, clinic, home, long term care facility, waiting room, etc.).</td>
</tr>
<tr>
<td>Contamination</td>
<td>The presence of a substance on hands or on a surface (i.e. clothing, gowns, gloves, bedding, toys, surgical instruments, hand rails, elevator buttons, computer key boards, telephones, client care equipment) where their presence is unintended or undesirable.</td>
</tr>
<tr>
<td>Emollient</td>
<td>Softening and smoothing, especially to the skin.</td>
</tr>
<tr>
<td>High risk for infection</td>
<td>A client who has an increased risk for developing an infection due to illness, procedure, syndrome, disability, treatment or age.</td>
</tr>
</tbody>
</table>
Transient organisms

Transient organisms are not part of your normal flora and are unable to remain in the body for extended periods of time due to: competition from resident microbes, elimination by the body’s immune system and physical or chemical changes within the body that discourage the growth of transient.

Visibly soiled

Hands on which dirt or body fluids can be seen.

Purpose

1. To reduce transmission of organisms to others and protect our clients, staff and visitors from illness.

Policy

1. If hands are not visibly soiled, perform hand hygiene with alcohol-based hand rub (ABHR) as the preferred method of hand hygiene.

2. Circumstances when hands must be cleansed thoroughly with liquid hand soap and water:
   - When ABHR is not available
   - When hands are visibly soiled
   - When a client has diarrhea of unknown cause
   - When a client has *Clostridium difficile*
   - When performing an invasive procedure (i.e., when placing a central intravascular catheter, injecting into the spinal canal or subdural spaces, inserting urinary catheter etc.)

3. In healthcare settings, there are four moments to perform hand hygiene:
   - Before initial client/client environment contact (Moment 1)
   - Before aseptic procedures (i.e., insertion of IVs, dressing changes, insertion of urinary catheters, handling medications, etc.) (Moment 2)
   - After body fluid exposure (Moment 3)
   - After client/client environment contact (Moment 4)

4. All employees of the SHR must perform hand hygiene:
   - Upon arrival and departure from a facility/unit.
   - Before donning gloves
   - After removing gloves
   - After removing PPE *(20-150 Personal Protective Equipment)*
   - Before preparing/administering medications
   - Before eating, preparing or serving food, and assisting at mealtime.
   - Before and after group activities (i.e., crafts, exercises, cooking, etc.)
   - After performing personal functions (i.e., blowing your nose, using the toilet, etc.)
   - After coughing or sneezing *(20-95 Respiratory Hygiene and Cough Etiquette)*
   - After the handling of garbage, soiled linens, waste, etc.
   - Before and after repairing/servicing client equipment

5. Factors that may influence the effectiveness of hand hygiene practice. In order to ensure best practices for Hand Hygiene, the following are strongly recommended: *(See SHR policy 7311-30-013)*
   - Nails:
     - Keep nails clean, natural and short at all times.
Artificial nails, nail extensions, nail polish or shellac and nail jewelry may harbor micro-organisms and interfere with effective hand hygiene practices and are therefore not allowed in direct client care settings.

- Hand and wrist jewelry, rings and watches:
  - Jewelry such as rings and wrist watches may harbor the growth of micro-organisms and compromise effective hand hygiene

6. Client hand hygiene
- All healthcare providers are encouraged to promote client hand hygiene to assist in reducing the spread of infection.
- Healthcare providers should provide clients with educational guidance and support to perform hand hygiene. Clients who are immobile, bed bound and/or confused may require frequent support from staff to assist with hand hygiene either with soap and water or ABHR.
- Hand hygiene should be offered to all clients before each mealtime.
- Hand hygiene should be offered/performed after personal hygiene activities such as toileting or after performing respiratory hygiene (coughing/sneezing or using a tissue).

**Procedure**

1. Sanitize your hands with ABHR (minimum 70%) per [Job Instruction Breakdown (JIB) 0001]:

   ![Hand Sanitizer Diagram](image)

   **Step 1:** Apply product
   - enough to cover hands (approximately 1 – 2 pumps)

   *Hands must be dry, as wet hands dilute the product

   **Step 2:** Rub hands
   - Palm to palm
   - Palm to back
Step 3: Rub fingers
- Starting with your thumbs
- Then interlocking fingers
- Knuckles to palm
- And finally fingertips

*Remember to rub for 15 full seconds. Rub hands until the product is completely dry
*Do not rinse

2. Wash your hands with soap and water per Job Instruction Breakdown (JIB)0002:

Step 1: Wet hands with warm water

Step 2: Apply product

Step 3: Rub hands
- Palm to palm
- Palm to back

Step 4: Rub fingers
- Starting with your thumbs
- Then interlocking fingers
- Knuckles to palm
- And finally fingertips

Step 5: Rinse and dry well
- Use single use disposable towels
- Turn taps off with the paper towel
- Air dryers are not recommended in healthcare settings

*Hands must be dried thoroughly as moist hands spread more germs than dry hands
Products

1. **ABHR (minimum 70%)**
   - Is superior to soap and water in killing microorganisms from the skin and is an effective alternative to handwashing.
   - Reduces the number of resident skin flora in addition to transient organisms.
   - Is recommended for routinely cleansing hands if hands are not visibly soiled.
   - Is acceptable in liquid, foam or gel form.
   - Containers of ABHR shall not be “topped up” (added to) when product is running low. A new container shall be provided to avoid contamination.

2. **Regular hand soap**:
   - Reduces transient microorganisms on the hands.
   - Is acceptable in foam, liquid and powder forms.
   - Is recommended for routine hand washing in all areas of the healthcare facility other than critical care areas and areas where invasive procedures are performed.
   - Containers of hand soap must not be “topped up” (added to) when product is running low. A new container shall be provided to avoid contamination.

3. **Antimicrobial soap**:
   - Removes the majority of transient flora by its mechanical detergent action, and exerts sustained antimicrobial activity on resident hand flora.
   - Is recommended for washing hands in critical care areas and where invasive procedures are performed.
   - Is acceptable in foam or liquid form.
   - Containers of antimicrobial soap shall not be “topped up” (added to) when product is running low. A new container shall be provided to avoid contamination.

4. **Hand Lotion**
   - Is recommended to ease the dryness resulting from frequent hand cleaning
   - Application of lotion can reduce the dispersal of bacteria.
   - Containers of hand lotion must not be “topped up” (added to) when product is running low. A new container shall be provided to avoid contamination.
   - The hand lotion used must be compatible with the alcohol-based hand rub, soap and gloves. Lotions that contain petroleum or other oil emollients may affect the integrity of gloves.

References


4. ROUTINE PRACTICES AND ADDITIONAL PRECAUTIONS FOR PREVENTING THE TRANSMISSION OF INFECTION IN HEALTHCARE SETTINGS. Protecting Canadians from Illness. PHAC 2012


10. Safer Healthcare Now! Hand Hygiene Toolkit. 4 Moments for Hand Hygiene. 
    http://www.handhygiene.ca/English/Tools/Pages/Hand-Hygiene-Toolkit.aspx
INTRODUCTION

Point of Care Risk Assessment (POCRA) is not a new concept, but one that is already performed regularly by professional healthcare workers (HCW’s) many times a day for their safety and the safety of the clients and others in the healthcare environment. It is a systematic process of reviewing work activities, evaluating the possible hazards/risks and implementing suitable control measures to eliminate, reduce or minimize the possible hazards/risks. POCRA is part of basic Routine/Standard practices that are used with all clients at all times to reduce the risk of transmission of microorganisms to and from the client.

DEFINITIONS:

CLIENT: Refers to patients in acute care, residents in long term care, and individuals receiving care in the community.

POLICY

1. A Point of Care Risk Assessment must be completed before each interaction with a client and their environment in acute care, long term care, and in the community throughout Saskatoon Health Region.

2. Appropriate Personal Protective Equipment must be worn for the type of hazard/risk identified.

PURPOSE

1. To protect the clients, visitors and health care workers by preventing and controlling the spread of infectious diseases throughout the health care facilities and community care.
2. To determine which interventions are required to interrupt the cycle of transmission.

**Procedure**

1. **Risk Assessment:**

   Risk assessment as it relates to client symptoms, care and service delivery, includes assessment for:
   - risk factors which contribute to infections (i.e. chronic illness, obesity, lack of hygiene, etc.)
   - presence of any infectious disease
   - the need for additional precautions.

   The risk assessment should include the assessment of the risk of the potential for the following:
   - contamination of skin or clothing by microorganisms in the client environment;
   - exposure to blood, body fluids, secretions, excretions, tissues;
   - exposure to non-intact skin;
   - exposure to undiagnosed/diagnosed rashes
   - exposure to mucous membranes; and
   - exposure to contaminated equipment or surfaces

   **Ask Yourself:**
   - Is my clothing contaminated from a previous client or activity?
   - Did I wash my hands?
   - What task am I going to perform?
   - Do I or the client have any non-intact skin, infection, or rash?
   - What contact am I going to have with the client?
   - Will I have exposure to blood, body fluids, respiratory secretions, excretions, non-intact skin, mucous membranes, rashes or contaminated equipment?
   - What PPE will I need?
   - Will the client be cooperative?
   - Will the client be transported to diagnostic areas of the hospital and how does that affect the risk assessment at the receiving end (i.e. is there information that needs to be sent?).
   - Will the client be transported to hospital, long term care facility or to a physician’s office? How will this be completed and by whom?
   - Will equipment need to be transported, cleaned, disinfected and stored, etc.?
   - Are there pets in the home and can they be contained in another area while doing care?

   See Appendix A: POCRA Algorithm

2. Transmission of microorganisms can result from direct transmission from person to person (i.e. coughing, sneezing, hand contact) and indirect transmission (i.e. contaminated equipment or environmental surfaces). Choose the appropriate PPE according to the method of transmission and the risks identified: (See Appendix B for Routine/Standard Point of Care Risk Assessment).
Risk reduction:
In order to reduce the likelihood of the risk of infection, illness or injuries from occurring, the following strategies should be implemented:

a. Client screening
b. Client received education about illness/infection
c. Placement of infected individuals
d. Perform hand hygiene at designated times
e. Use of appropriate personal protective equipment (PPE)
f. Clean and disinfect multiuse equipment OR
g. Use single use equipment OR
h. Dedicate equipment to one individual
i. Clean, disinfect and sterilize equipment as per SHR policy
j. Handle laundry in a safe manner
k. Use Sharps container appropriately
l. Handle waste according to SHR policy on Waste Management
m. Clean the environment
n. Implement healthy workplace practices (i.e. bending, lifting, etc.)
o. Implement preventative workplace practices such as staff immunization

3. Education:

Health care providers should review:

- Point of Care Risk Assessment for Standard Precautions yearly.
- Hand hygiene, standard precautions, additional precautions, chain of infection and transmission based precautions yearly.

Health care providers should educate their clients and their families/visitors regarding using the appropriate infection control practices, hand hygiene and proper use of personal protective equipment when required.

References:


Appendix A – POCRA Algorithm

(Adapted from CHICA-Canada; Audit Toolkit 2010)

Part A
The answers to the following questions will determine accommodation needs:

Does the client have a new or worse cough or shortness of breath with fever or chills?
Does the client have copious uncontrolled respiratory secretions?
Does the client have a sudden onset of fever, intense headache, nausea, vomiting, stiff neck and photophobia.
Is the client unable/unwilling to comply with respiratory hygiene, hand hygiene, etc.?
Is there active soiling of the environment (e.g., uncontained diarrhea, wound drainage not contained by a dressing?)
Does the client have a suspected infection of unknown etiology (with or without a history of travel)?

If client is in a health care facility continue:
If client is in the community setting skip to part (B)

Part B
The answers to the following questions will determine PPE needs during any direct or indirect interaction with a client (e.g., giving a bed bath, performing a clinical procedure):

Will I be exposed to body fluids (e.g., blood, excretions, secretions)?

If yes, PUT ON PPE as INDICATED

Will my hands be exposed to blood, diarrhea, vomit, non-intact skin, rash or contaminated items?

If yes, WEAR GLOVES & PERFORM HAND HYGIENE

Will my face be exposed to a splash, spray, or an uncontained cough?

If yes, WEAR FACIAL PROTECTION (Procedure mask & eye shield or goggles)

Will my clothing or skin be exposed to splashes/sprays or items contaminated with blood, excretions or secretions?

If yes, WEAR an APRON/GOWN (wear gown when exposed to large amounts of fluids)
**Appendix B – Routine/Standard Point of Care Risk Assessment**

<table>
<thead>
<tr>
<th>Risk Assessment for Blood or Body Fluid** Exposure</th>
<th>Hand &amp; Cough Hygiene</th>
<th>Gloves</th>
<th>Gown/Apron</th>
<th>Procedure Mask</th>
<th>Eye Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Direct or Indirect Contact with blood or body fluids</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>Indirect Contact with blood or body fluids through contaminated equipment or environment</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>Direct Contact with rash, non-intact skin or excessive skin scales with no risk of splashing</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>Direct Contact with blood or body fluids with low risk of splashing</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>Direct or Indirect Contact with blood or body fluids with high risk of splash, spray, cough or sneeze</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
</tbody>
</table>

* The decision to upgrade from an apron to use of a gown is based on your assessment of risk in each situation.

The decision to upgrade to a level of protection higher than suggested is based on your assessment of risk in each situation. See IP&C Manual, Section 30 for definitions and details of Additional Precautions. See IP&C Manual, Policy 20-150 for donning and removal instructions for PPE.

If other concurrent infectious agents require Additional Precautions, those measures should be followed (e.g., known or suspected active Tuberculosis requires N95 mask, C. difficile requires gown and gloves, etc.).

**Definition of Body Fluid**

- Any fluid found in, produced by, or excreted from the human body which includes: blood, urine, feces, saliva, tears, breast milk, cerebrospinal fluid, semen, vaginal fluid, amniotic fluid, pleural fluid, peritoneal fluids, serous fluid, bile, digestive juices, vomit, pus and other infected discharges.

- The definition also includes contact with wounds and skin scales.
Introduction

The use of gloves is not a substitute for hand hygiene. Hands can become contaminated through glove defects or during glove removal. Transmission of infectious agents between patients has occurred when health care workers did not change gloves between patients. Failure to remove gloves after patient care may result in contamination of the environment.

Policy

1. Health care workers will use Standard Precautions which require the use of appropriate personal protective equipment when direct contact with blood, body fluids, secretions, excretions, mucous membranes, non-intact skin and contaminated items is anticipated.

2. Selection of gloves shall be based on the type of procedure being done, likelihood of exposure to body fluid, length of use and, amount of stress on the glove.

3. Health care worker will wear gloves when open lesions are present on hands.

Purpose

1. To reduce the risk of transmission of disease-producing microorganisms from one individual to another.

2. To reduce the risk of exposure to blood, body fluids, mucous membranes, non-intact skin and contaminated environmental equipment.

3. To protect the wearer from harmful chemicals and disinfectants.
**Procedure**

1. Clean non-sterile disposable gloves:
   - Are one-use only.
   - Latex and non-latex gloves are available in small, medium and large sizes.
   - Are changed between contact with different body parts/procedures on the same patient and after contact with each patient.
   - Are removed promptly after use, before touching clean items and environmental surfaces.
   - Perform hand hygiene immediately following glove removal to avoid transfer of microorganisms to other patients or environments.
   - Disposable, single-use gloves **should not** be washed, cleansed with an alcohol hand sanitizer or used with petroleum-based hand creams.
   - Wear gloves when open skin lesions are present on hands.
   - Cotton liners are available to reduce skin irritation.

2. Sterile disposable gloves:
   - Are one-use only.
   - Are available in latex and non-latex and varying sizes from 5½ to 9.
   - Worn for procedures where hands or instruments being handled are entering normally sterile body cavities or tissue.

3. Household gloves:
   - May be disinfected and reused by the same person.
   - Should be discarded when cracked or have holes.


**References**

Introduction

The need for masks and eye protection during routine patient care depends on the task performed, i.e. whether it involves activities that are likely to generate splashes or sprays of blood, body fluids, secretions or excretions.

Policy

1. Health care workers will use Standard Precautions which require the use of appropriate personal protective equipment when direct contact with blood, body fluids, secretions, excretions, mucous membranes, non-intact skin and contaminated items is anticipated.

2. Selection of masks, eye protection and face shields shall be based on the type of procedure being done, likelihood of exposure to body fluid and length of use.
   
   - Regular masks are worn to protect the health care worker from acquiring infections transmitted by large particle aerosols (droplets) that are transmitted by close contact and generally travel short distances.
   
   - Eye protection such as wrap-around glasses and goggles are worn to prevent blood and body fluid splashes to the conjunctiva.
   
   - Face shields are worn to prevent mucous membrane contamination of the eyes, nose and mouth with blood and body fluid.
   
   - Laser masks are worn to protect the HCW from plumes emitted during CO₂ laser procedures. (See SHR Region-Wide Policy regarding Laser Safety).

Purpose

1. To reduce the risk of transmission of disease-producing microorganisms from one individual to another.
2. To reduce the risk of exposure to blood, body fluids, mucous membranes, non-intact skin and contaminated environmental equipment.

3. To protect the wearer from harmful chemicals and disinfectants.

**Procedure**

1. Masks

   1.1 Masks should cover the nose and the mouth.

   1.2 Wear a mask and eye protection or a face shield for protection from facial splashes of blood and body fluids.

       Examples:
       - For performing specific invasive procedures i.e. insertion of central lines, hemodialysis needle access.
       - For suctioning, intubation, bronchoscopy, endoscopy, and during the cleaning of instruments used for these procedures.
       - Within 1 meter of a coughing patient.
       - For dressing fresh burn wounds.
       - For dressing fresh major open wounds or wound irrigation.

   1.3 Masks are used once and discarded.

   1.4 Change mask when wet.

   1.5 Discard used masks into the waste basket immediately after removing them.

   1.6 For proper removal of masks, eye protection and face shields, refer to Infection Prevention & Control Policy, Personal Protective Equipment (PPE) – Donning and Removal.

   1.7 Perform hand hygiene after removing masks.

2. Face and eye protection

   2.1 Face shields and eye goggles/safety spectacles are provided by the institution. (See SHR/SPH OH&S Program Manual).

   2.2 Clean and disinfect with hospital disinfectant non-disposable face and eye protection when visibly soiled and daily.

**Reference:**

Introduction

Long-sleeved gowns serve to protect the forearms and clothing of the health care worker (HCW) from splashing and soiling with body substances.

Policy

1. Health care workers will use Standard Precautions which require the use of appropriate personal protective equipment when direct contact with blood, body fluids, secretions, excretions, mucous membranes, non-intact skin and contaminated items is anticipated.

Purpose

1. To reduce the risk of transmission of disease-producing microorganisms from one individual to another.
2. To reduce the risk of exposure to blood, body fluids, mucous membranes, non-intact skin and contaminated environmental equipment.
3. To protect the wearer from harmful chemicals and disinfectants.

Procedure

1. Select a gown that is appropriate for the activity and amount of fluid likely to be encountered. Use fluid-resistant gowns or plastic aprons if soiling of clothes is likely.

2. Remove a soiled gown as promptly as possible.

3. Wear only once.

4. Perform hand hygiene immediately after removal of the gown to avoid transfer of microorganisms to other patients or environments.

5. For proper removal of gown, refer to Infection Prevention & Control Policy, Personal Protective Equipment (PPE) – Donning and Removal.

Reference:

**Introduction**

Although contaminated textiles and fabrics in health care facilities can be a source of substantial numbers of pathogenic microorganisms, reports of health care-associated diseases linked to contaminated fabrics are so few in number that the overall risk of disease transmission during the laundry process likely is negligible. When the incidence of such events are evaluated in the context of the volume of items laundered in health care settings, existing control measures (e.g. standard precautions) are effective in reducing the risk of disease transmission to patients and staff.

**Policy**

Soiled linen should be handled the same for all patients regardless of their diagnosis or care setting or need for additional precautions.

**Purpose**

1. To prevent transmission of infection.

**Procedure**

1. Collection and handling
   - Handle linen with a minimum of agitation and shaking.
   - Sorting and rinsing of linen should not occur in patient care areas, except in facilities that use compartmented soiled linen bag carts into which different types of linen are sorted.
   - Heavily soiled linen should be rolled or folded to contain the heaviest soil in the center of the bundle. Large amounts of solid soil, feces or blood clots should be removed from linen with a gloved hand and toilet tissue and placed into a bed pan or toilet for flushing. Excrement should not be removed by spraying with water.

2. Bagging and containment
   - Soiled linen should be bagged at the site of collection.
• To prevent contamination or soaking through, a single, leak proof bag or a single cloth bag can be used. The only indication for a second outer bag is to contain a leaking inner bag.
• Bags should be tied securely and not over-filled when transported.

3. Transport
• When a laundry chute is used, all linen should be bagged. The chute should discharge into the soiled linen collection area. Laundry chutes should be cleaned on a regular basis with a germicide solution.
• Separate carts should be used for dirty and clean linens. Carts used to transport soiled linens should be cleaned with a germicide after each use.
• Clean linen should be transported and stored in a manner that prevents its contamination and ensures its cleanliness.

4. Washing and drying
• If low temperature water is used for laundry cycles, chemicals suitable for low temperature washing at the appropriate concentration should be used.
• High temperature (>71.1º) are necessary if cold water detergents are not used.
• Use of a laundry detergent with bleach and a normal machine wash and dry are sufficient to clean soiled linen in areas with their own washer and dryer.

References:


3. See Pt. Care Equipment Policy
**Introduction**

Adequately cleaned and washed dishes, cups and eating utensils are a negligible source of transmission of infection. In the presence of adequate dishwashing equipment disposable dishes are not indicated. Automated dishwashing with the proper water temperature and detergent provides adequate decontamination.

**Policy**

1. No special precautions for dishes are necessary.

**Purpose**

1. To prevent the spread of infection.

**Procedure**

1. Gloves are not required for distribution and pick up of trays with the following exceptions:
   - Gloves are indicated for patients on Additional Precautions (Contact, Droplet Precautions).
   - When exposure to blood, body fluids, excretions or secretions is anticipated.

2. Trays from patients on Additional Precautions (Contact, Droplet Precautions) can be placed in tray carts assuming the cart is washed after each use.

3. Trays from patients on Additional Precautions (Contact, Droplet Precautions) left after pickup by food and nutrition staff should be bagged and left for pick up in a designated area.

4. Food and Nutrition staff do not pick up or deliver trays in Airborne Precaution rooms.

**Reference:**

POLICIES & PROCEDURES

Number: 20-80
Title: Non Critical Patient Care Equipment – Cleaning and Disinfection

Authorization:
[4] SHR Infection Prevention & Control Committee
[ ] Facility Board of Directors

Source: Infection Prevention & Control
Date Initiated: June 5, 2001
Date Reaffirmed: May, 2004
Date Revised: May 2012
Scope: SHR Agencies & Affiliates

Introduction

Non Critical items are items that come in contact with intact skin but not with mucous membranes.

Appropriate cleaning, disinfection and sterilization of patient care equipment is important in limiting the transmission of organisms related to reusable patient care equipment.

Cleaning is always essential prior to disinfection or sterilization. An item that has not been cleaned cannot be disinfected or sterilized.

Policy

1. Equipment that is visibly soiled must be cleaned before use on another patient.

2. Manufacturer’s instructions regarding cleaning and disinfection of equipment are to be followed. Low level disinfectants are to be used for non critical items.

3. Equipment must be cleaned and disinfected or sterilized before it is used on the next patient.

4. Soiled patient care equipment should be handled in a manner that prevents exposure to skin and mucous membranes, contamination of clothing or the environment.

Purpose

1. To prevent transmission of infection from patient to patient or from patient to healthcare worker (HCW) or HCW to patients.
**Procedure**

1. Clean and reprocess reusable equipment that has been in direct contact with the patient before use in the care of another patient. If cleaning between patients is not possible, establish a routine cleaning procedure for items that are in contact only with intact skin.

2. Establish procedures/schedules for assigning responsibility and accountability for routine cleaning of all patient care equipment. Documentation is to be completed when equipment has been cleaned. See Appendix A, Cleaning Guideline.

3. Train a designated person to do cleaning and decontamination. This person will be trained in use of appropriate protective barriers and cleaning, handling of cleaning supplies and equipment in a safe manner.

4. Clean and decontaminate reusable equipment in a designated area. This area is to be separated from the areas where clean or sterile equipment is stored.

See Infection Prevention and Control Manual Policy/Procedure regarding [Antiseptics and Disinfectants](#) for assistance in selecting the appropriate solution.

**References:**


2. CHICA. CHICA-Canada Practice Recommendations for Toys. 2011.

Appendix A – Cleaning Guidelines *

**Daily Cleaning**

1. Thermometer and holder
2. Handles for otoscope/ ophthalmoscope
3. Blood glucose testing machine and entire case
4. Pulse oximetry machine
5. Handles of the patients’ lifts
6. Keyboard and keyboard covers
7. Tourniquet (lab use)

**Cleaning Between Patients/ Clients**

1. IV poles
2. Stethoscopes – clean the diaphragm between patients
3. Electronic/Manual BP cuff and machine
4. Electronic monitoring and imaging equipment
5. Dopplers
6. Temporal artery thermometers (TAT) (clean probe head after each use and thermometer twice weekly)
7. Ultra sound equipment and bottle (between uses)
8. Intracavitory ultrasound transducers – high level disinfection required
9. Infusion pumps, tube feeding pumps
10. Cardiac monitor cables, mounted and portable monitors
11. Fans (and weekly when used in common areas)
12. Walkers
13. Stocking donners
14. Leg supports/stockings (and when soiled)
15. O2 delivery systems exteriors (gauges, water container) – weekly in long-stay patients
16. Stretchers/exam tables
17. Beds – mattresses, bed rails
18. Suction equipment exteriors (gauges and collection container) – weekly in long-stay patients
19. Shared Commodes and Urinals
20. Bair hugger warmer
21. Ice packs – clean reusable ones; discard single use ones
22. Isolation Carts
23. Tubs/whirlpools/hydrosound tubs and accompanying lifts; shower chairs
24. Wheelchairs/recliners/Broda (surface)
25. Sleep chairs (family use)
26. Crash carts
27. Slider boards
28. Mouthed toys – See 50-20 Toys and Toy Cleaning
29. Maxi Slider
30. Chair weigh scale
31. Baby scale (unless use paper sheet for each baby – then once a day or if it is soiled)
32. Lift machine and lifts (short stay – surface clean)
Appendix A – Cleaning Guidelines *

**Weekly Cleaning**

1. Wheelchairs/recliners/Broda (complete)
2. IV poles in storage
3. Linen Hampers
4. Mattresses (LTC – on bath days)
5. Monitor belts
6. ECG machine
7. Carts - CVC carts, dressing carts, IV baskets, and crash emergency carts, medication cart
8. Standing weigh scale
9. Lift Machine and lifts (for canvas – use protective barrier when soiling is anticipated. Launder canvas lifts weekly and when visibly soiled)
10. Medication carts
11. Stretchers/exam tables (complete)
12. Ice Machines (exterior and thorough cleaning, disinfection and maintenance according to manufacturer’s directions)
13. Transfer belts – launder
14. Ventilators - clean exterior with circuit changes
15. Nursing bags (and when soiled)
16. V.A.C. cases (and when soiled)
17. Toilet Risers – remove the riser and thoroughly clean

* Cleaning and disinfection schedules and methods vary according to the area of the facility, type of surface to be cleaned, and the amount and type of soil present.
**Introduction**

Although there are other considerations involving patient placement the infection control concerns are directed at risk of transmission. Single rooms reduce opportunities for direct and indirect contact and droplet transmission when the source patient has poor hygiene, contaminates the environment, or cannot be expected to comply with infection control measures because of age or altered mental status.

**Policy**

1. Single rooms are not required for routine patient care.

2. Patients who visibly soil the environment or for whom appropriate hygiene cannot be maintained should be placed in single rooms with dedicated toileting facilities. This includes mobile patients with fecal incontinence if stools cannot be contained in an incontinence brief, and patients with draining wounds who do not keep their dressings in place.

3. Single rooms are not required for children in diapers unless they have uncontained diarrhea and cannot be confined to their designated bed space.

**Purpose**

1. To prevent transmission of infection.

**Procedure**

1. Consider single room accommodations for patients who exhibit the following:
   - Incontinent of stool; stool not contained by diaper.
   - Diarrhea.
   - Draining skin lesions or wounds not covered by dressings.
   - Copious uncontrolled respiratory secretions.
   - Patients requiring extensive hands-on care.
• Poor compliance with hygienic practices and infection control precautions. e.g. confused patient.

2. Refer to 30-50 Appendix A: Communicable Diseases Reference Table - Precautions by Etiology or Clinical Presentation.

3. Cohort patients with like conditions or illnesses.

4. If single room unavailable, cohort patients with a low risk of transmission (continent, good hygiene, skin lesions or wounds covered by dressings, able to control respiratory secretions, capable of self care and able to comply with infection control precautions) with colonized or infected patients.

Reference:

Introduction

Respiratory Hygiene and Cough Etiquette are interventions to reduce the risk of transmission of micro-organisms from patient to patient, patient to health worker and health care worker to patients. Respiratory illnesses like influenza are caused by a virus that infects the nose, throat and lungs. Respiratory illness spreads from person to person when an infected person coughs or sneezes and droplets are deposited on another person or the environment.

Policy

1. Respiratory Hygiene and Cough Etiquette shall be implemented at first point of contact or recognition of any patient or staff member displaying respiratory symptoms such as, coughing, sneezing, congestion, rhinorrhea, or increased secretions.

2. Patients and accompanying family members and friends with undiagnosed transmissible respiratory infections will practice Respiratory Hygiene and Cough Etiquette.

3. Staff will instruct patients and visitors on the respiratory hygiene and cough etiquette procedure.

Purpose

1. To use Respiratory Hygiene/Cough Etiquette as a new component of Standard Precautions.

2. To increase Respiratory Hygiene and Cough Etiquette practices to reduce the risk of transmission of micro-organisms from undiagnosed transmissible respiratory infections, asthma, chronic obstructive lung disease, and allergic rhinitis.

Procedure

1. Use droplet precautions (Policy 30-30) for coughing and sneezing patients, until it is determined that the cause of symptoms is not an infectious agent.

2. Place patient in a single room, if available. In ambulatory settings encourage coughing patients to sit at least 1 meter away from others.

3. Wear a mask and eye protection when evaluating patients with respiratory symptoms and providing direct patient care. Remove mask by avoiding touching the front and inadvertently contaminating hands and subsequently the face.
4. Provide a mask to patients with symptoms of respiratory symptoms, if not medically contraindicated, when outside assigned room or designated examination area. Provide mask application, removal and disposal information. Provide tissues and instructions on their use and disposal when coughing, sneezing, or controlling respiratory secretions.

5. Respiratory Hygiene Cough Etiquette Instructions
   - Cover mouth and nose when sneezing, by using either a tissue or the sleeve of clothing.
   - Dispose of the used tissue in the nearest waste receptacle.
   - Perform hand hygiene by washing hands with soap and water or using alcohol hand sanitizer.
   - Triage coughing individuals out of common waiting area as soon as possible.

References:


Introduction

Injection safety, or safe injection practices, is a set of measures taken to perform injections in an optimally safe manner for clients, healthcare personnel, and others.

Reuse of syringes is a significant breach of aseptic technique which can lead to cross contamination and the potential transmission of blood borne infections. Needles, cannulae and syringes are sterile, single-use items; they should not be reused for another client or reused to access a medication or solution that might be used for a subsequent client.

Policy

1. Syringes shall be single-use or single-client use. Do not administer medications from a syringe to multiple clients, even if the needles or cannulae on the syringe is changed. **Note:** Exception - Multidosing System for Contrast Infusion in Medical Imaging – See procedure in Medical Imaging.¹
2. Prefilled syringes shall be single-use or single-client use.
3. A new, sterile syringe and needle/cannula shall be used for each client when accessing intravenous tubing, stop cocks or access ports.
4. Fluid infusion and administration sets (i.e., intravenous bags, tubing and connectors) shall be used for one client only and disposed appropriately after use.
5. Bags or bottles of intravenous solution shall not be used as a common source of supply for multiple clients.
6. Single-dose vials for parenteral medications shall be used whenever possible.
7. Medications from single-dose vials or ampoules shall not be administered to multiple clients or leftover contents combined for later use.
8. If multidose vials must be used, both the needle/cannula and syringe used to access the multidose vial must be sterile.
9. Multidose vials should not be kept in the immediate client treatment area and will be stored in accordance with the manufacturer’s recommendations; discard the vial if sterility is compromised or questionable. In situations where multidose vials must be kept in the

¹ Health Canada Communicable Disease Report Volume 22-4 February 15, 1996
immediate client treatment area, they shall be kept secure to prevent tampering (either stored out of sight or supervised by a staff member) and care shall be taken to ensure aseptic access of the vial.

**Purpose**

1. To prevent transmission of infectious diseases (i.e., human immunodeficiency virus (HIV), hepatitis C (HBV), and hepatitis C (HCV)).

**Procedure**

1. Use strict aseptic technique when administering injectable medication.
2. If multidose vials are used,
   - Record the date the vial was first opened.
   - Refrigerate vials after opening as recommended by the manufacturer.
   - Clean the rubber diaphragm of the vial with alcohol before inserting a device into the vial.
   - Discard the vial when suspected or visible contamination occurs, one month after initial vial entry, when the vial has been entered and no “date opened” is apparent or when the manufacturer’s expiration date is reached.
   - Never leave a needle in the septum of the vial, as this may encourage reuse of the syringe.
3. Store sterile supplies (syringes, needles, medications, IV delivery systems) in a clean area and in a manner which prevents contamination.

**References**

Introduction
Studies have shown that Human Immunodeficiency Virus (HIV) is inactivated rapidly after being exposed to commonly used chemical germicides at concentrations much lower than those used in practice. Hepatitis B virus (HBV) is also inactivated by common chemical disinfectants, including some quaternary ammonium compounds.

Policy
1. Spills should be cleaned up immediately.

Purpose
1. To prevent transmission of infection.

Procedure
1. Appropriate personal protective equipment should be worn for cleaning up a spill. Gloves should be worn. If the possibility of splashing exists, a face shield and gown and shoe covers should be worn.

2. The blood spill area must be cleaned of organic matter (blood and body fluids) before disinfection of the area is effective. Excess blood and fluid must be removed with paper towels. Disinfectants are substantially inactivated by blood and other organic materials.

3. After the area is cleaned it should be decontaminated with a hospital disinfectant. The disinfectant should be left on for 10 minutes or left to air dry.

4. For spills containing large amounts of blood, first remove visible blood with absorbent material (ie: disposable paper towels) and discard into biohazardous waste container. Then clean and disinfect the area.

References:

See Infection Prevention & Control Policy regarding Non Critical Patient Care Equipment - Cleaning and Disinfection.
**Introduction**
All blood and body fluids are considered potentially infectious.

**Policy**
1. All specimens shall be placed in a tightly sealed container and placed in a plastic bag prior to transport.

2. Specimen containers should not contain needles, scalpels or other sharps.

**Purpose**
1. To protect the porter of the specimen and the environment from contamination.

2. To protect the receiving department from exposure to potentially infectious blood and body fluid.

**Procedure**
1. After collection, ensure labeled specimen container is securely closed.

2. Check that the outside of the specimen container is free from body fluids. If not, cleanse with alcohol, hospital disinfectant or 1:100 household bleach solution prior to bagging.


4. When sending specimens via the pneumatic tube system samples must be:
   - properly labeled with two identifiers and accompanied by the requisition.
   - placed in a plastic bag and closed.

   Send only two blood culture bottles per bullet.

5. Samples that cannot be sent in the pneumatic tube system include the following:
   - TB cultures
   - CSF specimens
   - samples in containers with specimen traps (i.e., nasal pharyngeal suctions still in the trap container)
   - formalin containing specimens

   For further details, please refer to the Laboratory Services Manual.

6. Specimens should not be stored in the same refrigerator as medications and food.

**Reference:**
1. Saskatoon Health Region Laboratory Manual
POLICY & PROCEDURES

Number: 20-140

Title: Health Record Document Contamination

Authorization:
[ 4] SHR Infection Prevention & Control Committee
[ ] Facility Board of Directors

Source: Infection Prevention & Control
Date Initiated: June, 2003
Date Reaffirmed: December, 2006
Date Revised:
Scope: SHR Agencies & Affiliates

Policy

1. All personnel are protected from exposure to contamination with blood/body fluid on health record document(s).

2. A protective barrier shall be used if a health record document(s) becomes contaminated with blood/body fluids.

Purpose

1. To protect all staff members from coming in contact with blood or body fluids. Identify infection prevention and control measures needed for staff to process contaminated health record documents in a safe manner.

Procedure

1. Any blank document included in a health record that becomes contaminated should be discarded in regular waste and a new form placed on the chart immediately after the problem is identified.

2. If the contaminated document cannot be rewritten, allow it to dry, and then place it in a clear plastic sleeve. The department who identifies the contamination is responsible for placing it in the sleeve and dating it to remain on for one month. Indicate this clearly on the sleeve, e.g. remove on May 30, 2007.
**Introduction**

Personal protective equipment (PPE) refers to a variety of barriers (gloves, gowns, face protection, masks and N95 particulate respirators), used alone or in combination to protect mucous membranes, skin, and clothing from contact with infectious agents. The selection of PPE is based on Point of Care Risk Assessment (POCRA) considering the nature of the client interaction and/or the likely mode(s) of transmission (i.e., Contact, Droplet or Airborne). The use of PPE does not replace the need to follow basic infection control measures such as hand hygiene (HH). When removing PPE remember, the front outside of the gown is considered contaminated. The inside of the gown, outside back and ties at the head and back are considered clean unless these areas have had contact with a contaminated surface.

**Definitions**

**Point of Care Risk Assessment (POCRA)** - Is an evaluation of the variables (risk factors) related to the interaction between the HCW, the client and the client’s environment to assess and analyze their potential for exposure to infectious agents and identify risks for transmission. This POCRA is based on judgments about the clinical situation (including the client’s clinical condition, physical, emotional and mental state) and up-to-date information on how the specific healthcare organization has designed and implemented engineering and administrative controls, availability and use of PPE. Control measures are based on the evaluation of the variables (risk factors) identified. See Policy 20 – 25 Point of Care Risk Assessment (POCRA).

**Don** – to put on

**Doff** – to take off

**HCW** – Healthcare worker
Policy

1. Use PPE appropriate for the type of precautions required, (i.e., Routine practices and Contact, Droplet or Airborne Precautions).

Purpose

1. To protect the clients, visitors and healthcare workers by preventing and controlling the spread of infectious microorganisms.

2. To don and doff PPE effectively and correctly.

Procedure

- In a client room with an anteroom, donning happens inside the anteroom and doffing happens just inside the client room.
- In a client room without an anteroom, donning happens just outside the room, and doffing happens just inside the room.
- Doffing of a N95 must happen outside of the client room.
- In a multi-bed room the donning happens outside the curtain (considered the healthcare environment) and doffing occurs inside the curtain (considered client environment).

Donning PPE


Doffing PPE

- See Policy 20 -150 Appendix B - Healthcare Worker (HCW) DOFFING Personal Protective Equipment (PPE) Procedure.

Reference


20-150 Appendix A - Healthcare Worker (HCW) DONNING Personal Protective Equipment (PPE) Procedure

**Note:** At any time during donning of PPE, you feel you have contaminated your hands, perform hand hygiene and then continue with donning of PPE.

| 1. Perform hand hygiene                                      | • HCW will perform hand hygiene following [Policy 20–20 Hand Hygiene](#)  
|                                                               | • Alcohol-based hand rub (ABHR) is preferred  
|                                                               | • Soap and water is used when hands are visibly soiled and for CDI  
|                                                               | • Both methods are effective  
| 2. Put on gown                                               | • Don the gown by placing each arm into the sleeves, opening at the back  
|                                                               | • Secure the neck of the gown  
|                                                               | • Secure the waist with the ties  
| 3. Face and Eye protection                                   | For Droplet or Droplet and Contact Precautions:  
| Put on mask/face shield                                      | • Secure the ties, loops or straps  
|                                                               | • Pull the bottom of the mask down under the chin  
|                                                               | • Place middle fingers on the bridge of the nose and “walk” the index finder down the sides of the nose pressing and moulding the wire to the face  

Adapted from Saskatchewan VHF Contingency Plan Version 12
### N95 Respirator

**For Airborne Precautions:**

- Select NIOSH approved N95 respirator you have been FIT tested for
- Remove prescription glasses
- Follow the application steps for assigned fit-tested N95 respirator
- Put prescription glasses on – do not push to fit
- See SHR OH&S Employee N95 Respirator Assessment Tool:
  [http://infonet.sktnhr.ca/peopleandpartnerships/occupational-health-safety/Documents/Fit-Testing/Poster_SHR_Staff_N95AssessmentTool_VF20150330.pdf](http://infonet.sktnhr.ca/peopleandpartnerships/occupational-health-safety/Documents/Fit-Testing/Poster_SHR_Staff_N95AssessmentTool_VF20150330.pdf)

### 4. Put on gloves

- Choose appropriate size of glove
- Put on gloves, taking care not to tear or puncture
- Ensure that the cuff of the glove covers the cuff of the gown
20-150 Appendix B - Healthcare Worker (HCW) DOFFING Personal Protective Equipment (PPE) Procedure

**Note:** At any time during doffing of PPE, you feel you have contaminated your hands, perform hand hygiene and then continue with doffing of PPE.

### 1. Remove gloves

- The outside of gloves are contaminated
- Take off gloves at doorway just inside the client room/space
- Glove-to-glove, pull forward and discard
- Then place fingers under other glove cuff pull forward and discard
- Discard one at a time – do not ball gloves together to minimize risk of self-contamination

#### Images:

1. [Image](#)
2. [Image](#)
3. [Image](#)
4. [Image](#)

### 2. Perform hand hygiene

- Perform hand hygiene following **Policy 20 – 20 Hand Hygiene**
- Soap and water is used when hands are visibly soiled and for CDI

#### Images:

1. [Image](#)

### 3. Remove gown

- Untie at neck and then the waist
- Slide 2 fingers under cuff of gown; pull hand into gown.
- Using covered hand, grab opposite sleeve and pull over hand
- Fold gown inward, rolling it outside-in, away from you
- Then place in disposal receptacle

#### Images:

1. [Image](#)
2. [Image](#)
3. [Image](#)
4. [Image](#)
# Appendix B - Healthcare Worker (HCW) DOFFING Personal Protective Equipment (PPE) Procedure

## 4. Perform hand hygiene

| ![Image] | Perform hand hygiene following [Policy 20 – 20 Hand Hygiene](#)  
| --- | Soap and water is used when hands are visibly soiled and for CDI |

## 5. Remove mask/visor or N95 respirator

### Removal of mask/visor

- Avoid touching the contaminated area on the front of all types of eye and face protection.
- Grasp the elastic behind both ears, unhook from ear and pull away from side of head and simultaneously extending arms forward to remove the mask and visor from the face.
- Dispose of the mask in the waste receptacle.

### Removal of N95 respirator

- If wearing a N95 particulate respirator remove it in the anteroom or outside the client room.
- Remove prescription glasses if not already done so.
- Both hands go to base of neck, grasp bottom strap lifting up and over keeping hands away from front of respirator and pull past chin.
- Hold bottom strap taught with one hand, your free hand goes to your ear, grasp top strap lifting up and overhead.
- Bring both arms forward and bring the respirator away from your face and discard.

## 6. Perform hand hygiene

| ![Image] | Perform hand hygiene following [Policy 20 – 20 Hand Hygiene](#)  
| --- | Soap and water is used when hands are visibly soiled and for CDI |
Introduction

Contact transmission refers to the transfer of microorganisms by direct contact with the client (hand or skin-to-skin contact) or indirect contact with environmental surfaces or client care items in the client’s environment.

Definitions

Cohort:
- Two or more clients colonized or infected with the same organism who are separated physically (i.e., in a separate room or ward) from other clients who are not colonized or infected with that organism.

Spatial Isolation:
- Separation by distance (minimum of 2 meters) and/or physical barriers (privacy curtains).

Policy

1. In addition to Routine Practices, use Contact Precautions for clients known or suspected to be infected or colonized with a microorganism requiring Contact Precautions as outlined in 30-50 Appendix A – Communicable Diseases Reference Table – Precautions by Etiology or Clinical Presentation (i.e., 40-110 MRSA, 40-190 VRE, 40-30 CDI, etc.). Clients identified with a microorganism that require Contact Precautions will have their health records flagged at the direction of Infection Prevention and Control so that at each admission to the healthcare facility, appropriate additional precautions can be initiated.

2. Only contacts to an Antibiotic Resistant Organism (ARO) related to an ARO Outbreak require Contact Precautions. See 55-30 ARO Outbreak – Acute Care policy. Screening requirements for clients with AROs, including contacts of ARO clients can be found in 60-30 Screening for Antibiotic Resistant Organisms - Medical Directives policy.
Purpose

1. To protect the clients, visitors and healthcare workers by preventing and controlling the spread of infectious disease throughout the facility by identifying and interrupting the specific route of transmission.

Procedure

1. Client Placement

   - Place the client in a single room with private bathroom.
   - Post Contact Precautions* sign (SHR Printing Services #102106).
   - The dedicated PPE station must be placed away from any possible sources of contamination such as sinks and sharps containers.
   - The dedicated PPE station such as a supply cart needs to be properly stocked and must be located outside the room. Supplies should include:
     - Outside the room:
       - Alcohol-based hand rub (ABHR)
       - Gloves (3 sizes)
       - Clean gowns
       - Hospital grade disinfectant
     - Inside the room:
       - Waste basket
       - Dirty linen hamper
       - ABHR
   - Attach the precaution label to inside chart cover
   - The additional precaution stickers can be ordered through Stores/Materials Management (Contact Precautions - SKU # 201037)
   - If a single room is unavailable using spatial isolation or cohorting may be necessary:
     - Post Contact Precautions sign and STOP* sign on privacy curtain.
     - Keep privacy curtain pulled, if possible. The inside of the curtain is considered client environment and the outside of the curtain healthcare environment.
     - The cart with clean supplies is placed outside the privacy curtain, where gown and gloves are donned.
     - The linen hamper and waste basket are placed inside the privacy curtain, where gown and gloves are removed.
   - If cohorting and/or using spatial isolation:
     - Place clients who are colonized or infected with the same organism together:
       - Cohort and spatially isolate the clients with the lowest risk of transmission:
         - continent
         - good hygiene
         - skin lesions or wounds covered by dressings
         - able to control respiratory secretions
         - capable of self-care and able to comply with infection control precautions
       - Conditions that increase risk of transmission:
         - Presence of excessive wound drainage
         - Fecal incontinence
All other discharges (secretions & excretions) from the body.

Vulnerable clients to colonization or infection are those clients with:
- Severe diseases especially those who are immunocompromised or who have underlying medical conditions (i.e., organ transplant, hematopoietic stem cell transplant)
- Recent surgery
- Indwelling medical devices (i.e., urinary catheter, central venous line and endotracheal tubes)
- Open draining wounds

B. Identify clients with the least risk of transmission in private rooms and cohort them using spatial isolation (as noted above) in the same room. The client with the highest risk of transmission will be placed in a private room.

C. Clients who are NOT colonized or infected with the same organism:
- Consult with Infection Prevention and Control.

2. Hand Hygiene

- Perform hand hygiene as per 20-20 Hand Hygiene policy in Infection Prevention & Control Manual using either alcohol-based hand rub (ABHR) or liquid soap and water.
- Client’s hands should be cleansed before and after eating, and after going to the bathroom, assist the client if needed.

3. Personal Protective Equipment

Gloves and Gown
- Always perform hand hygiene before donning and doffing gloves and/or gown.
- Glove and gown for all direct contact with the client or the environmental surfaces.
- Choose a glove suitable for the task. Change gloves and perform hand hygiene after contact with infectious material that may contain high concentrations of microorganisms.
- Gowns are single use only. Remove immediately if wet.
- Perform hand hygiene before leaving the room.
- Avoid contact with environmental surfaces when leaving the room.
- See 20-150 Personal Protective Equipment - Donning and Doffing policy.

4. Client Transportation

- Ensure the Additional Precautions sticker is on the inside of the client chart
- Notify receiving department that Contact Precautions are required.
- Lay chart on clean towel if placing on client’s lap or bed or bag chart.
- Glove and gown for transport of client and when anticipating direct contact with client.
- Avoid contact with surfaces en route. Use elbow to push elevator buttons.
- Use clean sheet to cover client.
- When using unit’s wheelchair disinfect before using for next client.
- Clean equipment with a hospital disinfectant.
- Transportation of the client to other departments should be limited to essential procedures only.
- Have client perform hand hygiene prior to leaving their room.
• When leaving their room the client must have on a freshly laundered gown/housecoat. Gloves not required for clients.

5. Client Activities

• **Acute care**: Limit client activities to necessary tests, therapies and exercise. Avoid common areas like kitchen, TV and play rooms. Refer to handout: [Contact Precautions – Client, Family & Visitor Information](#).

• **Long term care**: There is no need to restrict client’s participation in the facility therapies/activities. Assist client with hand hygiene prior to leaving the room.

6. Client Care Equipment

• Remove unnecessary items by limiting the amount of supplies taken into the room to avoid unnecessary waste at client’s discharge.

• Dedicate noncritical client-care equipment to a single client (i.e., stethoscope, blood pressure cuff, tourniquet, vacutainer, laundry hamper stand, walker and commode).

• Any equipment that comes in direct contact with the client shall be wiped with a hospital disinfectant.

• If sharing of equipment is unavoidable clean and disinfect between clients.

• Dietary trays from clients on Contact Precautions can be placed on dietary tray carts because the cart is washed after each use.

• Dietary trays from clients on Contact Precautions left after pickup by Food and Nutrition staff should be bagged and left for pick up in a designated area.

• Gloves and gown are to be worn for pickup of dietary trays of clients on additional precautions.

7. Visitors

• Instruct visitors regarding hand hygiene before and after client contact and/or entering or exiting the client room.

• Gowns and gloves are not required unless the visitor provides direct care (i.e., feeding, bathing, toileting, transferring, etc.)

• Refer to the Information Handout - [Contact Precautions – Client, Family & Visitor Information](#).

8. Client and Family Teaching

• Clients should understand the nature of their infectious disease and the precautions being used, as well as the prevention of transmission of disease to other clients, family and friends during their hospital stay and upon their return to the community. Provide the client information handout titled [Contact Precautions – Client, Family & Visitor Information](#).

9. Environmental Cleaning

• Room cleaning with a hospital grade disinfectant is performed while wearing personal protective equipment for Contact Precautions.

• Following discharge or discontinuation of precautions:
  - Contact Precaution sign shall remain in place until cleaning is completed.
Wear personal protective equipment for Contact Precautions.
Privacy curtains are to be changed.
A precaution clean is performed for all clients who are on additional precautions.

References


POLICIES & PROCEDURES

Number: 30-20
Title: Airborne Precautions

Authorization:
[4] SHR Infection Prevention & Control Committee
[ ] Facility Board of Directors

Source: Infection Prevention & Control
Date Initiated: May 1, 2001
Date Reaffirmed: March 2013, July 2014
Date Revised: October 2014
Scope: SHR Agencies & Affiliates

Introduction

Airborne transmission refers to dissemination of microorganisms by aerosolization. Organisms are contained in droplet nuclei (5μm or smaller in size) which result from evaporation of large droplets or in dust particles containing skin cells that can remain suspended in the air and be widely dispersed by air currents within a room or over a long distance.

Policy

In addition to Routine Practices, use Airborne Precautions for clients known or suspected to be infected with microorganisms transmitted by the airborne route as outlined in the Infection Prevention and Control Manual Reference Table: Precautions by Etiology or Clinical Presentation (i.e., chicken pox, measles, tuberculosis).

Purpose

1. To protect the clients, visitors and hospital staff by preventing and controlling the spread of infectious disease throughout the facility by identifying and interrupting the specific route of transmission.

Procedure

1. Client Placement
   - Place the client in an Airborne Infection Isolation Room (AIIR) which is a room that has an anteroom, monitored negative air pressure in relation to the surrounding areas with appropriate discharge of air outdoors or if not available place them in a private room with monitored high-efficiency filtration of room air before recirculation to other areas. See Appendix B.

   AIIR rooms:
   - Royal University Hospital: Designated AIIR are on unit 6200-#6205 and #6207; PICU-#4 and #5; ICU #9.
   - St. Paul’s Hospital Designated AIIR are #409, #614-6, # 543, ICU#14 and ER#2.
Number: 30-20  
Title: Airborne Precautions

- Keep door closed at all times to maintain negative pressure.
- If an AIIR room is not available call your site ICP (Monday to Friday 8 am to 4:30 pm) or the ID on call (call switchboard and have them paged) to determine action.
  - Using the algorithm in Appendix A an assessment can be made to determine if another client who is less risk is in an AIIR, move them to an appropriate alternate room and put the higher risk client in the AIIR.
  - If this is not possible place the client in a private room with the door closed.

- Post Airborne Precautions sign (SHR Printing Services #102105).
- Isolation supplies must be located outside the room. The location of the dedicated station must be placed away from possible sources of contamination such as sinks and sharps containers.
- The dedicated PPE station such as a supply cart needs to be properly stocked. Supplies should include:
  - Alcohol-based hand rub (ABHR)
  - Gloves (3 sizes)
  - N95 respirator (several sizes)
  - Hospital grade disinfectant
- Inside the room –
  - Waste basket
  - Dirty linen hamper
- Attach Airborne Precaution label to chart cover (available from your site ICP).

2. Masks

- High filtration respirators (i.e., N95 particulate respirators) are to be worn for all who enter the room.
- Refer to policies 40-20 Chickenpox (Varicella), 40-100 Measles (Rubeola), and 40-175 Tuberculosis Management Program in the IP&C P&P Manual
- Family and friends: in conversation with family, assess risk of exposure. All people who enter the room need to wear high filtration respirator. Since they will not be fitted, assess proper fit by performing a seal test with them prior to entering the room

3. Client Transport

- Notify receiving department that Airborne Precautions are required.
- Client should wear a regular mask during transport. If the client is unable to tolerate a regular mask, accompanying staff must wear a special high filtration respirator (i.e., N95 particulate respirator). Exception: Refer to the policy 40-20 Chickenpox (Varicella) in the IP&C P&P Manual.
- Transportation of the client to other departments should be limited to essential procedures only.

4. Visitor Restrictions

- Instruct visitors regarding the proper application of the special high filtration respirators.
- Visitors should be kept to a minimum.
- Refer to policies 40-20 Chickenpox (Varicella), 40-100 Measles (Rubeola), and 40-175 Tuberculosis Management Program in the IP&C P&P Manual
5. Client and family teaching

- Clients should understand the nature of their infectious disease and the precautions being used, as well as the prevention of transmission of disease to other clients, family and friends during their hospital stay and upon their return to the community. See section 2 – Masks for further information.

6. Environmental Cleaning

- Interim cleaning of rooms is performed in the same manner as for all clients while wearing high filtration respirator for Airborne Precautions.
- Following discharge or discontinuation of precautions:
  - Airborne Precaution sign should remain in place until precautions discharge cleaning is completed and adequate time has passed for the room to remove the contaminants in the air. The time required for this is dependent on the number of air changes in that room (Refer to Appendix B). Contact the facilities department for more detailed information about air changes if needed.
  - Precautions discharge cleaning is performed for all clients.
  - Wear high filtration respirator for Airborne Precautions when entering the room where a client has been on Airborne Precautions. See Appendix B for details about time required for removal of contaminants from the air.

7. Aerosol Generating Medical Procedures (AGMP)

- Refers to procedures that generate aerosols as a result of artificial manipulation of a person’s airway. Procedures include: intubation and related procedures (i.e., manual ventilation, open endotracheal suctioning), cardiopulmonary resuscitation, nebulized therapy, surgery and autopsy, non-invasive positive pressure ventilation (i.e., CPAP, BiPAP)
  a) AGMPs should not be performed on client’s with confirmed or suspected cases of SARS, TB or other emerging respiratory infections unless medically necessary.
  b) Healthcare workers should wear respirators and a full face shield to provide eye protection when performing or assisting with AGMPs on clients listed in point (a).
  c) Implementing strategies to reduce aerosol generation when performing AGMPs on clients with signs and symptoms of suspected or confirmed Tuberculosis (TB), SARS or other emerging respiratory infections.
  d) Number of healthcare workers present should be limited to only those essential for client care and support.
  e) Droplet and Contact Precautions in addition to Routine Practices should be used when performing AGMPs on client’s with seasonal influenza.
  f) Routine Practices are required for AGMPs on other client’s.

* Information handouts, Fact Sheets and signage are available from SHR Printing Services.

References


5. [Release notes -- TB Clinical Guidelines Revision Highlights 2014-Mar](#)
Client A needs Airborne Infection Isolation Room (AIIR)

Is there an AIIR available at site A?

Yes → Place client A in AIIR.

No → Is there an AIIR available at sites B or C?

Yes → Transfer client A to site B or C where AIIR is available.

No → Do the clients who are currently in the AIIRs need airborne precautions?

Yes → Place AeroMed 700 P in room with patient. Keep all doors closed at all time.

No → Is there a private room that has an anteroom available at site A?

Yes → Place client A in the room that has an anteroom. Place AeroMed 700P in room with patient. Keep all doors closed at all time.

No → Place client A in regular private room. Place AeroMed 700P in room with patient. Keep all doors closed at all time.

Bed availability reassessment

Yes → Place client A in AIIR.

No → Terminally clean the AIIR.

No → Transfer the client who does not need AIIR to a room that meets IP&C measures.

Inform ICP at the site of placement during week day work hours or leave a message after hours and on weekends.

Legend:
- AIIR - Airborne Infection Isolation Room
- Oval – End of process/Terminator
- Rectangle – Action
- Diamond – Decision making
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NOTE: If no AIIR is available and the client is in a private room, staff need to wear appropriate protection (i.e., N95 Respirator) for at least 2 hours after the client has left the room.

*Can be re-instated by Facilities Management if given 2 weeks’ notice.

Revised: June 4, 2020
Introduction

Droplet transmission refers to the potential exposure to microorganisms when droplets exit from the respiratory tract of a person. Droplets can be generated during coughing, sneezing, talking or during some procedures performed on the respiratory tract such as suctioning, bronchoscopy or nebulized therapies. Droplets may also be generated through the splash or spray of bodily fluids. These droplets are propelled a short distance (i.e., within 2 metres) through the air and deposited on the nasal/oral mucosa or the conjunctiva of a host. The coughs and sneezes of some individuals, like infants and the frail elderly, may not be forceful enough to propel droplets as far as two meters. Droplets do not remain suspended but settle on surfaces in the person’s immediate environment. Some microorganisms, especially respiratory viruses, remain viable for extended periods of time. Contact transmission can occur by touching surfaces and objects contaminated by these respiratory droplets.

Policy

In addition to Routine Practices, use Droplet Precautions or Droplet and Contact Precautions for a client known or suspected to be infected with microorganisms transmitted by droplets as outlined in the Infection Prevention and Control Manual Reference Table: Precautions by Etiology or Clinical Presentation, i.e., respiratory syncytial virus, influenza, etc.

Purpose

1. To protect clients/residents, visitors and health care staff by preventing and controlling the spread of infectious disease throughout the facility by identifying and interrupting the specific route of transmission.

Procedure

1. Client Placement

   a. Single room is preferred in order to maintain a 2 metre spatial separation between clients. Door may remain open. Private bathroom preferred.
   b. Post Droplet Precautions* sign (SHR Printing Services #102108), if necessary and attach precaution label to chart cover.
• Post **Droplet and Contact Precautions*** sign (SHR Printing Services # 102107), for appropriate illness (Influenza, MRSA in sputum or trach secretions, RSV, etc.)
  • Isolation supplies must be located outside the room. The location of the dedicated station must be placed away from possible sources of contamination such as sinks and sharps containers.
  • The dedicated PPE station such as a supply cart needs to be properly stocked. Supplies should include:
    - Alcohol based hand rub (ABHR)
    - Gloves (3 sizes)
    - Gowns (if Droplet & Contact)
    - Mask with eye protection (mask with attached visor, mask and goggles, mask with face shield).
    - Hospital grade disinfectant
• Inside the room –
  - Waste basket
  - Dirty linen hamper
• Attach precaution labels to chart cover.

*Information handouts, Fact Sheets and signage are available from SHR Printing Services.

• If single room is unavailable, cohort clients with a low risk of transmission (good hygiene, able to control respiratory secretions, capable of self-care and able to comply with infection control precautions) with other clients colonized or infected with the same organism.
• If clients must share a room, maintain a 2 metre spatial separation between the infected client and others. Roommates and visitors must be aware of and able to comply with the precautions.
• If single room is unavailable and cohorting is not possible, use spatial isolation (cubicle isolation in a multi-bed room).
  - Post Droplet, or Droplet/Contact Precautions and STOP* sign on privacy curtain.
  - Keep privacy curtain pulled, if possible. The inside of the curtain is considered contaminated and the outside of the curtain clean.
  - The cart with clean supplies is placed outside the privacy curtain, where gown and gloves are donned.
  - The linen hamper and waste basket are placed inside the privacy curtain, where gown and gloves are removed.

2. Respiratory Hygiene (Respiratory Cough Etiquette)

• Teach the client how and when to perform hand hygiene.
• Teach the client how and when to perform respiratory hygiene practices (cover your cough by coughing into sleeve, using tissues, or wearing a mask). Refer to Policy 20-95, Respiratory Hygiene and Cough Etiquette.
• Teach the client to wear a mask (if tolerated) when health care workers, other staff and visitors are present.

3. Hand Hygiene

• Perform hand hygiene as per [20-20 Hand Hygiene](#) policy using either alcohol-based hand rub (ABHR) or liquid soap and water.
• Remember to check the client’s hands are cleansed before and after eating, after going to the bathroom and frequently if the person is coughing and sneezing.

4. Respiratory Protection

• Wear a regular mask (procedure or surgical) if within 2 metres of the client.
Masks can be eliminated in the case of rubella or mumps if the health care worker is immune. Non-immune personnel should enter the room only if absolutely necessary and should wear a mask.

- Change mask if it becomes wet or soiled (from wearer’s respiration or through an external splash)
- Remove the mask by the straps, being careful not to touch the mask itself, after leaving the room and dispose of in hands-free waster receptacle.
- Perform hand hygiene after removing the mask and after leaving the room.

If client is suspected to have Severe Acute Respiratory Syndrome (SARS) or an emerging respiratory syndrome that has not been clearly identified, increase your protection to an N95 respirator when conducting an aerosol-generating medical procedure (AGMPs)**. A negative pressure room is preferred for these procedures. If a negative pressure room is unavailable use a single room, obtain an Air Purification equipment from Facilities Management and keep the door closed. Do not delay urgent AGMPs (i.e., intubation) by transferring clients to single or negative pressure rooms. Refer to 30-20 Airborne Precautions Policy for a list of negative pressure rooms.

**Aerosol-generating Medical Procedures (AGMPs) are medical procedures that can generate aerosols. Several types of AGMPs have been associated with increased risk of tuberculosis and SARS transmission. These procedures include: non-invasive positive pressure ventilation (BIPAP, CPAP); intubation and related procedures (i.e., open endotracheal intubation, manual ventilation); cardiopulmonary resuscitation; nebulized therapy; sputum induction; bronchoscopy; surgery and autopsy.

5. Eye Protection
   - Wear eye protection (i.e., goggles, face shield) whenever a mask or respirator is worn. Prescription eye glasses are not considered sufficient eye protection.
   - Remove eye or face protection after leaving the room and dispose of (if disposable) or place in a separate receptacle to go for cleaning (if reusable).
   - Reusable goggles must be cleaned with a hospital disinfectant and allowed to sit for the required contact time.

6. Gloves and gown- for Droplet/Contact Precautions only
   - Wear gloves and gown for all contact with the client or the environmental surfaces in the room.
   - Gloves and gowns are single use only.
   - Change gloves after contact with infectious material that may contain high concentrations of microorganisms.
   - Remove gloves, then the gown. Untie at the back, pulling forward and turning inside on itself, rolling up and discarding in the laundry hamper in the room. Cleanse hands before leaving the room. Avoid contact with the environmental surfaces when leaving the room.

7. Client transportation
   - Transport should be limited unless required for diagnostic or therapeutic procedures.
   - Notify receiving department that Droplet or Droplet/Contact Precautions are required.
   - A client with respiratory symptoms should wear a mask during transport.
   - If the client is unable to tolerate a mask or has GI symptoms, accompanying staff member must wear a mask and eye protection.
   - Transportation of the client to other departments should be limited to essential procedures only.
8. Visitor Restrictions

- Instruct visitors regarding appropriate use of a mask, eye protection and hand hygiene as well as visitor guidelines for Droplet Precautions by providing [Droplet Precautions – Client, Family and Visitor Information](#) (SHR Printing Services #102924).
- Instruct visitors regarding the appropriate use of a mask, eye protection, gowns, gloves and hand hygiene as well as visitor guidelines for Droplet/Contact Precautions by providing [Droplet & Contact Precautions – Client, Family and Visitor Information](#) (SHR Printing Services #102927).

9. Client and family teaching

- Clients should understand the nature of their infectious disease and why precautions being used to prevent the transmission of disease to other clients, family and friends during their hospital stay and upon their return to the community.

10. Environmental Cleaning

- Interim cleaning of rooms is performed in the same manner as for all clients while wearing personal protective equipment for Droplet or Droplet/Contact Precautions.
- Following discharge or discontinuation of precautions:
  - Precaution sign should remain in place until cleaning is completed.
  - Precaution discharge cleaning is performed as for all clients.

References


POLICIES & PROCEDURES

Number: 30-40
Title: Signage

Authorization:
[✓] SHR Regional Infection Control Committee

Source: Infection Prevention & Control
Date Initiated: June 5, 2001
Date Reaffirmed: March, 2007
Date Revised: December, 2010
Scope: SDH Agencies & Affiliates

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Introduction
Specific signage has been developed to assist staff, patients/residents/clients and family and visitors in complying with Additional Precautions.

Policy

1. Patients on Additional Precautions will have signs posted.

Purpose

1. To notify staff, patients and visitors of Additional Precautions.

Procedure

1. Order extra signs as needed. One time use only unless laminated.
2. Two signs maybe posted on the door, if a combined sign is not available. For example, one Airborne Precaution and one Contact Precaution sign to replace the one Airborne and Contact Precaution sign.
3. See table below for SHR Printing order number.

<table>
<thead>
<tr>
<th>Title</th>
<th>SHR Printing Services Order Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airborne Precautions – yellow</td>
<td>102105 10/10</td>
</tr>
<tr>
<td>Airborne and Contact Precautions – pink</td>
<td>102104 10/10</td>
</tr>
<tr>
<td>Contact Precautions – orange</td>
<td>102106 10/08</td>
</tr>
<tr>
<td>Droplet Precautions – blue</td>
<td>102108 11/10</td>
</tr>
<tr>
<td>Droplet and Contact Precautions – green</td>
<td>102107 11/10</td>
</tr>
<tr>
<td>*Protect Me! - lavender</td>
<td>102246 12/10</td>
</tr>
<tr>
<td>Large Stop sign - red</td>
<td>102069 02/01</td>
</tr>
<tr>
<td>Small Stop sign – red</td>
<td>102070 02/01</td>
</tr>
<tr>
<td>Reminder: Wash Your Hands</td>
<td>102144 04/04</td>
</tr>
</tbody>
</table>

*Protect Me! sign - use when none of the other signs are appropriate.
Examples: Stem cell transplants, neutropenic patients, varicella zoster
**Airborne Precautions**

**Private Room**
- Door kept closed at all times
- Monitored negative pressure recommended
- After discharge keep door closed for 1 hour

**Hand Cleansing**
- Using antimicrobial soap or alcohol gel
- After removing gloves
- When leaving room

**N-95 Respirator**
- When entering room
- Use appropriate fit-tested size
- Perform seal check before entering room

**Patient Transport**
- Only when essential
- Patient must wear regular mask
- Continue precautions
- Inform receiving department

Adapted from Regina Health District
Airborne and Contact Precautions

**Private Room**
- ✓ Door kept closed
- ✓ Monitored negative pressure recommended
- ✓ After discharge keep door closed for 1 hour

**Hand Cleansing**
- ✓ Using antimicrobial soap or alcohol gel
- ✓ After removing gloves and gown
- ✓ When leaving room

**N-95 Respirator**
- ✓ When entering room
- ✓ Use appropriate fit-tested size
- ✓ Perform seal check before entering room

**Gloves and Gown**
- ✓ If in contact with patient or environment
- ✓ Remove before leaving room

**Dedicate Patient Care Equipment**
- ✓ Disinfect all equipment removed from room
- ✓ Do not take patient chart into room

**Patient Transport**
- ✓ Only when essential
- ✓ Patient must wear regular mask
- ✓ Continue precautions
- ✓ Inform receiving department
Contact Precautions

Patient Placement
✓ Door may remain open
✓ Private room preferred
✓ Maintain a distance of at least 1 meter (3 feet) between patients if sharing a room

Hand Cleansing
✓ Using antimicrobial soap or alcohol gel
✓ After removing gloves and gown
✓ When leaving room

Gloves
✓ If in contact with patient or environment
✓ Remove before leaving room

Gown
✓ If in contact with patient or environment
✓ Remove gown before leaving room

Dedicate Patient Care Equipment
✓ Disinfect all equipment removed from room
✓ Do not take patient chart into room

Patient Transport
✓ Inform receiving department

Adapted from Regina Health District
For more information see Infection Prevention & Control Manual policy 30-50 Appendix A - Communicable Diseases Reference Table: Precautions by Etiology or Clinical Presentation.

October 2008
Droplet Precautions

**Patient Placement**
- ✓ Door may remain open
- ✓ Maintain a distance of at least 2 metres (6 feet) between patients if sharing a room

**Hand Cleansing**
- ✓ Use alcohol hand sanitizer or soap and water
- ✓ After removing gloves and gown
- ✓ After removing mask and eye protection
- ✓ When leaving a room

**Mask and Eye Protection**
- ✓ Wear regular mask and eye protection or combination (face shield/mask) when working within 2 metres of the patient

**Patient Transport**
- ✓ Only when essential
- ✓ Continue precautions
- ✓ Inform receiving department
- ✓ Patient must wear regular mask
Droplet and Contact Precautions

**Patient Placement**
- Door may remain open
- Maintain a distance of at least 2 metres (6 feet) between patients if sharing a room

**Hand Cleansing**
- Use alcohol hand sanitizer or soap and water
- After removing gloves and gown
- After removing mask and eye protection
- When leaving a room

**Mask and Eye Protection**
- Wear regular mask and eye protection or combination (face shield/mask) when working within 2 metres of the patient

**Gloves and Gown**
- If in contact with patient or environment
- Remove before leaving room

**Dedicate Patient Care Equipment**
- Disinfect all equipment removed from room
- Do not take patient chart into room

**Patient Transport**
- Only when essential
- Continue precautions
- Inform receiving department
- Patient must wear regular mask
Protect Me!

I am more susceptible to infections and require extra protection.

Please clean your hands **before** and **after** being in my room. Remember to use Routine Practices.
STOP
Check with Nurse

STOP
Check with Nurse
REMINDER:

WASH YOUR HANDS
WITH SOAP AND WATER
Display this sign for

*Clostridium difficile* positive

patient only
Introduction

The Communicable Diseases Reference Table (Appendix A) summarizes information about transmission characteristics of most infectious diseases.

Policy

1. The precautions recommended in the reference tables will be adhered to.

Purpose

1. To prevent transmission of infection.

Procedure

1. Some of the precautions are based on clinical presentations when the microorganism is not known. These should be used initially, while awaiting more precise diagnosis.

2. The remaining precautions are recommended for infections due to identified microorganisms.

3. With very few exceptions, this reference table is appropriate for all health-care facilities.

References


### 30-50 - Appendix A: Communicable Diseases Reference Table - Precautions by Etiology or Clinical Presentation

**Note:** Use pediatric precautions for children who are incontinent or too immature to be able to comply with handwashing requirements, appropriate handling and disposal of respiratory secretions, purulent discharges and skin exudates, and maintenance of dressings in place. For older children who are continent and able to comply with precautions for respiratory secretions and skin lesions, precautions for adults may be used. * = See Comment Column

**Revised:** March 2020

<table>
<thead>
<tr>
<th>Microorganisms/ Clinical Presentation</th>
<th>Clinical Presentation/ Potential Pathogens</th>
<th>Precautions</th>
<th>Infective Material</th>
<th>Route of Transmission</th>
<th>Incubation Period</th>
<th>Period of Communicability</th>
<th>Duration of Precautions</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abscess</td>
<td>See Draining Wound</td>
<td>Routine</td>
<td>Variable</td>
<td>Not person to person</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Actinomycosis</td>
<td>Cervicofacial, thoracic or abdominal infection</td>
<td>Routine</td>
<td>Variable</td>
<td>Not person to person</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

**Adenovirus**

| Respiratory strains                  | Droplet and contact                         | Respiratory Secretions | Large droplets; direct and indirect contact | 1-10 days | Shortly before and until symptoms cease | Duration of symptoms | Different strains responsible for respiratory and gastrointestinal disease |

| Conjunctivitis                       | Contact                                    | Eye discharge          | Direct and indirect contact                  | 5-12 days | Late in incubation period until 14 days after onset | Duration of symptoms up to 14 days | Careful attention to aseptic technique and reprocessing of ophthalmology equipment to prevent epidemic keratoconjunctivitis |

| Adenovirus Enteric strains           | Diarrhea                                   | Feces                  | Direct and indirect contact (fecal/oral)     | 3-10 days | Until symptoms cease                          | Duration of symptoms | Consider contact precautions for incontinent adults if stool cannot be contained or for adults with poor hygiene who contaminate their environment |

| Amebiasis (Entamoeba histolytica)    | Dysentery and liver abscess                | Feces                  | Direct and indirect contact (fecal/oral)     | 2-4 weeks | Duration of cyst excretion                   | Duration of symptoms | Consider contact precautions for incontinent adults if stool cannot be contained or for adults with poor hygiene who contaminate their environment |

| Anthrax (Bacillus anthracis)         | Routine                                    |                        | 1-7 days; maybe up to 60 days                | Not person-to-person | Acquired from contact with infected animals and animal products Inhalation anthrax may occur as a result of occupational exposure to anthrax spores or as a result of bioterrorism Decontamination and postexposure prophylaxis necessary for exposure to aerosols in laboratory exposures or biological terrorism |

| Antimicrobial-resistant organisms (AROs) includes MRSA, VRE, resistant Gram-negative rods (i.e., CPD) and other organisms, as per ICP | Contact Droplet and Contact*                | Infected or colonized secretions, excretions | Direct and indirect contact | Variable | Variable | As directed by ICP | Refer to Infection Prevention & Control manual for more details on Additional Precautions required for MRSA, VRE and CPD |

| Arthropod borne virus* (arboviruses) | Encephalitis, fever, rash, arthritis, meningitis | Routine                  | Blood, tissues                              | 3-21 days (varies with different arboviruses) | Not person to person except rarely by blood transfusion or organ transplantation | *Over 100 different viruses, most limited to specific geographic areas In North America: West Nile is most common; others include California, St. Louis, Western equine, Eastern equine, Powassan, Colorado tick, Snowshoe hare, Jamestown Canyon WEST NILE VIRUS: NOTIFY POPULATION & PUBLIC HEALTH |

<p>| Arthropod borne viral fevers (dengue, yellow fever, Colorado tick fever) | Standard Precautions | Mosquito or tick bite | Not person-to-person | Install screens in windows and doors in endemic areas. YELLOW FEVER: NOTIFY POPULATION &amp; PUBLIC HEALTH |</p>
<table>
<thead>
<tr>
<th>Microorganism/ Clinical Presentation</th>
<th>Clinical Presentation/ Potential Pathogens</th>
<th>Precautions</th>
<th>Infective Material</th>
<th>Route of Transmission</th>
<th>Incubation Period</th>
<th>Period of Communicability</th>
<th>Duration of Precautions</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ascaris lumbricoides (roundworm)</td>
<td>Usually asymptomatic</td>
<td>Routine</td>
<td>Ova</td>
<td>Not person to person</td>
<td></td>
<td></td>
<td></td>
<td>Ova must hatch in soil to become infective.</td>
</tr>
<tr>
<td>Aspergillus spp.</td>
<td>Skin, lung, wound or central nervous system infection</td>
<td>Routine</td>
<td>Contaminated dust</td>
<td>Not person to person</td>
<td></td>
<td></td>
<td></td>
<td>Spores in dust; infections in immunocompromised clients may be associated with construction</td>
</tr>
<tr>
<td>Astrovirus</td>
<td>Diarrhea</td>
<td>ADULT: Routine* PAEDIATRIC: Contact</td>
<td>Feces</td>
<td>Direct and indirect contact (fecal/oral)</td>
<td>3-4 days</td>
<td>Duration of symptoms</td>
<td>Duration of symptoms</td>
<td>*Consider contact precautions for incontinent adults if stool cannot be contained or for adults with poor hygiene who contaminate their environment. Contact precautions apply to children who are incontinent or unable to comply with hygiene</td>
</tr>
<tr>
<td>Avian Influenza</td>
<td>See Influenza</td>
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<tr>
<td>Babesiosis</td>
<td>May present with influenza like symptoms and jaundice</td>
<td>Routine</td>
<td>Blood</td>
<td>Tick borne</td>
<td>Not person to person, except rarely by blood transfusion from asymptomatic parasitaemic donors</td>
<td></td>
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</tr>
<tr>
<td>Bacillus cereus</td>
<td>Food poisoning Nausea, vomiting, diarrhea, abdominal cramps</td>
<td>Routine</td>
<td>Foodborne</td>
<td></td>
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<tr>
<td>Blastomycosis (Blastomyces dermatitidis)</td>
<td>Pneumonia, skin lesions</td>
<td>Routine</td>
<td></td>
<td>Not person to person</td>
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<tr>
<td>Bocavirus Respiratory tract infection</td>
<td>Droplet and contact</td>
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<td>Bordetella see Pertussis</td>
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<tr>
<td>Botulism (Clostridium botulinum)</td>
<td>Flaccid paralysis; cranial nerve palsies</td>
<td>Routine</td>
<td>Foodborne</td>
<td>Not person to person</td>
<td></td>
<td></td>
<td></td>
<td>NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
</tr>
<tr>
<td>Bronchiolitis</td>
<td>RSV, human metapneumovirus parainfluenza virus, influenza, adenovirus</td>
<td>Droplet and contact</td>
<td>Respiratory secretions</td>
<td>Large droplet and direct and indirect contact</td>
<td></td>
<td>Duration of symptoms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brucellosis (Brucella sp.) Unidulant, Malta or Mediterranean fever</td>
<td>Systemic bacterial disease of acute or insidious onset</td>
<td>Routine</td>
<td></td>
<td></td>
<td>Weeks to months</td>
<td>Not transmitted person to person, except rarely via banked spermatozoa and sexual contact</td>
<td></td>
<td>Acquired from contact with infected animals or from contaminated food, mostly dairy products. Brucella is hazardous to laboratory workers. Notify laboratory if diagnosis is suspected. Prophylaxis necessary following laboratory exposure. NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
</tr>
<tr>
<td>Burkholderia cepacia</td>
<td>Exacerbation of chronic lung disease in clients with cystic fibrosis</td>
<td>Contact*</td>
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</tbody>
</table>

*MAJOR: Contact precautions necessary only if wound drainage cannot be contained by dressings. NOTIFY POPULATION & PUBLIC HEALTH. *If other cystic fibrosis clients are on the unit, all interactions with other cystic fibrosis clients should be avoided.
<table>
<thead>
<tr>
<th>Microorganisms/ Clinical Presentation</th>
<th>Clinical Presentation/ Potential Pathogens</th>
<th>Precautions</th>
<th>Infective Material</th>
<th>Route of Transmission</th>
<th>Incubation Period</th>
<th>Period of Communicability</th>
<th>Duration of Precautions</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burns, infected</td>
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<tr>
<td>Caliciviruses</td>
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<tr>
<td>Campylobacter</td>
<td>Gastroenteritis</td>
<td>ADULT: Routine* PAEDIATRIC: Contact</td>
<td>Contaminated food, feces</td>
<td>Direct and indirect contact (fecal/oral)</td>
<td>2–5 days</td>
<td>Duration of excretion Person-to-person uncommon</td>
<td>Duration of symptoms</td>
<td>*Consider contact precautions for adults if stool cannot be contained or for adults with poor hygiene who contaminate their environment Treatment with effective antimicrobial shortens period of infectivity Contact precautions apply to children who are incontinent or unable to comply with hygiene NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
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<tr>
<td>Candidiasis</td>
<td>Many</td>
<td>Routine</td>
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<tr>
<td>Cat Scratch Disease</td>
<td>Fever, lymphadenopathy</td>
<td>Routine</td>
<td></td>
<td></td>
<td>16–22 days</td>
<td>Not person to person</td>
<td></td>
<td>Acquired from animals (cats and others)</td>
</tr>
<tr>
<td>(Bartonella henselae)</td>
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<tr>
<td>Cellulitis</td>
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<td>Routine</td>
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<tr>
<td>Chancroid</td>
<td>Genital ulcers</td>
<td>Routine</td>
<td></td>
<td></td>
<td>3–5 days</td>
<td>Until healed and as long as infectious agent persists in the original lesion</td>
<td></td>
<td>NOTIFY POPULATION &amp; PUBLIC HEALTH</td>
</tr>
<tr>
<td>(Haemophilus ducreyi)</td>
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<tr>
<td>Chickenpox</td>
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<td>Routine</td>
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<td>Chlamydia trachomatis</td>
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<td>Routine</td>
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<td>Chlamydia pneumoniae</td>
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<tr>
<td>Chlamydia (Chlamydomphila) psittaci</td>
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<td>Routine</td>
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<td>(Psittacosis, Ornithosis)</td>
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<tr>
<td>Cholera</td>
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<td>Routine</td>
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<td></td>
<td>7–14 days</td>
<td>Not person to person</td>
<td></td>
<td>Acquired by inhalation of desiccated droppings, secretions and dust of infected birds NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
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<td>(Vibrio cholerae-01, 0139)</td>
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<tr>
<td>Clostridium difficile</td>
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<td>Contact</td>
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<td>Bacterial spores persist in the environment Ensure scheduled environmental cleaning During outbreaks, special attention should be paid to cleaning; hypochlorite solutions may be required if continued transmission See PHAC, RPAP (2012), Appendix VI. 3. Viral Gastroenteritis Dedicate client care equipment Relapses are common NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
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<tr>
<td>Clostridium perfringens</td>
<td>Food poisoning</td>
<td>Routine</td>
<td>Foodborne</td>
<td>6-24 hours</td>
<td>Not person to person</td>
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<td></td>
<td>Gas gangrene, abscesses, myonecrosis</td>
<td>Routine</td>
<td>Variable</td>
<td>Not person to person</td>
<td>Found in normal gut flora, soil; infection related to devitalized tissue</td>
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<tr>
<td>Coccioidiodmycosis</td>
<td>Pneumonia, draining lesions</td>
<td>Routine</td>
<td>1-4 weeks</td>
<td>Not person to person</td>
<td>Acquired from spores in soil, dust in endemic areas</td>
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<tr>
<td>Cold</td>
<td>Rhinovirus, RSV, human metapneumovirus, parainfluenza, adenovirus, coronavirus</td>
<td>Droplet and contact</td>
<td>Respiratory secretions</td>
<td>Large droplet and direct and indirect contact</td>
<td>Duration of symptoms</td>
<td>client should not share room with high-risk roommates (immunocompromised clients, children with chronic cardiac or lung disease, neonates)</td>
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<tr>
<td>Colorado tick fever</td>
<td>See Dengue Fever (Arbovirus)</td>
<td>Fever</td>
<td>Routine</td>
<td>Tick-borne</td>
<td>3-6 days</td>
<td>Not person to person</td>
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<tr>
<td>Congenital rubella</td>
<td>See Rubella</td>
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<tr>
<td>Conjunctivitis</td>
<td>Adenovirus, enterovirus, chlamydia, Neisseria gonorrhea, other microbial agents</td>
<td>Contact*</td>
<td>Eye discharge</td>
<td>Direct and indirect contact</td>
<td>Until viral etiology ruled out; duration of symptoms, up to 14 days if viral</td>
<td>*Routine if non-viral</td>
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<tr>
<td>Coronavirus (CoV) (other than SARS-CoV)</td>
<td>Common cold</td>
<td>Droplet and contact</td>
<td>Respiratory secretions</td>
<td>Direct and indirect contact</td>
<td>2-4 days</td>
<td>Until symptoms cease</td>
<td>Duration of symptoms</td>
<td>May cohort if infected with same virus client should not share room with high-risk roommates (immunocompromised clients, children with chronic cardiac or lung disease, neonates)</td>
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<tr>
<td>Cough, fever, acute upper respiratory tract infection</td>
<td>Rhinovirus, RSV, human metapneumovirus parainfluenza, influenza, adenovirus, coronavirus, *pertussis</td>
<td>Droplet and contact</td>
<td>Respiratory secretions</td>
<td>Large droplet, direct and indirect contact</td>
<td>Duration of symptoms or until infectious etiology ruled out</td>
<td>Consider fever and asthma in child &lt;2 years old as viral infection client should not share room with high-risk roommates (immunocompromised clients, children with chronic cardiac or lung disease, neonates) *NOTIFY POPULATION &amp; PUBLIC HEALTH</td>
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<tr>
<td>Cryptococcosis (Cryptococcus neoformans)</td>
<td>Pneumonia, meningitis, adenopathy</td>
<td>Routine</td>
<td>Unknown</td>
<td>Not person to person</td>
<td>Acquired from spores in soil</td>
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</tbody>
</table>

*PHAC guidelines for precautions for surgery and other procedures may be accessed at: http://www.phac-aspc.gc.ca/nois-sinp/guide/pubs-eng.php Notification of a suspected or diagnosed case of CJD should be made to the CJD surveillance system (1-888-489-2999) *NOTIFY POPULATION & PUBLIC HEALTH.
<table>
<thead>
<tr>
<th>Microorganisms/ Clinical Presentation</th>
<th>Clinical Presentation/ Potential Pathogens</th>
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<th>Duration of Precautions</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>Cryptosporidiosis (Cryptosporidium parvum)</td>
<td>Diarrhea</td>
<td>ADULT: Routine* PAEDIATRIC: Contact</td>
<td>Feces</td>
<td>Direct and indirect contact (fecal/oral)</td>
<td>1-12 days</td>
<td>From onset of symptoms until several weeks after resolution</td>
<td>Duration of symptoms</td>
<td>*Consider contact precautions for incontinent adults if stool cannot be contained or for adults with poor hygiene who contaminate their environment. Contact precautions apply to children who are incontinent or unable to comply with hygiene. NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
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<tr>
<td>Cysticercosis (Taenia solium larvae)</td>
<td>T. solium larval cysts in various organs</td>
<td>Routine</td>
<td>Ova in feces</td>
<td>Direct contact (fecal/oral)</td>
<td>Months to years</td>
<td>While eggs present in feces</td>
<td>Transmissible only from humans with T. solium adult tapeworm in gastrointestinal tract (autoinfection occurs)</td>
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<tr>
<td>Cystic Fibrosis</td>
<td>See Burkholderia cepacia</td>
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<tr>
<td>Cytomegalovirus</td>
<td>Usually asymptomatic; congenital infection, retinitis, mononucleosis, pneumonia, disseminated infection in immuno-compromised host</td>
<td>Routine</td>
<td>Saliva, genital secretions, urine, breast milk, transplanted organs or stem cells, blood products</td>
<td>Direct* Sexual transmission; vertical mother to child in utero, at birth or through breast milk; Transfusion, transplantation</td>
<td>Unknown</td>
<td>Virus is excreted in urine, saliva, genital secretions, breast milk for many months; may persist or be episodic for life</td>
<td>No additional precautions for pregnant HCWs. *Close direct personal contact necessary for transmission. Disease is often due to reactivation in the client rather than transmission of infection.</td>
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<td>Decubitus (pressure ulcer, draining)</td>
<td>See draining wound</td>
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<td>Dengue (Arbovirus)</td>
<td>Fever, arthralgia, rash</td>
<td>Routine</td>
<td>Mosquito-borne</td>
<td>3–14 days</td>
<td>Not person to person</td>
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<tr>
<td>Dermatitis</td>
<td>Many (bacteria, virus, fungus)</td>
<td>Contact</td>
<td>Pus</td>
<td>Direct and indirect contact</td>
<td>Until infectious etiology ruled out</td>
<td>If compatible with scabies, take appropriate precautions pending diagnosis</td>
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<td>Dermatophytosis</td>
<td>See Tinea</td>
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<td>Desquamation, extensive</td>
<td>See draining wound</td>
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<tr>
<td>Diarrhea</td>
<td>See gastroenteritis Acute diarrhea of likely infectious cause</td>
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<tr>
<td>Diphtheria (Corynebacterium diphtheriae)</td>
<td>Cutaneous (characteristic ulcerative lesion)</td>
<td>Contact</td>
<td>Lesion drainage</td>
<td>Direct or indirect contact</td>
<td>2-5 days</td>
<td>If untreated, 2 weeks to several months</td>
<td>Until 2 cultures* from skin lesions are negative</td>
<td>*Cultures should be taken at least 24 hours apart and at least 24 hours after cessation of antimicrobial therapy. Close contacts should be given antimicrobial prophylaxis, as per most recent NACI recommendations available at: <a href="http://www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php">http://www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php</a></td>
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<td>Pharyngeal (adherent greyish membrane)</td>
<td>Droplet</td>
<td>Nasopharyngeal secretions</td>
<td>Large droplets</td>
<td>2-5 days</td>
<td>If untreated, 2 weeks to several months</td>
<td>Until 2 cultures* from both nose and throat are negative</td>
<td>*Cultures should be taken at least 24 hours apart and at least 24 hours after cessation of antimicrobial therapy. Close contacts should be given antimicrobial prophylaxis. NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
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<tr>
<td>Draining wounds</td>
<td>S. aureus, Group A Streptococcus, many other bacteria</td>
<td>Routine Contact: <em>Major wound, droplet</em>*</td>
<td>Pus</td>
<td>Direct and indirect contact</td>
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<td>Duration of drainage</td>
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<td>Ebola</td>
<td>See Viral hemorrhagic fever</td>
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<tr>
<td>Echinococcosis (hydatidosis) (E. granulosis, E. multilocularis)</td>
<td>Cysts in various organs</td>
<td>Routine</td>
<td>Months to years</td>
<td>Not person to person</td>
<td>Acquired from contact with infected animals</td>
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<td>Echovirus</td>
<td>See Entovirus</td>
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<tr>
<td>Encephalitis</td>
<td>Multiple microbial agents including herpes simplex virus (HSV), enterovirus, arbovirus (West Nile virus)</td>
<td>ADULT: Routine* PAEDIATRIC: Contact*</td>
<td>Feces, respiratory secretions</td>
<td>Direct and indirect contact (focal/oral)</td>
<td>Until specific etiology established or until enterovirus ruled out</td>
<td>*May be associated with other agents including measles, mumps, varicella. If identified, take appropriate precautions for associated disease</td>
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<tr>
<td>Endometritis</td>
<td>Group A Streptococcus; many other bacteria</td>
<td>Routine unless signs of toxic shock*</td>
<td>Ova in stool, perianal region</td>
<td>Direct, indirect contact</td>
<td>Life cycle requires 2–6 weeks</td>
<td>As long as gravid females discharge eggs on perianal skin; eggs remain infective indoors about 2 weeks</td>
<td>*Contact and droplet for the first 24 hours of antimicrobial therapy if invasive group A Streptococcus suspected.</td>
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<tr>
<td>Enterobiasis Oxyuriasis, pinworm (Enterobius vermicularis)</td>
<td>Perianal itching</td>
<td>Routine</td>
<td>Ova in stool, perianal region</td>
<td>Direct, indirect contact</td>
<td>Life cycle requires 2–6 weeks</td>
<td>As long as gravid females discharge eggs on perianal skin; eggs remain infective indoors about 2 weeks</td>
<td>Direct transfer of infective eggs by hand from anus to mouth of the same or another person; indirectly through clothing, bedding or other contaminated articles Close household contacts may need treatment</td>
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<td>Enterococcus species (Vancomycin-resistant only)</td>
<td>See Vancomycin-resistant enterococci</td>
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<tr>
<td>Enterococcosis</td>
<td>see diarrhea</td>
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<td>Enteroviral infections</td>
<td>Echovirus, Coxsackievirus A Coxsackievirus B Enterovirus Poliovirus - See poliomyelitis</td>
<td>Acute febrile symptoms, aseptic meningitis, encephalitis, pharyngitis, herpangina, rash, pleurodynia, hand, foot and mouth disease</td>
<td>ADULT: Routine PAEDIATRIC: Contact</td>
<td>Feces, respiratory secretions</td>
<td>Direct and indirect contact (focal/oral)</td>
<td>3–5 days</td>
<td>Duration of symptoms If poliovirus, see Poliomyelitis Contact precautions apply to children who are incontinent or unable to comply with hygiene</td>
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<td>Epiglottitis</td>
<td>In child &lt;5 years old</td>
<td>H. influenzae type B Possible in non-immune infant &lt;2 years of age, group A Streptococcus, S. aureus</td>
<td>Respiratory secretions</td>
<td>Droplet if H. influenzae type B is possible cause, otherwise routine</td>
<td>Large droplet, direct contact</td>
<td>Until 24 hours of appropriate antimicrobial therapy received or until H. influenzae type B ruled out</td>
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<tr>
<td>Epstein-Barr virus</td>
<td>Infectious mononucleosis</td>
<td>Routine</td>
<td>Saliva, transplanted organs or stem cells</td>
<td>Direct aero pharyngeal route via saliva; transplantation</td>
<td>4–6 weeks</td>
<td>Prolonged; pharyngeal excretion may be intermittent or persistent for years</td>
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<td>Esrpyelas</td>
<td>Draining: See draining wound</td>
<td>Group A Streptococcus</td>
<td>Routine</td>
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<tr>
<td>Erythema infectiosum</td>
<td>See Parvovirus B19</td>
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<tr>
<td>Escherichia coli (enteropathogenic and enterohemorrhagic strains)</td>
<td>Diarrhea, food poisoning, hemolytic-uremic syndrome, thrombotic thrombocytopenic purpura</td>
<td>ADULT: Routine* PAEDIATRIC: Contact</td>
<td>Feces</td>
<td>Direct and indirect contact (focal/oral)</td>
<td>Foodborne</td>
<td>1–8 days</td>
<td>Duration of shedding If hemolytic-uremic syndrome: until 2 stools negative for E. coli 0157:H7 or 10 days from onset of diarrhea</td>
<td>*Consider contact precautions for incontinent adults if stool cannot be contained or for adults with poor hygiene who contaminate their environment Contact precautions apply to children who are incontinent or unable to comply with hygiene</td>
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**VEROTOXIGENIC INFECTIONS: NOTIFY POPULATION & PUBLIC HEALTH.**
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<td>Febrile respiratory illness Usually present with symptoms of a fever greater than 38 °C and new or worsening cough or shortness of breath</td>
<td>Wide range of droplet-spread respiratory infections, such as colds, influenza, influenza-like illness and pneumonia</td>
<td>Contact and droplet precautions</td>
<td>Respiratory secretions</td>
<td>Direct or indirect contact (focal/oral)</td>
<td>Duration of symptoms or until enteroviral infection ruled out</td>
<td>If findings suggest a specific transmissible infection, take precautions for that infection pending diagnosis</td>
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<tr>
<td>Fever without focus (acute, in children)</td>
<td>Enterovirus and other pathogens</td>
<td>ADULT: Routine* PAEDIATRIC: Contact</td>
<td>Feces, respiratory secretions</td>
<td>Feces if Salmonella or Escherichia coli O157; Listeria and others</td>
<td>Duration of symptoms or until enteroviral infection ruled out</td>
<td>If findings suggest a specific transmissible infection, take precautions for that infection pending diagnosis</td>
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<tr>
<td>Fifth disease</td>
<td>Bacillus cereus, Clostridium perfringens, S. aureus, Salmonella, Vibrio parahaemolyticus, Escherichia coli O157, Listeria and others</td>
<td>ADULT: Routine* PAEDIATRIC: Contact</td>
<td>Food; feces if Salmonella or Escherichia coli O157</td>
<td>Foodborne, or direct and indirect contact (focal/oral)</td>
<td>Duration of symptoms or until enteroviral infection ruled out</td>
<td>*Consider contact precautions for incontinent adults if stool cannot be contained or for adults with poor hygiene who contaminate their environment Contact precautions apply to children who are incontinent or unable to comply with hygiene</td>
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<tr>
<td>Furuncles</td>
<td>S. aureus</td>
<td>ADULT: Routine* PAEDIATRIC: Contact</td>
<td>Feces</td>
<td>Duration of symptoms</td>
<td>*Consider contact precautions for incontinent adults if stool cannot be contained or for adults with poor hygiene who contaminate their environment Contact precautions apply to children who are incontinent or unable to comply with hygiene</td>
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<tr>
<td>Gas gangrene</td>
<td>Clostridium spp.</td>
<td>ADULT: Routine* PAEDIATRIC: Contact</td>
<td>Feces</td>
<td>Duration of symptoms for C. difficile, norovirus, rotavirus until ruled out. In pediatrics, until normal stools or infectious etiology ruled out</td>
<td>*Use contact precautions until C. difficile, norovirus, rotavirus ruled out. Consider contact precautions for incontinent adults if stool cannot be contained or for adults with poor hygiene who contaminate their environment Contact precautions apply to children who are incontinent or unable to comply with hygiene</td>
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<tr>
<td>Gastroenteritis</td>
<td>Diarrhea and/or vomiting due to infection or toxin</td>
<td>ADULT: Routine* PAEDIATRIC: Contact</td>
<td>Feces</td>
<td>Direct and indirect contact (focal/oral)</td>
<td>Duration of symptoms for C. difficile, norovirus, rotavirus until ruled out. In pediatrics, until normal stools or infectious etiology ruled out</td>
<td>*Use contact precautions until C. difficile, norovirus, rotavirus ruled out. Consider contact precautions for incontinent adults if stool cannot be contained or for adults with poor hygiene who contaminate their environment Contact precautions apply to children who are incontinent or unable to comply with hygiene</td>
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<tr>
<td>German Measles</td>
<td>See Rubella</td>
<td>ADULT: Routine* PAEDIATRIC: Contact</td>
<td>Feces</td>
<td>Duration of symptoms</td>
<td>*Consider contact precautions for incontinent adults if stool cannot be contained or for adults with poor hygiene who contaminate their environment Contact precautions apply to children who are incontinent or unable to comply with hygiene</td>
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<tr>
<td>Giardia (Giardia lamblia)</td>
<td>Diarrhea</td>
<td>ADULT: Routine* PAEDIATRIC: Contact</td>
<td>Feces</td>
<td>Direct and indirect contact (focal/oral)</td>
<td>Duration of symptoms</td>
<td>*Consider contact precautions for incontinent adults if stool cannot be contained or for adults with poor hygiene who contaminate their environment Contact precautions apply to children who are incontinent or unable to comply with hygiene</td>
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<tr>
<td>Gingivostomatitis</td>
<td>HSV, other causes including radiation therapy, chemotherapy, idiopathic (aphthous)</td>
<td>Contact if primary and extensive HSV related. Otherwise routine</td>
<td>Feces</td>
<td>Direct and indirect contact (focal/oral)</td>
<td>Duration of symptoms</td>
<td>*Consider contact precautions for incontinent adults if stool cannot be contained or for adults with poor hygiene who contaminate their environment Contact precautions apply to children who are incontinent or unable to comply with hygiene</td>
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</tr>
<tr>
<td>Granuloma inguinale (Donovanosis) (Calymmatobacterium granulomatis)</td>
<td>Painless genital ulcers, inguinal ulcers, nodules</td>
<td>Routine</td>
<td>Sexual transmission</td>
<td>Unknown; probably between 1 and 16 weeks</td>
<td>Unknown; probably for the duration of open lesions on the skin or mucous membranes</td>
<td>*Consider contact precautions for incontinent adults if stool cannot be contained or for adults with poor hygiene who contaminate their environment Contact precautions apply to children who are incontinent or unable to comply with hygiene</td>
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<tr>
<td>Guillain-Barre syndrome</td>
<td>Some cases associated with infection (e.g., campylobacter)*</td>
<td>ADULT: Routine* PAEDIATRIC: Droplet</td>
<td>Respiratory secretions</td>
<td>Large droplets, direct contact</td>
<td>Duration of symptoms</td>
<td>*Take precautions as appropriate for known or suspected associated infection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haemophilus influenzae type B (invasive infections)</td>
<td>Pneumonia, epiglottitis, meningitis, bacteremia, septic arthritis, cellulitis, osteomyelitis in a child</td>
<td>ADULT: Routine* PAEDIATRIC: Droplet</td>
<td>Respiratory secretions</td>
<td>Large droplets, direct contact</td>
<td>Duration of symptoms</td>
<td>Close contacts &lt;48 months old and who are not immune may need chemoprophylaxis Household contacts of such children should also receive prophylaxis</td>
<td></td>
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</tbody>
</table>

*NOTIFY POPULATION & PUBLIC HEALTH.
<table>
<thead>
<tr>
<th>Microorganisms/ Clinical Presentation</th>
<th>Clinical Presentation/ Potential Pathogens</th>
<th>Precautions</th>
<th>Infective Material</th>
<th>Route of Transmission</th>
<th>Incubation Period</th>
<th>Period of Communicability</th>
<th>Duration of Precautions</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hand, foot and mouth disease</td>
<td>Enterovirus</td>
<td>ADULT: Routine PAEDIATRIC: Contact</td>
<td>Feces, respiratory secretions</td>
<td>Direct and indirect contact (fecal/oral)</td>
<td>A few days to 6 weeks</td>
<td>Not well defined, person to person is rare (person to person documented for South American strains)</td>
<td>Duration of symptoms</td>
<td>Contact precautions apply to children who are incontinent or unable to comply with hygiene</td>
</tr>
<tr>
<td>Hansen’s disease</td>
<td>See Leprosy</td>
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</tr>
<tr>
<td>Hantavirus (Hantavirus pulmonary syndrome)</td>
<td></td>
<td>Routine</td>
<td>Rodent excreta</td>
<td>Presumed aerosol transmission from rodent excreta</td>
<td></td>
<td></td>
<td></td>
<td>Infection acquired from rodents NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
</tr>
<tr>
<td>Helicobacter pylori</td>
<td>Gastritis, duodenal ulcer disease</td>
<td>Routine</td>
<td>Probable ingestion of organisms; presumed fecal/oral/oral</td>
<td></td>
<td>0–10 days</td>
<td>Unknown</td>
<td></td>
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</tr>
<tr>
<td>Hemolytic-uremic syndrome</td>
<td>Some associated with E. coli O157</td>
<td>ADULT: Routine* PAEDIATRIC: Contact</td>
<td>Feces</td>
<td>Direct and indirect contact (fecal/oral)</td>
<td></td>
<td>Until E. coli O157 ruled out</td>
<td></td>
<td>*Consider contact precautions for incontinent adults if stool cannot be contained or for adults with poor hygiene who contaminate their environment Contact precautions apply to children who are incontinent or unable to comply with hygiene</td>
</tr>
<tr>
<td>Hemorrhagic fever acquired in appropriate endemic or epidemic area</td>
<td>Ebola, Lassa, Marburg, Crimean-Congo and others</td>
<td>Contact and droplet AGMP*</td>
<td>Blood and bloody body fluids; respiratory secretions; skin if E bola and urine if Lassa</td>
<td>Direct and indirect contact; possibly aerosol if pneumonia Lassa: Sexual contact</td>
<td></td>
<td></td>
<td></td>
<td>Local public health authorities should be notified immediately If AGMP necessary, see strategies to reduce aerosol generation, see Part B, Section IV, subsection iii, 1b NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
</tr>
<tr>
<td>Hepatitis A, E</td>
<td>Hepatitis, anicteric acute febrile symptoms</td>
<td>ADULT: Routine* PAEDIATRIC: Contact</td>
<td>Feces</td>
<td>Direct and indirect contact (fecal/oral)</td>
<td>A: 28–30 days E: 26–42 days</td>
<td>1 week after onset of jaundice; duration of hospitalization if newborn</td>
<td></td>
<td>*Consider contact precautions for incontinent adults if stool cannot be contained or for adults with poor hygiene who contaminate their environment Contact precautions apply to children who are incontinent or unable to comply with hygiene Postexposure prophylaxis indicated for non-immune household contacts with significant exposure to hepatitis A if within 2 weeks of exposure Refer to Canadian Immunization Guide for specific information: <a href="http://www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php">http://www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php</a> Outbreaks of HAV in HCWs have been associated with eating and drinking in client care areas NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
</tr>
<tr>
<td>Hepatitis B, C, D, G viruses</td>
<td>Hepatitis, often asymptomatic; cirrhosis, hepatic cancer</td>
<td>Routine</td>
<td>Blood, genital secretions, and certain other body fluids</td>
<td>Mucosal or percutaneous exposure to infective body fluids; Sexual transmission; Vertical mother to child</td>
<td>B: 2–3 months C: 2 weeks–6 months D: 2–8 weeks</td>
<td>B: all persons who are hepatitis B surface-antigen-positive are infectious C: indefinite D: indefinite</td>
<td></td>
<td>Refer to Canadian Immunization Guide 7th Ed., 2006 for specific information, available at: <a href="http://www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php">http://www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php</a> Contact OHS or delegate if HCW has percutaneous, non-intact skin or mucous membrane exposure Refer to CDC dialysis recommendations available at: <a href="http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5005a1.htm">http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5005a1.htm</a> NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
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<tr>
<td>Hepatitis of unknown etiology</td>
<td>Hepatitis A, B, C, E viruses, Epstein-Barr virus and others</td>
<td>ADULT: Routine* PAEDIATRIC: Contact</td>
<td>Feces; blood and certain body fluids</td>
<td>Mucosal or percutaneous exposure to infective body fluids Sexual transmission Vertical; mother to child Direct and indirect contact (fecal/oral) for hepatitis A, E</td>
<td>For 7 days after onset of jaundice or until hepatitis A and E epidemiologically excluded</td>
<td></td>
<td>*Consider contact precautions for incontinent adults if stool cannot be contained or for adults with poor hygiene who contaminate their environment unless hepatitis A and E are epidemiologically excluded Contact precautions apply to children who are incontinent or unable to comply with hygiene</td>
<td>VIRAL: NOTIFY POPULATION &amp; PUBLIC HEALTH</td>
</tr>
<tr>
<td>Herpangina</td>
<td>Enterovirus</td>
<td>ADULT: Routine PAEDIATRIC: Contact</td>
<td>Feces, respiratory secretions</td>
<td>Direct and indirect contact (fecal/oral)</td>
<td>Duration of symptoms</td>
<td></td>
<td>Contact precautions apply to children who are incontinent or unable to comply with hygiene</td>
<td></td>
</tr>
<tr>
<td>Encephalitis</td>
<td>ADULT: Routine PEDS: Contact</td>
<td>Neonatal</td>
<td>Skin or mucosal lesions; possibly all body secretions and excretions</td>
<td>Direct contact</td>
<td>Birth to 6 weeks of age</td>
<td>Duration of symptoms</td>
<td>Contact precautions are also indicated for infants delivered vaginally (or by C-section if membranes have been ruptured more than 4–6 hours) to women with active genital HSV infections, until neonatal HSV infection has been ruled out</td>
<td>NOTIFY POPULATION &amp; PUBLIC HEALTH</td>
</tr>
<tr>
<td>Herpes simplex virus</td>
<td>Mucocutaneous: disseminated or primary and extensive (gingivostomatitis, eczema herpeticum)</td>
<td>Contact</td>
<td>Skin or mucosal lesions Sexual transmission Mother to child at birth</td>
<td>Direct contact</td>
<td>2 days–2 weeks</td>
<td>While lesions present</td>
<td>Until lesions are dry and crusted</td>
<td></td>
</tr>
<tr>
<td>Herpes zoster (shingles), disseminated</td>
<td>Vesicular skin lesions</td>
<td>Airborne and Contact</td>
<td>Veside fluid, respiratory secretions</td>
<td>Airborne, direct and indirect contact</td>
<td>Until all lesions have crusted and dried</td>
<td>Until all lesions have crusted and dried</td>
<td>HCsWs, roommates and caregivers should be immune to chickenpox Respirators for non-immune persons that must enter susceptible high-risk contacts should receive varicella zoster immunoglobulin as soon as possible, latest within 96 hours of exposure Varicella zoster immunoglobulin may extend the incubation period to 28 days</td>
<td></td>
</tr>
<tr>
<td>Herpes zoster, localized immuno-compromised host</td>
<td>Vesicular skin lesions in dermatomal distribution</td>
<td>Airborne and contact</td>
<td>Veside fluid</td>
<td>Direct and indirect contact, airborne</td>
<td>Until all lesions have crusted and dried and disseminated infection is ruled out</td>
<td>Until 24 hours after antiviral therapy started; then as for localized zoster in normal host</td>
<td>Localized zoster may disseminate in immunocompromised host if not treated HCsWs, roommates and caregivers should be immune to chickenpox Susceptible high-risk (not immune) contacts should receive varicella zoster immunoglobulin as soon as possible, latest within 96 hours of exposure Varicella zoster immunoglobulin may extend the incubation period to 28 days</td>
<td></td>
</tr>
<tr>
<td>Herpes zoster, localized Normal host</td>
<td>Vesicular skin lesions in dermatomal distribution</td>
<td>Routine Contact* and airborne</td>
<td>Veside fluid</td>
<td>Direct and indirect contact, possibly airborne</td>
<td>Until all lesions have crusted and dried</td>
<td>Until all lesions have crusted and dried</td>
<td>*Consider contact and airborne for cases of extensive localized zoster that cannot be covered, in situations where there are varicella susceptible clients/HCsWs.</td>
<td></td>
</tr>
<tr>
<td>Herpes zoster contact</td>
<td>Susceptible contact</td>
<td>Airborne</td>
<td>Respiratory secretions</td>
<td>Airborne</td>
<td>10–21 days</td>
<td>Potentially communicable during last 2 days of incubation period</td>
<td>From 8 days after first contact until 21 days after last contact with rash, regardless of postexposure vaccination (28 days if given varicella zoster immuno-globulin)</td>
<td>Airborne precautions should be taken with neonates born to mothers with varicella onset &lt;5 days before delivery HCsWs, roommates and caregivers should be immune to chickenpox</td>
</tr>
<tr>
<td>Microorganism/ Clinical Presentation</td>
<td>Clinical Presentation/ Potential Pathogens</td>
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<tr>
<td>Histoplasmosis (Histoplasma capsulatum)</td>
<td>Pneumonia, lymphadenopathy, fever</td>
<td>Routine</td>
<td>Infective Material</td>
<td>3–17 days</td>
<td>Not person to person</td>
<td></td>
<td></td>
<td>Acquired from spores in soil</td>
</tr>
<tr>
<td>Hookworm (Necator americanus, Ancylostoma duodenale)</td>
<td>Usually asymptomatic</td>
<td>Routine</td>
<td>Percutaneous; fecal/oral</td>
<td>Few weeks to many months</td>
<td>Not person to person</td>
<td></td>
<td></td>
<td>Larvae must hatch in soil to become infectious</td>
</tr>
<tr>
<td>Human herpesvirus 6 (HHV-6)</td>
<td>See Roseola</td>
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</tr>
<tr>
<td>Human Immunodeficiency virus (HIV)</td>
<td>Asymptomatic; multiple clinical presentations</td>
<td>Routine</td>
<td>Blood, genital secretions, breast milk and certain other body fluids</td>
<td>Mucosal or percutaneous exposure to infective body fluids; Sexual transmission; vertical mother to child</td>
<td>Weeks to years</td>
<td>From onset of infection</td>
<td></td>
<td>Contact OHS or delegate immediately if HCW has percutaneous, non-intact skin or mucous membrane exposure NOTIFY POPULATION &amp; PUBLIC HEALTH</td>
</tr>
<tr>
<td>Human meta-pneumovirus</td>
<td>Respiratory tract infection</td>
<td>Droplet and contact</td>
<td>Respiratory secretions</td>
<td>Large droplets; Direct and indirect contact</td>
<td>3–5 days</td>
<td>Duration of symptoms</td>
<td></td>
<td>May cohort if infected with same virus client should not share room with high-risk roommates (Immunocompromised clients, children with chronic cardiac or lung disease, neonates)</td>
</tr>
<tr>
<td>Human T-cell leukemia virus Human T- lymphotrophic virus (HTLV-I, HTLV-II)</td>
<td>Usually asymptomatic, tropical spastic, paraparesis, lymphoma</td>
<td>Routine</td>
<td>Breast milk, blood and certain other body fluids</td>
<td>Vertical mother to child; mucosal or percutaneous exposure to infective body fluids</td>
<td>Weeks to years</td>
<td>Indefinite</td>
<td></td>
<td>NOTIFY POPULATION &amp; PUBLIC HEALTH</td>
</tr>
<tr>
<td>Impetigo</td>
<td>See draining wounds</td>
<td></td>
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<td>Group A Streptococcus, S. aureus</td>
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<tr>
<td>Infectious mononucleosis</td>
<td>See Epstein-Barr virus</td>
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<tr>
<td>Influenza - Seasonal</td>
<td>Respiratory tract infection</td>
<td>Droplet and contact</td>
<td>Respiratory secretions</td>
<td>Large droplets, direct and indirect contact</td>
<td>1-3 days</td>
<td></td>
<td></td>
<td>If private room is unavailable, consider cohorting clients during outbreaks client should not share room with high-risk roommates (Immunocompromised clients, children with chronic cardiac or lung disease, neonates) Consider antiviral for exposed roommates See 40-70: Influenza and ILI Also, see Guidance: P&amp;I&amp;C Measures for HCWs in Acute Care and Long-term Care Settings at: <a href="http://www.phac-aspc.gc.ca/nois-airp/guide/pubs-eng.php">http://www.phac-aspc.gc.ca/nois-airp/guide/pubs-eng.php</a> For further information for all types of influenza see: <a href="http://www.phac-aspc.gc.ca/influenza/index-eng.php">http://www.phac-aspc.gc.ca/influenza/index-eng.php</a> NOTIFY POPULATION &amp; PUBLIC HEALTH</td>
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<tr>
<td>Influenza-like illness</td>
<td>Influenza, other respiratory viruses</td>
<td>Contact and droplet</td>
<td>Respiratory secretions</td>
<td>Large droplet, direct and indirect contact</td>
<td>Unknown; possibly 1–7 days</td>
<td>Unknown, possibly up to 7 days</td>
<td>Duration of symptoms or until infectious etiology ruled out</td>
<td></td>
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<tr>
<td>Kawasaki disease</td>
<td>Unknown</td>
<td>Routine</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td>NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
</tr>
<tr>
<td>Lassa fever</td>
<td>Unknown</td>
<td>Routine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not known to be transmissible</td>
</tr>
<tr>
<td>Legionella (Legionella spp)</td>
<td>Pneumonia, Legionnaires’ disease, Pontiac fever</td>
<td>Routine</td>
<td></td>
<td></td>
<td>2–10 days</td>
<td>Not person to person</td>
<td></td>
<td>Acquired from contaminated water sources (inhalation not ingestion)</td>
</tr>
<tr>
<td>Leptospirosis (Leptospira spp)</td>
<td>Fever, jaundice, aseptic meningitis</td>
<td>Routine</td>
<td></td>
<td></td>
<td>2–30 days</td>
<td>Direct person to person transmission is rare</td>
<td></td>
<td>Acquired from contact with animals</td>
</tr>
<tr>
<td>Lice (pediculosis)</td>
<td>Scalp or body itch, itchy rash</td>
<td>Contact Client to wear a hair net</td>
<td>Louse</td>
<td>Head and body lice: direct and indirect contact</td>
<td>6–10 days</td>
<td>Until effective treatment to kill lice and ova</td>
<td>Until 24–48 hours after application of appropriate pediculicide; applied as directed</td>
<td>Apply pediculicides as directed on label. If live lice found after therapy, repeat head lice: wash headgear, combs, pillowcases, towels with hot water or dry clean or seal in plastic bag and store for 10 days. Body lice: as above, for all exposed clothing and bedding</td>
</tr>
<tr>
<td>Listeriosis (Listeria monocytogenes)</td>
<td>Fever, meningitis</td>
<td>Routine</td>
<td></td>
<td>Foodborne; Vertical mother to child in utero or at birth</td>
<td>mean 21 days; 3–70 days following a single exposure to an implicated food product</td>
<td></td>
<td></td>
<td>Pregnant women and immunocompromised persons should avoid cheese made with unpasteurized milk, cold cuts and uncooked meat products, including hot dogs. Listeria grows well at low temperatures and is able to multiply in refrigerated foods that are contaminated. Nosocomial outbreaks reported in newborn nurseries due to contaminated equipment or materials</td>
</tr>
<tr>
<td>Lyme disease (Borrelia burgdorferi)</td>
<td>Fever, arthritis, rash, meningitis</td>
<td>Routine</td>
<td></td>
<td>Tickborne</td>
<td>To initial rash: 3–12 days; mean 7–10 days</td>
<td>Not person to person</td>
<td></td>
<td>NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
</tr>
<tr>
<td>Lymphocytic choriomeningitis virus</td>
<td>Aseptic meningitis</td>
<td>Routine</td>
<td>Urine of rodents</td>
<td>Range of 3–30 days for a primary lesion</td>
<td></td>
<td></td>
<td></td>
<td>Acquired from contact with rodents</td>
</tr>
<tr>
<td>Lymphogranuloma venereum</td>
<td>Genital ulcers, inguinal adenopathy</td>
<td>Routine</td>
<td></td>
<td>Sexually transmitted</td>
<td>6–21 days</td>
<td>Not person to person</td>
<td></td>
<td>NOTIFY POPULATION &amp; PUBLIC HEALTH</td>
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<tr>
<td>Malaria (Plasmodium sp.)</td>
<td>Fever</td>
<td>Routine</td>
<td>Blood</td>
<td>Mosquito-borne; rarely transplacental from mother to fetus; blood transfusion</td>
<td>Variable; 9–14 days for P. falciparum</td>
<td>Not normally person to person</td>
<td>4 days after start of rash; duration of symptoms in immunocompromised clients</td>
<td>Can be transmitted via blood transfusion. NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
</tr>
<tr>
<td>Marburg virus</td>
<td>See Viral hemorrhagic fever</td>
<td></td>
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</tr>
<tr>
<td>Measles (Rubeola)</td>
<td>Susceptible contact</td>
<td>Airborne</td>
<td>Respiratory</td>
<td>Airborne</td>
<td>7–18 days to onset of fever; rarely as long as 21 days</td>
<td>5 days before onset of rash (1–2 days before onset of initial symptoms) until 4 days after onset of rash (longer in immunocompromised clients)</td>
<td>4 days after start of rash; duration of symptoms in immunocompromised clients</td>
<td>Only immune HCWs, caretakers and visitors should enter the room. Respirator needed for non-immune persons who must enter. Precautions should be taken with neonates born to mothers with measles infection at delivery. Immunoprophylaxis is indicated for susceptible contacts. Refer to Canadian Immunization Guide 7th Ed., 2006 for specific information available at: <a href="http://www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php">http://www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php</a>. NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
</tr>
<tr>
<td>Melioidosis (Pseudomonas pseudomallei)</td>
<td>Pneumonia, fever</td>
<td>Routine</td>
<td>Contaminated soil</td>
<td>Variable</td>
<td></td>
<td></td>
<td></td>
<td>Person-to-person has not been proven. Organism in soil in Southeast Asia.</td>
</tr>
<tr>
<td>Meningococcus</td>
<td>Rash (petechial/purpuric) with fever</td>
<td>Droplet</td>
<td>Respiratory</td>
<td>Large droplet, direct contact</td>
<td>Until 24 hours of appropriate antimicrobial therapy received</td>
<td>*Pediatrics: precautions for both bacterial and viral until etiology established. Droplet if viral etiology established. Contact precautions apply to children who are incontinent or unable to comply with hygiene. NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
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<tr>
<td>Meningitis</td>
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<td></td>
<td></td>
<td></td>
<td>*Rule out associated respiratory TB</td>
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<td></td>
<td></td>
<td></td>
<td>*May be associated with measles, mumps, varicella, HSV. If identified, take appropriate precautions for associated disease.</td>
</tr>
<tr>
<td>Microorganism/ Clinical Presentation</td>
<td>Clinical Presentation/ Potential Pathogens</td>
<td>Precautions</td>
<td>Infective Material</td>
<td>Route of Transmission</td>
<td>Incubation Period</td>
<td>Period of Communicability</td>
<td>Duration of Precautions</td>
<td>Comments</td>
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<tr>
<td>Metapneumovirus</td>
<td>See Human metapneumovirus</td>
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<tr>
<td>Methicillin-resistant Staphylococcus aureus (MRSA)</td>
<td>See ARO (Antimicrobial-resistant organisms)</td>
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</tr>
<tr>
<td>Molluscum contagiosum</td>
<td>Umbilicated papules</td>
<td>Routine</td>
<td>Contents of papules</td>
<td>Direct contact</td>
<td>2 weeks to 6 months</td>
<td>Unknown</td>
<td>Close direct personal contact needed for transmission</td>
<td></td>
</tr>
<tr>
<td>Monkeypox</td>
<td>Resembles smallpox; lymphadenopathy is a more predominant feature</td>
<td>Contact*, droplet and airborne</td>
<td>Lesions and respiratory secretions</td>
<td>Contact with infected animals; possible airborne transmission from animals to humans</td>
<td>*Contact: until all lesions crusted</td>
<td>Transmission in hospital settings is unlikely. See <a href="http://www.cdc.gov/ncidod/monkeypox">http://www.cdc.gov/ncidod/monkeypox</a> for current recommendations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mucormycosis (phycomycosis; zygomycosis) (Mucor, Zygomycetes)</td>
<td>Skin, wound, rhinocerebral, pulmonary, gastrointestinal, disseminated infection*</td>
<td>Routine</td>
<td>Fungal spores in dust and soil</td>
<td>Inhalation or ingestion of fungal spores</td>
<td>Unknown</td>
<td>Not person to person</td>
<td>Acquired from spores in dust, soil</td>
<td></td>
</tr>
<tr>
<td>Mumps</td>
<td>Swelling of salivary glands, orchitis, meningitis</td>
<td>Droplet</td>
<td>Saliva</td>
<td>Large droplets, direct contact</td>
<td>Usually 16–18 days; range 14–25 days</td>
<td>Viral excretion highest 2 days before to 5 days after onset or parotitis</td>
<td>Until 5 days after onset of parotitis</td>
<td>Droplet precautions for exposed susceptible clients/HCWs should begin 10 days after first contact and continue through 26 days after last exposure For outbreaks, see: <a href="http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/10pdf/36s1-eng.pdf">http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/10pdf/36s1-eng.pdf</a></td>
</tr>
<tr>
<td>Mycobacterium non-TB (atypical)</td>
<td>Lymphadenitis; pneumonia; disseminated disease in immunocompromised host</td>
<td>Routine</td>
<td>Unknown</td>
<td>Not person to person</td>
<td>Acquired from soil, water, animal, reservoirs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mycobacterium tuberculosis</td>
<td>Confirmed or suspected respiratory (including pleural, laryngeal)</td>
<td>Airborne*</td>
<td>Respiratory secretions</td>
<td>Airborne</td>
<td>Weeks to years</td>
<td>Until deemed no longer infectious by TB Prevention and Control</td>
<td>TB in young children is not as transmissible; due to lack of cavitary disease and weak cough. However, if strongly suspicious of adult-type pulmonary tuberculosis - airborne isolation with special high filtration tight-fitting mask (i.e., N95, etc.). Consult TB Prevention and Control for further guidance and notify IP&amp;C. Assess visiting family members for cough Canadian Tuberculosis Standards, <a href="http://www.phac-aspc.gc.ca/tbpc-latb/pubs/tbstand07-eng.php">http://www.phac-aspc.gc.ca/tbpc-latb/pubs/tbstand07-eng.php</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nonpulmonary: meningitis, bone or joint infection with no drainage</td>
<td>Routine</td>
<td>Non communicable</td>
<td></td>
<td></td>
<td></td>
<td>Most clients with nonpulmonary disease alone are noncontagious; it is important to assess for concurrent pulmonary TB. CONSULT TB PREVENTION &amp; CONTROL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nonpulmonary: skin or soft tissue draining lesions</td>
<td>Routine, Airborne*</td>
<td>Aerosolized wound drainage</td>
<td></td>
<td></td>
<td></td>
<td>*Airborne precautions if procedures that may aerosolize drainage are being performed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PPD skin test positive with no evidence of current pulmonary disease</td>
<td>Routine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CONSULT TB PREVENTION &amp; CONTROL</td>
<td></td>
</tr>
<tr>
<td>Microorganism/ Clinical Presentation</td>
<td>Clinical Presentation/ Potential Pathogens</td>
<td>Precautions</td>
<td>Infective Material</td>
<td>Route of Transmission</td>
<td>Incubation Period</td>
<td>Period of Communicability</td>
<td>Duration of Precautions</td>
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<tr>
<td>Mycoplasma pneumoniae</td>
<td>Pneumonia</td>
<td>Droplet</td>
<td>Respiratory secretions</td>
<td>Large droplets</td>
<td>1–4 weeks</td>
<td>Unknown</td>
<td>Duration of symptoms</td>
<td></td>
</tr>
<tr>
<td>Necrotizing enterocolitis</td>
<td>Unknown, probably many organisms</td>
<td>Routine</td>
<td></td>
<td></td>
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<tr>
<td>Necrotizing fasciitis</td>
<td>See Streptococcus, Group A</td>
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</tr>
<tr>
<td>Neisseria gonorrhoeae</td>
<td>Urethritis, cervicitis, pelvic inflammatory disease, arthritis, ophthalmia neonatorum, conjunctivitis</td>
<td>Routine</td>
<td>Sexual transmission</td>
<td>Mother to child at birth</td>
<td>Rarely: direct/indirect contact</td>
<td>2–7 days</td>
<td>May extend for months if untreated</td>
<td>NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
</tr>
<tr>
<td>Neisseria meningitidis</td>
<td>See Meningococcus</td>
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<tr>
<td>Nocardiosis (Nocardia sp.)</td>
<td>Fever, pulmonary or CNS infection or disseminated disease</td>
<td>Routine</td>
<td></td>
<td></td>
<td>Unknown</td>
<td>Not person to person</td>
<td>Acquired from organisms in dust, soil</td>
<td></td>
</tr>
<tr>
<td>Noroviruses (Norwalk-like agents, caliciviruses)</td>
<td>Nausea, vomiting, diarrhea</td>
<td>Contact</td>
<td>Feces</td>
<td>Direct and indirect contact (fecal/oral)</td>
<td>Usually 24–48 hours; range of 10–50 hours</td>
<td>Duration of viral shedding; usual 48 hours after diarrhea resolves</td>
<td>48 hours after resolution of illness</td>
<td>During outbreaks, special attention should be made to cleaning. See PHAC, RPAP (2012), Appendix VI 3. Viral Gastroenteritis</td>
</tr>
<tr>
<td>Orf (poxvirus)</td>
<td>Skin lesions</td>
<td>Routine</td>
<td></td>
<td></td>
<td>Generally 3–6 days</td>
<td>Not person to person</td>
<td>Acquired from infected animals.</td>
<td></td>
</tr>
<tr>
<td>Osteomyelitis</td>
<td>*H. influenzae type B possible in non-immune infant &lt;2 years of age, S. aureus, other bacteria</td>
<td>ADULT: Routine</td>
<td>PAEDIATRIC: Droplet if H. influenzae type B possible; otherwise routine</td>
<td>Respiratory secretions</td>
<td>Large droplets, direct and indirect contact</td>
<td>2-6 days</td>
<td>1-3 weeks</td>
<td>Duration of symptoms</td>
</tr>
<tr>
<td>Otitis, draining see draining wound</td>
<td></td>
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<tr>
<td>Parainfluenza virus</td>
<td>Respiratory tract infection</td>
<td>Droplet and contact</td>
<td>Respiratory secretions</td>
<td>Large droplets, direct and indirect contact</td>
<td>2-6 days</td>
<td>1-3 weeks</td>
<td>Duration of symptoms</td>
<td></td>
</tr>
<tr>
<td>Paroxysmal cough, suspected pertussis</td>
<td>*Bordetella pertussis, Bordetella parapertussis</td>
<td>Droplet</td>
<td>Respiratory secretions</td>
<td>Large droplets</td>
<td></td>
<td></td>
<td></td>
<td>Close contacts (household and HCWs) may need chemoprophylaxis and/or immunization. Refer to Canadian Immunization Guide 7th Ed., 2006 for specific information available at: <a href="http://www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php">http://www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php</a></td>
</tr>
<tr>
<td>Parvovirus B-19 Human parvovirus</td>
<td>Erythema infectiosum (fifth disease), aplastic or erythrocytic crisis</td>
<td>Routine: fifth disease</td>
<td>Droplet: aplastic crisis or chronic infection in immuno-compromised client</td>
<td>Respiratory secretions</td>
<td>Large droplets, direct contact Vertical mother to fetus</td>
<td>4-21 days to onset of rash</td>
<td>Fifth disease: no longer infectious by the time the rash appears. Aplastic crisis: up to 1 week after onset of crisis. Chronic infection: months to years</td>
<td>Aplastic or erythrocytic crisis: 7 days. Chronic infection in immuno-compromised client: duration of hospitalization</td>
</tr>
<tr>
<td>Pediculosis</td>
<td>See Lice</td>
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<tr>
<td>Microorganisms/ Clinical Presentation</td>
<td>Clinical Presentation/ Potential Pathogens</td>
<td>Precautions</td>
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<td>Duration of Precautions</td>
<td>Comments</td>
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<tr>
<td>Pertussis (Bordetella pertussis, Bordetella parapertussis)</td>
<td>Whooping cough, non-specific respiratory tract infection in infants, adolescents and adults</td>
<td>Droplet</td>
<td>Respiratory secretions</td>
<td>Large droplets</td>
<td>Average 9–10 days; range 6–20 days</td>
<td>To 3 weeks after onset of paroxysms if not treated; or until 5 days of appropriate antimicrobial therapy received</td>
<td>To 3 weeks after onset of paroxysms if not treated; or until 5 days of appropriate antimicrobial therapy received</td>
<td>Close contacts (household and HCWs) may need chemoprophylaxis and/or immunization. If HCWs immunization not up to date, refer to OHS and/or delegate. Refer to Canadian Immunization Guide 7th Ed., 2006 for specific information available at: <a href="http://www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php">http://www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php</a>.</td>
</tr>
<tr>
<td>Pharyngitis</td>
<td>Group A Streptococcus, viral, Corynebacterium diphtheriae</td>
<td>Droplet and contact</td>
<td>Respiratory secretions</td>
<td>Direct and indirect contact; large droplets</td>
<td></td>
<td>Duration of symptoms; if Group A Streptococcus until 24 hours of antimicrobial therapy received</td>
<td></td>
<td>If diphtheria suspected.</td>
</tr>
<tr>
<td>Pinworms</td>
<td>See Enterobius</td>
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</tr>
<tr>
<td>Plague (Yersinia pestis)</td>
<td></td>
<td>Routine</td>
<td>Rodents and their fleas</td>
<td>1–7 days</td>
<td></td>
<td></td>
<td></td>
<td>NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
</tr>
<tr>
<td>Pneumocystis jiroveci (carinii)</td>
<td></td>
<td>Routine</td>
<td>Unknown</td>
<td>Unknown</td>
<td></td>
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<tr>
<td>Pneumonia</td>
<td>Viruses, <strong>pertussis</strong>, Mycoplasma, Streptococcus pneumoniae, H. influenzae type B, S. aureus, group A Streptococcus, Gram-negative enteric rods, **Chlamydia, Legionella, Pneumocystis, other fungi, other agents</td>
<td>ADULT: Routine* PAEDIATRIC: Contact</td>
<td>Feces, respiratory secretions</td>
<td>Direct and indirect contact (fecal/oral)</td>
<td></td>
<td>Duration of symptoms</td>
<td></td>
<td>*Routine for adults unless clinical, epidemiologic or microbiologic data to necessitate droplet precautions (i.e., on contact and droplet for viral etiologies). **MINIMIZE EXPOSURE OF IMMUNOCOMPROMISED CLIENTS, CLIENTS WITH CHRONIC CARDIAC OR LUNG DISEASE, NEONATES ** &amp; INVASIVE DISEASE: NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
</tr>
<tr>
<td>Pseudomembranous colitis</td>
<td>C. difficile</td>
<td>Contact</td>
<td>Feces</td>
<td>Direct and indirect contact (fecal/oral)</td>
<td></td>
<td>From 5 days after first exposure through 21 days after last exposure regardless of postexposure prophylaxis</td>
<td>Until 72 hours after stool is normal</td>
<td></td>
</tr>
<tr>
<td>Poliomyelitis infantile paralysis</td>
<td>Fever, aseptic meningitis, flaccid paralysis</td>
<td>Contact</td>
<td>Feces, respiratory secretions</td>
<td>Direct and indirect contact</td>
<td>3–35 days</td>
<td>Virus in the throat for approximately 1 week and in feces for 3–6 weeks</td>
<td>Until 6 weeks from onset of symptoms or until feces viral culture negative</td>
<td>Most infectious during the days before and after onset of symptoms. Close contacts who are not immune should receive immunoprophylaxis. **NOTIFY POPULATION &amp; PUBLIC HEALTH. **</td>
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<tr>
<td>Prion disease</td>
<td>See Creutzfeldt-Jakob disease</td>
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<tr>
<td>Psittacosis</td>
<td>See Chlamydia psittaci</td>
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<tr>
<td>Q fever (Coxiella burnetii)</td>
<td>Pneumonia, fever</td>
<td>Routine</td>
<td>Infected animals, milk</td>
<td>Direct contact with infected animals; raw milk Airborne from aerosolized contaminated dust</td>
<td>14–39 days</td>
<td>Not person to person</td>
<td></td>
<td>Acquired from contact with infected animals or from ingestion of raw milk. **NOTIFY POPULATION &amp; PUBLIC HEALTH. **</td>
</tr>
</tbody>
</table>
| Microorganisms/  
Clinical Presentation | Clinical Presentation/  
Potential Pathogens | Precautions | Infective Material | Route of  
Transmission | Incubation  
Period | Period of  
Communicability | Duration of Precautions | Comments |
|------------------------|------------------------|-------------|-------------------|----------------|----------------|-----------------|-------------------|-----------------|
| Rabies                 | Acute encephalomyelitis | Routine     | Saliva            | Mucosal or  
percutaneous  
exposure to saliva;  
corneal, tissue and  
organ transplantation | Usually 3–8  
weeks, rarely as  
short as 9 days  
or as long as 7  
years | Person-to-person  
transmission is  
theoretically possible,  
but rare and not well  
documented | Acquired from contact with infected animals  
Postexposure prophylaxis is recommended for  
percutaneous or mucosal exposure to saliva of  
rabid animal or client  
NOTIFY POPULATION & PUBLIC HEALTH. |
| Rash compatible with  
scurvies                  | Sarcoptes scabiei     | Contact        | Mites             | Direct and indirect contact | If confirmed, until 24 hours after initiation of appropriate therapy | For typical scabies, routine (use gloves and gown for direct client contact only)  
See scabies |
| Rash (maculopapular) with  
fever and one of coryza,  
conjunctivitis or cough | Measles               | Airborne       | Respiratory  
secretions | Airborne | If confirmed, until 4 days after onset of rash | See measles |
| Rash (petechial/purpuric)  
with fever               | *Neisseria meningitidis | Droplet if N. meningitidis suspected,  
otherwise routine | Respiratory  
secretions | Large droplets,  
direct contact | Discontinue if Neisseria meningitidis ruled out  
If N. meningitidis confirmed, until 24 hours of appropriate  
antimicrobial therapy received  
NOTIFY POPULATION & PUBLIC HEALTH |
| Rash (vesicular) with fever | Varicella         | Airborne and contact | Respiratory  
secretions, skin  
lesion drainage | Airborne, direct  
and indirect contact | If confirmed, until all lesions are dry  
See varicella |
| Rash, vesicular/pustular in  
appropriate epidemiologic  
context until smallpox,  
disseminated vaccinia and  
monkeypox ruled out  
| Smallpox, disseminated vaccinia,  
monkeypox | Contact, droplet and  
airborne | Lesions and  
respiratory  
secretions (monkeypox)  
Skin lesion exudate,  
oropharyngeal  
secretions (smallpox,  
disseminated vaccinia) | | | |
| Rat bite fever  
Actinobacillus  
(formerly Streptobacillus  
molliformis)  
Spirillum minus | Fever, arthralgia     | Routine     | Saliva of infected rodents;  
contaminated milk | Rodent bite,  
ingestion of contaminated milk | A. moniliformis  
days 3–10 days,  
rarely longer; S.  
minus 2–3 weeks | Not person to person  
A. moniliformis: rats and other animals, contaminated milk  
S. minus: rats, mice only |
| Relapsing fever  
(Borreliar recurrentis, other  
Borreliar species)  
| Recurrent fevers       | Routine     | Vector-borne | Not person to person | Spread by ticks or lice  
NOTIFY POPULATION & PUBLIC HEALTH. |
| Respiratory syncytial virus  
(RSV) | Respiratory tract infection | Droplet and contact | Respiratory  
secretions | Large droplets,  
direct and indirect contact | 2-8 days  
Shortly before and for  
the duration of active  
disease | Duration of symptoms | May cohort if infected with same virus client should not share room with high-risk roommates  
(Immunocompromised clients, children with chronic cardiac or lung disease, neonates) |
| Reye's syndrome | May be associated with viral  
infection, especially influenza,  
vaccine | | | | | | Precautions for known or suspected associated viral infection |
| Rhinovirus | Respiratory tract infection,  
common cold | Contact and droplet | Respiratory  
secretions | Direct and indirect contact, possibly  
large droplets | 2–3 days  
Until symptoms cease | Duration of symptoms | May cohort if infected with same virus client should not share room with high-risk roommates  
(Immunocompromised clients, children with chronic cardiac or lung disease, neonates) |
| Rickettsialpox  
(Rickettsia akari) | Fever, rash     | Routine     | Mite-borne | 9–14 days | Not person to person | Transmitted by mouse mites  
NOTIFY POPULATION & PUBLIC HEALTH. |
<table>
<thead>
<tr>
<th>Microorganisms/ Clinical Presentation</th>
<th>Clinical Presentation/ Potential Pathogens</th>
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<th>Infective Material</th>
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<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rickettsia prowazekii Epidemic louse-borne fever</td>
<td>Fever, rash</td>
<td>Routine</td>
<td>Human body louse</td>
<td>Louse borne</td>
<td>1–2 weeks</td>
<td></td>
<td></td>
<td>Person-to-person through close personal contact, not transmitted in absence of louse NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
</tr>
<tr>
<td>Ringworm</td>
<td>See Tinea</td>
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</tr>
<tr>
<td>Rocky Mountain spotted fever (Rickettsia rickettsia)</td>
<td>Fever, petechial rash, encephalitis</td>
<td>Routine</td>
<td>Tick-borne</td>
<td>3–14 days</td>
<td>Not transmitted from person to person, except rarely through transfusion</td>
<td></td>
<td></td>
<td>NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
</tr>
<tr>
<td>Roseola infantum (HHV-6)</td>
<td>Rash, fever</td>
<td>Routine</td>
<td>Saliva</td>
<td>Direct contact</td>
<td>10 days</td>
<td>Unknown</td>
<td></td>
<td>Close direct personnel contact needed for transmission</td>
</tr>
<tr>
<td>Rotavirus</td>
<td>Diarrhea</td>
<td>Contact</td>
<td>Feces</td>
<td>Direct and indirect contact (fecal/oral)</td>
<td>1–3 days</td>
<td>Duration of viral shedding</td>
<td>Duration of symptoms</td>
<td></td>
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<tr>
<td>Roundworm</td>
<td>See Ascariasis</td>
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<tr>
<td>Rubella, acquired</td>
<td>Fever, maculopapular rash</td>
<td>Droplet</td>
<td>Respiratory secretions</td>
<td>Large droplets, direct contact</td>
<td>14–21 days</td>
<td>For about 1 week before and after onset of rash.</td>
<td>Until 7 days after onset of rash</td>
<td>Only immune HCWs, caretakers and visitors should enter the room. Pregnant HCWs should not care for rubella clients, regardless of their immune status. If it is essential for a non-immune person to enter the room, facial protection should be worn. Droplet precautions should be maintained for exposed susceptible clients from 7 days after first contact through to 21 days after last contact. Administer vaccine to exposed susceptible non-pregnant persons within 3 days of exposure. Refer to Canadian Immunization Guide 7th Ed., 2006 for specific information available at: <a href="http://www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php">http://www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php</a>. Exclude susceptible HCWs from duty from day 7 after first exposure to day 21 after last exposure, regardless of postexposure vaccination.</td>
</tr>
<tr>
<td>Rubella, congenital</td>
<td>Congenital rubella syndrome</td>
<td>Droplet and contact</td>
<td>Respiratory secretions, urine</td>
<td>Direct and indirect contact; large droplets</td>
<td>Prolonged shedding in respiratory tract and urine; can be up to one year</td>
<td>Until one year of age, unless nasopharyngeal and urine cultures done after 3 months of age are negative</td>
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<tr>
<td>Rubeola</td>
<td>See Measles</td>
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<tr>
<td>Salmonella (including Salmonella Typhi)</td>
<td>Diarrhea, enteric fever, typhoid fever, food poisoning</td>
<td>ADULT: Routine*</td>
<td>Feces</td>
<td>Direct and indirect contact (fecal/oral); foodborne</td>
<td>6–72 hours</td>
<td>Variable</td>
<td>Duration of symptoms</td>
<td>*Consider contact precautions for incontinent adults if stool cannot be contained or for adults with poor hygiene who contaminate their environment. Contact precautions apply to children who are incontinent or unable to comply with hygiene.</td>
</tr>
<tr>
<td>Scabies (Sarcoptes scabiei)</td>
<td>Itchy skin rash</td>
<td>Contact</td>
<td>Mite</td>
<td>Direct and indirect contact</td>
<td>Without previous exposure, 2–6 weeks; 1–4 days after re-exposure</td>
<td>Until mites and eggs are destroyed by treatment, usually after 1 or occasionally 2 courses of treatment, 1 week apart</td>
<td>Until 24 hours after initiation of appropriate therapy</td>
<td>Apply scabicide as directed on label. Wash clothes and bedding in hot water, dry clean or seal in a plastic bag, and store for 1 week. Household contacts should be treated</td>
</tr>
<tr>
<td>Scalded skin syndrome (Ritter’s Disease)</td>
<td>Routine</td>
<td></td>
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<td>Major: Use aseptic technique</td>
</tr>
</tbody>
</table>

*Consider contact precautions for incontinent adults if stool cannot be contained or for adults with poor hygiene who contaminate their environment. Contact precautions apply to children who are incontinent or unable to comply with hygiene. NOTIFY POPULATION & PUBLIC HEALTH.
<table>
<thead>
<tr>
<th>Microorganisms/ Clinical Presentation</th>
<th>Clinical Presentation/ Potential Pathogens</th>
<th>Precautions</th>
<th>Infective Material</th>
<th>Route of Transmission</th>
<th>Incubation Period</th>
<th>Period of Communicability</th>
<th>Duration of Precautions</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scarlet fever</td>
<td>See Group A Streptococcus</td>
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</tr>
<tr>
<td>Schistosomiasis</td>
<td>(bilharziasis)</td>
<td>Diarrhea, fever, itchy rash Hepatopleno-megaly, hematuria</td>
<td>Routine</td>
<td></td>
<td>Not person to person</td>
<td></td>
<td></td>
<td>Contact with larvae in contaminated water.</td>
</tr>
<tr>
<td>Septic arthritis</td>
<td>H. influenzae type B possible in non-immune infant &lt;2 years of age; S. aureus, Streptococcus pneumoniae, group A Streptococcus, N gonorrhoea, other bacteria</td>
<td>ADULT: Routine PAEDIATRIC: Droplet if H. influenzae type B possible; otherwise routine Respiratory secretions for H. influenzae type B Large droplet, direct contact H. influenzae type B</td>
<td></td>
<td></td>
<td>Until 24 hours of appropriate antimicrobial therapy received or until H. influenzae type B ruled out</td>
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<tr>
<td>Severe respiratory illness</td>
<td>See febrile respiratory illness</td>
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<tr>
<td>Severe acute respiratory syndrome</td>
<td>(SARS coronavirus)</td>
<td>Malaise, myalgia, headache, fever, respiratory symptoms (cough, increasing shortness of breath), pneumonia, acute respiratory distress syndrome</td>
<td>Contact and droplet* AGMP Respiratory secretions, stool Droplet, direct and indirect contact Aerosols during AGMP</td>
<td>3–10 days</td>
<td>Not yet determined; suggested to be less than 21 days</td>
<td>10 days following resolution of fever if respiratory symptoms have also resolved</td>
<td>*AGMP, see strategies to reduce aerosol generation, see PHAC, RPAP (2012), Part B, Section IV, subsection iii, 1b May cohort if infected with same virus. Client should not share room with high-risk roommates (Immunocompromised clients, children with chronic cardiac or lung disease, neonates). NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
<td></td>
</tr>
<tr>
<td>Shigella</td>
<td></td>
<td>Diarrhea</td>
<td>ADULT: Routine* PAEDIATRIC: Contact</td>
<td>Feces</td>
<td>Direct and indirect contact (fecal/oral)</td>
<td>1–3 days</td>
<td>Usually 4 weeks if not treated</td>
<td>Duration of symptoms</td>
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<tr>
<td>Shingles</td>
<td>See herpes zoster</td>
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<tr>
<td>Skin infection</td>
<td>See cellulitis</td>
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<tr>
<td>Smallpox</td>
<td>(variola virus) Generalized vaccinia, eczema vaccinatum See Vaccinia for management of vaccinated persons</td>
<td>Fever, vesicular/pustular in appropriate epidemiologic context Skin lesion exudate, oropharyngeal secretions Airborne, direct and indirect contact</td>
<td>Droplet, contact and airborne</td>
<td>Skin lesion exudate, oropharyngeal secretions Airborne, direct and indirect contact</td>
<td>7–10 days</td>
<td>Onset of mucosal lesions, until all skin lesions have crusted</td>
<td>Until all scabs have crusted and separated (3–4 weeks)</td>
<td>Immunization of HCWs was stopped in 1977 Refer to Canadian Immunization Guide 7th Ed., 2006 for information regarding vaccine, <a href="http://www.phac-aspc.gc.ca/publicat/cig-ksi/index-eng.php">http://www.phac-aspc.gc.ca/publicat/cig-ksi/index-eng.php</a> NACI Statement on Smallpox Vaccination, <a href="http://www.phac-aspc.gc.ca/publicat/cdr-rmtz/02vol28/28sup/ac31.html">http://www.phac-aspc.gc.ca/publicat/cdr-rmtz/02vol28/28sup/ac31.html</a> Care preferably should be provided by immuned HCWs; non-vaccinated HCWs should not provide care if immune HCWs are available Respirator for all regardless of vaccination status NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
</tr>
<tr>
<td>Sporotrichosis</td>
<td>(Sporothrix schenckii)</td>
<td>Skin lesions, disseminated</td>
<td>Routine</td>
<td>Variable</td>
<td>Rare person to person</td>
<td>Acquired from spores in soil, on vegetation</td>
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<tr>
<td>Staphylococcus aureus</td>
<td>(if methicillin-resistant, see also ARO)</td>
<td>Endometritis</td>
<td>Routine</td>
<td>Variable</td>
<td>As long as organism is in the exudates or drainage</td>
<td>Until drainage resolved or contained by dressings</td>
<td>*MAJOR: drainage not contained by dressings INVASIVE: NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
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<td></td>
<td></td>
<td>Food poisoning</td>
<td>Routine</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Pneumonia</td>
<td>ADULT: Routine PAEDIATRIC: Droplet Respiratory secretions Large droplets, direct contact</td>
<td>Variable</td>
<td>Until 24 hours of appropriate antimicrobial therapy received</td>
<td></td>
<td>NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
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<tr>
<td>Streptococcus, Group A (Streptococcus pyogenes)</td>
<td>Group A Streptococcus endometritis (puerperal fever)</td>
<td>Routine</td>
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<tr>
<td></td>
<td>Group A Streptococcus toxic shock, invasive disease (including necrotizing fasciitis, myositis, meningitis, pneumonia)</td>
<td>Droplet and contact</td>
<td>Respiratory secretions, wound drainage</td>
<td></td>
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<td>Chemo prophylaxis may be indicated for close contacts of clients with invasive disease or toxic shock syndrome For further information see: <a href="http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/06pdf/32s2_e.pdf">http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/06pdf/32s2_e.pdf</a></td>
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<tr>
<td>Streptococcus, Group B (Streptococcus agalactiae)</td>
<td>Group B Streptococcus newborn sepsis, pneumonia, meningitis</td>
<td>Routine</td>
<td></td>
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<td>Early onset: 1–7 days of age; late onset: 7 days to 3 months of age</td>
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<td>Normal flora</td>
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<tr>
<td>Streptococcus pneumoniae</td>
<td>Pneumonia, meningitis and other</td>
<td>Routine</td>
<td>Organism in skin or hair</td>
<td>Direct contact</td>
<td></td>
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<tr>
<td>Strongyloides (Strongyloides stercoralis)</td>
<td>Usually asymptomatic</td>
<td>Routine</td>
<td>Larvae in feces</td>
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<td></td>
<td>Infective larvae in soil May cause disseminated disease in immuno-compromised client</td>
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<tr>
<td>Syphilis (Treponema pallidum)</td>
<td>Genital, skin or mucosal lesions, disseminated disease, neurological or cardiac disease; latent infection</td>
<td>Routine</td>
<td>Gloves for direct contact with skin lesions</td>
<td>Infectious exudates</td>
<td>10–50 days; usually 3 weeks</td>
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<td>When moist mucocutaneous lesions of primary and secondary syphilis are present</td>
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<tr>
<td>Tapeworm (Taenia saginata, Taenia solium, Diphyllobothrium latum)</td>
<td>Usually asymptomatic</td>
<td>Routine</td>
<td>Larvae in food</td>
<td>Foodborne</td>
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<td></td>
<td>Not transmissible person to person</td>
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<tr>
<td>Tapeworm (Hymenolepis nana)</td>
<td>Usually asymptomatic</td>
<td>Routine</td>
<td>Ova in rodent or human feces</td>
<td>Direct contact (fecal/oral)</td>
<td>2–4 weeks</td>
<td>While ova in feces</td>
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<tr>
<td>Tetanus (Clostridium tetani)</td>
<td>Tetanus</td>
<td>Routine</td>
<td></td>
<td></td>
<td>1 day to several months</td>
<td>Not person to person</td>
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<tr>
<td>Tinea (Dermatophytosis) (Trichophyton sp., Microsporum sp., Epidermophyton sp., Malassezia furfur)</td>
<td>Ringworm (skin, beard, scalp, groin, perineal region); athletes foot, pityriasis versicolor</td>
<td>Routine</td>
<td>Organism in skin or hair</td>
<td>Direct skin-to-skin contact</td>
<td>Variable; 4–14 days</td>
<td>While lesion present</td>
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<tr>
<td>Toxic shock syndrome</td>
<td>S. aureus, Group A Streptococcus</td>
<td>Droplet*</td>
<td>Routine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*Droplet for first 24 hours of antimicrobial therapy if invasive group A streptococcal infection suspected. See draining wound if drainage or pus.</td>
</tr>
<tr>
<td>Toxicosis</td>
<td>Toxocara canis, Toxocara (cat)</td>
<td>Fever, wheeze, rash, eosinophilia</td>
<td>Routine</td>
<td>Ova in dog/cat feces</td>
<td>Unknown</td>
<td>Not person to person</td>
<td></td>
<td>Acquired from contact with dogs, cats.</td>
</tr>
<tr>
<td>Toxoplasmosis</td>
<td>Toxoplasma gondii</td>
<td>Asymptomatic, fever, lymphadenopathy; retinitis, encephalitis in immunocompromised host; congenital infection</td>
<td>Routine</td>
<td>Intrauterine transmission from mother to foetus; transplantation of stem cells or organs</td>
<td>5–23 days</td>
<td></td>
<td></td>
<td>Acquired by contact with infected felines or soil contaminated by felines, consumption of raw meat, contaminated raw vegetables or contaminated water. NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
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<tr>
<td>Trachoma</td>
<td>see Chlamydia trachomatis</td>
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<tr>
<td>Transmissible spongiform encephalopathy</td>
<td>See Creutzfeld-Jacob disease</td>
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<tr>
<td>Trench fever</td>
<td>Bartonella quintana</td>
<td>Relapsing fevers, rash</td>
<td>Routine</td>
<td>Feces of human body lice</td>
<td>Louse-borne</td>
<td>Not person to person in the absence of lice</td>
<td>7–30 days</td>
<td></td>
</tr>
<tr>
<td>Trichinosis</td>
<td>Trichinella spiralis</td>
<td>Fever, rash, diarrhea</td>
<td>Routine</td>
<td>Infected meat</td>
<td>Food-borne</td>
<td>5–45 days</td>
<td>Not person to person</td>
<td></td>
</tr>
<tr>
<td>Trichomoniasis</td>
<td>Trichomonas vaginalis</td>
<td>Vaginitis</td>
<td>Routine</td>
<td></td>
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<tr>
<td>Trichuriasis (whipworm)</td>
<td>Trichuris trichiura</td>
<td>Abdominal pain, diarrhea</td>
<td>Routine</td>
<td></td>
<td>Unknown</td>
<td>Not person to person</td>
<td></td>
<td></td>
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<tr>
<td>Tuberculosis</td>
<td>see Mycobacterium tuberculosis</td>
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<tr>
<td>Tularemia</td>
<td>Francisella tularensis</td>
<td>Fever, lymphadenopathy, pneumonia</td>
<td>Routine</td>
<td></td>
<td>1–14 days</td>
<td>Not person to person</td>
<td></td>
<td>Acquired from contact with infected animals. F. tularensis is hazardous to laboratory workers; notify laboratory if diagnosis is suspected. NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
</tr>
<tr>
<td>Typhoid/ paratyphoid fever</td>
<td>see Salmonella</td>
<td>Fever, rash</td>
<td>Routine</td>
<td>Rat fleas</td>
<td>Flea borne</td>
<td>From 1–2 weeks, commonly 12 days</td>
<td>Not transmitted person to person</td>
<td></td>
</tr>
<tr>
<td>Urinary tract infection</td>
<td>Many</td>
<td>Routine*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*Contact if ARO.</td>
</tr>
<tr>
<td>Vaccinia</td>
<td>Range of adverse reactions to the smallpox vaccine (e.g., eczema vaccinatum, generalized or progressive vaccinia, other)</td>
<td>Contact</td>
<td>Skin exudates</td>
<td>Direct and indirect contact</td>
<td>3–5 days</td>
<td>Until all skin lesions resolved and scabs separated</td>
<td>Until all skin lesions dry and crusted and scabs separated</td>
<td>Vaccinia may be spread by touching a vaccination site before it has healed or by touching bandages or clothing that may have been contaminated with live virus from the smallpox vaccination site. Immunization of HCPs was stopped in 1977. Refer to Canadian Immunization Guide 7th Ed., 2006 for information regarding vaccine. <a href="http://www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php">http://www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php</a> NACI Statement on Smallpox Vaccination, <a href="http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/02vol28/28sup/acs1.html">http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/02vol28/28sup/acs1.html</a></td>
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<tr>
<td>Vancomycin-resistant enterococci (VRE)</td>
<td>Infection or colonization of any body site</td>
<td>Contact</td>
<td>Infected or colonized secretions, excretions</td>
<td>Direct and indirect contact</td>
<td>Variable</td>
<td>Duration of colonization</td>
<td>As directed by ICP</td>
<td>Enterococci persist in the environment; pay special attention to cleaning. See PHAC, RPAP (2012), Appendix VI, 2. ARO. *NOTIFY POPULATION &amp; PUBLIC HEALTH</td>
</tr>
<tr>
<td>Vancomycin-resistant S. aureus (VRSA)</td>
<td>Infection or colonization of any body site</td>
<td>Contact</td>
<td>Infected or colonized secretions, excretions</td>
<td>Direct and indirect contact</td>
<td>Variable</td>
<td>Duration of colonization</td>
<td>As directed by ICP</td>
<td>Local public health authorities should be notified immediately. See PHAC, RPAP (2012), Appendix VI, 2. ARO. *NOTIFY POPULATION &amp; PUBLIC HEALTH</td>
</tr>
<tr>
<td>Vancomycin Intermediate Staphylococcus aureus (VISA)</td>
<td>Infection or colonization of any body site</td>
<td>Contact</td>
<td>See Antimicrobial-resistant organisms (AROs)</td>
<td>Infected or colonized secretions, excretions</td>
<td>Direct and indirect contact</td>
<td>Variable</td>
<td>Duration of colonization</td>
<td>As directed by Infection Prevention &amp; Control Professionals</td>
</tr>
<tr>
<td>Varicella zoster virus</td>
<td>Varicella (chickenpox)</td>
<td>Fever with vesicular rash</td>
<td>Airborne and contact</td>
<td>Skin lesion drainage, respiratory secretions</td>
<td>Airborne, direct and indirect contact</td>
<td>10–21 days</td>
<td>1–2 days before rash and until skin lesions have crusted May be prolonged in immuno-compromised clients</td>
<td>Until all lesions have crusted and dried</td>
</tr>
<tr>
<td>Varicella zoster contact</td>
<td>Susceptible contact</td>
<td>Airborne</td>
<td>Respiratory secretions</td>
<td>Airborne</td>
<td>10–21 days</td>
<td>Potentially communicable during last 2 days of incubation period</td>
<td>From 8 days after first contact until 21 days after last contact with rash, regardless of postexposure vaccination (28 days if given varicella zoster immunoglobulin)</td>
<td>Airborne precautions should be taken with neonates born to mothers with varicella onset &lt;5 days before delivery HCWs, roommates and caregivers should be immune to chickenpox.</td>
</tr>
<tr>
<td>Variola</td>
<td>See smallpox</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Vibrio parahaemolyticus enteritis</td>
<td>Diarrhea, food poisoning</td>
<td>Routine</td>
<td>Contaminated food, especially seafood</td>
<td>Foodborne</td>
<td>Between 12 and 24 hours; range from 4–30 hours</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vincent’s angina, Trench mouth</td>
<td>Multiple bacteria</td>
<td>Routine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viral hemorrhagic fevers (Lassa, Ebola, Marburg, Crimean-Congo viruses)</td>
<td>Hemorrhagic fever</td>
<td>Contact and droplet *AGMP or high risk symptoms or procedures</td>
<td>Blood and bloody body fluids, respiratory secretions Lassa: urine</td>
<td>Direct and Indirect contact Lassa: Sexual contact</td>
<td>Lassa: 1–3 weeks Ebola: 2–21 days</td>
<td>Unknown, possibly several weeks Lassa virus may be excreted in urine for 3–9 weeks after onset</td>
<td>Until symptoms resolve</td>
<td>Local public health authorities should be notified immediately. *Add Airborne Precautions &amp; see PHAC, RPAP (2012), strategies to reduce aerosol generation, see Part B, Section IV, subsection iii, 1b NOTIFY POPULATION &amp; PUBLIC HEALTH.</td>
</tr>
<tr>
<td>West Nile virus</td>
<td>See Arthropod borne virus</td>
<td></td>
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<tr>
<td>Whipworm</td>
<td>See Trichuriasis</td>
<td></td>
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<tr>
<td>Whooping cough</td>
<td>See Pertussis</td>
<td></td>
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<tr>
<td>Wound infection</td>
<td>See draining wound</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Microorganisms/ Clinical Presentation</td>
<td>Clinical Presentation/ Potential Pathogens</td>
<td>Precautions</td>
<td>Infective Material</td>
<td>Route of Transmission</td>
<td>Incubation Period</td>
<td>Period of Communicability</td>
<td>Duration of Precautions</td>
<td>Comments</td>
</tr>
<tr>
<td>--------------------------------------</td>
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</tr>
<tr>
<td><em>Yersinia enterocolitica; Y.</em> <em>pseudotuberculosis</em></td>
<td>Diarrhea, mesenteric adenitis</td>
<td>ADULT: Routine* PAEDIATRIC: Contact</td>
<td>Feces</td>
<td>Direct and indirect contact (fecal/oral); foodborne</td>
<td>3–7 days, generally under 10 days</td>
<td>Duration of excretion in stool</td>
<td>Duration of symptoms</td>
<td>*Consider contact precautions for incontinent adults if stool cannot be contained or for adults with poor hygiene who contaminate their environment. Contact precautions apply to children who are incontinent or unable to comply with hygiene. NOTIFY POPULATION &amp; PUBLIC HEALTH</td>
</tr>
<tr>
<td>Zoster</td>
<td>See Varicella (Herpes zoster)</td>
<td></td>
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<tr>
<td>Zygomycosis (Phycomycosis)</td>
<td>See Mucormycosis</td>
<td></td>
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</tr>
</tbody>
</table>
Introduction

Varicella-zoster virus – VZV (chickenpox) is an acute, generalized viral disease with sudden onset of slight fever and feeling tired for a day or two. Small red bumps then appear. Often starting on the face, stomach and back, and soon spreading over the body. The bumps become itchy and begin to look like blisters (filled with clear fluid). Over the next 3 to 5 days the fluid in the blisters turns cloudy, the blisters break and a crust or scab forms while the skin heals. During this same time new “crops” of bumps come up, form blisters, then crust over and heal. It usually takes 7 to 10 days from the beginning of chickenpox until the last “crop” of blisters crust over.

Varicella is transmitted from person to person by direct contact, droplet or airborne spread of vesicle fluid or secretions of the respiratory tract of chickenpox cases and indirectly through articles freshly soiled by discharges from vesicles or mucous membranes of infected people. Chickenpox is extremely contagious.

The incubation period is between 10 – 21 days; however this may extend to 28 days if Varicella zoster immune globulin (VariZIG™) is given.

Complications are more frequent in immune compromised and pregnant persons. The complications of chickenpox include secondary bacterial skin and soft tissue infections, otitis media, bacteremia, pneumonitis, osteomyelitis, septic arthritis, endocarditis, necrotizing fasciitis, toxic shock-like syndrome, thrombocytopenia, cerebellar ataxia, and encephalitis.

Individuals at higher risk for complications of varicella disease include:

- Those who are immune compromised due to disease or therapy
- Premature infants (<37 weeks gestation) exposed during their first weeks of life
- Newborns whose mothers develop varicella disease 5 days before, to 2 days after delivery
- Pregnant women
- Those with cystic fibrosis
- Recipients of solid organ transplant or those awaiting solid organ transplant or haematopoietic stem cell transplant
- Those on chronic salicylate therapy
Maternal infection during the first 20 weeks of pregnancy may result in transmission of VZV to the fetus and cause congenital varicella syndrome. Maternal infection 5 days before through 2 days after delivery can result in severe varicella of the newborn infant.

**Confirmed case of varicella:**
Laboratory confirmation of infection:
- By isolation of varicella virus or positive PCR from an appropriate specimen
- Significant rise in serum varicella immunoglobulin G antibody level by a standard serologic assay
- Clinical illness in a person who is epidemiologically linked to a confirmed case. Clinical illness is characterized by a rash with rapid evolution of macules to papules, vesicles, and crusts; all stages are simultaneously present; lesions are superficial and may appear in crops.

**Varicella immune individual:** Any person with one of the following:
- Self reported history of varicella or herpes zoster
- Physician-diagnosed varicella or herpes zoster
- Documentation of positive VZV IgG
- Previous isolation of varicella virus from an appropriate clinical specimen
- Documented receipt of 2 doses of live varicella vaccine, given at least one month apart for those ≥ 13 years; one dose for those 12 months to ≤ 12 years of age.

**Varicella susceptible individual:** Any person with one of the following:
- No or uncertain history of chickenpox or herpes zoster
- Negative serology (VZV IgG negative)

**Policy**

1. Health care workers caring for patients with confirmed or a clinical case of varicella should be immune to chickenpox.

2. All health care workers providing direct patient care should know their immune status to varicella. If non-immune, consult Occupational Health regarding vaccination.

3. If a rash develops after varicella vaccination, the rash should be covered if possible and health care workers should not have contact with susceptible high risk persons for the duration of the rash.

4. Individuals who have been fully immunized are considered to be immune, 4 weeks after the second dose. There is no need for post-vaccination serology to determine immunity.

5. A patient is considered a contact if they have had contact with someone known to have varicella during the period of communicability:
   - Continuous household contact (living in the same dwelling)
   - Sharing the same hospital room
   - Face-to-face contact for five or more minutes
   - Direct contact with varicella vesicular fluid.

6. Non-immune patients in contact should be considered potentially infectious 8 days after first exposure to 21 days after last exposure (28 days if VariZIG™ was given) and be on Airborne and Contact Precautions during that time.
7. Patients with confirmed or a clinical case of varicella shall be on **Airborne and Contact Precautions** (see Contact Precautions and Airborne Precautions policies) during the period of communicability (people are contagious from 2 days before the rash until all skin lesions have crusted).

8. If negative pressure rooms are not available, use a single room with door closed.

9. Airborne precautions should be taken for neonates born to mothers with varicella onset < 5 days before delivery. These patients would receive VariZIG™, so precautions should continue until discharged from hospital or 28 days from birth (whichever is earlier).


**Purpose**

1. To reduce the mortality and morbidity associated with varicella disease.

2. To prevent the spread of varicella disease.

**Procedure**

1. Post Airborne and Contact Precautions sign (SHR Printing Services #102104) on door of patient’s room.

2. Post Precautions Checklist sign (SHR Printing Services #102246) on door. Check off special instructions on sign and write “anyone not immune to chickenpox, do not enter”.

3. Personal Protective Equipment
   - Health care workers and visitors are to wear gloves and gown when they enter the room of a patient for whom Contact Precautions are in place for suspected or confirmed varicella if direct contact with patient or environmental surfaces is likely.
   - Immune health care workers and visitors do not require masks.
   - Health care workers and visitors who are susceptible but who absolutely must enter the room of a patient for whom Airborne Precautions are in place for suspected or confirmed varicella wear N95 high particulate filtration masks.

4. Post-exposure management following patient exposure to a confirmed or clinical case of varicella.
   - Confirm the diagnosis.
   - Consult Infection Prevention and Control.
   - Identify patients and health care workers who have been exposed and are susceptible to varicella.
   - Discharge all exposed susceptible patients as soon as possible. If discharge is not possible, place susceptible patients on Airborne and Contact Precautions from days 8 through days 21 post exposure. Extend to 28 days, if VariZIG™ is given.
   - If immune status is unknown, order serology for VZV IgG.
   - If serology negative, post-exposure immunization can be started within 3 to 5 days of exposure for susceptible staff (providing there are no contraindications to receipt of varicella vaccine). See Occupational Health.
   - For susceptible pregnant women or immune suppressed persons who have been exposed to an infectious varicella case, vaccine should not be used. Prophylaxis with varicella zoster immune globulin (VariZIG™) is indicated, given within 96 hours of exposure as this may prevent or modify disease in susceptible close contacts.
5. Keep lesions clean; hands should be kept clean and nails clipped to prevent staphylococcal or streptococcal superinfection.

6. The patient should be out of the room for essential purposes only. The patient should wear a procedure mask and have skin lesions covered when out of the room.

7. Inform Infection Prevention and Control if more than one patient/health care worker on the same unit meet the criteria for a confirmed case, as an outbreak may be a possibility.


References:


Introduction

*Clostridium difficile* (*C. difficile*), is a gram positive, spore-forming anaerobic bacillus that may be present as part of the normal intestinal flora or acquired through contact with healthcare facilities. Antibiotics disrupt the normal flora which may allow for the microorganism overgrowth and the production of toxins by *C. difficile*. In response to the toxins, an inflammatory condition occurs called pseudomembranous colitis resulting in diarrhea. *C. difficile* should be suspected if a client has received antibiotics within the past 3 months. *C. difficile* diarrhea has a distinct “horse barn odor” and is often associated with fever, leukocytosis, and abdominal pain. Illness may progress to toxic megacolon, sepsis and death. There is a 1.5 % mortality rate attributable to *C. difficile* associated disease (CDAD). A reoccurrence rate of 15-35% can occur following a successful course of treatment due to reinfecion or regermination of persistent spores.

Asymptomatic *C. difficile* clients represent a less important source of transmission than symptomatic clients. *C. difficile* is transmitted via the oral-fecal route. Ingestion of spores is the most common mode of transmission and contaminated hands are the main vector. Transmission of the organism can occur after contact with the client or the contaminated environment on the hands and gloves of healthcare workers. The environment can be an important indirect source of transmission given the spores persist in the environment for months and are highly resistant to cleaning and disinfection methods.

Policy

1. In addition to Routine Precautions, use Contact Precautions for clients who have diarrhea known or suspected to be infected with *C. difficile*.

Purpose

To prevent or minimize the transmission of *C. difficile* with appropriate management of all *C. difficile* clients.

Procedure

1. Identification of *C. difficile* status in clients.
When *C. difficile* is suspected as a cause of diarrhea, send stool specimen immediately (e.g., loose/watery unformed stool that conforms to the shape of a specimen collection container).

Diarrhea is defined as:
- 6 watery stools in past 36 hours
- 3 unformed stools in 24 hours for 2 days
- 8 unformed stools over 48 hours
- bowel movements are unusual or different for the client
- there is no other recognized etiology for the diarrhea (laxatives, IBD).

- Testing of infants under one year of age should not be done as they are not susceptible to *C. difficile* infection (CDI).
- The laboratory will notify the unit positive *C. difficile* report as an urgent value for timely management.
- Repeat testing during the same episode of diarrhea or follow-up “test of cure” should not be done.
- See Appendix A for Medical Management of *C. difficile* Infection.
- See Appendix B for *C. difficile* Infection Control Measures.

2. Client placement

- Client with diarrhea is to be placed on contact precautions in a single room with private bathroom.
- If a single room is not available, spatially isolate the client with other clients with the same organism (also referred to as cohorting), each with their own bathroom facilities (e.g., bathroom dedicated for one client, individual commodes identified for roommates).
- If there are no other known clients with the same organism, spatially isolate the client with a non-infected client who is not at high risk for acquisition for CDI (e.g., high risk includes a client on broad-spectrum antibiotics such as cephalosporins, clindamycin, and fluoroquinolones, on proton pump inhibitors, bowel disease, chemotherapy, GI surgery, or enteral feed).
- Notify the site ICP when you spatially isolate a client with diarrhea.
- Bed screens should be drawn to promote separation.
- As soon as a private room is available, move the client with diarrhea to the private room.
- Client is to remain in their room while symptomatic with CDI and for 48 hours after symptoms have stopped.
- Avoid room transfers unless medically necessary.
- A client who is spatially isolated for CDI may be moved to a clean room once diarrhea resolves for 48 hours to prevent reinfection.
- Post Contact Precautions sign (SHR Printing Services #102106) and “Reminder - *Wash your Hands*” (SHR Printing Services #102144).
- Provide the Contact Precautions - Client Instructions handout to the client (SHR Printing Services #102931).
- Refer to 30-10 Contact Precautions policy in the IPC Manual.

3. Gloves and Hand Cleansing

- The physical action of washing and rinsing hands removes the spores. The antiseptic agents used in hand rubs or soaps are not sporicidal.
- Alcohol-based hand rub is not recommended in care of clients with *C. difficile*. If a non-client sink is not readily available use the alcohol-based hand rub and then wash hands in the nearest staff hand washing sink.
- Glove for all direct contact with the client or the environmental surfaces in the room, including the client sink, which is potentially contaminated.
• Remove gloves and wash hands before leaving the room. Avoid contact with the environment surfaces when leaving the room.
• Assist the client to perform hand washing with soap and water after toileting, before meals, and upon mobilization outside of the room.

4. Gown

• Gown for all direct contact with the client or the environmental surfaces in the room.
• Gowns are for single use only. Remove immediately if wet.
• Remove the gown after gloves are removed by untying at the back, then pull forward and turn inside on itself, roll up and discard in the laundry hamper in the room. Avoid contact with the environment surfaces when leaving the room.

5. Client Flow

• Client transportation to other departments is limited to essential internal tests and treatments only.
• Inform the receiving department that Contact Precautions are required.
• Have client wash hands with soap and water prior to leaving room.
• Client should wear clean hospital attire when outside of the room.

6. Client Care Equipment

• Dedicate noncritical client-care equipment to a single client (e.g., stethoscope, blood pressure cuff, tourniquet, vacutainer, laundry hamper stand and commode).
• If sharing of equipment is unavoidable, clean and disinfect between client use) refer to section 7, “Housekeeping”). Equipment that cannot be disinfected must be discarded rather than being used for another client.
• Limit the supplies taken into the room to avoid unnecessary waste at client discharge. Do not store any supplies in the bathroom.
• Gloves should be worn for food tray pick-up and removed after tray is placed on cart. Perform HH before picking up the next food tray.
• Clean and disinfect dedicated equipment in client room upon discharge or when precautions are discontinued.
• The hazardous practice of using open flushing sinks (e.g., hoppers) or toilets for the emptying of human waste is a high risk procedure. Staff hands, uniforms and the environment are contaminated by splashes, splatters and direct contact with contaminated body fluids. The risk of exposure may cause staff to become infected unless they are diligent about using PPE and multi-step processes necessary. Even when staff complete the process in a manner that protects themselves, rinsing human waster containers (e.g., use of a spray wand or dedicated non-client or non-staff sink faucet) is a source of contamination through splatter and aerosolization which leads to organisms being transmitted to clients, other staff and visitors.
• Bedpan management requires disposing of feces without contaminating the healthcare worker or the environment. This may include covering the bedpan during transportation to the point of disposal. A washer disinfector is the recommended method of cleaning and disinfecting the bedpan. If a washer disinfector is not available, another safe option is the use of the hygenic cover for bedpans and commodes (SKU# 212908). If these options are not available, ensure the method and processes are done in a way to ensure the lowest risk for contamination of staff and the environment.

7. Housekeeping

• It is the manual effort of scrubbing that is most effective at spore removal. After cleaning with facility’s usual detergent solution, disinfect all surfaces using a hospital
grade sporicide (e.g., accelerated hydrogen peroxide (AHP), sodium hypochlorite 5.25% diluted 1:9 with tap water). Some sporicide products have detergent properties and can be used as a one step cleaner and disinfectant. Always follow the manufacturer’s direction for use to ensure proper preparation, application and sufficient contact time on items and surfaces.

- All horizontal surfaces and items within client reach should be cleaned and disinfected twice daily (e.g., bed rails, telephone, call bell, light switches, door handles, sink taps, bedside tables). All cleaning and disinfectant solutions are to be applied directly to the cloth. Do not use spray bottles to apply disinfectants.
- Cloths and mop heads must not be double dipped and must be changed after use in the room (e.g., single client use).
- At terminal clean and/or discharge, all curtains (e.g., shower, bed screens) are to be taken down and sent for laundering. Discard disposable paper products, toilet brush and other items that cannot be wiped down.
- If Contact Precautions are discontinued before discharge, move client to clean room and do terminal cleaning. The client should be bathed and dressed in clean clothes before re-admission to the room. If unable to move client, terminal clean the room, equipment and supplies, including change of bed screens.
- During a CDI outbreak, environmental cleaning and disinfection with a hospital grade sporicide is recommended.

8. Visitors

- Instruct visitors regarding hand washing with soap and water before and after client contact.
- Gowns and gloves are not required unless the visitor provides direct care.
- Must not use client bathroom and not sit on the client bed.
- Should not visit other clients.
- Provide Clostridium difficile Fact Sheet found in the Infection Prevention and Control Manual.
- Provide the Contact Precautions – Client, Family and Visitor Information handout (SHR Printing Services # 102926).

9. Client and family teaching

- Clients should understand the nature of their infectious process and the correct precautions being used, as well as the prevention of transmission to other clients. Good hand washing with soap and water should be emphasized at all times, including prior to eating, using the bathroom and upon leaving the room.
- Provide Clostridium difficile Fact Sheet found in the Infection Prevention and Control Manual.
- The Infection Prevention and Control Professional may be called to assist with education on C. difficile.

10. Laboratory Testing

- Results are reported as critical results to ensure timely management of CDI.
- Contact Precautions may be stopped without further testing when the appearance and frequency of stools is normal for at least 48 hours.
- If symptoms return following a period of absence, retesting may be indicated to determine if a relapse has occurred.
References:


Appendix A - Medical Management of CDI

**Confirmed case of CDI**

Initial episode?

- **White blood cell (WBC) count <15,000 cells/µL?**
  - **Y**
    - **Mild to moderate CDI**
      - Metronidazole
        - [500mg 3 times per day by mouth for 10-14 days]
  - **N**
    - **Complications (hypotension or shock, ileus, megacolon)?**
      - **Y**
        - **Severe CDI**
          - (WBC >=15,000) Vancomycin
            - [125 mg 4 times per day by mouth for 10-14 days]
      - **N**
        - **Severe and complicated CDI**
          - Vancomycin
            - [500 mg 4 times per day by mouth or nasogastric tube],
              plus metronidazole
              - [500mg every 8 hours intravenously]
            - (if complete ileus, consider adding rectal instillation of vancomycin)

First recurrence?

- **Y**
  - **First recurrence**
    - Same regimen as for the initial episode, stratified by disease severity
- **N**
  - **Second or later recurrence**
    - Vancomycin is a tapered and/or pulsed regimen

**Note:** This is provided for general information only. The physician will determine the course of treatment based on her/his clinical judgment and the patient’s condition.

Adapted from Guidelines for the Management of Clostridium difficile Infection (CDI) in all Healthcare settings

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33 Cohen, Gerding, Johnson et al., 437 (Table 3).
Appendix B – CDI Infection Control Measures

Note: With the identification of a single individual with undiagnosed acute diarrheal illness that could be infectious, it is imperative that contact precautions be instituted immediately without waiting for lab information or for additional cases to occur.

<table>
<thead>
<tr>
<th></th>
<th>Notification/Communication at Entrance of Room</th>
<th>Yes</th>
<th>No</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Notify Unit Clinical Coordinator, Unit Manager, Unit staff and Infection Prevention and Control.</td>
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<tr>
<td>1.2</td>
<td>Post Contact Precaution sign at on door or bed screen.</td>
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<tr>
<td>1.3</td>
<td>Post “Reminder – Wash your Hands” – use of only liquid soap and water for hand hygiene.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Placement of Client</th>
<th>Yes</th>
<th>No</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Unit staff to chart symptoms such watery diarrhea, frequency of diarrhea, fever, abdominal pain and distinctive ‘horse-barn’ odour.</td>
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<tr>
<td>2.2</td>
<td>Isolate in single room with dedicated bathroom and if possible away from vulnerable clients with bowel disease, GI surgery, on chemotherapy, on enteral feeds, on broad-spectrum antibiotics or on proton-pump inhibitors.</td>
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<tr>
<td>2.3</td>
<td>Send stool specimen with completed requisition to the Lab.</td>
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<tr>
<td>2.4</td>
<td>Dedicate equipment for client.</td>
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<tr>
<td>2.5</td>
<td>Restrict client to single room until absence of diarrhea for 48 hours.</td>
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<tr>
<td>2.6</td>
<td>Client should be started on appropriate antibiotic (e.g., Metronidazole or oral Vancomycin).</td>
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<tr>
<td>2.7</td>
<td>If client had multiple room transfers while having diarrhea, these rooms require terminal cleaning with a sporicidal disinfectant.</td>
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<tr>
<td>2.8</td>
<td>Diligent hand washing with use of liquid soap and water, especially before meals and after using washroom. Staff to assist client if needed.</td>
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<tr>
<td>2.9</td>
<td>Personal protective equipment readily available outside client room and used appropriately (contact precautions).</td>
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</tr>
</tbody>
</table>
## Appendix B - CDI Infection Control Measures

<table>
<thead>
<tr>
<th>3.</th>
<th>Staff</th>
<th>Yes</th>
<th>No</th>
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</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Contact precautions (gloves and long sleeved cloth gowns) if contact with the client or client environment.</td>
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</tr>
<tr>
<td>3.2</td>
<td>Wear gloves when handling tube feeding systems.</td>
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<tr>
<td>3.3</td>
<td>Diligent hand washing with the use of liquid soap and water.</td>
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</tr>
<tr>
<td>3.4</td>
<td>Sink, liquid soap, and paper towels available for hand hygiene. Dedicate a sink if necessary.</td>
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<tr>
<td>3.5</td>
<td>Food services staff not to be in direct contact with symptomatic clients.</td>
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<td></td>
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<tr>
<td>3.6</td>
<td>Staff to disinfect common use items with sporicidal disinfectant before re-use (e.g., stethoscopes, glucose meter, infusion pump, feeding pump). Dedicate equipment for symptomatic clients (e.g., commode/bedpan, blood pressure cuff, tourniquet, laundry hamper stand). Discard any equipment or items that can not be cleaned and disinfected.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Enhanced Cleaning (*at least 2 times per day to allow for contact time*)

<table>
<thead>
<tr>
<th>4.</th>
<th>Enhanced Cleaning</th>
<th>Yes</th>
<th>No</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Clean and disinfect rooms with C. difficile clients last (e.g., clean to dirty).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.2</td>
<td>Remove all unnecessary supplies and furniture to facilitate cleaning and disinfection. Clean and disinfect these items before removal. Discard all items that can not be cleaned and disinfected.</td>
<td></td>
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</tr>
<tr>
<td>4.3</td>
<td>If client has been moved throughout the facility, where able, trace rooms to terminal cleaning with sporicidal disinfectant.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.4</td>
<td>*Bathroom (sink, taps, and toilet).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.5</td>
<td>*Commode/booster/bedpan. Cover when transporting and clean in utility room. Use a washer disinfector if available.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.6</td>
<td>*Call lights/bed rails, bed tables, IV poles/pumps.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.7</td>
<td>*Light switches/door handles.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.8</td>
<td>*Wheel chairs/walkers.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.9</td>
<td>*Telephone and TV remote.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.10</td>
<td>*Garbage container inside and out.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.11</td>
<td>Sporicidal disinfectants:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>•</td>
<td>Accelerated hydrogen peroxide (4.5% or greater) 1:16 (e.g., Rescue)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>•</td>
<td>Hydrogen peroxide with peroxyacetic acid (e.g., Virasept)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>•</td>
<td>Hypochlorite 1:50 (1000 ppm) and Sodium hypochlorite 1:10 (5000 ppm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>•</td>
<td>Ensure proper PPE is worn.</td>
<td></td>
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</tr>
</tbody>
</table>
## Appendix B - CDI Infection Control Measures

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>4.12</td>
<td>Discard toilet brush and other supplies that can not be wiped down once symptoms are resolved, at time of terminal cleaning when precautions are discontinued, and when client is discharged.</td>
<td></td>
</tr>
<tr>
<td>4.13</td>
<td>Change bed screens when client is discharged.</td>
<td></td>
</tr>
<tr>
<td>4.14</td>
<td>After discharge terminal clean, remove additional precaution sign, stop sign, and hand hygiene signs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes No Comments</td>
</tr>
</tbody>
</table>

### Laundry

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>Soiled linen and clothes handled minimally - no rinsing and place into leak proof laundry bag. Carefully close laundry bag.</td>
<td></td>
</tr>
<tr>
<td>5.2</td>
<td>Staff to use gloves and long sleeved gown to handle soiled linen. Launder in hot water, commercial bleach, on the longest cycle and machine dry.</td>
<td></td>
</tr>
</tbody>
</table>
Introduction

Transmissible spongiform encephalopathies (TSEs), also known as prion diseases, are fatal degenerative brain diseases that occur in humans and certain animal species. Human TSEs occur in sporadic, inherited, and acquired forms. TSEs are not known to spread by contact from person to person, but iatrogenic transmission can occur during invasive medical interventions. Exposure to infectious material through the use of human cadaveric-derived pituitary hormones, dural and cornea homografts, and contaminated neurosurgical instruments has caused human TSEs. Transmission of CJD has not been associated with environmental contamination or skin contact. Normal social and clinical contact and non-invasive clinical investigations, i.e., x-ray imaging procedures with CJD clients do not present a risk to the healthcare worker (HCW), relatives or the community.

<table>
<thead>
<tr>
<th>FORM</th>
<th>CAUSE</th>
<th>DISTINGUISHING FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sporadic CJD (85-90%)</strong>&lt;br&gt;Includes 5 subtypes with distinct clinical &amp; pathological features</td>
<td>Unknown</td>
<td>Affects mainly people over age 50. Ataxia, dementia spongiform change, rarely plaques. Short course</td>
</tr>
<tr>
<td><strong>Inherited prion disease</strong>&lt;br&gt;Familial CJD (15%)&lt;br&gt;Gerstmann-Straussler-Schieinker Syndrome (GSS)&lt;br&gt;Fatal Familial Insomnia (FFI)</td>
<td>Inherited mutation in PrP gene</td>
<td>Often younger onset than sporadic CJD. Symptom pattern depends on type of mutation, but could be similar to that of sporadic CJD and with a longer course of illness.</td>
</tr>
<tr>
<td><strong>Acquired by Infection</strong>&lt;br&gt;Iatrogenic* CJD(&lt;1%)</td>
<td>Contamination through brain surgery, corneal transplant, dura mater graft, human growth hormone</td>
<td>The age at onset depends on the age at exposure and on the incubation time. Clinical and pathological features often indistinguishable from sporadic CJD.</td>
</tr>
<tr>
<td>Variant CJD (vCJD)</td>
<td>Exposure to BSE (Bovine Spongiform Encephalopathy)</td>
<td>Young onset and longer duration than classical CJD. Psychiatric signs at presentation. Distinctive “daisy” plaques.</td>
</tr>
</tbody>
</table>

* Iatrogenic CJD younger onset. Ataxia rather than dementia. Growth hormone cases show plaques.
Policy
1. Routine Practices apply to all care procedures except for invasive procedures involving high or low infectivity tissues of a high risk client or high infectivity tissue and CSF of an at-risk client.
2. Incineration or the CJD decontamination process must be followed without exception when instruments are exposed to high or low infectivity tissues of a high risk client or high infectivity tissue and CSF of an at-risk client.
3. Use disposable cover sheets whenever possible to avoid environmental contamination.
4. CJD precautions should be initiated when exposure to high infectivity tissues or CSF from an at-risk client is anticipated. (See Tables 1, 2 & 3).

Purpose
1. To provide guidance for precautions to prevent or minimize exposure of both clients and healthcare workers to CJD.

Procedure
1. Risk Assessment
   - Using the following Tables 1 & 2, assess client and tissue risk for CJD. Use Table 3 to assess Infection Prevention & Control management based on risk assessment for CJD.

<table>
<thead>
<tr>
<th>Table 1: Client Risk for CJD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Risk Client</strong></td>
</tr>
<tr>
<td>Clients considered to be at high risk of transmitting CJD iatrogenically are those diagnosed, prospectively or retrospectively, with:</td>
</tr>
<tr>
<td>• CJD – confirmed, probable, or possible CJD, familial CJD, Gerstmann-Sträussler-Scheinker disease (GSS), or fatal familial insomnia (FFI) depending on pathological, laboratory, and clinical evidence and following the Surveillance definitions for Classic CJD</td>
</tr>
<tr>
<td>• Suspected CJD – undiagnosed, rapidly progressive dementia and CJD not ruled out.</td>
</tr>
<tr>
<td>• Asymptomatic carrier of genetic transmissible spongiform encephalopathy (TSE) – a person who displays no symptoms or signs of TSE, but meets one or more of the following criteria:</td>
</tr>
<tr>
<td>1. The person has been confirmed by genetic testing to carry a genetic mutation causative of familial CJD, GSS, or FFI;</td>
</tr>
<tr>
<td>2. The person has at least one first-degree relative who has been confirmed by genetic testing to carry such a mutation, with or without pathologic confirmation of TSE;</td>
</tr>
<tr>
<td>3. The person has two or more first-degree relatives who have been diagnosed with either confirmed or probable TSE, with or without confirmation by genetic testing.</td>
</tr>
</tbody>
</table>

*The incidence of CJD in Canada does not justify classifying people who have undergone neurosurgical procedures as at-risk clients.
Table 2: Tissue Risk for CJD

<table>
<thead>
<tr>
<th>High Infectivity</th>
<th>Low Infectivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Brain</td>
<td>• Cornea</td>
</tr>
<tr>
<td>• Cerebrospinal fluid (CSF)*</td>
<td>• Kidney</td>
</tr>
<tr>
<td>• Dura mater</td>
<td>• Liver</td>
</tr>
<tr>
<td>• Pituitary gland</td>
<td>• Lung</td>
</tr>
<tr>
<td>• Posterior eye (optic nerve and retina)</td>
<td>• Lymph nodes</td>
</tr>
<tr>
<td>• Spinal cord and spinal ganglia</td>
<td>• Placenta</td>
</tr>
<tr>
<td>• Trigeminal ganglia</td>
<td>• Spleen</td>
</tr>
<tr>
<td><strong>No Detected Infectivity</strong></td>
<td><strong>No Detected Infectivity</strong></td>
</tr>
<tr>
<td>• Adipose tissue</td>
<td>• Esophagus</td>
</tr>
<tr>
<td>• Adrenal gland</td>
<td>• Feces</td>
</tr>
<tr>
<td>• Appendix</td>
<td>• Gingival tissue</td>
</tr>
<tr>
<td>• Blood (including cord blood)</td>
<td>• Heart</td>
</tr>
<tr>
<td>• Blood vessels</td>
<td>• Ileum</td>
</tr>
<tr>
<td>• Bone marrow</td>
<td>• Jejunum</td>
</tr>
<tr>
<td>• Breast milk (including colostrum)</td>
<td>• Large intestine</td>
</tr>
<tr>
<td>• Breast milk (including colostrum)</td>
<td>• Nasal mucosa</td>
</tr>
<tr>
<td>• Dental pulp</td>
<td>• Nasal mucous</td>
</tr>
<tr>
<td>• Dental pulp</td>
<td>• Ovary</td>
</tr>
<tr>
<td>• Epididymis</td>
<td>• Pancreas</td>
</tr>
<tr>
<td>• Esophagus</td>
<td>• Pericardium</td>
</tr>
<tr>
<td>• Feces</td>
<td>• Peripheral nerves</td>
</tr>
<tr>
<td>• Gingival tissue</td>
<td>• Placental fluids</td>
</tr>
<tr>
<td>• Heart</td>
<td>• Prostate</td>
</tr>
<tr>
<td>• Ileum</td>
<td>• Saliva</td>
</tr>
<tr>
<td>• Jejunum</td>
<td>• Semen</td>
</tr>
<tr>
<td>• Large intestine</td>
<td>• Seminal vesicle</td>
</tr>
<tr>
<td>• Nasal mucosa</td>
<td>• Skeletal muscle</td>
</tr>
<tr>
<td>• Nasal mucous</td>
<td>• Skin</td>
</tr>
<tr>
<td>• Ovary</td>
<td>• Sweat</td>
</tr>
<tr>
<td>• Pancreas</td>
<td>• Tears</td>
</tr>
<tr>
<td>• Pericardium</td>
<td>• Testis</td>
</tr>
<tr>
<td>• Peripheral nerves</td>
<td>• Thymus</td>
</tr>
<tr>
<td>• Placental fluids</td>
<td>• Thyroid gland</td>
</tr>
<tr>
<td>• Prostate</td>
<td>• Tongue</td>
</tr>
<tr>
<td>• Saliva</td>
<td>• Tonsil</td>
</tr>
<tr>
<td>• Semen</td>
<td>• Trachea</td>
</tr>
<tr>
<td>• Seminal vesicle</td>
<td>• Urine</td>
</tr>
<tr>
<td>• Skeletal muscle</td>
<td>• Uterus (non-gravid)</td>
</tr>
<tr>
<td>• Skin</td>
<td></td>
</tr>
</tbody>
</table>

*While CSF is a low-infectivity tissue, contact with CSF necessarily implies contact with high-infectivity tissue and should be managed as a high infectivity tissue/fluid for Infection Prevention & Control purposes.

2. Notification

- **Attending physician notifies Microbiologist on-call via switchboard at 306-655-1000 when a client has probable prion disease.**
- Attend physician notifies **pathology** at RUH prior to an **autopsy**. See specific autopsy room procedure.
- Nurse assigned to the client notifies **Infection Prevention & Control Practitioner** on admission and prior to any surgery or procedure. Prior to surgery suspect or confirmed CJD must be noted on the booking slip (Form #100095) under Alerts and Additional Conditions.
- Nursing unit will notify the **operating room** prior to any surgery or procedure on a client where CJD may be suspected.
- Royal University Hospital (RUH) has an assigned case cart for the OR set up to be used for neurological procedures that involve clients with suspected CJD.
- Notify **nursing staff** when contact with high infectivity tissues or CSF of high-risk client or high infectivity tissues of at-risk clients is likely (i.e., single client use, disposable set-ups for CNS monitoring and drainage systems).
- Write the diagnosis of CJD or query CJD clearly on the body tag of a deceased client.
- If the name of the **funeral home** is known, call them directly so that they can use proper precautions.

3. Reporting Requirements

- **Requirement by the Saskatchewan Public Health Act (1994); PART IV. Category 1 Communicable Diseases; Responsibility to report. Section 32(1) and (2).**
  - Creutzfeldt-Jakob Disease – (classical or new variant infection) any cases shall be reported to a medical health officer (Population & Public Health) by:
    - **In acute care:**
      - **A physician or nurse** who, while providing professional services to a person, forms the opinion that the person is infected with or is a carrier of a category 1 communicable disease (not later than 48 hours after the opinion is formed);
b) The manager of a medical laboratory if the existence of a category 1 communicable disease is found or confirmed by examination of specimens submitted to the medical laboratory (not later than 48 hours after confirmation of the results):

- The physician or nurse must document that Population & Public Health has been notified.
- To report Communicable Diseases call 655-4612, Monday to Friday 0800 – 1630h or 655-4620 after hours.
  - Population & Public Health will contact the client once the physician has advised him/her of the results.
- The Public Health Nurse will notify Infection Prevention & Control Practitioner.

4. Accommodation
- Single room is not required for Infection Prevention & Control purposes.

5. Routine Practices
- Are adequate for providing care to high or at-risk clients under normal clinical contacts, and for non-invasive clinical investigations. Precautions are not required for personal care items (i.e., feeding tubes, suction canisters) and eating utensils.
- Disposable gowns and gloves should be worn if handling contaminated or potentially contaminated equipment or articles. Refer to #8 for Waste Disposal.

6. Personal Protective Equipment
- PPE requirements when performing invasive procedures or handling infective tissue including CSF include:
  - Gown must be disposable and liquid repellant
  - Gloves
  - Mask with visor

7. Linen
- Routine Practices apply, however linen that is exposed to high infectivity tissues or CSF of a high risk client or high infectivity tissues of an at-risk client, should be treated as waste. Refer to #8 for Waste Disposal.

8. Waste Disposal – See Appendix C - Figure #1
- Waste such as gowns, gloves, specimen containers, linens, instruments, sharps and sharps containers or any articles that has been exposed to high infectivity tissues or CSF of a high risk client or high infectivity tissues of an at-risk client is to be incinerated.
- The waste receptacle used should be sealed and labelled “Incinerate”.
- In the RUH OR, this CJD waste container (red chemotherapy bin) is kept in the OR hallway beside the OR attendants work room.
- RUH 6300, has the red (chemo) bin containing all supplies are in storage room 6316 – All supplies are in the red bin/container and include lumbar puncture tray, gloves, mask with shield, disposable gown, absorbent pad, specimen bags, green labels “Suspect CJD” and infectious white with orange lid container. The red (chemo) bin is incinerated.
- Other areas will need to obtain a red “chemo” bin from stores (SKU #201905) refer to Chemo.

9. Medical Procedures
- Procedures normally carried out at the bedside (i.e. lumbar puncture, bone marrow biopsy) may be performed at the bedside, but care should be taken to ensure environment is protected with disposable drapes should spillage occur.
• **The CSF collection kit is located in the lab for CJD testing and must be obtained before testing occurs.** Dispose of unused parts along with the used. Do not return waste or other parts of the kit to the lab after use other than testing samples and the sample containers. Dispose of directly from the unit.

• Cover work surfaces with disposable drapes/ material, which can be removed and incinerated. Anything contaminated with spillage during the procedure (disposable or not) should be placed in the red (chemo) bin to be incinerated.

• Extra care should be taken to protect all surfaces. Surfaces that become contaminated must be decontaminated with appropriate disinfectant (See Procedure #12 or Annex 1 Decontamination of Surfaces below). If it is not possible to decontaminate the surface/object according to the protocol the object must be incinerated.

10. Medical Instrument Use

• The risk of transmission via instruments used on at-risk, asymptomatic clients is negligibly low, therefore, follow routine processes. Screening procedures should be performed to identify high-risk clients, and not to identify at-risk clients. A client who self-identifies as being at-risk should be evaluated clinically for evidence of CJD.

• For high risk, it is recommended to:
  o Limit as much as possible the number of instruments used for any procedure.
  o Use disposable rather than reusable instruments whenever possible and especially when in contact with high-infectivity tissue.
  o Quarantine reusable instruments until diagnosis is confirmed at RUH OR in specific bins/box.

**Autopsy:**

• In the autopsy room a separate set of instruments is used for questionable/known CJD cases only and quarantined appropriately.

11. Collecting/Handling Specimens (See Appendix B – Management of CJD Specimens Work Standard)

• Attending physician needs to notify the Microbiologist On-call that a **CSF/brain specimen will be collected prior to the procedure.**

• Indicate clearly on the requisition form and on the specimen container of the probable diagnosis of CJD.

• Obtain Special CJD Kit containing labels, Category A transport container, bags, etc. from the microbiology lab prior to procedure.

• Healthcare workers should wear single-use disposable PPE when collecting and handling high infectivity tissues or CSF from a high-risk client or high infectivity tissues from an at-risk client.

• Single-use disposable instruments should be used when performing lumbar punctures or when managing drainage systems such as those used with external lumbar and ventricular drains, and intracranial monitoring systems.

• High infectivity tissues or CSF specimens should be bagged and closed and placed in a “spill-proof”, “puncture proof” sealed container obtained from microbiology lab (See Appendix C – Figure #2), clearly labeled as high risk for CJD. Ensure that the lid is appropriately closed and sealed and that there is no risk of leakage. Seal the requisition and container in a plastic bag for transport.

• **Do not place the specimen in the pneumatic tube system.** Call for a porter to hand deliver the specimen to the laboratory.

• **Do not leave the specimen unattended.** Ensure someone at the Microbiology Laboratory is available to receive the specimen.

• See Annex 1 below for decontamination of instrument and surfaces
12. Decontamination of Surfaces

- TSE agents are unusually resistant to disinfection and sterilization by most of the physical and chemical methods in common use for decontamination of infectious pathogens in healthcare.

**ANNEX 1: Procedure for Mechanically Cleaning and Disinfecting Equipment and Surfaces - Subject to Potential Contamination:**

1) Flood the surface with 1N NaOH or undiluted sodium hypochlorite.
2) Let it stand for 1 hour.
3) Mop up and rinse with water.
4) Surfaces that cannot tolerate NaOH or hypochlorite should not be present in areas where these procedures are performed.

13. Decontamination of Instruments

**NEVER MECHANICALLY PROCESS ANY SUSPECTED CJD INSTRUMENTS AND EQUIPMENT**

- According to Annex III - WHO Infection Control Guidelines for Transmissible Spongiform Encephalopathies (1999), the safest and most unambiguous method for ensuring that there is no risk of residual infectivity on contaminated instruments and other materials is to discard and destroy them by incineration.
- All reusable equipment must be quarantined until diagnosis is confirmed.

14. Instrument/Equipment Quarantine

- It is recommended that quarantined items from other sites in the region be contained to prevent leakage and carefully transported for storage to the yellow quarantine crate at RUH (See Appendix C for containers).

**Suspected CJD:** If diagnosis is suspected for CJD and not yet confirmed quarantine the equipment.

- If diagnosis is suspected for CJD and not yet confirmed:
  o Wipe item with damp cloth,
  o Discard cloth in CJD waste container,
  o Keep the item moist, and
  o Quarantine the instruments in a leak proof puncture-resistant, sealed container (See Appendix C - Figure #3) labeled “? CJD HOLD UNTIL FURTHER NOTICE”.
  o Stamp this label with the client information and quarantine the instrument until diagnosis is confirmed. (See Appendix C - Figure #1)
  o Labels are in CJD bin in the OR core (RUH).
  o Close the container and secure with zip ties.
  o Give box to OR aides to be stored in locked yellow bin in the dirty disposal room (RUH) until positive or negative diagnosis is made.
- At RUH a large yellow crate with padlocks on either side is available for storing these containers. The purpose of this large crate is for use by all sites and is located on ground floor in the waste disposal service room near the OR.
- The key for the padlocks can be obtained from the OR office.
  o Refer to the Operating Room Policy Number: 3.28 CREATZFELDT-JACOB DISEASE (CJD) PROTOCOL FOR THE OPERATING ROOM for detailed protocol regarding the process for Reusable Contaminated Instruments.
- **(RUH) There are 2 keys for the yellow box. You only need one of them.** Locations - (1) equipment technician’s office drawer, and (2) locked in narcotic cupboard labelled “instrument quarantine box”.

---

Number: 40-40
Title: Creutzfeld-Jakob Diseases (CJD)
Confirmed CJD: If a diagnosis of CJD is confirmed all reusable equipment used on the client is incinerated.

- Place “Incinerate” sticker on container. (See Appendix C – Figure #4)

Quarantine Removal: A confirmed diagnosis other than CJD, either clinical or pathological, or a postmortem examination excluding CJD, is required to take instruments out of quarantine.

**NOTE:** A brain biopsy that is negative for CJD, in the absence of a confirmed alternate diagnosis, does not suffice to take instruments out of quarantine.

- Open the leak-proof, puncture-resistant, sealed container and send instrument(s) to SPD for regular processing. (See Appendix C - Figure #1)

### Table 3: Infection Prevention & Control Management Based on Risk Assessment for CJD

<table>
<thead>
<tr>
<th>Prevention Management (risk identified before an invasive procedure)</th>
<th>Containment Management (risk identified during an invasive procedure)</th>
<th>Contingency Management (risk identified after an invasive procedure)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Develop and implement CJD precautions as required for specific departments (i.e., OR, Lab, SPD).</td>
<td>• Implement CJD precautions immediately.</td>
<td>• Implement CJD precautions immediately.</td>
</tr>
<tr>
<td>• Provide education programs to ensure that personnel are adequately trained.</td>
<td>• Obtain and immediately implement disposable or old instruments that are at the end of their life cycle.</td>
<td>• Notify appropriate departments as required (i.e., OR, Lab, SPD, Facilities Services, Admin).</td>
</tr>
<tr>
<td>• Provide advance notification of admission to appropriate personnel (i.e., ICPs)</td>
<td>• Obtain and immediately implement the use of disposable supplies and equipment for invasive procedures. Keep the number of items used to a minimum.</td>
<td>• Identify all reusable equipment used on client prior to the risk being identified.</td>
</tr>
<tr>
<td>• Provide advance notification to various departments as required (i.e., OR, Lab, SPD).</td>
<td>• Minimize personnel involved in the procedure. Ensure only educated and trained staff are involved.</td>
<td>• Identify reusable equipment exposed to high or low infectivity tissues from a high risk client or involving high infectivity tissue from an at risk client.</td>
</tr>
<tr>
<td>• Consider scheduling surgery at the end of the procedure day.</td>
<td>• Use disposable supplies and equipment. Keep to a minimum the number of items.</td>
<td>A detailed inspection of a complex or fragile piece of a reusable device may reveal that the item can be dismantled more thoroughly than anticipated. Various parts of the device may tolerate the CJD decontamination process safely. By completing this process, far less of the device may need to be incinerated. Contact the manufacturer for assistance. A decision whether or not to inform exposed clients will be contingent upon the hospital’s policy.</td>
</tr>
</tbody>
</table>
References

1. Canadian Standards Association (CSA) Z317.10-15 Handling of health care waste materials. Annex F (informative)-Creutzfeldt-Jakob disease (CJD) and other human transmissible spongiform encephalopathies (TSEs)


8. The Disease Control Regulations cP-37.1 Reg 11; 25 April 2003.

### High-risk CJD Clients Managed

**PROSPECTIVELY**

<table>
<thead>
<tr>
<th>CJD</th>
<th>Action to be taken:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Instruments that were in contact with:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>High-infectivity</strong> tissue</td>
<td>Discard.</td>
</tr>
</tbody>
</table>
| **Low-infectivity** tissue | Can the instruments tolerate CJD decontamination?  
  - If yes, CJD decontaminate & reuse;  
  - If no, discard. |
| **No detected infectivity** tissue | Routine reprocessing & reuse. |

**Suspected CJD**

<table>
<thead>
<tr>
<th>Instruments that were in contact with:</th>
<th>Action to be taken:</th>
</tr>
</thead>
</table>
| **High-infectivity** tissue | Routine reprocessing separately & quarantine.  
  Is diagnosis of CJD excluded?  
  - If yes, reuse;  
  - If no, discard. |
| **Low-infectivity** tissue | Can the instruments tolerate CJD decontamination?  
  - If yes, CJD decontaminate & reuse;  
  - If no, routine reprocessing separately & quarantine.  
  Is diagnosis of CJD excluded?  
  - If yes, reuse;  
  - If no, discard. |
| **No detected infectivity** tissue | Routine reprocessing & reuse. |

**Asymptomatic carrier of genetic TSE**

<table>
<thead>
<tr>
<th>Instruments that were in contact with:</th>
<th>Action to be taken:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High-infectivity</strong> tissue</td>
<td>Discard</td>
</tr>
<tr>
<td><strong>Low/No detected infectivity</strong> tissue</td>
<td>Routine reprocessing and reuse.</td>
</tr>
</tbody>
</table>

### High-risk CJD Clients Managed

**RETROSPECTIVELY**

<table>
<thead>
<tr>
<th>CJD</th>
<th>Action to be taken:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Instruments that were in contact with:</strong></td>
<td></td>
</tr>
</tbody>
</table>
| **High/Low-infectivity** tissue | Can specific instruments or sets be identified?  
  - If yes, proceed as for prospectively managed CJD;  
  - If no, were instruments reprocessed more than 9 times?  
    - If yes, proceed as for prospectively Managed CJD (option A) or reuse (option B);  
    - If no, proceed as for prospectively managed CJD (option A). |
| **No detected infectivity** tissue | Continue to reuse |

### At-risk Clients for CJD

<table>
<thead>
<tr>
<th>CJD</th>
<th>Action to be taken:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Instruments that were in contact with:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Any tissue</strong></td>
<td>Routine reprocessing &amp; reuse</td>
</tr>
</tbody>
</table>
**Name of Activity:** Management of CJD Specimens  
**Role performing Activity:** All SHR Staff, Physicians and Residents

**WORK STANDARD**

**Location:** Saskatoon Health Region (SHR) - RUH, SPH, SCH  
**Department:** All

**Document Owner:** Infection Prevention & Control  
**Region/Organization where this Standard Work originated:** SHR

**Date Prepared:** March 2016  
**Last Revision:**  
**Date Approved:**

**Work Standard Summary:** The following steps must be taken to ensure the safety of staff on the unit and in the Microbiology, Chemistry and Hematology Laboratories.

<table>
<thead>
<tr>
<th>Task Sequence</th>
<th>Task Definition:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Provide safe collection and identification of cerebrospinal fluid (CSF) for suspect Creutzfeldt-Jakob Disease (CJD).</td>
</tr>
<tr>
<td>2.</td>
<td>For any CSF testing with query CJD (Lab Test #14-3-3) the Microbiologist-on-Call must be notified by the physician prior to the sampling being performed.</td>
</tr>
</tbody>
</table>
| 3. | RN/LPN may enter SCM orders flagging that the sample is for query CJD.  
  - Any manual or downtime requisitions must have the green “Suspect CJD” label affixed to them when the samples are sent Microbiology. |  
| 4. | Call Microbiology (306-655-0611) to obtain the CJD supply kit.  
  - The kit will include a red chemotherapy bin, lumbar puncture tray, gloves, mask with shield, disposable gown, absorbent pad, specimen bags, green labels “Suspect CJD” (see back for picture) and “INFECTIOUS” white container with orange lid (see back for picture). |  
| 5. | Physician performs the lumbar puncture, avoiding spillage of the CSF.  
  - Samples should be collected directly into specimen tubes not into syringes and transferred.  
  - Tighten lids securely.  
  - Limit assistants. All assistants should be wearing PPE. |  
| 6. | If spillage occurs all material in contact with CSF must be contained and placed in the red chemotherapy bin (from the CJD supply kit) for incineration (this includes any linen if contaminated).  
  - All supplies used including PPE, absorbent pads and contaminated linen are disposed of in the red biohazard bin and the bin is sealed. |  
| 7. | RN/LPN that is wearing PPE can label each of the tubes and place them in individual specimen bags with a green “Suspect CJD” label on them. All specimens are then placed in the “INFECTIOUS” white container with orange lid (see back for picture). Remove the ‘EMPTY’ label and replace it with a green “Suspect CJD” label. |  
| 8. | A unit support worker will take the specimen container and requisitions to Microbiology. |  
| 9. | The red chemotherapy bin should be left at the client bedside for 1 hour allowing time for any site leakage and any other potentially contaminated items to be added to the bin. The bin shall be sealed shut with the lid provided.  
  - The unit support worker will take the red chemotherapy bin to the designated drop off area to be picked up by Environmental Services to send for incineration. |  
| 10.| If any “INFECTIOUS” white container with orange lid is found without the empty label affixed to it, it should be taken to Microbiology by the unit support worker. Do not open the container. |  

Please see Infection Prevention & Control policy # 40-40 Creutzfeldt-Jakob Disease for more information.
“INFECTIOUS” White Container with Orange Lid

“Suspect CJD” Labels
Figure #1 - CJD Waste Receptacle – (Red “Chemotherapy” Waste Bin) SKU #201905.

Figure #2 - Lab specimens – Spill-proof, puncture proof sealed container with label. Obtain from Microbiology Lab.
Figure #3 – Instrument/Equipment Quarantine for **Suspect** and **Confirmed** CJD diagnosis. RUH “Operating Room” cases.

**Note:** Simply remove the “? CJD – Hold until Further Notice” label if the specimen is positive.
Contents for the CJD Bin When Performing a Lumbar Puncture

SKU # 51040 Lumbar Puncture Tray—check expiry date, make sure label affixed
SKU # 61354 Chlorhexidine Skin Prep 2% Sponge
SKU # 83128 Face Shield and Mask (3)
SKU# 44970 Small Sterile Surgical Gloves
SKU # 44975 Medium Sterile Surgical Gloves
SKU # 44980 Large Sterile Surgical Gloves
SKU # 45390 Linen Disposable Gowns (3)
SKU # 44170 Absorbent Pads
SKU# 125785 (from Supply Chain) Clear Plastic Bags with Side Pocket for requisition
SKU# 89276 XL 9x12 Zip Lock Bags
White Container with Orange Lid
Green “Suspect CJD” Labels for Requisitions and Samples
Cystic fibrosis (CF) is a relatively common genetic disorder affecting young people. The major cause of morbidity and mortality in CF is a build up of thick mucous which leads to a vicious cycle of infection and inflammation that causes progressive deterioration in pulmonary function, respiratory failure and death. The pathogens that cause these common CF related infections are usually transmitted by contact and/or droplet routes.

The respiratory secretions of ALL CF patients are potentially infected with microorganisms that could be harmful to that patient or another CF patient. This should always be kept in mind even if an organism has not yet been identified through a culture. All health care workers (HCWs) must use appropriate precautions when caring for a CF patient to prevent patient-to-patient transmission of these pathogens, either via direct contact or indirect contact by the HCW or the environment.

Transmission commonly occurs through direct (eg: kissing) or indirect contact with infected secretions (sharing a toothbrush or drinking glass with another CF patient). Patient education about interaction between patients is an essential part of the care of CF patients.

Specific infection control practices are recommended for both inpatient and ambulatory care settings, that should be based on the activities and the risks associated with the various environments.

Policy

1. Standard Precautions are recommended for all CF patients.

2. In addition to Standard Precautions, use Contact & Droplet Precautions for all CF patients infected (or colonized) with:
   - Methicillin resistant Staphylococcus aureus (MRSA)
   - Burkholderia cepacia complex
   - Vancomycin resistant Enterococci (VRE)
   - Multidrug-resistant Pseudomonas aeruginosa
   - Stenotrophomonas maltophilia
   - Respiratory syncytial virus (RSV)
   - Parainfluenza virus
   - Influenza virus
   - Adenovirus
   - Pertussis
3. Additional precautions may be necessary if patient is infected with an organism not mentioned above. Refer to *Precautions by Etiology – Clinical Presentation Reference Table*, in the Infection Prevention and Control manual.

**Purpose**

To decrease the risk of patient-to-patient transmission of respiratory pathogens between *all patients* via the direct route (ie: patient-to-patient) and/or the indirect route (ie: via the HCW or the environment) in both the inpatient and ambulatory care settings.

**Procedure**

1. **Patient Placement**
   - Place the patient in a single room with private bathroom.
   - Bathrooms and showers are not to be shared by more than one CF patient.
   - **Do not** place CF patients in the same room (ie: no cohorting).
   - If necessary (eg: a single room is not available) CF patients without an identified infection may share a room with patients *without* CF, who do not have an infection themselves *and* are at low risk for infection.
   - If a pathogen is isolated that requires additional precautions, refer to specific policy.
   - Post appropriate Contact and/or Droplet precaution signage.

2. **Hand Cleansing and Gloving**
   - If antimicrobial soap and water is not readily available ensure the presence of easily accessible alcohol hand sanitizer in all patient rooms, pulmonary function testing rooms, nuclear medicine, audiology, ambulatory clinic rooms and in waiting areas for patients and families.
   - Change gloves and cleanse hands after handling respiratory secretions or any objects contaminated with a patient’s secretions before contact with another patient, object or environmental surface.
   - Change gloves and cleanse hands when moving from a contaminated body site to either a clean body site, the respiratory tract, or to a respiratory device on the same patient.

3. **Gowns**
   - When soiling with respiratory secretions from a patient is anticipated (eg: during chest physiotherapy, suctioning or when examining a patient who is known to have coughing spasms) wear a gown and remove the gown after such contact and before providing patient care to another patient.

4. **Masks, Eye Protection and Face Shields**
   - Mask and eye shields, or a face shield should be worn when splashes or sprays of respiratory secretions, body fluids, blood or excretions are anticipated.
   - Unless the patient is on droplet precautions or has poor cough etiquette there is no need for CF patients to routinely wear masks when outside of the patient room.
5. Patient Activity

- Allow patient activity outside the patient room only in accordance with the Additional Precautions required for specific pathogens. Refer to: *Precautions by Etiology – Clinical Presentation Reference Table*, in the Infection Prevention & Control manual.
- Consider the patient’s capability for containing his or her respiratory tract secretions, age, ability to use proper hygiene, and ability to adhere to the guidelines of the Additional Precautions being used.
- Have patient perform hand hygiene before leaving the room.
- Avoid direct contact between CF patients unless they are co-habitants (ie: live in the same house).
- May use hospital activity rooms (eg: play room, exercise room or school room) only when no other CF patients are present.
- After a patient has left a hospital activity room, clean surfaces and items handled by the patient with a hospital approved disinfectant.
- CF patients must maintain at least a one meter (three feet) distance from other CF patients.
- Unless the patient is on droplet precautions, there is no need for CF patients to routinely wear masks when outside of the patient room.
- Perform all respiratory interventions including aerosol therapy, airway clearance, and sputum collection within the patient’s room.
- Encourage patients to use their own home airway clearance devices during both inpatient and clinic situations.
- CF patients should not have chest physiotherapy with other CF patients present.

6. Patient Transportation

- Consider the patients capability for containing his or her respiratory tract secretions, age, ability to use proper hygiene, endemic levels of pathogens in an individual center, and ability to adhere to the guidelines of the additional precautions being used.
- Have patient perform proper hand hygiene before leaving the room.
- CF patients must stay at least one meter (three feet) away from other CF patients.
- Unless patient is on droplet precautions there is no need for CF patients to routinely wear masks when outside of the patient room.
- If the patient is on additional precautions refer to the precaution specific guidelines for patient transportation.

7. Patient-Care Equipment

- If the patient is on additional precautions refer to the precaution specific instructions for dealing with patient-care equipment.
- The sharing of nebulizers or other respiratory therapy equipment between CF patients (including siblings) is not permitted.

8. Visitors

- Instruct visitors regarding hand hygiene before and after patient contact.
- If the patient is on additional precautions refer to the precaution specific guidelines for visitors.
- CF patients must stay at least one meter (three feet) from other CF patients.
• Contact between CF patients should be limited to avoid patient-to-patient transmission of pathogens. Discourage physical contact between CF patients.

9. Patient and Family Teaching

• Patients should understand the nature of their infectious process and the precautions being used, as well as the prevention of transmission to other patients, family and friends during their hospital stay and upon their return to the community.
• The Infection Prevention and Control Professional or CF educator may be called to assist with education.
• Review, and if necessary, instruct the patient and their family how to clean, disinfect, and dry respiratory equipment that will be used in the home. The CF nurse clinician or respiratory therapy can be consulted for this teaching.
• Instruct patients who live with another CF patient that although contact can’t be avoided, routine use of hand hygiene, respiratory hygiene and cough etiquette practices will limit contact with each other’s respiratory secretions.
• Instruct patients and families to anticipate and avoid situations where there is a risk for acquisition of CF pathogens that could arise as a result of being in environments with other CF patients (eg: sharing car rides with other CF patients, being in close proximity in CF clinic waiting rooms, attending CF related activities like education days, fund raisers).

10. Environmental Cleaning

• Cleaning is performed in the same manner as for all patients. Cleaning staff should wear appropriate PPE if additional precautions are in place.
• For cleaning at discharge or discontinuation of precautions, refer to Environmental Cleaning in Contact Precautions policy located in the Infection Prevention and Control manual.

11. Clinics

• Within the patient waiting area and clinic rooms attempt to limit close contact between CF patients.
• CF patients must stay at least one meter (three feet) away from other CF patients.
• Schedule and manage patients to minimize time in the common waiting areas.
• Patients whose cultures show no growth of any pathogens for at least one year should be scheduled into the first slots of the clinic day.
• Patients infected with MRSA, Burkholderia cepacia complex, and Multidrug resistant Pseudomonas aeruginosa should be scheduled into the final clinic slots of the day to minimize patient interaction with other patients.
• Instruct patients and family members to observe proper hand hygiene on arrival at the clinic.
• Ensure readily available and accessible dispensers of alcohol hand sanitizers in the waiting areas for use by the patient and their families.
• Instruct patients in the basics of respiratory hygiene and cough etiquette.
• Have tissues readily available and a garbage receptacle readily accessible for patients in order to assist them in maintaining respiratory hygiene and cough etiquette.
• Discourage patient use of common items (eg: the clinic's computer and toys in the waiting area) that cannot be easily cleaned between patients.
• As much as possible, keep the patient in the same clinic room and have each individual clinic specialist circulate through.
• Allow only one patient into the room when a cough producing procedure is being performed.
• After the patient is finished in the examination room, clean all surfaces and equipment that may have come in to contact with the patient or HCW.

References:

Introduction

Management of immune compromised clients can present complex issues for healthcare workers. This policy will help guide you in defining immune compromised, assessing client risk for communicable disease, determining client placement and what provision of the protective environment entails.

There is no evidence to support what has historically been termed as “Reverse Isolation”. Even in the case of hematopoietic stem cell transplant recipients, the Center for Disease Control does not recommend “reverse isolation”. In the majority of circumstances, Routine Practices are sufficient for protection of most immune compromised hosts, if they are followed strictly and accompanied by good hand hygiene.

Definitions

Immune Compromised - Means that a client’s immune system is defective, and the B and T cells are unable or only partially able to respond to foreign substances such as bacteria, viruses or fungi. Immune compromised can be congenital (i.e., hypogammaglobulinemia, etc.) or acquired (i.e., HIV, renal failure, etc.). It can be temporary (i.e., chemotherapy for cancer, etc.) or lifelong (i.e., post organ transplant, etc.).

Protective Environment - Certain immune compromised clients have been shown to benefit from specific additional “interventions”. These interventions create a “Protective Environment”. Protective Environment does not mean “Reverse Isolation”. Reverse Isolation refers to the practice of healthcare workers and visitors wearing barriers (i.e., gown, gloves, mask, etc.) routinely upon entry to the client room, for the purpose of preventing client exposure to external microbes. Most studies have shown that this practice did not improve outcomes. This is because the majority of clinical infections in this client population arise from endogenous (client’s own flora) source.
For the majority of immune compromised persons, the use of **Routine Practices** alone is effective for reducing the risk of microbial transmission.

**Routine Practices** include:
- Hand hygiene
- Appropriate use of PPE
- Restriction of ill visitors and health care workers
- Routine environmental cleaning

**Policy**

1. Routine Practices, are to be used for immune compromised clients.

All staff with ongoing or recent infections are restricted from providing care/services in this room.

**Purpose**

1. To protect the immune compromised client from acquiring an infection that could potentially become life threatening.

**Table 1**

<table>
<thead>
<tr>
<th>Routine Practices</th>
<th>Protective Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Concerns</strong></td>
<td><strong>Clients with increased risk of “normal flora” invading and becoming the cause of and infection. This may occur either from translocation across the gut wall or portals of entry created by breaks in the skin barrier, long duration IV access sites and catheters in any orifice.</strong></td>
</tr>
<tr>
<td>- Increased risk of prolonged shedding of infectious agents which therefore requires longer use of precautions (i.e., RSV, Influenza)</td>
<td>- Prevent potential mucosal injury by avoiding the use of enemas, suppositories and rectal swabs/exams.</td>
</tr>
<tr>
<td>- Increased risk of acquiring specific diseases based on the cause of the immune deficiency (i.e., HIV)</td>
<td>- Maintain skin integrity</td>
</tr>
<tr>
<td>- Increased risk of activating latent infection (i.e., shingles)</td>
<td><strong>Clients who may require a protective environment include:</strong></td>
</tr>
<tr>
<td></td>
<td>- Neutropenia: Clients with a neutrophil count of less than 0.5 X 10⁹/L</td>
</tr>
</tbody>
</table>

**Concerns**

- Neutropenia with absolute neutrophil count over 0.5 X 10⁹/L
- Oncology clients who are on cytotoxic chemotherapy, high dose/systemic corticosteroids (equivalent to prednisone ≥15 mg/day), or other immune suppressants daily for >2 weeks.
- Transplant recipients
  - clients who are in their transplant hospital stay
  - Blood and marrow recipients <24 months post-transplant
  - Transplant recipients who require immunosuppressive therapy
  - Transplant recipients who have graft versus host disease
- Congenital or acquired hypogammaglobulinemia or agammaglobulinemia, severe combined immunodeficiency.
- Neonatal clients

**Procedure:**

- Visitors should check with the nurse before entering
- Strict adherence to hand hygiene protocol
- No visitors or staff members who display cold/flu symptoms can enter the client room
- A mask is necessary for the client when leaving the room for tests/procedures
- No fresh or dried flowers allowed
- Wash all fresh fruits/vegetables
- Visitors may be limited related to client needs
References:


2. Association for Professionals in Infection Control and Epidemiology (APIC), The Immunocompromised Host, Chapter 15, 2005.

Introduction

Influenza is a common and very contagious respiratory tract infection caused by Influenza A or B viruses. It is characterized by the following symptoms: fever, myalgia, headache, severe malaise, sore throat, rhinitis, and cough. People of all ages can be affected but influenza is more dangerous in the very young, the elderly and people in poor health due to chronic illness or disability. Antibiotics are not effective since the infection is caused by a virus and not by bacteria. During the influenza season, outbreaks of health care-associated influenza affect clients and personnel in long-term care facilities and hospitals. In some people, influenza can exacerbate underlying medical conditions (i.e., pulmonary or cardiac disease) or lead to secondary bacterial pneumonia.

Influenza vaccination is the most effective way to gain protection from influenza and prevent outbreaks.

Influenza is primarily transmitted from person to person via virus-laden droplets that are generated when infected persons cough, sneeze, or talk. These droplets can then settle on the mucosal surfaces of the upper respiratory tract of susceptible persons who are near (i.e., within 2 metres) infected persons. Transmission may also occur through direct contact or indirect contact with respiratory secretions, such as when touching surfaces contaminated with influenza virus and then touching the eyes, nose or mouth. The influenza virus may persist for hours particularly in the cold and in low humidity. Adults can spread influenza to others from the day before getting symptoms to approximately 7 days after symptoms start. Children and immune compromised adults can shed influenza viruses for 10 or more days.

To protect health care workers, clients and others in the health care setting, individuals who are identified as having symptoms of an Influenza-like Illness (i.e., acute onset of respiratory illness with fever and cough with sore throat, headache, runny nose, muscle aches, extreme tiredness,
or prostration) need to be identified as soon as possible and infection prevention and control measures put in place to prevent transmission. This policy is not meant to be followed for clients with Severe Acute Respiratory Syndrome (SARS) or an emergent respiratory infection that has not been clearly identified. (Refer to Policy 30-30 Droplet Precautions).

**Policy**

1. Use Droplet and Contact Precautions for a client known or suspected to have Influenza-like Illness or Severe Respiratory Illness (SRI).

2. Notify Infection Prevention and Control Professionals of clients admitted with Influenza-like Illness or Severe Respiratory Illness.

**Purpose**

1. To minimize influenza exposure.

2. To detect and contain clusters or outbreaks of influenza.

**Procedure**

1. Implement respiratory hygiene/cough etiquette at the first point of contact with a potentially infected person. Respiratory hygiene/cough etiquette includes:
   - Post visual alerts instructing clients and persons who accompany them to inform health care personnel if they have symptoms of respiratory infection.
   - Provide tissues or masks to clients and visitors who are coughing or sneezing so that they can cover their nose and mouth.
   - Ensure that supplies for hand washing are available where sinks are located and provide dispensers of alcohol-based hand rub (ABHR) in other locations.
   - Encourage coughing persons to sit at least 2 metres away from others, if possible. If crowded conditions exist, ensure the client wears a surgical mask or at a minimum uses a tissue and performs hand hygiene.

2. Identification
   - Nursing notifies Infection Prevention and Control Professionals of clients with or who develop Influenza-like Illness symptoms so they can monitor during influenza season.
   - Infection Control Professionals notify Public Health of inpatients with Influenza-like Illness.
   - Infection Control Professionals notify Occupational Health Services (OHS) about any cluster of clients so OHS can monitor staff. OHS notifies staff clusters to Infection Prevention & Control.

3. Respiratory Hygiene (Respiratory Cough Etiquette)
   - Teach the client how and when to perform hand hygiene.
   - Teach the client how and when to perform respiratory hygiene practices (cover your cough by coughing into sleeve, using tissues, or wearing a mask). Refer to Policy 20-95 Respiratory Hygiene and Cough Etiquette.
   - Teach the client to wear a mask (if tolerated) when health care workers, other staff and visitors are present.
4. Client Placement

- Whenever possible, use single rooms for inpatients with symptoms compatible with influenza.
- When single rooms are not possible, ensure that spatial requirements (i.e., two metres between clients with symptoms compatible with influenza and clients without symptoms) are maintained.
- Post [Droplet and Contact Precautions](#) sign (SHR Printing Services #102107) on the room door indicating the precautions required.

5. Hand Hygiene

- Perform hand hygiene as per [20-20 Hand Hygiene](#) Policy using either alcohol-based hand rub (ABHR) or soap and water.
- Remember to ensure the client’s hands are cleansed before and after eating, after going to the bathroom and frequently if the person is coughing and sneezing.

6. Respiratory Protection

- Wear a regular mask (procedure or surgical) when within two metres of the client.
- Change mask if it becomes wet or soiled (from the wearer’s respiration or through an external splash).
- Remove the mask by the straps, being careful not to touch the mask itself, after leaving the room and dispose of in hands-free waste receptacle.
- Perform hand hygiene after removing the respiratory protection and after leaving the room.

7. Eye Protection

- Wear eye protection (i.e., visor, face shield) whenever a mask is worn. Prescription eye glasses are not considered sufficient eye protection.
- Remove eye or face protection after leaving the room and dispose of in either a hands-free waste receptacle (if disposable) or in a separate receptacle to go for cleaning (if reusable).

8. Gloves and Gown

- Wear gloves and gown for all contact with the client or the environmental surfaces in the room.
- Gloves and gowns are single use only.
- Change gloves after contact with infectious material that may contain high concentrations of microorganisms.
- Remove gloves, then the gown. Untie at the back, pulling forward and turning inside on itself, rolling up and discarding in the laundry hamper in the room. Perform hand hygiene after removing gown and gloves. Avoid contact with the environmental surfaces when leaving the room.

9. Client transportation

- Transportation of the client to other departments or facilities should be limited to essential diagnostic or therapeutic procedures.
- Inform the receiving department that Droplet & Contact Precautions are required.
• Client should wear a regular mask during transport and be instructed on how to perform respiratory hygiene. For clients who are unable to wear a regular mask, provide tissues for use and instructions on how and where to dispose of them, and the importance of hand hygiene after handling tissues.
• When leaving their room, the client must have on a freshly laundered gown/housecoat and have cleaned their hands with alcohol-based hand rub (ABHR) or soap and water.
• Glove for transport of client and when anticipating direct contact with client, a gown is required.
• Place chart in clean bag or pillowcase and place on client’s lap or bed.
• Avoid contact with surfaces en route. Use elbow to push elevator buttons.
• Use clean sheet to cover client.
• Clean equipment used in the department with a hospital disinfectant.

10. Visitors

• Instruct visitors regarding appropriate use of a mask, eye protection, gowns, gloves and hand hygiene as well as visitor guidelines for Droplet and Contact Precautions by providing Droplet and Contact Precautions – Client, Family and Visitor Information (SHR Printing Services #102927).
• Visitors with Influenza-like Illness must not visit while symptomatic. Close relatives of critically ill clients are exempt, but they must wear masks upon entry into the facility and perform hand hygiene before and after the visit, which must be restricted to that client only.

11. Client and family teaching

• Clients should understand the nature of their infectious disease and why precautions are being used to prevent the transmission of disease to other clients, family and friends during their hospital stay and upon their return to the community.
• Provide Influenza Fact Sheet available from SHR Printing Services #103139 or copied from the Infection Prevention and Control Manual.

12. Client Care Equipment

• Limit the amount of supplies taken into the room to avoid unnecessary waste at client’s discharge. Remove unnecessary items.
• Dedicate non-critical client care equipment to a single client (i.e., stethoscope, blood pressure cuff, tourniquet, vacutainer, laundry hamper stand, walker and commode).
• Any equipment that comes in direct contact with the client should be cleaned and disinfected with a hospital disinfectant.
• If sharing of equipment is unavoidable, clean and disinfect between clients.
• Trays from clients on Precautions can be placed on tray carts because the cart is washed after each use.
• Trays from clients on Precautions left after pickup by food and nutrition staff should be bagged and left for pick up in a designated area.
• Gloves should be worn for pickup of dietary trays in additional precaution rooms only.
13. Environmental Cleaning

- Interim cleaning of rooms is performed in the same manner as for all clients while wearing personal protective equipment as noted on the precaution signage.
- Following discharge or discontinuation of precautions:
  - Precaution sign should remain in place until cleaning is completed.
  - Precaution discharge cleaning is performed as for all clients.
  - Bedscreens are to be changed.

14. Cultures

- Virology tests will be needed to confirm diagnosis in atypical cases and for surveillance.
- See Appendix A for collection of Nasopharyngeal Swab for Influenza Testing.

15. Outbreak Management

- In the event that clients/residents and/or staff members display signs and symptoms of Influenza or Influenza-like Illness in numbers higher than normally expected, an outbreak may be declared.
- Although routine surveillance should serve to identify most outbreaks, it remains the responsibility of all health care workers to communicate concerns promptly so the Infection Prevention and Control Department can initiate action.

References


Appendix A - Nasopharyngeal Swab for Influenza Testing

Step 1:
- Patient should be seated or lying in a comfortable position. Inform patient they may feel some discomfort.
- Don personal protective equipment.
- Tilt head back and lift nose slightly.
- Insert small flocked swab into nostril gently, push straight back along the nasal septum just above the floor of the nasal passage to the nasopharynx until gentle resistance is felt and the tip is touching the mucosal surface as indicated in diagram.

To view video on proper collection go to http://vimeo.com/7748002

Step 2:
- Rotate the swab two to three times and hold the swab in place for 5 seconds to ensure maximum absorbency.

Step 3:
- Put the swab in the Viral Transport Medium tube and break the shaft at the breakpoint so the tip drops into the transport medium tube. Secure the top of the tube.
- Label specimen and place in plastic bag.
- Write on requisition: Nasopharyngeal swab for respiratory viruses and fully complete requisition.
- Transport to Virology without delay. Refrigerate if sample cannot be immediately transported.

June 2010 For further questions contact SHR Virology at 655-1763

Equipment:
- Viral transport media with flocked swab kit - SKU #204783 obtain from Materials Management. Store at room temperature.
- Virology requisition and labels
- Plastic bag
- Appropriate Personal Protective Equipment (gloves, mask and eye protection)
A comprehensive influenza management program ensures both optimal care for the client and effective protection for other clients and healthcare workers.

Purpose

1. Influenza management delineates administrative, environmental and respiratory protection controls to prevent transmission of influenza within its facilities.
2. To ensure prompt detection, additional precautions and treatment of persons who have influenza-like illness (ILI) or confirmed influenza.
3. To ensure processes are in place to protect healthcare workers and clients from influenza exposure.

Administrative Control Procedures

Nursing Care

- Policies pertaining to Nursing care and management of clients with influenza and ILI as it relates to infection control are found in Infection Prevention and Control Manual policies 40-70 Influenza and Influenza-like Illness (ILI), 30-30 Droplet Precautions and 20-95 Respiratory Hygiene and Cough Etiquette. Policies are reviewed and updated every three years or whenever new information becomes available and are based on provincial or federal infection control guidelines.

Immunization

- Immunization of healthcare workers and the public, including clients of long term care facilities is guided by the Saskatchewan Ministry of Health Influenza Immunization Program Parameters. The program is promoted using the “I got one! Influenza vaccine” brand, through a variety of methods: posters, brochures, pop-up banners, 4flu website, 4flu phone line, Sunday SUN ad and flyers targeted to specific neighborhoods and rural communities. The vaccine order form, along with influenza program information, is sent to physician offices and SHR depts. in early Sept. for vaccine pick up on the first day of the campaign.

- Public immunization clinics are held in a variety of locations throughout the region for a 2 week period. In the 3rd week, nurses visit senior high rises in Saskatoon and small rural communities to immunize residents. Persons who miss the 2 week drop-in clinics can book an appointment commencing the 3rd week of the campaign to the end of March each year.

- In LTC and acute care facilities, clients are immunized under a physician order. For a description of the planning and implementation of the public campaign refer to the Seasonal Influenza Immunization policy# 60-b-60 located in PHS-Disease Control Program Manual.

- Health Care Worker immunization clinics which may include mobile clinics to high risk areas and designated areas, are offered in all acute care sites and community facilities such as Idylwyld Centre and Parkridge Centre over a 2 week period. Health Care workers and volunteers in rural communities are immunized by trained immunizers at their facilities or are invited to a public site. In the 3rd week clinics operate out of the Occupational Health & Safety (OH&S) Site Satellite offices. For a detailed description of the implementation of the staff campaigns refer to the Policy 7311-30-016 Annual Influenza Immunization of Health Care Workers located in the SHR Region-Wide Policy and Procedure Manual.
Health Care Workers designated to immunize the public or SHR employees and volunteers are required to attend an initial 4 hour education session. Immunizers, who immunized in the previous year's influenza season, require a 2 hour review annually. Nurses who administer vaccine under a physician's order are not required to attend additional education. Refer to the Immunization Education and Competency located in the PHS-Disease Control Program Manual.

The Department of Pharmaceutical Services maintains a process for identification of urban acute care clients who may be suitable candidates for immunization during an acute care admission. Refer to “Influenza Vaccine Policy and Procedure” in the Pharmacy department manual.

Upon their consent, Home Care Nurses will administer vaccine to home-bound clients. Home Care clients who can travel may receive immunization at public sites during the 2 week campaign. The process is embedded within Public Health policy.

Pneumococcal vaccine is administered to people over 65 years of age according to the provincial Immunization Program Parameters. During the seasonal influenza public campaign vaccine is offered along with seasonal vaccine to persons 65 years or older, including persons turning 65 years before March 31.

**Surveillance**

Public Health Services (PHS) oversees influenza and ILI surveillance in the community (schools and sentinel physicians' offices) and in the Emergency Rooms for acute care hospitals. Two SHR physicians participate in the provincial sentinel physician reporting process. In addition, several other physicians participate in local surveillance. For details refer to the surveillance chapter of the SHR Pandemic Influenza plan which describes the seasonal and pandemic surveillance processes. Surveillance findings are reported weekly during influenza season within the region and to the Ministry of Health. [http://infonet.sktnhr.ca/emergencypreparedness/Pages/PandemicInfluenzaPlanUpdateChapters.aspx](http://infonet.sktnhr.ca/emergencypreparedness/Pages/PandemicInfluenzaPlanUpdateChapters.aspx)

Infection Prevention and Control (IPC) staff performs surveillance during influenza season by reviewing admission diagnoses of inpatients, searching for diagnoses compatible with ILI or influenza.

**Investigations/Specimens**

Laboratory Service Manual virology (Microbiology) section, “Nasopharyngeal Swab” and “Nasopharyngeal Washing” outline the procedures which apply to collection and transportation of specimens. Directions for nasopharyngeal testing are included in this policy in Appendix A. Both Direct Fluorescent Antibody (DFA) and real-time Polymerase Chain Reaction (PCR) testing for influenza is available at RUH Virology Laboratory and at the Saskatchewan Disease Control Laboratory in Regina.

Bronchoscopy is not the primary diagnostic method for influenza. Bronchoscopy on any person with influenza or ILI is performed in a negative pressure bronchoscopy suite or in an airborne infection isolation room if a bronchoscopy suite is not available.

**Outbreak Management**

Policies and procedures pertaining to outbreak management of respiratory illness, including influenza and ILI are found in the Infection Prevention and Control manual,
Policy 55-60 Influenza-like Illness Outbreak Management and in the Policy 50-20 Outbreak Management in Long Term Care. Provincial guidelines for outbreak management are found in the Communicable Disease manual (Public Health Services) and have been distributed to each long term care and personal care home in the province; these guidelines may be broadly applied to all care environments and discuss preparation for influenza season in addition to aspects of outbreak management and control.

Environmental Control Procedures

- Facilities and Engineering Services (FES) is responsible for maintaining ventilation systems to ensure proper directional airflow, and adequate air change rates for client rooms, including airborne infection isolation and bronchoscopy rooms. FES procedures include HEPA filter changes and cleaning of isolation rooms.

- Endoscopy service is responsible to ensure proper cleaning and disinfection or sterilization processes for contaminated bronchoscopes to prevent transmission via contaminated equipment.

- PHS, Pharmaceutical Services and Nursing staff handling vaccine are responsible to maintain the recommended cold chain, documentation and related procedures for vaccine. These procedures are located in the provincial Immunization Program Parameters manual (the manual is available on the Internet).

- Non-invasive ventilation (NIV) using BiPAP or CPAP is not recommended for support of clients known or suspected of having influenza. Guidelines for the use of NIV are located in the Client Care section of the Regional Administrative Policy and Procedure Manual.

Personal Control Procedures

Healthcare Workers

- Regional policies 7311-30-016 Annual Influenza Immunization of Healthcare Workers and 7311-30-017 Management of Employees, Physicians and other Healthcare Workers during Influenza Outbreaks in Healthcare Facilities give details of responsibilities of various groups and departments regarding immunization and during outbreaks.

- Immunize or Mask Policy implemented in fall of 2014. All individuals covered by this Policy must either choose to be vaccinated annually against influenza or wear a surgical/procedure mask during influenza season when in a Patient Care Location in accordance with this Policy. During an influenza outbreak, this Policy is suspended at the outbreak location and Saskatoon Health Region’s outbreak policies will apply.

- OH&S is responsible for healthcare worker immunization and respiratory protection programs. OH&S collaborates with teaching institutions, Medical Affairs and others to ensure physicians, students and volunteers have the opportunity to receive immunization. See “Immunization” and “Personal Protective Equipment- Respiratory Protection” in the Occupational Health and Safety Policy and Program Manual.

Education

- Education regarding prevention, transmission and symptoms of influenza and ILI is provided via the IPC, PHS and OH&S programs.
• Clinical staff (i.e., nursing, respiratory therapy, etc) provide education to clients on respiratory hygiene, cough etiquette and hand hygiene procedures.

• Training/certification and recertification of staff to immunize clients, peers or the public is coordinated by PHS and OH&S.

References

Saskatchewan Ministry of Health Influenza Immunization Program Parameters 2009-10.
Introduction

Peripheral and central intravascular therapy can allow direct access of pathogenic microorganisms into the client's vascular system, putting clients at risk for local and systemic infections including local site infections, catheter-related bloodstream infections (CR-BSI), septic thrombophlebitis, endocarditis and other metastatic infections.

Serious catheter-related infections are associated with central venous catheters (CVCs), especially those that are placed in intensive care units. These infections are caused by cutaneous microorganisms that contaminate the catheter during insertion or migrate along the catheter track or microorganisms from the hands of health care workers that contaminate and colonize the catheter hub during care interventions.

Policy

It is expected that all departments will practice according to current best practice bundles (e.g., Safer Health Care Now!).

Purpose

1. To provide guidance related to prevention of Intravascular Infections.
   For procedure information refer to the Nursing Policy and Procedure manual (CVC Peripherally Inserted PICC—Removal (#1003); CVC Insertion - Assisting (#1073); CVC Short Term –Removal (#1058); CVC –Care Of (#1086); CVC –Implanted Ports (#1032); Hemodialysis - (#1099 & #2410) and program specific P&P.

Guidelines:
1. IV Catheter Type:
   • For frequent or continuous access, a PICC or tunnelled CVC is preferable to a standard IV catheter.
   • Use peripherally inserted catheters (PICC) as an alternative to subclavian or jugular vein.
   • Choose a CVC with the minimum number of ports or lumens.
   • Designate one port exclusively for hyper-alimentation for parenteral nutrition
   • Using inline filters is not recommended as a routine infection control measure.
Antimicrobial impregnated CVC may be considered if it is expected to remain in place >5 days AND, after successful implementation of a comprehensive strategy to reduce rates of CR-BSI, the CR-BSI rate is not decreasing. Consult ID.

2. Site
   - **Adult**: When a non-tunnelled CVC is necessary choose a subclavian site rather than jugular or femoral (with the exception of hemodialysis).
   - **Pediatrics**: Optimal catheter type and site selection in children is more complex. Site preference needs to be individualized.
   - Do not apply antimicrobial ointment to CVC insertion sites as routine care.
   - Showering may be permitted if caution is taken to prevent the introduction of organisms into the catheter (e.g., cover the catheter and connecting device with an impermeable covering). Tap water at the catheter site should be avoided for Hematopoietic Stem Cell Transplant recipients.

3. Insertion
   - **Hair removal**: Do not shave the hair at the puncture site, use a clipper if necessary.

4. Maintenance
   - **IV Solutions**: Bags should be examined prior to use and discarded if turbidity or precipitate is detected. Notify Pharmacy and provide the lot number of this solution.
   - **Anticoagulant therapy**: Do not routinely use anticoagulant therapy to reduce the risk of infection.
   - **Culturing**: In the absence of suspected or proven sepsis routine culturing is not advised.

5. Replacement:
   - Routine replacement of CVCs is not necessary.
   - Replace all CVCs if the client is hemodynamically unstable and CR-BSI is suspected.
   - **DO NOT** use guidewire exchanges routinely for non-tunnelled catheters to prevent infections.
   - **DO NOT** use guidewire techniques to replace catheters when there is a clinical suspicion for bloodstream infection.
   - **Cautious consideration may be given to a guidewire exchange technique being used when replacing a malfunctioning non-tunnelled catheter if no evidence of infection is present.**
References:


Introduction

Lice are small, tan colored, wingless insects that live on the human scalp and other hairy areas of the human body. They survive by sucking the blood of the host, which causes the persistent itch that is characteristic of lice. The eggs (nits) appear as small silvery/white ovals and are very firmly attached to the hair shafts. Lice rarely survive off the body for longer than 36 hours. Lice do not fly or jump and therefore need to be directly transported from one person to another. Transport can occur on any object that comes in contact with infected body hair and can include clothing, hats, combs, brushes and bedding.

Policy

1. Lice infestation shall be treated in a timely fashion.

Purpose

1. To prevent the transmission of lice

Procedure

1. Follow the directions as outlined in Appendix A - Dealing with Head Lice.

2. Provide Lice Fact Sheet and also found in the Infection Prevention and Control Manual.
References:


DEALING WITH HEAD LICE

Identification
1. Inspect the scalp and hair, focusing on the nape of the neck & behind the ears. See handout "What is Lice" for description of louse.
2. The nit is an egg that is attached to the hair shaft. The eggs cannot hatch below 24°C therefore nits that are found more than 1/2 inch from the skin have probably hatched.

Treatment - Notify Pharmacy if patient is pregnant or under 6 years of age.

1. Wash hair with regular shampoo, rinse and ensure hair is dry. Avoid crème rinses and/or conditioners.

<table>
<thead>
<tr>
<th>Permethrin (Nix™, Kwellada P™)</th>
<th>Isopropyl Myristate (Resultz)</th>
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</thead>
<tbody>
<tr>
<td>• Apply sufficient shampoo to saturate the hair and scalp.</td>
<td>• Apply 15-30mls for short hair; 60mls for long hair.</td>
</tr>
<tr>
<td>• Leave on for 10 minutes.</td>
<td>• Rub in and leave for 4 min, then add water and work into a good lather.</td>
</tr>
<tr>
<td>• Rinse well.</td>
<td>• Rinse well.</td>
</tr>
</tbody>
</table>

2. Obtain a fine-tooth comb from SPD (#42690) to remove any residual nits. Repeat combing q24-48hrs.
3. To facilitate nit removal - soak hair in a 1:1 vinegar/water solution, wrap in a towel for 1 hour, comb and rinse well.

24-48 Hours Post-Treatment
1. Inspect for signs of live lice.
2. If present, obtain physician’s order for a different product for the second application and repeat above procedure.
3. If live lice are not seen, repeat treatment in 7-10 days, with physician’s order.
4. Consult Infection Prevention & Control Professional or Infectious Diseases physician if second application is ineffectual within 24-48 hours.

Prevention and Disinfection
1. All clothing and bedding which has been in contact with the head or body 2 days prior to treatment should be machine washed in hot water and dried in a dryer at least 20 minutes or dry-cleaned. Soak brushes and combs in hot water for 10 minutes or wash in lice shampoo every day until infestation is over.
2. All healthcare agency linens may be treated as regular soiled linen.
3. Application of medicated shampoo can exacerbate pruritis and must not be interpreted as treatment failure.
4. Family members and close contacts should be inspected and treated if required.

Precautions
1. Initiate Contact Precautions for 24-48 hours after each treatment.
2. Lice are transmitted through head to head contact or contact with any object that comes in contact with infected body hair (hats, towels, brushes, bedding).
Introduction

Measles is an acute viral disease characterized by fever, cough, coryza, conjunctivitis, an erythematous maculopapular rash, and pathognomonic Koplik spots. Sometimes the characteristic rash does not develop in immunocompromised patients.

Complications such as otitis media, bronchopneumonia occur in about 10% of reported cases, even more commonly in those who are poorly nourished and chronically ill, and in infants < 1 year of age. Measles encephalitis occurs in approximately 1 of every 1,000 reported cases and may result in permanent brain damage.

Measles is transmitted by direct contact with nasal and throat secretions or, less commonly, by airborne spread and articles freshly soiled with nose and throat secretions. Measles is extremely contagious.

The incubation period generally is 8 to 12 days from exposure to onset of symptoms.

Confirmed Case – Laboratory confirmation of infection in the absence of recent immunization with measles-containing vaccine:

- isolation of measles virus from an appropriate clinical specimen or
- significant rise in measles specific antibody titre between acute and convalescent sera or
- positive serologic test for measles IgM antibody using a recommended assay. If the clinical and epidemiologic presentations are inconsistent with a diagnosis of measles, IgM results must be confirmed by additional testing or
- clinical illness in a person who is epidemiologically linked to a laboratory confirmed case.

Clinical Illness is characterized by all of the following features:

- fever 38.3°C or greater
- cough, coryza, or conjunctivitis
- generalized maculopapular rash for at least 3 days.

Measles immune individual: Any person with one of the following:

- a positive serologic test for measles antibody, IgG
- documented receipt of 2 doses of live-virus measles vaccine, the first of which is given on or after the first birthday
- born before 1970 (assumed to have acquired natural immunity to measles)
- physician-diagnosed measles
Policy

1. Place patients on Standard and **Airborne Precautions**, for 4 days after the onset of the rash in otherwise healthy patients and for the duration of illness in immune compromised patients.

2. **Airborne Precautions** should be taken with neonates born to mothers with measles infection at delivery.

3. Only immune health care workers and visitors should enter the room.


5. Adults born in 1970 or later who have not had a measles vaccine or have not had natural measles infection should receive a dose of MMR (measles, mumps, and rubella vaccine, live, attenuated). A second dose of MMR should be offered only to adults born in 1970 or later who are at greatest risk of exposure. These people include: travelers to measles endemic area, health care workers, military recruits, and students at post-secondary institutions.

Purpose

1. To reduce the mortality and morbidity associated with measles.

2. To prevent the spread of measles.

Procedure

1. Personal Protective Equipment
   - Immune health care workers and visitors do not require masks.
   - Health care workers and visitors who are susceptible but who absolutely must enter the room of a patient for whom Airborne Precautions are in place for suspected or confirmed measles wear N95 high particulate filtration masks.

2. Post-exposure management following patient exposure to a confirmed or clinical case of measles.
   - Confirm the diagnosis.
   - Consult Infection Prevention and Control.
   - Identify patients and health care workers who have been exposed and are susceptible to measles, consult Infectious Diseases, so immunoprophylaxis can be started. Susceptible individuals > 12 months of age who are exposed to measles may be protected from disease if measles vaccine is given within 72 hours of the exposure. Immune Globulin (IG) can be given to prevent or modify measles in a susceptible person within 6 days of exposure and may be used for this purpose in infants < 12 months of age, people for whom vaccine is contraindicated, or those for whom more than 72 hours but less than 1 week have elapsed since exposure.
   - Discharge all exposed susceptible patients as soon as possible, if discharge is not possible, place susceptible non-immunized patients on Airborne Precautions from days 5 through days 21 post exposure.
References:


Introduction

*Staphylococcus aureus* is a gram-positive bacteria, which forms a part of the normal flora found on skin and mucous membranes. Methicillin-resistant *Staphylococcus aureus* (MRSA) is a strain that has developed resistance to some antibiotics. A person who is colonized or infected with this organism may serve as a reservoir for MRSA, which could then be the source for infection transmitted to other persons. Infection can occur when MRSA is associated with tissue invasion. Common sites of infection are urine and surgical wounds, invasive devices and soft tissue wounds. Less common infections are bacteremia and pneumonia. Refer to [MRSA Fact Sheet](#).

Definitions

**Cohort:**
- Two or more clients colonized or infected with the same organism who are separated physically (i.e., in a separate room or ward) from other clients who are not colonized or infected with that organism.

**Spatial Isolation:**
- Separation by distance (minimum of 2 meters) and/or physical barriers (privacy curtains).

Policy

1. In addition to Routine Practices, use Contact Precautions for clients known to be infected or colonized with MRSA. Please refer to unit-specific policies for NICU and inpatient mental health.
2. **In acute care (Inpatient areas)** - in addition to Routine Practices, use Contact Precautions for contacts of newly identified positive clients known to be infected or colonized with MRSA. **Contacts are defined as:**
   - All roommates who have resided in the same room as the newly identified ARO client for 24 hours and greater.
   - A client admitted (for 24 hours and greater) to the bed of a transferred or discharged client who is a newly identified ARO case prior to knowing their positive ARO status. See handout – [Contacts of an Antibiotic Resistant Organism – Client, Family & Visitor Information](#).
3. In acute care (Outpatient areas including Emergency) – If a client is identified as a contact of a newly identified positive client known to be infected or colonized with MRSA, the client is not placed on additional precautions unless the client stay is greater than 24 hours. If the client’s stay is 24 hours or greater and/or they are admitted, the client is placed on additional precautions. If the client is admitted to an inpatient area, the inpatient area needs to be informed that the client requires additional precautions (see “In acute care (Inpatient areas)”). Outpatient areas are required to proceed with screening of MRSA whenever possible. See Appendix A – Retesting Process to Clear MRSA Positive Status – Acute Care.

4. In Long term care – Consult with Infection Prevention and Control for direction of contacts of newly identified positive residents known to be infected or colonized with MRSA. Refer to the 40-115 MRSA – Long Term Care Facility Policy.

5. In addition to Routine Practices, use Droplet and Contact Precautions for clients known to have MRSA in their sputum and in whom MRSA may be aerosolized during care. See Procedure #4.

6. Clients identified as MRSA positive will have their health records flagged by Infection Prevention and Control so that at each admission/visit to the health care facility, appropriate additional precautions can be initiated.

Purpose

1. To protect the clients, visitors and healthcare workers by preventing and controlling the spread of MRSA throughout the facility by identifying and interrupting the specific route of transmission.

2. To prevent the transfer of genetic traits of Vancomycin resistance to MRSA and avoid the development of Vancomycin-resistant Staphylococcus aureus.

Procedure

1. Identification of MRSA positive status in clients

- Nursing completes the 60-30 Appendix A - Admission Screening Medical Directive. Refer to 60-30 Screening for Antibiotic Resistant Organisms (AROs) – Medical Directives Policy and Procedure in the Infection Prevention and Control Manual (acute care only).
- Identify clients placed on additional precautions by attaching appropriate precaution sticker to the inside of the chart cover (acute care only).
  - The additional precautions stickers can be ordered through Stores/Materials Management (Contact Precautions - SKU # 201037; Droplet Precautions - SKU # 201038)
- Nursing notifies Infection Prevention and Control of out-of-region clients identified as MRSA positive.
- Microbiology lab will notify Infection Prevention and Control and the nursing unit of newly identified inpatients with MRSA.
- Microbiology lab will notify Infection Prevention and Control and the attending physician of newly identified outpatients with MRSA.

2. Client Placement

- Place the client in a single room with private bathroom.
- Post Contact Precautions* sign (SHR Printing #102106) or Droplet and Contact Precautions* sign (SHR Printing #102107).
- The dedicated Personal Protective Equipment (PPE) station must be placed away from any possible sources of contamination such as sinks and sharps containers.
The dedicated PPE station such as a supply cart needs to be properly stocked and must be located outside the room. Supplies should include:

- **Outside the room:**
  - Alcohol-based hand rub (ABHR)
  - Gloves (3 sizes)
  - Clean gowns
  - Masks/face shield as required
  - Hospital grade disinfectant
- **Inside the room:**
  - Waste basket
  - Dirty hamper
  - ABHR

Attach the additional precaution sticker to the inside of the chart.

- The additional precaution stickers can be ordered through Stores/Materials Management (Contact Precautions – SKU # 201037; Droplet Precautions – SKU # 201038; Airborne Precautions – Request by contacting Infection Prevention and Control).

If single room is unavailable, use of spatial isolation or cohorting may be necessary;

- Post Contact Precautions* sign (SHR Printing #102106) or Droplet and Contact Precautions* sign (SHR Printing #102107) on privacy curtain.
- Keep privacy curtain pulled, if possible. The inside of the curtain is considered client environment and the outside of the curtain healthcare environment.
- The cart with clean supplies is placed outside the privacy curtain, where gown, gloves and/or masks/face shields are donned.
- The linen hamper and waste basket are placed inside the privacy curtain, where gown, gloves and/or masks/face shields are removed.

If cohorting and/or using spatial isolation:

A. Place clients who are colonized or infected with the same organism (MRSA) together:
   - Cohort and spatially isolate the clients with the **lowest** risk of transmission:
     - continent,
     - good hygiene
     - skin lesions or wounds covered by dressings
     - able to control respiratory secretions
     - capable of self-care and able to comply with infection control precautions
   - Conditions that increase risk of transmission:
     - Presence of excessive wound drainage
     - Fecal incontinence
     - All other discharges (secretions & excretions) from the body
   - **Vulnerable clients to colonization or infection are those clients with:**
     - Severe diseases especially those who are immunocompromised or who have underlying medical conditions (i.e., organ transplant, hematopoietic stem cell transplant)
     - Special care (i.e., ICU, burn, hemodialysis, cystic fibrosis, and chemotherapy)
     - Recent surgery
     - Indwelling medical devices (i.e., urinary catheter, central venous line and endotracheal tubes)
     - Open draining wounds

B. Identify the MRSA clients with the **least** risk of transmission in private rooms and cohort them using spatial isolation (as noted above) in the same room. The client with the **highest** risk of transmission will be placed in a private room.

C. Clients who are **NOT** colonized or infected with the same organism:
   - Consult with Infection Prevention and Control
3. Hand Hygiene

- Perform hand hygiene as per 20-20 Hand Hygiene policy in the Infection Prevention & Control manual using either alcohol-based hand rub (ABHR) or liquid soap and water.
- Client’s hands should be cleansed before and after eating, and after going to the bathroom, assist the client if needed.

4. Personal Protective Equipment

   a) Gloves and Gown
      - Always perform hand hygiene before donning and doffing gloves and/or gown.
      - Glove and gown for all direct contact with the client or the environmental surfaces.
      - Choose a glove suitable for the task. Change gloves and perform hand hygiene after contact with infectious material that may contain high concentrations of microorganisms.
      - Gowns are single use only. Remove if immediately wet.
      - Perform hand hygiene before leaving the room.
      - Avoid contact with environmental surfaces when leaving the room.
      - See 20-150 Personal Protective Equipment - Donning and Doffing policy.

   b) Wear a mask/face shield when:
      - The client has pneumonia and is sputum positive for MRSA
      - Suctioning and care of clients with a tracheostomy colonized or infected with MRSA.
      - There is likelihood of aerosolization from sputum positive for MRSA
      - There is the likelihood of aerosolization from wound drainage positive for MRSA
      - Always perform hand hygiene before donning and doffing mask/face shield
      - See 20-150 Personal Protective Equipment - Donning and Doffing policy.

5. Client Transportation

   - Ensure the Additional Precautions sticker is on the inside of the client chart.
   - Notify receiving department that Contact Precautions or Droplet and Contact Precautions are required.
   - Lay chart on clean towel if placing on client’s lap or bed or bag chart.
   - Glove and gown for transport of client and when anticipating direct contact with client.
   - Don mask/face shield for transport of a client on Droplet and Contact precautions.
   - Avoid contact with surfaces en route. Use elbow to push elevator buttons.
   - Use clean sheet to cover client.
   - When using unit’s wheelchair disinfect before using for next client.
   - Clean equipment with a hospital disinfectant.
   - Transportation of the client to other departments should be limited to essential procedures only.
   - Have client perform hand hygiene prior to leaving their room.
   - When leaving their room the client must have on a freshly laundered gown/housecoat. Gloves are not required.

6. Client Activities

   - Limit client activities to necessary tests, therapies and exercise. Avoid common areas like kitchen, TV and play rooms. Refer to handout: Contact Precautions – Client, Family & Visitor Information or Droplet and Contact Precautions – Client, Family & Visitor Information.
7. Client Care Equipment

- Remove unnecessary items by limiting the amount of supplies taken into the room to avoid unnecessary waste at client’s discharge.
- Dedicate non-critical client-care equipment to a single client (i.e., stethoscope, blood pressure cuff, tourniquet, vacutainer, laundry hamper stand, walker and commode).
- Any equipment that comes in direct contact with the client shall be wiped with a hospital disinfectant.
- If sharing of equipment is unavoidable, clean and disinfect between clients.
- Dietary trays from clients on Contact Precautions or Droplet and Contact Precautions can be placed on tray carts. Dietary transport carts are washed after each use.
- Dietary trays from clients on Contact Precautions or Droplet and Contact Precautions left after pickup by food and nutrition staff should be bagged and left for pick up in a designated area if they cannot be left in the room until next pick up.
- Gloves should be worn for pickup of dietary trays of clients on additional precautions.

8. Visitors

- Instruct visitors regarding hand hygiene before and after client contact and/or entering or exiting the client room.
- Gowns and gloves are not required unless the visitor provides direct care (i.e., feeding, bathing, toileting, transferring, etc.). If client is MRSA sputum positive, visitors must wear a mask/face shield within 2 meters of client.
- Refer to the information handout - Contact Precautions – Client, Family & Visitor Information or Droplet and Contact Precautions – Client, Family & Visitor Information.

9. Client and Family Teaching

- Clients should understand the nature of their infectious process and the precautions being used, as well as the prevention of transmission of MRSA to other clients, family and friends during their hospital stay and upon their return to the community. Provide the client information handout - Contact Precautions – Client, Family & Visitor Information or Droplet and Contact Precautions – Client, Family & Visitor Information.
- Infection Prevention and Control may be called to assist with education on MRSAs.
- Refer to MRSA Fact Sheet.

10. Environmental Cleaning

- Room cleaning is performed while wearing PPE for additional precautions.
- Following discharge or discontinuation of precautions:
  - Contact Precaution sign or Droplet and Contact Precaution sign shall remain in place and Environmental Services will remove sign once cleaning completed.
  - Wear PPE for Contact or Droplet and Contact Precautions.
  - Privacy curtains should be changed.
  - A precaution clean is performed for all clients who are on additional precautions.

11. Cultures

MRSA positive clients: Testing for Clearance:

- **Three** consecutive sets of negative samples from all colonized/infected body sites; (in most cases this would be nares and groin swab), taken a week apart are required to remove from precautions. Refer to Appendix A - Retesting Process to Clear MRSA Positive Status – Acute Care.
• After a client has tested positive for MRSA, we generally wait for at least 3 months before testing.
• Clients who have had cultures done within the previous month do not require repeat cultures unless a new infection is present, the person’s health has changed, or at the discretion of Infection Prevention and Control.
• Follow up cultures should be assessed on an individual basis in consultation with the Infectious Disease Physician and/or Infection Prevention and Control.
• After the client has been deemed negative, swabs will be repeated monthly for up to six months as long as the client remains in hospital.

Other Considerations:
• It may be inappropriate for some clients to have their groin swabbed. In that case their axilla instead of the groin can be swabbed.
• Clients must be off antibiotics to which the MRSA is susceptible for at least 48 hours prior to swabbing. The usual antibiotics are Trimethoprim/Sulfamethoxazole (Cotrimoxizole, Bactrim, Septra), Clindamycin, Vancomycin, Linezolid, Daptomycin, Mupirocin, Fusidic Acid, Bacitracin, Rifampin, Telavancin, Tigecycline.
• The use of antibacterial soaps (i.e., Chlorhexidine) should be avoided for at least 48 hours prior to swabbing so as not to interfere with culture results.
• Cultures are to be taken from the nares and groin area as well as any other documented positive sites (i.e., wounds)
• When urine is the original positive site, always obtain a groin swab, not urine.

Contacts of newly identified MRSA clients:
• Two consecutive sets of negative samples one week apart (nares, groin) are required to remove from precautions. Refer to Appendix B – Testing Process for Contacts to a Newly Identified MRSA – Acute Care.

Admission Screening Cultures:
• Admission screens are a Medical Directive. See 60-30 Appendix A – Admission Screen Medical Directive.

Specimen Collection:
• See 60-30 Appendix C - Specimen Collection Guide.

12. Bioload Reduction

All clients over the age of two (2) months identified to be colonized or infected with MRSA should bath/shower daily with Chlorhexidine Gluconate (CHG) 2% liquid soap (SKU # 201605) or pre-moistened disposable washcloths ( SKU # 212127). The use of CHG 2% soap decreases the number of bacteria on the skin and thus the risk of transmitting the bacteria in the environment.
• Do not use on mucous membranes (including perineal area), head, face, eyes, ears or mouth. Wounds which involve more than superficial layers of skin should not be routinely treated.
• Compatible body lotions may be used to prevent excessive drying of the skin.
• If irritation or a reaction lasts for longer than 72 hours it may be a sign of serious condition, discontinue treatment.
• With liquid CHG 2% soap, a polyester cloth, having a relatively tight weave, has been found in one study to be more efficient at exfoliating the skin. However, cotton cloths may be used as well.
• Hand hygiene should be performed with liquid CHG 2% soap. Hand hygiene should be completed every 4 – 6 hours. Assist clients as needed.
• Daily change of clothing.
- Daily change of bedding, preferably after CHG 2% bed bath or shower.
- Regular hair shampoo can be used.
- **A physician’s order is not required to employ these strategies.**

**Antibacterial Shower:**
- Showering with liquid soap, thoroughly rinse area to be washed, apply minimum amount of antibacterial soap directly to body surfaces paying special attention to skin folds at armpits, under breast and groin.
- Ensure the soap is left on the skin for one minute, then rinse well to remove all soap residues to prevent skin irritation.

**Bed Bathing:**
- CHG 2% liquid soap use:
  - Thoroughly rinse the area to be washed, apply minimum amount of antibacterial soap directly to body surfaces paying special attention to skin folds at armpits, under breasts and groin.
  - Ensure the soap is left on the skin for one minute, then rinse well to remove all soap residues to prevent skin irritation.
- CHG 2% pre-moistened washcloth use:
  - See **Appendix E - CHG 2% Pre-moistened Disposable Washcloth Protocol – Acute Care.**

13. **Decolonization**

- Decolonization may be considered for clients who meet the criteria using **Appendix C – MRSA Decolonization Criteria Algorithm – Acute Care.**
- Any licensed nurse or physician can initiate review of the decolonization criteria for any client who is MRSA positive.
  - If the criteria are met the nursing unit will have the physician order MRSA surveillance swabs to have the MRSA tested for sensitivities to antibiotics.
  - The physician is responsible for ordering the antimicrobial nasal cream that the MRSA is sensitive to.
- Clients with the following criteria are **excluded:**
  - sputum positive
  - open wounds greater than 1 cm
  - indwelling devices
  - living with family or close contacts who are MRSA positive
  - cognitively impaired
  - inadequate resources
  - Mupirocin and Fusidic Acid resistance
  - continued use of antibiotics
- If the client meets the criteria in **Appendix C – MRSA Decolonization Criteria Algorithm – Acute Care,** use **Appendix D - MRSA Decolonization Protocol – Acute Care.**

14. **Discharge of MRSA Positive Clients**

- Instruct clients to report their MRSA status to any medical office or hospital.
- Ensure education is provided to the family, homecare personnel or the receiving institution prior to the client’s departure. Provide client with **Contact Precautions – Client, Family & Visitor Information** or **Droplet and Contact Precautions – Client, Family & Visitor Information** and **MRSA Fact Sheet.**
- On client transfer, inform receiving facility of client’s MRSA status.
- See Environmental Cleaning (Section # 10).
References


4. Provincial Infectious Diseases Advisory Committee (September 2012). Best practices for infection prevention and control programs in Ontario in all health care settings (3rd ed.). Ontario: Ministry of Health and Long-Term Care.


60-30 Appendix D – MRSA and VRE Retesting Process to Clear Positive Status

- Contact your Infection Control Practitioner (ICP) to determine when the retesting process can begin. Certain conditions may lead to delayed testing for clearance as they present a risk for continued colonization of the MRSA or VRE.

- **Wait at least 3 months (from the last positive date)** before retesting for MRSA or VRE.
  - Ensure all treatment for infection (i.e., Urinary tract infection, pneumonia, etc.) is complete at least 48 hours before retesting process begins.

- Ensure the client is taking no IV or oral antibiotics, or using antibacterial soaps (i.e., Chlorhexadine soap) 48 hours before each set of cultures, so as to not interfere with culture results.

- **Required Testing Sites** (See the Specimen Collection Guide for appropriate method of collection):
  - **Three sets** of cultures from **all documented positive sites** as well as the usual screening sites for the organism are required.
    - If testing for **MRSA**, also take three sets of cultures from ANY wound* or device site**, even if it has not been positive in the past.
    - If a urine culture or blood culture was a positive site, swab for MRSA or VRE using their usual screening sites.

  One set of cultures NEGATIVE from all required sites.

  Obtain **two more sets** of cultures from all required sites at least one week apart.

  If any site is POSITIVE

  Repeat cultures in 3 months.

  If three negative sets of cultures from all required sites.

  Fax results to Infection Prevention & Control - Saskatoon (306-655-6142). IP&C - Saskatoon will notify you once client has been cleared and can be removed from precautions.

  **NOTE:** There is no clearance process for CPO.

  **LTC/RENAL SERVICES:** Repeat testing of ALL required sites monthly x 6 months (monthly x 12 months for Renal Services). Renal Services will continue screening annually.

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*Wound sites – include draining or open wounds/incisions
**Device sites – swab opening surrounding device
Discover a MRSA or VRE Positive Client who was NOT on appropriate additional precautions for your unit

The positive client (index client) has been in the hospital for ≥ 24 hours before being placed on appropriate additional precautions.

Yes

Contacts of the index client for ≥ 24 hours, as determined by Infection Prevention & Control – Saskatoon (IP&C – Saskatoon), are identified and flagged with an ESO Alert.

Yes

Collect swab for the identified organism on the required date noted on the Appendix B – ARO Surveillance Orders Medical Directive.

- See 60-30 Screening for AROs – Medical Directives for screening criteria
- See Appendix C – Specimen Collection Guide for collection method

MRSA or VRE test is negative

Notify IP&C – Saskatoon.

MRSA or VRE test is positive

Transmission has occurred – Contact IP&C – Saskatoon.

No

No follow-up needed.
NOTE: Any licensed nurse or physician can initiate a review of the criteria for any client who is MRSA positive.

Step 1 - Are any of the following exclusion criteria present?
- Sputum positive
- Open wounds greater than 1cm
- Indwelling devices (i.e., IV, Catheter, etc.)
- Living with family or close contacts who are MRSA positive
- Inadequate resources to carry out decolonization process
- Mupirocin or Fusidic acid resistant
- Continued use of antibiotics

Yes

No

Stop

Step 2 - Does the client have Wandering Behaviour?
Decolonization may be still be considered for clients with wandering behavior if staff can ensure hand hygiene with only liquid soap or alcohol-based hand rub (do not use the Chlorhexidine gluconate(CHG) 2% liquid soap solution) 48 hours prior to screening swabs being collected.

No

Yes

Stop

Step 3 – Compliance
Clients must also be compliant with daily bathing routine, which may include the use of CHG wipes.

Yes

No

Stop

1) Physician/MRP to order nares/groin surveillance for MRSA.
2) Send the specimen to the lab. Important: Specify “decolonization” on the laboratory requisition.
The lab will test for sensitivity to Mupirocin or Fusidic acid.
3) When sensitivity result is back, have the physician order the appropriate nasal ointment/cream from pharmacy. Then continue to Appendix D – Decolonization Protocol – Acute Care.
*Any licensed nurse or physician can initiate a review of the criteria for any client who is MRSA positive.

**Seven Day Protocol**

<table>
<thead>
<tr>
<th>Day 1 to 7</th>
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<tbody>
<tr>
<td><strong>Start date:</strong></td>
<td></td>
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<tr>
<td><strong>End date:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Antimicrobial nasal cream applied to each nostril</strong></td>
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<tr>
<td>(Mupirocin 2% or Fucidic Acid 2%)</td>
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<tr>
<td>• Obtain physician order</td>
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<tr>
<td>• Apply ointment twice daily for 7 days:</td>
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<tr>
<td>o Place a small amount of ointment (size of a match head) onto a cotton tipped swab.</td>
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<tr>
<td>o Massage gently around the inside of the nostril, making sure not to insert it too deeply (no more than 2-3 cm).</td>
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<tr>
<td>o Repeat on other side.</td>
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<table>
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<tr>
<th>AM</th>
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<td>Day 1</td>
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<td>Day 2</td>
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**CARE**

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<tbody>
<tr>
<td>• Daily changes of clean clothes, pyjamas and linens (bed linens as often as possible) including towels. Daily cleaning of room.</td>
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<table>
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<tbody>
<tr>
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<td>Day 7___</td>
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**Day 1 & 7**

<table>
<thead>
<tr>
<th>Mornings</th>
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<tbody>
<tr>
<td><strong>Day 1:</strong></td>
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<tr>
<td><strong>(date)</strong></td>
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<tr>
<td><strong>Day 7:</strong></td>
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<td><strong>(date)</strong></td>
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**MORNING**

<p>| |</p>
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<tbody>
<tr>
<td><strong>Shower or bath</strong></td>
</tr>
<tr>
<td>Chlorhexidine 2% liquid soap solution</td>
</tr>
<tr>
<td>• Wet hair and body.</td>
</tr>
<tr>
<td>• Apply CHG 2% liquid soap solution to all body surfaces.</td>
</tr>
<tr>
<td>• Pay special attention to skin folds at armpits, under breasts, groin and perineum areas.</td>
</tr>
<tr>
<td>• Ensure the CHG product is left on skin and hair for one minute, then rinse well to remove all soap residues.</td>
</tr>
<tr>
<td>• Body lotions may be used to prevent excessive drying of the skin.</td>
</tr>
<tr>
<td>• Regular shampoo may be used in addition to CHG product if preferred.</td>
</tr>
<tr>
<td>• Do not allow this product to come in contact with your eyes, ears, mouth and mucous membranes.</td>
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<tbody>
<tr>
<td>Day 1___</td>
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</table>
Retest to determine success of process

Wait 48 hours after decolonization protocol is completed i.e., the client must be treatment-free (i.e., no anti-staphylococcal antibiotics (see policy), CHG 2% products or ointment in use) before collecting screening swabs.

- 3 consecutive negative swabs from the nares and groin, each one week apart, without intervening antibiotics or CHG soaps/ointments, are required for a decolonization to be declared successful.

<table>
<thead>
<tr>
<th>Culture # 1 Date</th>
<th>Culture # 2 Date</th>
<th>Culture # 3 Date</th>
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Two decolonization attempts can be tried if necessary. Clients who still test positive after two attempts will be considered chronic carriers.

How to collect nares and groin swab:

Please see 60-30 Appendix C - Specimen Collection Guide
Use 1 clean washcloth to prep each area of the body in order as shown in steps 1 to 6 (see diagram). Complete the top part of the body; cover lightly the move to lower part of the body. Wipe each area in a back-and-forth motion. Be sure to wipe each area thoroughly.

- **First Cloth:** Wipe the chin, neck, chest and stomach.
- **Second Cloth:** Wipe both arms starting each with the shoulder and ending at the fingertip. Be sure to thoroughly wipe the underarms.
- **Third Cloth:** Wipe the first leg starting at the thigh and ending at the toes.
- **Fourth Cloth:** Wipe the other leg, starting at the thigh and ending at the toes.
- **Fifth Cloth:** Wipe the back starting at the base of the neck and ending at the waist line. Cover as much area as possible.
- **Sixth Cloth:** Wipe the right and left hips, then groin and buttocks. Be sure to wipe folds in the stomach and groin areas.

- Do not rinse, apply lotions, moisturizers or makeup immediately after application.
- Discard disposable washcloths in the garbage (do not flush in toilet).
- Allow client’s skin to air dry.
- Dress in clean sleepwear.
Introduction

Staphylococcus aureus is a gram-positive bacteria, which forms a part of the normal flora found on skin and mucous membranes. Methicillin-resistant Staphylococcus aureus (MRSA) is a strain that has developed resistance to some antibiotics. A person who is colonized or infected with this organism may serve as a reservoir for MRSA, which could then be the source for infection transmitted to other persons. Infection can occur when MRSA is associated with tissue invasion. Common sites of infection are urine and surgical wounds, invasive devices and soft tissue wounds. Less common infections are bacteremia and pneumonia. Refer to MRSA Fact Sheet.

Definitions

Cohort:
- Two or more residents colonized or infected with the same organism who are separated physically (i.e., in a separate room or neighbourhood) from other residents who are not colonized or infected with that organism.

Spatial Isolation:
- Separation by distance (minimum of 2 meters).

Policy

1. In addition to Routine Practices, use Contact Precautions for residents known to be infected or colonized with MRSA.

2. **A. In LTC**, in addition to Routine Practices, use Contact Precautions for contacts of newly identified positive residents known to be infected or colonized with MRSA. Contact Precautions must be in place until appropriate swabs are deemed negative (see procedure # 11 Cultures – Contacts of Newly Identified Residents). Contacts are defined as:
   a. All roommates who have resided in the same room as the newly identified ARO resident for 24 hours and greater.
   b. Close contacts such as table mates or others as identified by Infection Prevention & Control upon discussion with the home.
OR

B. In LTC, use Routine Practices for contacts of newly identified positive residents known to be infected or colonized with MRSA until appropriate swabs are deemed negative (see procedure # 11 Cultures – Contacts of Newly Identified Residents). Contacts are defined as:
   a. All roommates who have resided in the same room as the newly identified ARO resident for 24 hours and greater.
   b. Close contacts such as table mates or others as identified by Infection Prevention & Control upon discussion with the home.

Purpose

1. To protect the residents, visitors and healthcare workers by preventing and controlling the spread of MRSA throughout the facility by identifying and interrupting the specific route of transmission.

2. To prevent the transfer of genetic traits of Vancomycin resistance to MRSA and avoid the development of Vancomycin-resistant Staphylococcus aureus.

3. To reduce or minimize the psychological effects of Contact Precautions on the resident by having residents with MRSA continue to have the opportunity to participate in normal activities of daily living. Residents can eat their meals in the dining room, and attend formal and informal activities with proper hand hygiene unless they are at higher risk of transmission. See Procedure #6.

Procedure

1. Identification of MRSA positive status in residents

   - Microbiology notifies Infection Prevention & Control and the nursing unit of newly identified residents with MRSA.
   - Infection Prevention & Control flags the resident’s health record so that on each admission to the health care continuum, appropriate measures are taken by health care staff.
   - Nursing may complete the MRSA Care Plan (SHR Printing Form # 104025) in consultation with the Infection Control Professional, as required.
   - The LTC may use the MRSA Fact Sheet.

2. Resident Placement

   - Place the resident in a single room with private bathroom.
   - Post Contact Precautions signs or Droplet and Contact Precautions signs on the resident’s door and the bathroom door if shared. To obtain signage call 306-655-4612 or email diseasecontrol@saskatoonhealthregion.ca.
   - The dedicated Personal Protective Equipment (PPE) station must be placed away from any possible sources of contamination such as sinks and sharps containers.
   - The dedicated PPE station such as a supply cart needs to be properly stocked and must be located outside the room. Supplies should include:
     o Outside the room:
       ▪ Alcohol-based hand rub (ABHR)
       ▪ Gloves (3 sizes)
       ▪ Clean gowns
       ▪ Masks/face shield as required
• Hospital grade disinfectant
  o Inside the room:
    ▪ Waste basket
    ▪ Dirty hamper
    ▪ ABHR
• If single room is unavailable, use of spatial isolation or cohorting may be necessary;
  o Post Contact Precautions signs or Droplet and Contact Precautions signs on the resident’s door and the bathroom door if shared. To obtain signage call 306-655-4612 or email diseasecontrol@saskatoonhealthregion.ca.
  o The cart with clean supplies is placed outside the room, where gown, gloves and/or masks/face shields are donned.
  o The linen hamper and waste basket are placed inside the room, where gown, gloves and/or masks/face shields are removed.
  o If these options are not available, due to space issues, contact Infection Prevention & Control to discuss other options.
• If a bathroom is shared, dedicate the bathroom to the resident who is positive. Provide a dedicated commode to all residents who regularly use the shared bathroom.
• If cohorting and/or using spatial isolation:
  A. Place residents who are colonized or infected with the same organism (MRSA) together:
    • Cohort and spatially isolate the residents with the lowest risk of transmission:
      o continent,
      o good hygiene
      o skin lesions or wounds covered by dressings
      o able to control respiratory secretions
      o capable of self-care and able to comply with infection control precautions
    • Conditions that increase risk of transmission:
      o Presence of excessive wound drainage
      o Fecal incontinence
      o All other discharges (secretions & excretions) from the body
  B. Identify the MRSA residents with the least risk of transmission in private rooms and cohort them using spatial isolation (as noted above) in the same room. The resident with the highest risk of transmission will be placed in a private room.
  C. Residents who are NOT colonized or infected with the same organism:
    • Consult with Infection Prevention & Control

3. Hand Hygiene

• Perform hand hygiene as per 20-20 Hand Hygiene policy in the Infection Prevention & Control manual using either alcohol-based hand rub (ABHR) or liquid soap and water.
• Resident’s hands should be cleansed before and after eating, activities and after going to the bathroom, assist the resident if needed.
4. Personal Protective Equipment

a) Gloves and Gown
   • Always perform hand hygiene before donning and doffing gloves and/or gown.
   • Glove and gown for all direct contact with the resident or the environmental surfaces.
   • Choose a glove suitable for the task. Change gloves and perform hand hygiene after contact with infectious material that may contain high concentrations of microorganisms.
   • Gowns are single use only. Remove if immediately wet.
   • Perform hand hygiene before leaving the room.
   • Avoid contact with environmental surfaces when leaving the room.
   • See 20-150 Personal Protective Equipment - Donning and Doffing policy.

b) Wear a mask/face shield when:
   • The resident has pneumonia and is sputum positive for MRSA
   • Suctioning and care of residents with a tracheostomy colonized or infected with MRSA.
   • There is likelihood of aerosolization from sputum positive for MRSA
   • There is the likelihood of aerosolization from wound drainage positive for MRSA
   • Always perform hand hygiene before donning and doffing mask/face shield
   • See 20-150 Personal Protective Equipment - Donning and Doffing policy.

5. Resident Transportation

   • Notify receiving department that Contact Precautions or Droplet and Contact Precautions are required.
   • Lay chart on clean towel if placing on resident’s lap or bed or bag chart.
   • Glove and gown for transport of resident and when anticipating direct contact with resident.
   • Don mask/face shield for transport of a resident on Droplet and Contact precautions.
   • Avoid contact with surfaces en route. Use elbow to push elevator buttons.
   • Use clean sheet to cover resident.
   • When not using the resident’s owned wheelchair, disinfect before using for next resident.
   • Clean equipment with a hospital grade disinfectant.
   • Transportation of the resident to other departments should be limited to essential procedures only.
   • Have resident perform hand hygiene prior to leaving their room.
   • When leaving their room the resident must have on freshly laundered clothing. Gloves are not required.

6. Resident Activities

   • There is no requirement to limit resident activities or to avoid common areas. Refer to handout – Contact Precautions – Long Term Care Family and Visitor Information and Droplet & Contact Precautions – Long Term Care Family and Visitor Information.
   • To dine, encourage residents with MRSA to sit with other residents who are also MRSA positive if these residents socialize on a regular basis. If residents sit with others who are not positive with MRSA, ensure hand hygiene occurs upon entering and leaving the dining area. Hands should also be cleansed before they leave their room for the meal.
   • Eliminate any shared items at the dining table (i.e., salt and pepper packages or containers).
   • Ask visitors who visit several residents’ rooms to schedule the resident with MRSA as the last visit, wash hands, and then leave the facility.
• Ask individuals who porter several residents to assist the resident with MRSA individually, and to perform hand hygiene before and after contact (gloves and gowns are not required).
• Ask individuals who porter several residents to a larger event to include the resident with MRSA with other residents. However, resident’s hands must be washed before they leave their room and the porter must also be washed after taking the resident to the event and after returning the resident to their room.
• Residents who are positive with MRSA may be bathed or showered at any time. Occasionally facilities delay the bathing of these residents to the end of the day, which is permissible, but not necessary because all tubs should be disinfected as per manufacturer’s recommendations.

7. Resident Care Equipment

• Remove unnecessary items by limiting the amount of supplies taken into the room to avoid unnecessary waste at resident’s discharge.
• Dedicate noncritical resident care equipment to a single resident (i.e., stethoscope, blood pressure cuff, tourniquet, vacutainer, laundry hamper stand, walker and commode).
• Any equipment that comes in direct contact with the resident shall be wiped with a hospital grade disinfectant.
• If sharing of equipment is unavoidable, clean and disinfect between residents.
• Dietary trays from residents on Contact Precautions or Droplet and Contact Precautions can be placed on tray carts. Dietary transport carts are washed after each use.
• Gloves should be worn for pickup of dietary trays of residents on additional precautions.

8. Visitors

• Instruct visitors regarding hand hygiene before and after resident contact and/or entering or exiting the resident room.
• Gowns and gloves are not required unless the visitor provides direct care (i.e., feeding, bathing, toileting, transferring, etc.). If resident is MRSA sputum positive, visitors must wear a mask/face shield within 2 meters of resident.
• Refer to the information handout – Contact Precautions – Long Term Care Family and Visitor Information or Droplet & Contact Precautions – Long Term Care Family and Visitor Information.

9. Resident and Family Teaching

• Residents should understand the nature of their infectious process and the precautions being used, as well as the prevention of transmission of MRSA to other residents, family and friends. Provide the resident information handout - Contact Precautions – Long Term Care Family and Visitor Information or Droplet & Contact Precautions – Long Term Care Family and Visitor Information.
• Infection Prevention & Control may be called to assist with education on MRSAs.
• Refer to MRSA Fact Sheet.

10. Environmental Cleaning

• Room cleaning is performed while wearing PPE for additional precautions.
• Following discharge or discontinuation of precautions:
  o Contact Precaution signs or Droplet and Contact Precaution signs shall remain in place and Environmental Services will remove sign once cleaning completed.
  o Wear PPE for Contact or Droplet and Contact Precautions.
A precaution clean is performed for all residents who are on additional precautions.

11. Cultures

**MRSA positive residents: Testing for Clearance:**
- **Three** consecutive sets of negative samples from all colonized/infected body sites; (in most cases this would be nares and groin swab), taken a week apart are required to remove from precautions. Refer to Appendix A - Retesting Process to Clear MRSA Positive Status.
- After a resident has tested positive for MRSA, we generally wait for at least 3 months before testing.
- Residents who have had cultures done within the previous month do not require repeat cultures unless a new infection is present, the person’s health has changed, or at the discretion of Infection Prevention & Control.
- Follow up cultures should be assessed on an individual basis in consultation with the Infectious Disease Physician and/or Infection Prevention & Control.
- After the resident has been deemed negative, swabs will be repeated monthly for up to six months as long as the resident remains in hospital.

**Other Considerations:**
- It may be inappropriate for some residents to have their groin swabbed. In that case their axilla instead of the groin can be swabbed.
- Residents must be off antibiotics to which the MRSA is susceptible for at least 48 hours prior to swabbing. The usual antibiotics are Trimethoprim/Sulfamethoxazole ( Cotrimoxizole, Bactrim, Septra), Clindamycin, Vancomycin, Linezolid, Daptomycin, Mupirocin, Fusidic Acid, Bacitracin, Rifampin, Telavancin, Tigecycline.
- The use of antibacterial soaps (i.e., Chlorhexidine) should be avoided for at least 48 hours prior to swabbing so as not to interfere with culture results.
- Cultures are to be taken from the nares and groin area as well as any other documented positive sites (i.e., wounds)
- When urine is the original positive site, always obtain a groin swab, not urine.

**Contacts of newly identified MRSA residents:**
- Two consecutive sets of negative samples one week apart (nares and groin) are required or as directed by Infection Prevention & Control.

**Admission Screening Cultures:**
- Admission screens are not required, unless directed by Infection Prevention & Control.

**Specimen Collection:**
- See 60-30 Appendix C – Specimen Collection Guide

12. Bioload Reduction

All residents over the age of two (2) months identified to be colonized or infected with MRSA should bath/shower daily with Chlorhexidine Gluconate (CHG) 2% liquid soap (SKU # 201605) or pre-moistened disposable washcloths ( SKU # 212127). The use of CHG 2% soap decreases the number of bacteria on the skin and thus the risk of transmitting the bacteria in the environment.
- Do not use on mucous membranes (including perineal area), head, face, eyes, ears or mouth. Wounds which involve more than superficial layers of skin should not be routinely treated.
- Compatible body lotions may be used to prevent excessive drying of the skin.
• If irritation or a reaction lasts for longer than 72 hours it may be a sign of serious condition, discontinue treatment.
• With liquid CHG 2% soap, a polyester cloth, having a relatively tight weave, has been found in one study to be more efficient at exfoliating the skin. However, cotton cloths may be used as well.
• Hand hygiene should be performed with liquid CHG 2% soap. Hand hygiene should be completed every 4 – 6 hours. Assist residents as needed.
• Daily change of clothing.
• Bedding needs to be changed after each CHG 2% bed bath or shower.
• Regular hair shampoo can be used.
• A physician’s order is not required to employ these strategies.

Antibacterial Shower:
• Showering with liquid soap, thoroughly rinse area to be washed, apply minimum amount of antibacterial soap directly to body surfaces paying special attention to skin folds at armpits, under breast and groin.
• Ensure the soap is left on the skin for one minute, then rinse well to remove all soap residues to prevent skin irritation.

Bed Bathing:
• CHG 2% liquid soap use:
  o Thoroughly rinse the area to be washed, apply minimum amount of antibacterial soap directly to body surfaces paying special attention to skin folds at armpits, under breasts and groin.
  o Ensure the soap is left on the skin for one minute, then rinse well to remove all soap residues to prevent skin irritation.
• CHG 2% pre-moistened washcloth use:
  o See Appendix D - CHG 2% Pre-moistened Disposable Washcloth Protocol.

13. Decolonization

• Decolonization may be considered for residents who meet the criteria using Appendix B – MRSA Decolonization Criteria Algorithm.
• Important: Prepare two requisitions (one may be photocopied) and specify “decolonization” on both.
• Any licensed nurse or physician can initiate review of the decolonization criteria for any resident who is MRSA positive.
  o If the criteria are met the nursing unit will have the physician order MRSA surveillance swabs to have the MRSA tested for sensitivities to antibiotics.
  o The physician is responsible for ordering the antimicrobial nasal cream that the MRSA is sensitive to.
• Residents with the following criteria are excluded:
  o sputum positive
  o open wounds greater than 1cm
  o indwelling devices
  o living with family or close contacts who are MRSA positive
  o cognitively impaired
  o inadequate resources
  o Mupirocin and Fusidic Acid resistance
  o continued use of antibiotics
• If the resident meets the criteria in Appendix B – MRSA Decolonization Criteria Algorithm, use Appendix C - MRSA Decolonization Protocol.
References


Contact your Infection Control Practitioner (ICP) to determine when the retesting process can begin. Certain conditions may lead to delayed testing for clearance as they present a risk for continued colonization of the MRSA or VRE.

- **Wait at least 3 months (from the last positive date)** before retesting for MRSA or VRE.
  - Ensure all treatment for infection (i.e., Urinary tract infection, pneumonia, etc.) is complete at least 48 hours before retesting process begins.
- Ensure the client is taking no IV or oral antibiotics, or using antibacterial soaps (i.e., Chlorhexadine soap) 48 hours before each set of cultures, so as to not interfere with culture results.

**Required Testing Sites** (See the [Specimen Collection Guide](#) for appropriate method of collection):
- Three sets of cultures from all documented positive sites as well as the usual screening sites for the organism are required.
  - If testing for MRSA, also take three sets of cultures from ANY wound* or device site**, even if it has not been positive in the past.
  - If a urine culture or blood culture was a positive site, swab for MRSA or VRE using their usual screening sites.

- One set of cultures NEGATIVE from all required sites.
- Obtain two more sets of cultures from all required sites at least one week apart.
- If any site is POSITIVE
  - Repeat cultures in 3 months.
- If three negative sets of cultures from all required sites.
- Fax results to Infection Prevention & Control - Saskatoon (306-655-6142). **IP&C - Saskatoon will notify you** once client has been cleared and can be removed from precautions.

**NOTE:** There is no clearance process for CPO.

*LTC/RENAL SERVICES:* Repeat testing of ALL required sites monthly x 6 months (monthly x 12 months for Renal Services). Renal Services will continue screening annually.

---

*Wound sites – include draining or open wounds/incisions
**Device sites – swab opening surrounding device*
NOTE: Any licensed nurse or physician can initiate a review of the criteria for any resident who is MRSA positive.

Step 1 - Are any of the following exclusion criteria present?

- Sputum positive
- Open wounds greater than 1cm
- Indwelling devices (i.e., IV, Catheter, etc.)
- Living with family or close contacts who are MRSA positive
- Inadequate resources to carry out decolonization process
- Mupirocin or Fusidic acid resistant
- Continued use of antibiotics

No
Step 2 - Does the resident have Wandering Behaviour?

Decolonization may be still be considered for residents with wandering behavior if staff can ensure hand hygiene with only liquid soap or alcohol-based hand rub (do not use the Chlorhexidine gluconate (CHG) 2% liquid soap solution) 48 hours prior to screening swabs being collected.

Yes
Step 3 – Compliance

Residents must also be compliant with daily bathing routine, which may include the use of CHG wipes.

No

Stop

Yes

Stop

1) Physician/MRP to order nares/groin surveillance for MRSA.
2) Send the specimen to the lab.
   Important: Prepare two requisitions (one may be photocopied) and specify “decolonization” on both. Staple the requisitions together and send with the sample. The lab will test for sensitivity to Mupirocin or Fusidic acid.
3) When sensitivity result is back, have the physician order the appropriate nasal ointment/cream from pharmacy. Then continue to 40-115 MRSA – LTC: Appendix C – Decolonization Protocol.
40-115 Appendix C - MRSA Decolonization Protocol - LTC

*Any licensed nurse or physician can initiate a review of the criteria for any resident who is MRSA positive.

**Seven Day Protocol**

<table>
<thead>
<tr>
<th>Day 1 to 7</th>
<th>Antimicrobial nasal cream applied to each nostril (Mupirocin 2% or Fucidic Acid 2%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start date:</td>
<td>________</td>
</tr>
<tr>
<td>End date:</td>
<td>________</td>
</tr>
</tbody>
</table>

- Obtain physician order
- **Apply ointment twice daily for 7 days:**
  - Place a small amount of ointment (size of a match head) onto a cotton tipped swab.
  - Massage gently around the inside of the nostril, making sure not to insert it too deeply (no more than 2-3 cm).
  - Repeat on other side.

<table>
<thead>
<tr>
<th>AM</th>
<th>PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1</td>
<td>Day 1</td>
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<td>Day 2</td>
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<td>Day 6</td>
<td>Day 6</td>
</tr>
<tr>
<td>Day 7</td>
<td>Day 7</td>
</tr>
</tbody>
</table>

**CARE**

- **Daily changes** of clean clothes, pyjamas and linens (bed linens as often as possible) including towels. Daily cleaning of room.

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Day 5</th>
<th>Day 6</th>
<th>Day 7</th>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Day 1 &amp; 7</th>
<th>MORNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mornings</td>
<td>Shower or bath Chlorhexidine 2% liquid soap solution</td>
</tr>
<tr>
<td>Day 1:</td>
<td>_______ (date)</td>
</tr>
<tr>
<td>Day 7:</td>
<td>_______ (date)</td>
</tr>
</tbody>
</table>

- Wet hair and body.
- Apply CHG 2% liquid soap solution to all body surfaces.
- Pay special attention to skin folds at armpits, under breasts, groin and perineum areas.
- Ensure the CHG product is left on skin and hair for one minute, then rinse well to remove all soap residues.
- Body lotions may be used to prevent excessive drying of the skin.
- Regular shampoo may be used in addition to CHG product if preferred.
- Do not allow this product to come in contact with your eyes, ears, mouth and mucous membranes.

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>______</td>
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</tr>
</tbody>
</table>
Retest to determine success of process

Wait 48 hours after decolonization protocol is completed i.e., the resident must be treatment-free (i.e., no anti-staphylococcal antibiotics (see policy), CHG 2% products or ointment in use) before collecting screening swabs.

- 3 consecutive negative swabs from the nares and groin, each one week apart, without intervening antibiotics or CHG soaps/ointments, are required for a decolonization to be declared successful.

Two decolonization attempts can be tried if necessary. Residents who still test positive after two attempts will be considered chronic carriers.

How to collect nares and groin swab:

Please see 60-30 Appendix C – Specimen Collection Guide
Use 1 clean washcloth to prep each area of the body in order as shown in steps 1 to 6 (see diagram). Complete the top part of the body; cover lightly the move to lower part of the body. Wipe each area in a back-and-forth motion. Be sure to wipe each area thoroughly.

- **First Cloth:** Wipe the chin, neck, chest and stomach.
- **Second Cloth:** Wipe both arms starting each with the shoulder and ending at the fingertip. Be sure to thoroughly wipe the underarms.
- **Third Cloth:** Wipe the first leg starting at the thigh and ending at the toes.
- **Fourth Cloth:** Wipe the other leg, starting at the thigh and ending at the toes.
- **Fifth Cloth:** Wipe the back starting at the base of the neck and ending at the waist line. Cover as much area as possible.
- **Sixth Cloth:** Wipe the right and left hips, then groin and buttocks. Be sure to wipe folds in the stomach and groin areas.

- Do not rinse, apply lotions, moisturizers or makeup immediately after application.
- Discard disposable washcloths in the garbage (do not flush in toilet).
- Allow client’s skin to air dry.
- Dress in clean sleepwear.
Introduction

Staphylococcus aureus is a gram-positive bacteria, which forms a part of the normal flora found on skin and mucous membranes. Methicillin-resistant *Staphylococcus aureus* (MRSA) is a strain that has developed resistance to some antibiotics. A person who is colonized or infected with this organism may serve as a reservoir for MRSA, which could then be the source for colonization or infection transmitted to other persons. Infection can occur when MRSA is associated with tissue invasion. Common sites of infection are urine, surgical wounds, invasive devices and soft tissue wounds. Less common infections are bacteremia and pneumonia. Refer to Infection Prevention and Control Manual, MRSA Fact Sheet for more information.

Definition

Health Care Facilities: Are those facilities and community services in Saskatoon Health Region that prevent, treat, and manage illness and the preservation of mental and physical well-being through the services offered by the medical and allied health professionals in Saskatoon Health Region.

Policy

1. Routine Practices are to be used on all clients receiving care.

2. In addition to Routine Practices, use Contact Precautions when giving direct care to clients, known to be infected or colonized with MRSA, especially those at high risk for transmission of MRSA (i.e., clients who have draining skin lesions or wounds not covered by dressings, incontinent of stool, and/or poor compliance with hygienic practices).

3. In addition to Routine Practices, use Contact and Droplet Precautions for clients known to have MRSA and in whom MRSA may be dispersed during care. See Procedure #5.
4. Clients identified as MRSA positive, when available, will have their health records flagged by Infection Prevention & Control Professionals so that at each admission/visit to any health care facility, appropriate precautions are initiated.

**Purpose**

1. To prevent or minimize the transmission of MRSA in the community and in the home through appropriate management of all clients with MRSA whether colonized or infected.

2. To prevent the transfer of genetic traits of vancomycin resistance to MRSA and avoid the development of vancomycin-resistant *Staphylococcus aureus*.

**Procedure**

1. Identification of MRSA positive status in Clients
   
   - Microbiology notifies Infection Prevention and Control of newly identified clients with MRSA.
   - Infection Prevention and Control notifies the family physician of newly identified clients with MRSA.
   - Infection Prevention and Control flags the client’s health record so that on each admission to the health care continuum, appropriate measures are taken by health care staff.
   - Infection Prevention and Control provides client and family with a [MRSA Fact Sheet](#) from the Section 70-10 Teaching Handouts.
   - If client is being discharged from an urban acute care facility, Client Patient Access Services (CPAS) will advise the receiving agency the client has MRSA and the site it was cultured from. This information is to be noted on the assessment form given to the receiving agency. In the rural area, when client is discharged from a rural acute care facility, the home care assessor will communicate via telephone and/or note this information on the discharge planning/assessment form so that the receiving agency will be advised.

2. Client Placement
   
   - If possible, the client should have their own room and their own private bathroom. This is especially important if the client has a condition likely to increase dissemination of organisms into the environment, i.e., diarrhea or fecal incontinence not contained by incontinence briefs, wound or stoma not covered with a dressing or appliance to contain drainage, desquamating skin condition, colonized tracheostomy or pneumonia with uncontrolled respiratory secretions. If there are two bathrooms in the home, it is recommended that one bathroom should be dedicated for the client to use.
   - If a single room is not available, do not place MRSA clients in rooms with family members who are at high risk for acquisition of MRSA (i.e., open wounds, poor immune system, on chemotherapy, or poor hygiene).
3. Gloves and Hand Cleaning

- Proper hand washing is the most important way to decrease transmission of MRSA.
- Hands should be cleansed before and after each client and again before leaving the home.
- Wash hands using antibacterial liquid soap and warm water, rinse well, and dry with a paper towel. Do not use the client’s bar soap and/or their towel.
- An alcohol-based hand rub (ABHR) can be used if the hands are not visibly soiled.
- Gloves for all direct contact with the client.
- Remove gloves and clean hands before leaving the room and again before leaving the home. Avoid touching environmental surfaces as you are leaving the home. If you do, clean hands again with an ABHR.
- Gloves are not to be washed and reused. They are to be discarded into a plastic bag, tied closed and placed into the garbage container where children and pets cannot get into.

4. Gowns/Apron

- Gowns/aprons used for routine direct contact client care must adequately cover clothing and protect the skin of the health care provider from exposures to blood and body substances (i.e., be long enough to cover the front of the clothing that may come into contact with the client or with contaminated surfaces).
- Gowns are to have long sleeves with elasticized cuffs that fit snugly at the wrist and have closures at the neck and waist at the back of the gown.
- Impervious disposable gowns/aprons are to be worn for all direct contact with the client that may result in a splash or contact with any body excretions or secretions (this would include bathing the client).
- Gowns/aprons are single use only.
- Remove the gown after gloves are removed by untying at the back, pull forward and turn inside on itself, roll up and discard into a plastic garbage bag. Tie garbage bag tight and place into a garbage container where children and pets cannot get into. Cleanse hands.

5. Masks/Eye Protection

Wear a procedure mask and eye protection when:
- The client has pneumonia or signs of respiratory tract illness.
- Client is positive for MRSA nasal carriage and an upper respiratory illness is present.
- There is the likelihood of a spray/splash from wounds positive for MRSA (i.e., during vigorous wound cleansing or irrigation).
- Suctioning and care of clients with a tracheostomy colonized or infected with MRSA.
- Multi-use eye protection must be cleaned and disinfected with disinfectant wipes or alcohol swabs prior to reuse with another client.
- Single use mask and eye protection is to be discarded into plastic bag and placed into a garbage container where children and pets cannot get into.

6. Client Transport

- If the client can confine and contain any body fluid positive for MRSA, there is no need to restrict client’s participation in any activities.
- When leaving the home the client must wash their hands using alcohol hand sanitizer or liquid antibacterial soap.
- Assist client with hand cleaning if client is unable to do so on their own.

7. Client-Care Equipment

- Limit the amount of supplies taken into the home to avoid unnecessary waste.
- Store supplies in a clean dry place protected from environmental contamination.
- Dedicate non-critical client-care equipment to a single client (i.e., stethoscope, blood pressure cuff, tourniquet, vacutainer, walker and commode).
- All equipment taken in the client’s home must be cleaned and disinfected before use in another client’s home.
- All equipment should be cleaned and disinfected prior to leaving the home and placed into care giver’s vehicle. If this is not possible, bag the equipment before it is placed into the vehicle and bring back to the facility where the equipment can be cleaned and disinfected.
- Any equipment being returned to the supplier has to be cleaned and disinfected prior to sending back to the supplier. Some specialized equipment may have to be cleaned and disinfected/sterilized by the supplier. Store equipment in a safe manner (i.e., plastic bag) until pickup and/or delivery.
- Hospital grade disinfect is to be used on the equipment (i.e., quaternary ammonium compound or accelerated hydrogen peroxide).

8. Visitors/Family

- Instruct visitors and family regarding hand cleaning before and after client contact.
- Provide MRSA Fact Sheet found in Infection Prevention and Control Manual Section 70-10 Teaching Handouts.

9. Client and Family Teaching

- Explain the nature of their infectious process and the precautions being used, as well as the prevention of transmission of MRSA to other family members and friends.
- Explain the importance of hand hygiene, personal hygiene, and good sanitation in the home.
- Provide Information Handout on MRSA found in Section 70-10.

10. Environmental Cleaning

- Frequent cleaning with a cleaner that has a disinfectant in it to all hand contact surfaces and any environmental surfaces touched by the client will reduce the risk of transmission in the home.
- Hand contact surfaces include door knobs, light switches, sink taps, toilet handle, chair arms, computer keys, stereo knobs, etc.

11. Cultures

- The type and frequency of cultures should be assessed on an individual basis. See Appendix A for Retesting Process to Determine MRSA Negative Status.
- Client must be off chlorhexidine gluconate 2% soap and antibiotics to which the MRSA is susceptible for at least 48 hours prior to swabbing. The usual antibiotics are Clindamycin, Vancomycin, Trimethoprim/Sulfamethoxazole (TMP/SMX), Linezolid, Synercid, Daptomycin, Tigecycline, Mupirocin, Fusidic acid. The use of antibacterial soaps and
ointments should be avoided during the entire period of retesting so as not to interfere with culture results.

- Cultures are to be taken from each previously positive site as well as the nares and groin, any wounds, any device sites (excluding peripheral IV – swab opening surrounding device) and sputum from coughing residents. When urine was the original positive site, obtain a perianal swab.

12. Decolonization

- Decolonization may be considered for clients who meet the criteria using Appendix C.
- Any licensed nurse or physician can initiate review of the decolonization criteria for any client who is MRSA positive.
  - If the criteria are met the nursing unit will have the physician order MRSA surveillance swabs to have the MRSA tested for sensitivities to antibiotics.
  - The physician is responsible for ordering the antimicrobial nasal cream that the MRSA is sensitive to.
- Clients with the following criteria are excluded:
  - sputum positive
  - open wounds greater than 1cm
  - indwelling devices
  - living with family or close contacts who are MRSA positive
  - cognitively impaired
  - inadequate resources
  - Mupirocin and Fusidic Acid resistance
  - continued use of antibiotics
- If the client qualifies using Appendix C, use Appendix D MRSA Decolonization Protocol.

References:


Health Canada. Infection control guidelines. Routine practices and additional precautions for preventing the transmission of infection in health care. CCDR 1999; 25S4:14,50,51

Contact your Infection Control Practitioner (ICP) to determine when the retesting process can begin. Certain conditions may lead to delayed testing for clearance as they present a risk for continued colonization of the MRSA or VRE.

**Wait at least 3 months (from the last positive date)** before retesting for MRSA or VRE.
- Ensure all treatment for infection (i.e., Urinary tract infection, pneumonia, etc.) is complete at least 48 hours before retesting process begins.

- Ensure the client is taking no IV or oral antibiotics, or using antibacterial soaps (i.e., Chlorhexadine soap) 48 hours before each set of cultures, so as to not interfere with culture results.

- **Required Testing Sites** (See the [Specimen Collection Guide](#) for appropriate method of collection):
  - Three sets of cultures from all documented positive sites as well as the usual screening sites for the organism are required.
    - If testing for MRSA, **also take three sets of cultures from ANY wound*** or device site**, even if it has not been positive in the past.
    - If a urine culture or blood culture was a positive site, swab for MRSA or VRE using their usual screening sites.

One set of cultures NEGATIVE from all required sites.

Obtain two more sets of cultures from all required sites at least one week apart.

If any site is POSITIVE

Repeat cultures in 3 months.

Fax results to Infection Prevention & Control - Saskatoon (306-655-6142). IP&C - Saskatoon will notify you once client has been cleared and can be removed from precautions.

**LTC/RENAL SERVICES:** Repeat testing of ALL required sites monthly x 6 months (monthly x 12 months for Renal Services). Renal Services will continue screening annually.

*Wound sites – include draining or open wounds/incisions

**Device sites – swab opening surrounding device

**NOTE:** There is no clearance process for CPO.
# Specimen Collection Guide

**Specimen Collection Guide**

*Use ESwab™ for ALL ARO Screens*

## Equipment

| Equipment | ESwab™ - Addressograph label - Bacteriology requisition - Specimen bag for transport |

## Method of Collection

1. Perform hand hygiene and put on gloves.
2. Position client on their back or side for VRE Screen and CPO Screen.
3. Remove the white swab from the pouch. Use **ONE swab for EACH SCREEN:**
   - **For MRSA Screen (Nose and groin* swab):**
     - Place the swab into one of the client’s nostrils. Rotate 5 times, pressing lightly against the inside of the nose to collect the nasal sample. Repeat in second nostril with the same swab.
     - **Using the same swab**, collect sample from each side of the groin
   
   **Exception:**
   - Axilla swab only if it will be detrimental to a client’s physical or psychological wellbeing to have a groin swab performed
   - **For VRE Screen (Rectal*/Stoma** swab):**
     - Gently insert the swab approximately 2 cm beyond the anal sphincter. Rotate swab and withdraw from anus.
     - **Exceptions:**
       - Perianal swab for neutropenic clients (see IP&C Policy 40-60: *Immune Compromised Clients* for definition of neutropenic).
       - For perianal swab:
         - Expose perineum and rotate the swab as you run the tip firmly on the surface of the perineum and the anal areas
         - **Stoma opening swab, instead of rectal swab**, if client has a colostomy/ileostomy.
   - **For CPO Screen (Rectal*/Stoma** swab):**
     - See instructions for VRE Screen
   - If “Testing for Clearance” is ordered on the ARO Surveillance Orders Medical Directive (MD-022), also swab all “Other” sites* (i.e. wounds, indwelling devices) previously found positive. If clearing for MRSA, also include swabs of all current “Other” sites, regardless of whether they have been positive. **Use a new swab for each “Other” site:**
     - Cleanse the wound/indwelling device with sterile normal saline from cleanest to dirtiest. Ensure the wound/indwelling device is dry before swabbing.
     - Rotate the swab while moving from one edge of the wound/indwelling device to the other. Ensure the entire wound/indwelling device has been swabbed.
     - *If a urine culture or blood culture was a positive site, swab for MRSA/VRE as above.

4. Open the ESwab™ tube and place the swab **into the liquid**.
5. Break the swab shaft off at the pre-molded break point (the indented, pink mark). Leave bottom half of swab applicator in the tube. Dispose of the top of the swab stick in trash can. Recap the ESwab™ tube and **turn the cap securely tight**.
6. Label tube with client’s identification sticker (ensure there is no overlap) and label with appropriate collection site. For example:
   - **For MRSA Screen: Label as “Nose and groin”**
   - **For VRE Screen: Label as “Rectal/Stoma”**
   - **For CPO Screen: Label as “Rectal/Stoma”**
7. Place labelled tube into a clean bag, ensuring the outside of the bag remains clean.
8. Remove gloves and perform hand hygiene.
9. Complete requisition with client’s identification sticker and label with appropriate screen and site swab was collected from. For example:
   - **For MRSA Screen: Label as “Nose and groin swab for MRSA Screen”**
   - **For VRE Screen: Label as “Rectal/Stoma swab for VRE Screen”**
   - **For CPO Screen: Label as “Rectal/Stoma swab for CPO Screen”**
10. Send the bagged specimen with requisition to the lab.
40-117 – MRSA – Community
Appendix C: MRSA Decolonization Criteria Checklist

MRSA Decolonization Criteria Checklist

Any licensed nurse or physician can initiate a review of the criteria for any client who is MRSA positive.

Nursing Unit: Answer qualifiers in step one.

Step 1: Exclusion Criteria
Client is excluded if any of the following are checked off
- are sputum positive,
- open wounds greater than 1cm,
- indwelling devices,
- living with family or close contacts who are MRSA positive
- inadequate resources to carry out decolonization process,
- Mupirocin or Fusidic acid resistant
- continued use of antibiotics.

Nursing Unit: If there are no checked squares in step 1; go to Step 2.

Step 2: Wandering Behaviour
Decolonization may be considered for clients with wandering behavior if staff can ensure hand hygiene with only liquid soap or alcohol hand sanitizer 48 hours prior to screening swabs being collected.

Qualifies: † No (continue) † Yes (stop)

Nursing Unit: If yes is checked go to Step 3.

Step 3: Compliance
Clients must also be compliant with daily bathing routine, which may include the use of CHG wipes.

Qualifies † Yes (continue) † No (stop)

Nursing Unit:
1) If “yes” is checked, have the physician order nares/groin surveillance for MRSA. Send the specimen to the lab. 
   **Important:** Specify “decolonization” on the laboratory requisition.
   The lab will test for sensitivity to Mupirocin or Fusidic acid.

2) When sensitivity result is back, have the physician order the appropriate nasal ointment/cream from pharmacy. Then continue to Appendix D: Decolonization Protocol
### Appendix D: MRSA Decolonization Protocol

*Any licensed nurse or physician can initiate a review of the criteria for any patient who is MRSA positive.*

#### Seven Day Protocol

<table>
<thead>
<tr>
<th>Time</th>
<th>Product</th>
<th>Details</th>
<th>Additional Information</th>
<th>Completed</th>
</tr>
</thead>
</table>
| Day 1 to 7 | Antimicrobial nasal cream applied to each nostril (Mupirocin 2% or Fucidic Acid 2%) | - Obtain physician order  
- **Apply ointment twice daily for 7 days**  
  o Place a small amount of ointment (size of a match head) onto a cotton tipped swab  
  o Massage gently around the inside of the nostril, making sure not to insert it too deeply (no more than 2-3 cm).  
  o Repeat on other side. | AM  PM  
Day 1  1  
Day 2  2  
Day 3  3  
Day 4  4  
Day 5  5  
Day 6  6  
Day 7  7 | AM  PM  
Day 1  1  
Day 2  2  
Day 3  3  
Day 4  4  
Day 5  5  
Day 6  6  
Day 7  7 |
| Start date: |                                                         |                                                                                                                                      |                        |           |
| End date:  |                                                         |                                                                                                                                      |                        |           |

#### CARE

- **Daily changes** of clean clothes, pyjamas and linens (bed linens as often as possible) including towels. Daily cleaning of room.

| Day 1 & 7 | Morning    |                                                                                                                                      |                        |           |
|-----------|------------|----------------------------------------------------------------------------------------------------------------------------------------|                        |           |
| Mornings  | Day 1:     |                                                                                                                                      |                        |           |
|           | (date)     |                                                                                                                                      |                        |           |
|           | Day 7:     |                                                                                                                                      |                        |           |
|           | (date)     |                                                                                                                                      |                        |           |

#### MORNING

- Wet hair and body.  
- Apply CHG 2% liquid soap solution to all body surfaces.  
- Pay special attention to skin folds at armpits, under breasts, groin and perineum areas.  
- Ensure the CHG product is left on skin and hair for one minute, then rinse well to remove all soap residues.  
- Body lotions may be used to prevent excessive drying of the skin.  
- Regular shampoo may be used in addition to CHG product if preferred.

(continued on next page)

<table>
<thead>
<tr>
<th>Day 1 &amp; 7</th>
<th>Morning</th>
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<tbody>
<tr>
<td>Day 1:</td>
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<tr>
<td>Day 7:</td>
<td></td>
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<tr>
<td>(date)</td>
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</tbody>
</table>

### Day 1 & 7 Morning

- **Shower or bath**  
  Chlorhexidine 2% liquid soap solution

(continued on next page)
**Time** | **Product** | **Details** | **Additional Information** | **Completed**
--- | --- | --- | --- | ---
Evenings | **EVENING** | - Do not allow this product to come in contact with your eyes, ears, mouth and mucous membranes | | |
Day 1 to 7 | 2% Chlorhexidine gluconate (pre-moistened) cloths are to be used to wipe down the client’s body once a day | | | |
**CHG Cloth Protocol:**
- Use 1 clean cloth to prep each area of the body in order as shown in steps 1 to 6. (See diagram). Complete the top part of body, cover lightly then move to lower part of body. Wipe each area in a back-and-forth motion. Be sure to wipe each area thoroughly.
1. Wipe the **chin, neck, chest and stomach**
2. Wipe both **arms**, starting each with the shoulder ending at the fingertips. **Be sure to thoroughly wipe the arm pit areas**
3. Wipe the first **leg** starting at the thigh and ending at the toes
4. Wipe the **other leg**, starting at the thigh ending at the toes.
5. **Wipe the back** starting at the base of the neck and ending at the waist. Cover as much area as possible
6. **Wipe your right and left hips, then groin and buttocks**
- Do not rinse, apply lotions, moisturizers or makeup after application.
- **Discard wipes in the garbage (do not flush CHG cloth/wipe)**
- Allow client’s skin to air dry.
- **Dress in clean sleepwear.**

---

**Retest to determine success of process**
Wait 48 hours after decolonization protocol is completed i.e. the client must be treatment-free (i.e. no anti-staphylococcal antibiotics (see policy), CHG 2% products or ointment in use) before collecting screening swabs.
- *3 consecutive negative sets of swabs from the *nares and groin*, each one week apart, without intervening antibiotics or CHG soaps/ointments, are required for a decolonization to be declared successful.

- **Culture #1**
  Date
- **Culture #2**
  Date
- **Culture #3**
  Date

Two decolonization attempts can be tried if necessary. Clients who still test positive after two attempts will be considered chronic carriers.

---

**How to collect a nares swab:**
1. **Moisten star swab with culture media in the tube.**
2. **Insert swab about 2 cm into nares**
   - Gently rotate around the inner surface, clockwise x2, then counter-clockwise x2.
   - **Using the same swab**, repeat for other nares
3. Insert swab into tube
4. Push in pink plug and label specimen (tube) with date, site and client’s name.
5. Ensure that swab is sent to lab with requisition for MRSA follow-up.
Introduction

Noroviruses are a group of related, single-stranded RNA, non-enveloped viruses that cause acute gastroenteritis in humans. Illness is characterized by acute-onset vomiting, watery non-bloody diarrhea, abdominal cramps and nausea. In addition, myalgia, malaise, and headache are commonly reported. Low-grade fever is present in about half of cases.

The incubation period for norovirus-associated gastroenteritis is 12 – 48 hours. Symptoms usually last 12-48 hours. Viral shedding begins prior to onset of the illness, may occur without symptoms, and may last for up to 14 days after the end of symptoms.

Noroviruses are highly contagious. Less than 100 viral particles are required to transmit infection. They are transmitted primarily through the fecal-oral route, either by direct person-to-person contact or fecally contaminated food or water. Transmission can occur through indirect contact with surfaces, materials or fomites contaminated with feces or vomitus. Aerosolization of the organism can also occur with vomitus or feces.

Confirmed case of Norovirus

Laboratory confirmation of infection:
- Detection of viral RNA in the stools of affected persons by PCR.
- Identification of the virus can be best made from stool specimens taken within 48 – 72 hours after onset of symptoms.

Policy

1. In addition to Standard Precautions, use Contact Precautions for patients known, or suspected to be infected with Norovirus.
2. Persons cleaning areas heavily contaminated with vomitus or feces, or assisting vomiting patients, should also wear a mask.

Purpose

1. To prevent or minimize the transmission of Norovirus to other patients and staff in the facility through the appropriate management of Norovirus infected patients.
**Procedure**

1. Post Contact Precaution Sign (SHR Printing Services # 102106) on door of patient’s room. Write on Contact Precaution Sign: Wear regular mask when assisting or cleaning of vomitus or feces.

2. Implement Contact Precautions at the first point of contact in persons with suspected or confirmed norovirus infection.

3. Specimen collection
   - Stools specimens should be collected in containers with no preservative. Use a sterile container (pink top).

   - Place the patient in a single room with a private bathroom.
   - If a single room is not available, patients infected by the same organism, may share a room (cohorting).

5. Hand Cleansing and Gloving
   - Glove for all direct contact with the patient or the environmental surfaces in the room.
   - Change gloves after contact with infectious material that may contain high concentrations of microorganisms.
   - Remove gloves, then the gown and cleanse hands with soap and water or 70% alcohol hand sanitizer before leaving the room. Avoid touching surfaces as you exit the room.

6. Gowns
   - Gown for all direct contact with the patient or environmental surfaces in the room.
   - Gowns are single use only. Remove immediately if wet.
   - Remove the gown after gloves are removed by untiring at the back, pulling forward and turning inside on itself, rolling up and discarding in the laundry hamper in the room. Avoid contact with the environmental surfaces when leaving the room.

7. Masks
   - Wear masks when cleaning areas heavily contaminated with vomitus or feces, or when assisting a patient that is vomiting or has diarrhea.

8. Patient Transport
   - Transportation of the patient to other departments should be limited to essential services only.
   - Inform the receiving department or facility that precautions are required.
   - Prior to leaving their room the patient must have on a freshly laundered gown/housecoat.
   - Have patient cleanse hands prior to leaving the room.
   - Wheelchair/stretcher should be cleaned with an Accelerated Hydrogen Peroxide disinfectant following use. Leave to air dry on surface for a contact time of 5 minutes.
9. Patient Care Equipment
   • Dedicate non-critical equipment to a single patient (e.g. stethoscope, blood pressure cuff, tourniquet, vacutainer, laundry hamper stand, walker and commode).
   • If sharing of equipment is unavoidable, clean and disinfect with an Accelerated Hydrogen Peroxide disinfectant between patients.
   • Any equipment that comes in direct contact with the patients should be wiped with an Accelerated Hydrogen Peroxide disinfectant.
   • Limit the amount of supplies taken into the room to avoid unnecessary waste.
   • Linens, garbage and meal trays are handled as per usual.

10. Visitors
   • Instruct visitors regarding hand cleansing before and after patient contact.
   • Gowns and gloves are required when the visitor has direct contact with the patient or surfaces in the room.

11. Patient and family teaching
   • Patients, if possible, should understand the nature of their infectious disease and the precautions being used, as well as the prevention of transmission of Norovirus to others. Provide the Norovirus Fact Sheet (SHR Printing Services # 102812) and the Contact Precautions Visitor Information (SHR Printing Services # 102926) found in the Infection Prevention and Control manual.
   • The Infection Prevention and Control Professional may be called to assist with education on Norovirus.

12. Environmental cleaning
   • Noroviruses are non-enveloped virus particles. There is relative resistance to disinfection. Quaternary ammonium compounds do not have significant activity against them. Use of Accelerated Hydrogen Peroxide agents is required.
   • Daily cleaning of rooms is performed using Accelerated Hydrogen Peroxide disinfectant while wearing protective equipment for Contact precautions with added regular masks for direct cleaning of vomitus or feces.
   • Following discharge, terminal cleaning is performed as for all patients using an Accelerated Hydrogen Peroxide disinfectant.
   • Bed screens are to be changed when a patient has been on Contact Precautions.

For an outbreak, refer to Infection Prevention and Control policy 55-40, GI outbreak.

References


Centers for Disease Control (CDC) Norwalk-Like Viruses, June 01, 2001/50(RR09); 1-18. MMWR Recommendations and Reports.
Introduction

Scabies (Sarcoptes scabiei) is a highly contagious skin infestation caused by a small mite, no larger than the head of a pin. The female mite burrows under the skin in a thin red line and then lays eggs. The burrows appear as wavy lines approximately 2.5 cm in length and can be seen by the experienced eye. The female can burrow under the skin in less than 3 minutes and generally lays around 20 eggs in each burrow. The eggs usually hatch within 4-6 days. The main sign of Scabies is intense itching, especially at night or after a hot bath or shower. This intense itching is caused by the presence of the eggs as well as the feces excreted by the mites.

Policy

1. Scabies infestation shall be treated in a timely fashion (when symptoms first appear).

Purpose

1. To prevent the transmission of Scabies.

Procedure

1. Follow the directions as outlined in "Dealing with Scabies". Refer to the Scabies Fact Sheet available from SHR Printing Services (#102813) which is also found in the Infection Prevention and Control Manual.

2. Search for additional cases of scabies by examining/questioning close contact, roommates and staff with itchy red spots and rashes.
Dealing with Scabies:

Identification

1. Symptoms are due to an allergic reaction to the mites. There is usually an itchy skin irritation and tiny reddened dots with surrounding redness or streaks of redness. Itching is usually worse at night or after a hot shower or bath.

2. Rash is usually first noticed in the webs between the fingers or toes, around the wrist or the navel. It can also be found on the back of elbows and knees, the folds of the armpits, the beltline and abdomen, under the breasts or buttock, in the creases of the groin or on the genital organs. Small children, especially babies, may have involvement of the face, scalp, palms of the hands, or soles of the feet.

3. Symptoms appear 4 to 6 weeks after direct contact with the initial case. If re-infestation occurs (person has had scabies previously), symptoms can reappear in 1 to 4 days.

Treatment

1. Obtain physician’s order for scabicide or obtain scabicide from a pharmacy.

2. Have a bath or shower before applying the scabicide. Allow the skin to cool prior to application (heat increases absorption and thus side effects from the scabicide).

3. If staff or family member assists in the application of the treatment, they need to put on single use gloves and wear a long sleeved gown/shirt. Once the scabicide has been applied, dispose of gloves into the garbage, tie closed and remove to outside garbage container. Gown/shirt is to be laundered and dried in a hot dryer.

4. Apply scabicide over the entire body from neck to toes especially folds of skin, remove rings and trim fingernails and toenails short. Apply treatment under the fingernails and toe nails. In infants, include the scalp. Ensure hard to reach areas are covered. Do not wash hands after application. It is best to apply the scabicide before bed. If person uses the washroom during the night and washes their hands, reapply scabicide to the hands. Leave the scabicide on for 8 to 14 hours as per product directions.

5. Remove the bedding, clean and disinfect bed if it has a cleanable surface. Alternatively, clean and vacuum the mattress and leave bed vacant for 72 hours before reuse. Sleep in an alternate bed for the next 3 nights.

6. Shower in AM; wash residual lotion off with soap. Put on clean clothes. Put used night wear (pajamas) in the wash to be laundered and dried in a hot dryer.

7. Change bed linen again and launder in hot soapy water and dry in a hot dryer.

8. Clean and disinfect the bed if it has a cleanable surface or clean and vacuum the mattress once again. Put the vacuum bag into a garbage bag, tie closed and remove to the outside garbage.

9. Can discontinue contact precautions after 24 hours after treatment with a scabicide.

Post-treatment

1. Examine patient/resident/client/staff member for signs of live mites or any new lesions 7-10 days post-treatment. Check for new burrow lines or expansion of the rash. This would indicate treatment failure.

2. If signs are present, obtain physician’s order for second application and repeat scabicide treatment.

3. Consult your family physician or a dermatologist if new lesions are present 7-10 days after 2nd treatment. May need 2 or more treatments if Norwegian scabies (crusted scabies) have been diagnosed.
Prevention and Disinfection

1. All clothing, pajamas, bed linens, housecoats, sleeping bags, stuffed animals and towels used within 3 days prior to treatment should be machine-washed in hot water and dried on dryer cycle for at least 20 minutes, or dry cleaned following treatment.
2. Clothing and footwear that cannot be laundered should be bagged for 7 days, or placed in a freezer for 72 hours. Treat all members of the household at the same time to prevent re-infestation.

Precautions

1. Initiate Contact Precautions when scabies is identified and continue until 24 hours after treatment; 4 days after treatment for crusted scabies.
2. Staff members whose symptoms do not resolve (i.e. develop new burrows and rash expands) are to be assessed by Occupational Health and Safety as they may need a second treatment and be cleared prior to returning to work.
3. Application of scabicide can exacerbate itchiness and must not be interpreted as a treatment failure. Itching can continue for weeks until the residual scabetic antigens are shed with the skin. If rash has extended and/or new burrows are noticed, treatment failure has occurred and another treatment will be needed or a dermatologist may need to be consulted.

References:

### Appendix A - Scabies Client Treatment Listing

**Date:** ____________________  **Unit/Facility:** _____________________________________

**Clinical features of scabies infestation:**
- Skin penetration visible as papules or vesicles.
- Burrows formed by mites under the skin are visible as linear tracts.
- Lesions are seen most frequently in inter-digital spaces, anterior surfaces of wrists and ankles, axillae, folds of skin, breasts, genitalia, belt-line and abdomen. Infants may have lesions of the head, neck, palms, and soles.
- Itching does not always occur with a primary infestation, but when it does, it is most intense at night or after a hot bath or shower.

**Outbreak:** Two or more patients/residents/clients in one unit/facility/home diagnosed with scabies within a 4 to 6 week period (1 incubation period)  **OR**  
One patient/resident/client on one unit/facility/home plus one or more staff members providing caring for that patient/resident/client are diagnosed with scabies within a 4 to 6 week period (1 incubation period).

<table>
<thead>
<tr>
<th>Client Sticker</th>
<th>Client Sticker</th>
<th>Client Sticker</th>
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<tbody>
<tr>
<td>Full Name</td>
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<td>HSN</td>
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<td>DOB</td>
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<td>Sex</td>
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<tr>
<td>Physician</td>
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<tr>
<td>Room #</td>
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<tr>
<td>Bed #</td>
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</tbody>
</table>

**PREPARATION**

- Linen (two changes of bed linen, towels, pyjamas)
- Gowns and gloves (contact precautions)
- Laundry bags
- Finger/toe nail clippers (single use)
- Scabicide

**TREATMENT CHECKLIST**

- Clean dry skin (client bath or shower)
- No jewellery (e.g., rings)
- Nails trimmed by authorized staff (e.g., podiatrist, footcare nurse, site policy). Fingernails are the priority.
- Clean bed linens
- Clean nightwear
- Apply scabicide (entire body from neck to toes, genital area, under nails)
- Leave scabicide on as indicated in product monograph (e.g., 8-14 hours)
- Reapply scabicide if client up during night (e.g., use of washroom, wash hands, reapply scabicide to hands)
- Bath or shower client after scabicide contact time (e.g., in the morning if applied prior to bed)
- Provide clean clothing for client
- Change bed linens
- Launder nightwear and bed linen in hot, soapy water and dry in hot dryer
- Have family members take home personal clothes and belongings in a bag.
Introduction

Infection due to the varicella zoster virus (VZV) causes both varicella (chickenpox) and herpes zoster (shingles). Herpes zoster is caused by a reactivation of the virus in the sensory ganglia and leads to neuropathic pain and a dermatomal rash, typically in adulthood (see Appendix B for dermatomes).

The first sign of shingles is typically pain in the area of the affected nerve. A rash of fluid filled blisters appears in the affected area. This rash is usually persistent for about 7 days but the pain may continue for longer.

All staff caring for a client with suspected VZV (chickenpox/shingles) should have a previous history of chickenpox or be known to be immune. Contact Occupational Health & Safety or designate if you are unsure of your immune status or if you are immune compromised.

Definitions

Localized herpes zoster (Shingles) Lesions that are localized to one or two dermatomes and can overlap adjacent dermatomes but do not cross the body’s midline (Appendix B)

Disseminated herpes zoster (shingles) Appearance of lesions outside the primary or adjacent dermatomes or lesions involve more than one body system (i.e., skin and respiratory system); may be transmitted by the airborne route

Immune compromised Refer to Policy 40 – 60 Immune Compromised Clients – Precautions. In the 40-140 Shingles (Herpes Zoster) Policy the term refers to clients with congenital or acquired immunodeficiency or immunodeficiency due to chemotherapeutic agents or haematological malignancies.

Primary Constituting or belonging to the first stage in any process
**Policy**

1. All clients infected with herpes zoster (shingles) are to be evaluated for the need for additional precautions during the period of communicability as per Table 1 Herpes Zoster to protect non-immune health care workers (HCW)/clients/visitors and prevent the spread of the varicella zoster virus (VZV).

2. All health care workers (HCWs) caring for clients with confirmed or suspected herpes zoster should be immune to varicella. For those who are either not immune or where immune status is unknown appropriate Personal Protective Equipment (PPE) must be used.

**Purpose and Scope**

1. To outline the infection control principles for the management of a client infected with herpes zoster (shingles) and their contacts to prevent the spread of VZV disease within Saskatoon Health Region (SHR) care facilities and community-based services.

**Procedure**

**Identification** - As per Table 1 Herpes Zoster

The virus can be transmitted by direct and indirect contact with vesicular fluid. The incubation period is between 10 – 21 days; however this may extend to 28 days if varicella zoster immune globulin (VariZIG™) is given. **The lesions are infectious until all lesions have crusted and dried.**

**Standard Precautions**

Clients who are immune competent with localized covered lesions can be managed with Standard Precautions.

**Contact Precautions**

Clients with localized herpes zoster who have an area that cannot be covered shall be placed on Contact Precautions.

**Airborne Precautions**

Clients shall be placed on airborne precautions in addition to contact precautions if they:

- have disseminated herpes zoster or
- immune compromised until dissemination can be ruled out

If the client is immune competent with

- **Localized** herpes zoster, then routine practices should be followed and lesions should be completely covered.
- **Disseminated** (physician verified) herpes zoster (defined as appearance of lesions outside the primary or adjacent dermatomes), then routine practices plus airborne and contact precautions should be followed until lesions are dry and crusted.

If the client is immune compromised with

- **Localized** herpes zoster, then routine practices **plus airborne and contact precautions** should be followed **until disseminated infection is ruled out**. Once dissemination is ruled out, routine practices should be followed and lesions should be completely covered.
- **Disseminated** (physician verified) herpes zoster, then routine practices **plus airborne and contact precautions** should be followed until lesions are dry and crusted.

1. Health Care Workers

- Must be aware of their immune status (OH&S Policy 5.1.2).
• Non-immune or immune suppressed HCWs are to seek further advice from OH&S.
• Non-immune pregnant HCWs who must enter the room should seek further advice from OH&S or designate (maternal infection during the first 20 weeks of pregnancy may result in transmission of VZV to the foetus and cause congenital varicella syndrome).

2. Perform a Point of Care Risk Assessment (See Appendix A)

3. Respirator (i.e., N95)
   • If the healthcare worker/visitor is immune (i.e., previously had the disease) or has been vaccinated, no respirator is required.
   • If the health care worker/visitor is non-immune, immune status is unknown or is immune compromised and must enter the room, s/he must wear a respirator (i.e., N95). Exception: A respirator is not indicated in the care of immune competent clients with covered localized lesions.

4. Client accommodation
   • Assign room and post signage according to the precautions required. See Table 1 Herpes Zoster.
   • If an airborne isolation (negative pressure) room is required but not available, place the client in a single room with the door closed.

5. Visitors
   • Visitors are to consult with nursing staff before entering room.
   • Visitors to be given clear instructions regarding necessary precautions to be followed, appropriate PPE, and fit checking of respirator (i.e., N95) if necessary. Airborne Precautions – Client, Family and Visitor Information

6. Meals (If Dietary staff member is NOT immune or if immune status unknown)
   • Dietary staff to leave meal trays outside the client’s room and inform nursing staff.
   • Nursing staff to deliver and remove meals from the client’s room.

7. Environmental Cleaning
   • Daily cleaning of rooms is performed in the same manner as for all clients with appropriate PPE worn as per precaution signage and Table 1 Herpes Zoster. For cleaning at discharge, refer to Environmental Cleaning [WAGS].

8. Transport / transfer of client
   • Receiving facilities/departments must be informed of required precautions.
   • If client is on airborne precautions the client should be out of the room for essential tests only. The client should wear a procedure mask and have skin lesions covered when out of the room. See Airborne Precautions.

9. Client education
   • All clients with varicella zoster are to be given a Herpes Zoster (Shingles) Fact Sheet.

10. Contacts
    • Consult the Infection Control Practitioner (ICP) to determine exposure and need for contact tracing.

11. Post-exposure management
    • Please call OH&S Incident Reporting Line.

12. Duration of precautions - Please refer to Table 1 Herpes Zoster
- Herpes zoster –until all lesions are dry and crusted.
- Exposed persons who are susceptible should be considered infectious 8 days from the first contact to 21 days following exposure (extended to 28 days if immunoglobulin [VarizIG™] is given).
- If Varicella (chicken pox) develops due to shingles exposure isolation is required until all the vesicles have crusted. This period may be prolonged if the client has altered immunity. See 40-20 Varicella Zoster (Chickenpox) Policy.
- For discontinuation of precautions consult Infection Prevention and Control.

References


# Table 1 - Herpes Zoster

<table>
<thead>
<tr>
<th>Microorganism</th>
<th>Clinical Presentation/Potential Pathogens</th>
<th>Precautions</th>
<th>Patient Accommodation</th>
<th>Route of Transmission</th>
<th>Period of Communicability</th>
<th>Duration of Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herpes zoster</td>
<td>Vesicular skin lesions localized to one or two dermatomes and do not cross body’s midline (may overlap adjacent dermatomes)</td>
<td><strong>Routine Practices</strong> if area can be covered</td>
<td>Private room preferred*</td>
<td>Direct and indirect contact with vesicular fluid</td>
<td>Until all lesions have crusted and dried.</td>
<td>Until all lesions have crusted and dried.</td>
</tr>
<tr>
<td><strong>Localized:</strong> Immune competent host</td>
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<tr>
<td></td>
<td></td>
<td><strong>Airborne and Contact Precautions</strong> until dissemination is ruled out. <strong>Routine Practices</strong> if area can be covered</td>
<td>Negative pressure room if available Private room required (door closed)</td>
<td>Airborne, direct and indirect contact with vesicular fluid</td>
<td>Until all lesions have crusted and dried.</td>
<td>Until all lesions have crusted and dried.</td>
</tr>
<tr>
<td><strong>Localized:</strong> Immune compromised host*</td>
<td>Vesicular skin lesions localized to one or two dermatomes and do not cross body’s midline (may overlap adjacent dermatomes)</td>
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<tr>
<td></td>
<td></td>
<td><strong>Airborne and Contact Precautions</strong> until dissemination is ruled out. <strong>Routine Practices</strong> if area can be covered</td>
<td>Negative pressure room if available Private room required (door closed)</td>
<td>Airborne, direct and indirect contact with vesicular fluid</td>
<td>Until all lesions have crusted and dried.</td>
<td>Until all lesions have crusted and dried.</td>
</tr>
<tr>
<td><strong>Disseminated</strong></td>
<td>Vesicular skin lesions outside the involved and adjacent dermatomes or crossing the body’s midline, OR lesions involving more than one body system</td>
<td><strong>Airborne (until lesions are dry &amp; crusted) and Contact Precautions</strong></td>
<td>Negative Pressure room if available Private room required (door closed)</td>
<td>Airborne, direct and indirect contact with vesicular fluid</td>
<td>Until all lesions have crusted and dried.</td>
<td>Until all lesions have crusted and dried.</td>
</tr>
</tbody>
</table>

*Non-immune patients should preferably not share rooms with patients with varicella or zoster. Add Contact Precautions for cases of localized zoster that cannot be covered.

*Localized zoster may disseminate in immune compromised host if not treated.

*Consult ICP to review duration of precautions if this type of patient is on antiviral therapy.
Appendix A

Point of Care Risk Assessment
for HCW, Family and/or Visitors to direct the choice of appropriate Personal Protective Equipment

Ask yourself
Have you previously had varicella zoster virus (chicken pox)?
Have you been vaccinated against chicken pox or shingles?
Do you know your immune status against varicella zoster virus (chicken pox)?
Do you consider your immune status healthy or normal?

These questions apply whether you are pregnant or not.

* N95
Introduction

Infection prevention and control practices such as improved operating room ventilation, sterilization methods, barrier techniques, surgical practices and antimicrobial prophylaxis help reduce surgical site infections. Despite these improvements, surgical site infections (SSI) are the second most common type of adverse events occurring in hospitalized patients. Surgical site infections have been shown to increase mortality, readmission rate, length of stay and cost for patients who incur them. To reduce the risk of surgical site infections, systematic, realistic and evidence-based approaches are required.

Policy

1. Surveillance for surgical site Class 1 (clean) and Class 2 (clean-contaminated) infections will be conducted to determine trends, evaluate the efficacy of preventative programs and help identify potential problems.

2. All health care workers providing surgical patient care will be educated in the epidemiology of and infection prevention and control procedures for preventing surgical site infections.

3. Surgeon-specific SSI rates will be reported.

Purpose

1. To reduce the risk and incidence of surgical site infections by following evidence-based guidelines.

Procedure

1. Pre-operative patient preparation

   - Treat all identified infections prior to surgery.
   - Encourage same-day surgery admission.
   - Adequately control serum blood glucose levels in all diabetic patients and particularly avoid hyperglycemia postoperatively.
   - Encourage tobacco cessation. At minimum, instruct patients to abstain from tobacco use for at least 30 days before elective operation.
- Ensure the practice of pre-operative bathing/showering with an antimicrobial product (chlorhexidine preferred) the evening before and the morning of surgery.
- Avoid hair removal at the operative site unless absolutely necessary; clip rather than shave.
- In the operating room (OR), the area around and including the operative site should be scrubbed for two minutes with an antimicrobial preoperative skin preparation applied from the center to the periphery. This area should be large enough to include the entire incision and an adjacent area large enough for the surgeon to work during the operation without contacting unprepared skin.
- For those operations requiring an incision and the use of the OR, the patient should be covered with sterile drapes in such a manner that no part of the patient is uncovered except the operative field and those parts necessary for anaesthesia to be administered and maintained.
- Encourage the establishment of postoperative normothermia for colorectal surgery patients.

2. Surgical team preparation

2.1 Hand/forearm antisepsis

- Keep nails short and do not wear artificial nails.
- Do not wear hand or arm jewelry.
- Clean underneath each fingernail prior to performing the first surgical scrub of the day.
- All members of the surgical team who will have contact with the sterile surgical field, sterile instruments or incisional wound will perform a 2 to 5 minute surgical scrub with an antimicrobial agent at the beginning of the surgical day. The scrub will include the hands and forearms up to the elbows.
- Between consecutive operations, decontamination of hands may be performed with the use of a hand sanitizer or a scrub of two minutes with an antimicrobial soap.
- Keep hands elevated and away from the body so that water runs from the tips of the fingers toward the elbows. Dry hands with sterile towels and don sterile gowns and gloves.

2.2 Surgical attire and drapes

- During surgery, all who enter the OR will wear a surgical mask that covers the nose and mouth, a cap or hood to fully cover hair on the head and face.
- OR gowns should be made of reusable or disposable fabrics that have been shown to be effective barriers to organisms, even when wet.
- The surgical team should wear sterile gloves. If a glove is punctured during the operations, it should be changed as promptly as safety permits.
- Do not wear shoe covers for the prevention of SSI.
- Change scrub suits that are visibly soiled, contaminated, and/or penetrated by blood or other potentially infectious materials.

3. Preparation and maintenance of OR environment.

- Maintain positive pressure ventilation in the OR with respect to the corridors and adjacent areas.
• Maintain a minimum of 15 air exchanges per hour, of which at least 3 should be fresh air. All inlets should be located as high above the floor as possible and remote from exhaust outlets of all types. All air, recirculated or fresh, should be filtered (at least 90% efficiency) before it enters the OR.
• All OR doors should be kept closed except as needed for passage of equipment, personnel, and the patient. The number of personnel allowed to enter the OR, especially after an operation has started, should be kept to a minimum.
• Routine microbiologic sampling of the air or environmental surfaces should not be done.
• Use of tacky or antiseptic mats at the entrance to the OR is not recommended for purpose of Infection Prevention & Control.
• When visible soiling or contamination with blood or other body fluids of surfaces or equipment occurs during an operation, use a hospital disinfectant to clean the affected areas before the next operation.
• Sterilize all surgical instruments according to published guidelines.
• Perform flash sterilization only for patient care items that will be used immediately (e.g. to reprocess an inadvertently dropped instruments). Do not use flash sterilization for reasons of convenience, as an alternative to purchasing additional instruments sets, or to save time.

4. Prophylactic antibiotic use

• Administer a prophylactic antibiotic only when indicated, and selection should be consistent with guidelines based on efficacy against the most common pathogens causing SSI for a specific operation and published recommendations.
• Administer the initial dose of the prophylactic antibiotic by the intravenous route, timed to ensure that a bactericidal concentration of the drug is well established in serum and tissues when the incision is made.
• Preoperative doses should be given in the operating room (OR), just prior to the procedure (exceptions would be when 2 or more antibiotics or Vancomycin are indicated for prophylaxis)
• Intraoperative dosing is not routinely indicated unless it is a prolonged surgical procedure.
• Multiple studies have shown that postoperative doses are not routinely indicated for clean or clean-contaminated surgery. Discontinuation of prophylactic antibiotics should occur with 24 hours or three doses which are eight hours apart.

5. Protection of patients from other infected patients or personnel

• Patients with potentially transmissible infections should be placed on additional precautions.
• Personnel with potentially transmissible conditions, for example, Herpes simplex infections of fingers and hands, group A streptococcal disease, or S. aureus skin lesions should be managed according to the Occupational Health and Safety Department policy on Infectious Disease exposure.
• Routine culturing of personnel should not be done.
6. Postoperative incision care

- Primary closed incisions should be protected with a dressing for 24-48 hours postoperatively.
- Cleanse hands before and after dressing changes and any contact with the surgical site.
- When an incisional dressing must be changed, use sterile technique.

7. Surveillance

- Use standardized definitions for identifying SSI among surgical inpatients and outpatients.
- Assign surgical wound classification at the completion of an operation. A surgical team member should make the assignment. Record as clean (I), clean-contaminated (II), contaminated (III), or dirty and infected (IV).
- Surveillance of post-operative SSI should be done and infection rates reported to the surgeons and other personnel/committees as appropriate.
- Increases in wound infection rates should be investigated. If an outbreak is confirmed, appropriate epidemiologic studies should be initiated.

References:

Introduction

*Mycobacterium tuberculosis* is the causative organism of tuberculosis (TB) and is spread by the respiratory route. Bacilli are suspended in droplet nuclei when a person with active disease in the lungs or larynx coughs, talks, sings or laughs or if infected tissue is irrigated or manipulated, such as during surgery or autopsy. Droplet nuclei are approximately 5 microns in size and remain suspended in the air for hours.

The risk of transmission:
- is related to the number of organisms aerosolized.
- is associated with cavitary disease, smear positive sputum, or a cough.
- occurs if patients are placed in poorly ventilated rooms.

Once inhaled, the organisms are deposited in the alveoli. The person may have mild symptoms but more often the initial infection goes unrecognized. Although organisms may remain viable indefinitely the immune system is usually able to prevent subsequent disease. As long as the person is without symptoms, he or she is said to have “latent TB infection”. A positive tuberculin skin test is currently the only way to determine that the person has been infected. Only 10% of infected people go on to develop active TB disease. **The person is not contagious unless active disease develops.**

Typically 80 – 85% of active TB cases will be pulmonary and the remainder extrapulmonary. Persons with pulmonary or laryngeal TB are considered contagious whereas those with extrapulmonary TB are not unless bacteria are aerosolized from extrapulmonary masses.

TB is usually slow and insidious in onset. Persons with HIV infection may have a more rapid progression. In active pulmonary TB, symptoms of slight cough and weight loss may be overlooked until they worsen and include hemoptysis, fever and night sweats. Extrapulmonary TB typically presents with weight loss, fever, sweats, as well as symptoms from the specific site of disease.

With TB on the rise and the occurrence of reported outbreaks in hospitals, the need continues for aggressive measures to control TB.
Policy

1. In addition to Standard Precautions, use Airborne Precautions for patients known or suspected to be positive for contagious pulmonary or laryngeal TB. Refer to Airborne Precautions policy in the Infection Prevention and Control Manual.

2. Patients with possible or known TB will be placed in single rooms with monitored negative pressure (see list of suitable rooms in Airborne Precautions policy).

Purpose

1. To prevent the transmission of TB to health care workers, visitors or other patients.

Procedure

1. Identification of TB positive status in patients
   - TB is diagnosed with a combination of Diagnostic Imaging and Laboratory tests. Pulmonary TB is detected with chest X-ray and sputum for acid fast bacilli (AFB).
   - Microbiology will notify the Infection Control Professional (ICP) and the nursing unit of sputum tests which are smear positive for AFB. The specimen is then cultured to confirm the diagnosis of TB, the bacteria grow slowly & this takes several weeks.
   - Nursing unit will notify Infection Prevention and Control if a patient has not been on Airborne Precautions and now has query or known contagious TB disease (sputum positive for AFB).

2. Patient Placement
   - See policy Tuberculosis (TB) Management Program for general patient placement procedures.
   - Keep both anteroom (where applicable) and room doors closed whether or not the patient is in the room.
   - A child under age 4 may be placed in rooms 3127 and 3129 at RUH. Consult with the ICP for further assessment.
   - Older children that do not fit the above criteria are to be placed in a single room. Consult ICP for assessment if child is on a nursing unit that does not have a monitored negative pressure room.
   - Post Airborne Precautions sign.
   - If transfer to negative pressure isolation is not immediately feasible, contact the on-site Infection Prevention & Control Professional regarding interim room placement.
   - Airborne Precautions may be discontinued after effective drug treatment for at least 2 weeks or 3 consecutive sputum smears are negative for afb. Please consult the ICP before discontinuing precautions.
3. Masks

- Health care workers are to wear a special high-filtration tight-fitting mask, preferably labeled as N95, to enter the patient room.
- Patient is to wear a procedure mask whenever leaving the room. If the patient cannot tolerate wearing a mask, all staff attending the patient are to wear an N95 mask.

4. Patient Transport

- Transport of the patient to other departments should be limited to essential purposes only.
- Inform the receiving department that Airborne Precautions are required.

5. Patient/Visitors and Family Teaching

- Patients/visitors and family should understand the nature of the infectious process and precautions being used, as well as the prevention of transmission of TB to others during the patient’s hospital stay and upon his/her return to the community.

6. Medication

- A combination of several medications is administered for treatment of TB and these may be initiated before the diagnosis is confirmed on culture or drug sensitivity is known.
- All TB medications are to be administered using Directly Observed Therapy (DOT) where the nurse watches the person ingest the pills.
- TB medications are supplied free of charge via the TB clinic. Contact the clinic in advance of discharge to arrange follow-up and DOT in the community.

7. Contact Tracing

- Infection Prevention and Control shall notify Occupational Health and Safety of the confirmed diagnosis and need for contact tracing.
- The names of all staff who were in close proximity (sharing the same airspace for a prolonged period of time i.e. days, not hours or minutes) to the patient for the dates that the patient was not on Airborne Precautions are to be listed by the manager of the department or designate as directed by Occupational Health and Safety for follow-up.
- Names of visitors and other patient contacts (see close proximity notation above) are to be given by Infection Prevention and Control to the TB Clinic for follow-up.

References:


Introduction

Mycobacterium tuberculosis (TB) continues to be seen in Canada and hospitals play an important role in the primary care of patients with TB. A TB management program ensures both optimal care for the patient and effective protection for other patients and healthcare workers.

Definitions

Airborne infection isolation: Isolation used for patients infected with organisms spread through airborne droplet nuclei. The isolation area receives substantial air changes per hour (12 for construction completed since 2001 and at least 6 for construction before 2001) and is under negative pressure (i.e. the direction of the air flow is from the outside adjacent space into the room). The air in the room is preferably exhausted to the outside, but can be recirculated if the return air is filtered through a high efficiency particulate respirator (HEPA) filter.

Air change rate: Ratio of the airflow to the space volume per unit time, usually expressed as the number of air changes per hour.

Contact: A person who is exposed to TB by sharing air space with an infectious TB patient.

Conversion: Tuberculin skin test (TST) conversion is a change in a test result; an increase of >10mm in induration during a maximum of 2 years.

Directly observed therapy: Adherence-enhancing strategy in which a healthcare worker or other trained person watches a TB patient swallow each dose of medication. DOT is the standard of care for all TB patients in Saskatchewan.
Extrapulmonary TB  TB disease in any part of the body other than the lungs (i.e. kidney, spine, lymph node). The presence of extrapulmonary TB does not exclude pulmonary TB disease. Extrapulmonary disease is not considered infectious unless nuclei from the site are being aerosolized.

Fit test  The use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on a person.

Infectious (contagious) TB  TB disease which can be transmitted from one person to another. Patients with smear positive pulmonary TB disperse droplet nuclei in the air during coughing, sneezing, singing or when undergoing aerosol generating procedures such as bronchoscopy.

Infectious period  The period during which a person with TB might have transmitted TB to others. For patients with AFB smear positive results, the infectious period begins 3 months before collection date of the first positive smear results or the symptom onset date, whichever is earlier, and ends when the patient is placed in airborne infection isolation or the date of collection of consistently negative smear results.

Suspect...TB  An illness marked by symptoms, laboratory tests, or radiographic findings consistent with or indicative of TB.

Tuberculin skin test  A diagnostic aid for finding TB infection. A small dose of tuberculin is injected intradermally by the Mantoux method, and the area is examined for induration by palpation 48-72 hours after the injection.

Policy

Saskatoon Health Region will have a tuberculosis management program which delineates administrative, environmental and respiratory protection controls to prevent transmission of TB within its facilities. The program will be overseen by the regional Infection Control Committee.

Purpose

1. To ensure prompt detection, airborne precautions and treatment of persons who have suspected or confirmed TB disease or prompt referral for settings in which persons with TB disease are not expected to be encountered.

2. To apply current Canadian TB control recommendations to processes and procedures in SHR.
Procedures

1. Administrative Control Procedures

Isolation/Isolation Rooms

Airborne infection isolation is instituted for all patients with suspected or confirmed infectious TB and continues until the person is determined not to have TB, the infectious period is over or until the patient is ready for discharge from hospital. This may involve transfer of patients to/from other units or facilities during the period of investigation to rule out suspected TB. Patients will be moved into isolation as soon as possible. Children with pulmonary TB are not usually as infectious as adults however isolation of children with extensive pulmonary or laryngeal involvement, cavitary disease or positive smears from sputum or gastric washing is prudent.

Airborne infection isolation rooms are preferentially used for patients requiring airborne isolation when the room is occupied by any patient not on airborne isolation.

A list of airborne isolation rooms within the Region for use when home isolation is not appropriate is maintained by the Infection Prevention & Control program. The list will be available in the Infection Prevention and Control Manual policy “Airborne Precautions”.

Nursing Care

Policies pertaining to Nursing care and management of infectious TB patients as it relates to infection control are found in Infection Prevention and Control Manual policies Tuberculosis (TB) and Airborne Precautions. Policies are reviewed and updated whenever new Canadian TB related guidelines are published.

Patient/resident tuberculin skin testing is carried out in accordance with Nursing policy ”Tuberculin Skin Testing (Mantoux)“.

Long term care facility resident screening for TB is conducted on admission and according to the Tuberculosis Control manual of the Saskatchewan Tuberculosis Program.

Investigations/Specimens

Postpone non urgent procedures that might put healthcare workers at risk for possible exposure to TB until the patient is determined not to have TB disease or is non-infectious.

Urgent surgery on suspected or confirmed infectious TB patients is performed following Surgical Services Policy “Airborne Precautions in Surgical Suite”.

Laboratory Services manual, Microbiology section, ”TB/AFB Collections” outlines procedures which apply to collection and transportation of specimens.
Sputum induction to procure a specimen for AFB testing from patients suspected or confirmed to have TB is done in a negative pressure setting. The TB clinic may be able to assist.

Bronchoscopy is not the primary diagnostic method for pulmonary TB. Bronchoscopy on a patient suspected or confirmed to have pulmonary TB is done in a negative pressure suite (RUH Rm 5747) or in an airborne infection isolation room. Children have bronchoscopy performed in an airborne infection isolation room in Pediatric Intensive Care Unit.

Autopsy on a person with known or suspected infectious TB is performed in the negative pressure autopsy suite at SCH Laboratory and must be coordinated with the receiving pathologist.

**Risk assessment**

Facility risk assessment is performed annually for each acute care inpatient setting in the Region by the Infection Prevention & Control and Occupational Health and Safety programs. Assessment findings are reviewed by the Infection Control Committee and the committee recommends action.

2. **Environmental Control Procedures**

Facilities Services is responsible for maintaining airborne infection isolation rooms to the current Canadian standard, ensuring proper directional air flow and adequate air change rate for each room. This also applies to surgical, bronchoscopy and autopsy suites, where applicable. Facilities Services procedures include HEPA filter changes and cleaning of TB rooms.

Endoscopy service is responsible to ensure proper cleaning and disinfection or sterilization processes for contaminated endoscopes/bronchoscopes to prevent transmission via contaminated equipment.

3. **Personal Control Procedures**

**Staff Testing**

The Occupational Health & Safety Program is responsible for health care worker employment and post-exposure tuberculin skin testing (TST), identification of high risk groups of workers, annual TST for high risk groups, referral of workers with TST conversion, and the respiratory protection program. See OH&S manual policies “Tuberculosis Screening and Surveillance Program” and “Personal Protective Equipment- Respiratory Protection”.

**Education**

Education regarding prevention, transmission and symptoms of TB is provided via the Infection Prevention & Control, Public Health Services and Occupational Health and Safety programs, based on Infection Prevention and Control Manual policy “Tuberculosis (TB)”.

Clinical staff (nursing, respiratory therapy, physical therapy, etc) provide education to patients on respiratory hygiene and cough etiquette procedures.
References:


2. Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Settings, 2005, Department of Health and Human Resources, CDC.

<table>
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<tr>
<th><strong>POLICIES &amp; PROCEDURES</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number:</strong> 40-180</td>
</tr>
<tr>
<td><strong>Title:</strong> Urinary Tract Infections - Prevention</td>
</tr>
</tbody>
</table>

**Authorization:**

| [ ] SHR Infection Prevention & Control Committee |
| [ ] Facility Board of Directors               |

**Source:** Infection Prevention & Control

| **Date Initiated:** February 5, 2002 |
| **Date Reaffirmed:** June, 2003       |
| **Date Revised:** May, 2007           |
| **Scope:** SHR Agencies & Affiliates  |

**Introduction**

Urinary tract infections (UTI) are the most common infections acquired in hospitals and long term care facilities. The major predisposing factor for healthcare associated UTI is the presence of an indwelling urethral catheter. Up to 25% of hospitalized patients have a urinary catheter inserted during their stay in hospital. Approximately 50% of patients catheterized longer than 7 – 10 days develop infection. Nearly all patients catheterized longer than 30 days develop UTIs. An indwelling catheter provides a means of entry for microorganisms. These microbes enter the urinary tract in any of three ways; during insertion of the catheter, or they can travel upward along the catheter – mucousal junction, or if the drainage system has become contaminated, they can travel upward along the inside of the catheter.

Bacteremia secondary to UTI is the most common cause of nosocomial gram-negative sepsis and has been linked to increased mortality.

**Policy**

1. Urinary catheters will be inserted only when clinically indicated and removed immediately when they are not longer required.

2. Indwelling urethral catheters will be used for a limited duration as much as possible and only after careful consideration of the alternative methods of management.

3. All health care workers providing urinary catheter care will be educated in the epidemiology of and infection prevention and control procedures for preventing urinary tract infections.

**Purpose**

1. To reduce the risk and incidence of urinary tract infections by following evidenced-based guidelines.
Procedure

1. Insertion

- Select the smallest gauge catheter that will allow free urinary outflow (with the smallest possible balloon).

- Perform bladder catheterization using aseptic technique according to the specific SHR Nursing Policies and Procedures, Catheterization-Bladder.

- Securely tape the catheter to the medial thigh of a female or the upper thigh of a male to prevent movement and urethral traction.

2. Maintenance

- Maintain a sterile closed drainage system. When disconnection is necessary the catheter/collecting tube junction should be disinfected with a disinfectant and strict, sterile technique observed.

- Obtain urine samples from a sampling port using aseptic technique. Prep sampling port with a disinfectant (e.g. alcohol 70% or chlorhexidine 0.5%/alcohol 70%) and withdraw with a syringe and needle.

- Maintain unobstructed, downward urine flow by keeping the drainage bag below the level of the patient’s bladder at all times. Position the drainage bag on a stand that prevents contact with the floor. Keep the tubing free from kinks and obstruction.

- Empty the urinary drainage bag aseptically and frequently enough to maintain urine flow and prevent reflux. When emptying, use a separate and clean container for each patient and avoid contact between the emptying port and the container. Change gloves and practice good hand cleansing between contact with each drainage system.

- If a break in aseptic technique, accidental disconnection or leakage occurs, the collection system should be replaced using aseptic technique after disinfecting the catheter-tubing junction with a disinfectant wipe.

- **Urinary catheters should not be changed at fixed times. Change when blockages occur from intraluminal encrustations, for aesthetic reasons or when urinary tract infection is suspected or present.**

- **Irrigation of indwelling urinary catheters should be avoided unless needed to prevent or relieve acute obstruction (i.e., post-operative bladder surgery).**

- **Routine personal hygiene is all that is required to maintain meatal hygiene.**

- **Routine bacteriological monitoring of catheterized patients is not recommended.**

- **Prophylactic antibiotics to prevent bladder colonization are NOT effective and are to be strongly discouraged.**
References:


POLICIES & PROCEDURES

Number: 40-200
Title: Ventilator-associated Pneumonia (VAP) - Prevention

Authorization:
[SHR Infection Prevention & Control Committee]
[ ] Facility Board of Directors

Source: Infection Prevention & Control
Date Initiated: June, 2003
Date Reaffirmed:
Date Revised: May, 2007
Scope: SHR Agencies & Affiliates

Introduction

Although patients receiving mechanically assisted ventilation do not represent a major proportion of patients who have nosocomial pneumonia, they are at highest risk for acquiring the infection. Ventilator associated pneumonia is the leading cause of death among hospital-acquired infections, exceeding the rate of death due to central line infections, severe sepsis, and respiratory tract infection in the non-intubated patient. Most bacterial nosocomial pneumonias occur by aspiration of bacteria colonizing the oropharynx or upper gastrointestinal tract of the patient. Because intubation and mechanical ventilation alter first-line defenses, they greatly increase the risk for nosocomial bacterial pneumonia.

Recognized risk factors for VAP include reintubation, head elevated less than 30°, aspiration of nasopharyngeal secretions, contamination of ventilator circuits by soiled hands or gloves, and prolonged intubation.

Policy

1. Surveillance for VAP will be conducted to determine trends, evaluate efficacy of preventative protocols, and help identify outbreaks and other potential problems.

2. All health care workers providing ventilator-assisted care will be educated regarding the epidemiology of and infection prevention and control procedures for preventing VAP.

Purpose

1. To reduce the risk of ventilator-associated pneumonia by following evidenced-based guidelines.

Procedure

1. Education and Surveillance

   - The Infection Prevention & Control Professional (ICP) and Clinical Nurse Educator will provide education for health care workers regarding infection prevention and control measures to prevent occurrence of VAP.
The ICP will conduct surveillance in ventilated or recently extubated ICU patients at high risk, to determine trends and identify potential problems.

The ICP will provide prepared VAP rates to ICU manager, and examine ways to further reduce rates of infection.

Any clustering of bacterial isolates in the ICU will be investigated by the ICP. If an outbreak is suspected the outbreak protocol will be implemented.

2. Sterilization or disinfection and maintenance of equipment and devices.

   • Nursing and respiratory therapy staff will rinse with tap water or clean reusable equipment prior to sending to Materials Management for disinfection or sterilization.
   • Materials Management will sterilize or use high level disinfection for reusable semi-critical equipment or devices (items that come into direct contact with mucous membranes of the lower respiratory tract).
   • Use only sterile water to fill bubbling humidifiers/nebulizers.
   • Use only sterile fluids for nebulization and dispense fluids aseptically. Do not draw up in advance.

3. Mechanical Ventilators, breathing circuits humidifiers, heat and moisture exchangers and nebulizers.

   • Do not routinely sterilize or disinfect the internal machinery of mechanical ventilators.
   • Do not change routinely, on the basis of duration of use, the ventilator circuit (ventilator tubing, exhalation valve, attached humidifier) that is in use on an individual patient. Change the circuit when it is visibly soiled or malfunctioning.
   • Periodically drain and discard any condensate that collects in the ventilator circuit, taking care not to allow condensate to drain toward the patient.
   • When cost-effective and unless medically contraindicated, use a heat-moisture exchanger to prevent pneumonia in a patient receiving mechanically assisted ventilation.
   • Before deflating the cuff of an endotracheal tube in preparation for tube removal, or before moving the tube, ensure that pooled secretions are cleared from above the subglottic region with the use of a specially designed endotracheal tube (EVAC).

4. Interruption of person-to-person transmission

   • All staff must wash hands before and after contact with mucous membranes, respiratory secretions, ventilators or their circuits, or objects contaminated with respiratory secretions, even if gloves are used.
   • Wear gloves for handling respiratory secretions or objects contaminated by them.
   • Wear a gown when soiling with respiratory secretions is anticipated, and change the gown after such contact and before providing care to another patient (Refer to Standard Precautions).
   • If an open suction system is employed, use a sterile single-use catheter, sterile gloves and sterile water or saline for all suctioning of respiratory tract.
   • Rinse in-line catheters with sterile water or saline between suctioning attempts as necessary.
   • Mask/ Eye protection is recommended for any procedure where aerosols may be generated (e.g. any endoscopy, open suctioning etc.)
5. Modifying host risk for infection

- Maintain head of bed between 30 and 45° to reduce risk of aspiration, unless medically contraindicated via written orders.
- Verify appropriate placement of feeding tube with x-ray.
- Consider the use of oral versus nasal tubes for access to the trachea or stomach.
- Routinely assess patient's intestinal motility and adjust rate and volume of enteral feeding to prevent regurgitation.
- Where possible, it is desirable to use an agent for stress ulcer prophylaxis that does not raise the patient's gastric pH.
- Use only sterile water for flushing enteral feeding tubes.
- Daily altering of sedation (sedation vacation) in order to assess the patient’s readiness to extubate by performing a spontaneous breathing trial (SBT).

6. Additional strategies for nursing and respiratory therapy for preventing ventilation-associated pneumonia

- Use aseptic suctioning technique to remove tracheal secretions. Instill sterile saline if secretions are thick or tenacious.
- Between patients, sterilize or subject to high level disinfection all reusable devices as per manufacturer's recommendations.

References:

Introduction

Antiseptics are products with antimicrobial activity that are designed for use on skin or other superficial tissues. They remove both transient and resident flora. The term is used for preparations applied to living tissue.

Disinfectants are chemicals that reduce or destroy pathogenic organisms but rarely kill all spores. This term refers to agents used on inanimate (non-living) objects.

Selection and use of antiseptics and disinfectants is dynamic, ever-changing as newer products become available. Selection should be based on information in scientific literature, federal Food and Drug Administration (FDA) registration and manufacturer’s claims. Also to be considered are the cost, safety and acceptability by the user. Consultation with Infection Prevention & Control is recommended.

Policy

1. Antiseptics and disinfectants shall be used according to the WHMIS label.

Purpose

1. To prevent infection by reducing microbial contamination through the appropriate use of antiseptics and disinfectants.

2. To provide a range of agents that meet the needs of all healthcare facility departments while maintaining fiscal responsibility.

Procedure

1. Determine the level of sterilization or disinfection required by identifying what classification and what level is to be obtained.

   - Spaulding’s Classification:
Critical items - Objects that enter sterile tissue or the vascular system and must be sterile.

- Semi-critical items - Objects that come into contact with mucous membranes or skin that is not intact.

- Non-critical items - Objects that come in contact with intact skin.

- Levels of Disinfection:
  - High-level disinfection - destroys all microorganisms with the exception of high numbers of spores. May be sporocidal with long exposure time.
  - Intermediate-level disinfection - inactivates *M. tuberculosis*, vegetative bacteria, most viruses and most fungi but does not kill bacterial spores.
  - Low-level disinfection - kills most bacteria, some viruses and some fungi but cannot be relied upon to kill resistant microorganisms such as tubercle bacilli or bacterial spores.

- Efficacy of disinfection is affected by:
  - The nature of the object.
  - The organic load present.
  - Type and level of microbial contamination.
  - The concentration of and exposure time to the germicide.

2. Select the appropriate agent.

**ANTISEPTICS**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Gm+ bacteria</th>
<th>Gm- bacteria</th>
<th>Myco- bacteria</th>
<th>Fungi</th>
<th>Viruses</th>
<th>Speed of action</th>
<th>Comments</th>
</tr>
</thead>
</table>
| Alcohols                | +++          | +++          | +++            | +++     | +++     | Fast           | Best concentration 60-95%; no persistent activity. *
| Iodine compounds        | +++          | +++          | +++            | ++      | +++     | Intermediate    | Causes skin burns; usually too irritating for hand hygiene. |
| Iodophors               | +++          | +++          | +              | ++      | ++      | Intermediate    | Less irritating than iodine; acceptance varies |
| Phenol derivatives      | +++          | +            | +              | +       | +       | Intermediate    | Activity neutralized by non-ionic surfactants. |
| Triclosan               | +++          | ++           | +              | -       | +++     | Intermediate    | Acceptability on hands varies. |
| Para-chloro-meta-xylenol (PCMX) | +++          | ++           | +++            | ++      | ++      | Intermediate    | Activity neutralized by non-ionic surfactants. |

+++ = excellent; ++ = good, but does not include the entire bacterial spectrum; + = fair; - = no activity or not sufficient. Hexachlorophene is not included as it is no longer an accepted ingredient for hand disinfection.

* acceptable concentrations for chlorhexidine are 0.5%, 2.0% and 4.0%
## DISINFECTANTS

<table>
<thead>
<tr>
<th>Agent</th>
<th>Dilution</th>
<th>Level of Disinfection</th>
<th>Advantages</th>
<th>Disadvantages</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorines</td>
<td>100-1000 ppm free chlorine</td>
<td>High / Low</td>
<td>Low cost. Fast acting.</td>
<td>Corrosive to metals. Inactivated by organic material. Unstable when diluted. Produce toxic chlorine gas when mixed with acid.</td>
<td></td>
</tr>
<tr>
<td>Orthophthalaldehyde (OPA)</td>
<td>0.55%</td>
<td>High</td>
<td>No known eye/nasal irritation. Excellent stability. Low odor. Excellent material compatibility.</td>
<td>Stains proteins.</td>
<td>Discard down drain.</td>
</tr>
<tr>
<td>Stabilized Hydrogen Peroxide</td>
<td>3%</td>
<td>Low</td>
<td>Fast-acting. Breaks down into harmless chemicals.</td>
<td>Can be corrosive to aluminum, copper, brass or zinc.</td>
<td>Bactericidal including MRSA and VRE.</td>
</tr>
<tr>
<td>Accelerated Hydrogen Peroxide</td>
<td>7%</td>
<td>Low/High level depending on concentration</td>
<td>Fast-acting. Breaks down into harmless chemicals.</td>
<td>Can be corrosive to aluminum, copper, brass or zinc. Effective for norovirus</td>
<td></td>
</tr>
<tr>
<td>Peracetic Acid</td>
<td>-</td>
<td>High</td>
<td>Effective against all microorganisms. Innocuous decomposition Effective in the presence of organic material.</td>
<td>Can be corrosive. Unstable when diluted</td>
<td>High level disinfection of instruments.</td>
</tr>
<tr>
<td>Iodophors</td>
<td>30-50 ppm free iodine</td>
<td>Intermediate</td>
<td>Non-staining.</td>
<td>Must be used according to manufacturer's recommendations to achieve antimicrobial activity</td>
<td>Cannot be interchanged with antiseptic iodophor.</td>
</tr>
<tr>
<td>Phenolics</td>
<td>0.4-1.6% aqueous</td>
<td>Intermediate / Low</td>
<td>Leaves residual film on environmental surfaces. Available with added detergents.</td>
<td>May be absorbed through the skin.</td>
<td>Do not use in nurseries.</td>
</tr>
<tr>
<td>Quaternary ammonium compounds</td>
<td>2%</td>
<td>Low</td>
<td>Detergent properties</td>
<td>Do not use for disinfecting instruments. Inactivated by soap and organic material. Narrow microbiocidal spectrum.</td>
<td></td>
</tr>
</tbody>
</table>
References:


POLICIES & PROCEDURES

Number: 50-20
Title: Toys and Toy Cleaning

Authorization:
[4] SHR Regional Infection Prevention and Control Executive Committee

Source: Infection Prevention & Control
Date Initiated: April 7, 2009
Date Reaffirmed:
Date Revised:
Scope: SHR Agencies & Affiliates

Introduction

Although toys can be comforting, fun, and therapeutic for children, they can also be a reservoir for potentially pathogenic organisms. Organisms from saliva, respiratory secretions, feces, or from hands can contaminate the toys.

Policy

1. The Toys and Toy Cleaning policy will refer to all toys and games used within all clinical and community-based services including waiting rooms and play areas.
2. All toys are to be clean and in good repair.
3. Written procedures for cleaning toys are to be posted in all areas where toys are being stored.
4. Hand hygiene is to be completed prior to handling toys.

Purpose

1. To prevent the spread of disease and outbreaks involving toys.
2. To ensure toys and toy areas are cleaned on a regular basis.

Procedure

1. Types of Toys

   Toys refer to all infant and toddler toys, dolls, games, books, puzzles, crafts, art supplies, and all electronic equipment.

2. Toy Materials/Design

   • Toys with small pieces that can be swallowed are not permitted.
   • Foam, stuffed or cloth toys, musical wind instruments, or toys that retain water are not permitted.
   • If stuffed, plush, or cloth toys are brought in with a patient, keep these toys in the patient’s room.
   • Toys are to be non-porous and able to be cleaned.
If small crafts such as beads, shells, and sparkles, etc are being used for supervised therapy, ensure each individual has their own crafts to use. Once the therapy session is over discard craft items that can not be disinfected and disinfect those that can be disinfected.

Water, food, and sand tables should not be used in an acute care facility.

If water, food, and sand tables are used in a community based setting the following is required:
- Fresh potable water is to be used daily.
- Table is to be disinfected upon emptying.
- Food such as beans, lentils, peas, rice must be stored in food grade containers when not in the table.
- Food and sand is to be replaced on a regular basis (semiannually).
- Disinfect food and sand table when food or sand is changed.
- If vomit or feces contaminates the tables, remove the contents, disinfect and replace with clean water, food, or sand.

3. Toy Cleaning Schedule and Cleaning Frequency

- Ensure there is a toy cleaning schedule and a person (care aide, staff, volunteer etc.) is assigned to do the cleaning.
- Written procedures on how to clean should be posted for staff to follow.
- Toys that are in use should be cleaned on a weekly basis or sooner if visibly soiled.
- If any toys are ‘mouthed’ by a patient, these toys are to be cleaned after each use.
- There should be a ‘dirty toy bin’ where toys that have been touched and mouthed are placed for cleaning.
- Only take out enough toys to fit into the dirty bin at the end of each day.
- Always have toys on hand in the ‘clean toy bin’ to exchange for the dirty ones that have been removed.
- Have a lid on the ‘dirty toy bin’. If ‘dirty toy bin’ is kept in the toy room, place where children can not get into it or lock the lid.
- Clean toy bins that are in use on a weekly basis.

4. Toy Cleaning and Disinfection

- Toys are to be inspected for any damage, cracks, or broken parts every time they are washed. Remove any broken toys and discard them.
- Toys must be cleaned prior to disinfection.
- Wash toys in warm water and soap (liquid detergent).
- Rinse off the soap.
- Disinfect toys with any of the following:
  - Run toys through a commercial dishwasher if toys can withstand a high temperature.
  - Wash cloth toys in a washing machine and then machine dry.
  - Soak toys for at least a 2 minute contact time in a household bleach solution of 30ml of bleach to 4 liters of warm water.
  - Can use a low level disinfectant such as a quaternary ammonium compound. Refer to the product label for directions and contact time to ensure toy is disinfected.
  - Can use an accelerated hydrogen peroxide product (0.5%). Follow manufacturer’s direction for dilution and contact time.
• Once the toys are disinfected, allow the toys to air-dry prior to storing in the clean toy bin.
• If toys may be ‘mouthed’ rinse toys with running warm water to remove disinfectant and let air-dry before storing in the clean toy bin.
• Toys, such as puzzles, games, books, and videos/DVDs that can not tolerate excessive moisture are to be surface wiped with a sanitized cloth (cloth soaked in a disinfectant solution). Allow 2 minutes wet contact time. Follow this with a surface wipe with a wet cloth (water only) if surface can be negatively affected by the disinfectant.
• Therapy lights and toys are to be cleaned after each use.
• Any toys taken into isolation rooms must be cleaned and disinfected after their use. If the toy can not be cleaned and disinfected, it is to be discarded.
• All toys brought from home with a patient should be clean. Instruct the parents to wash personal toys and blankets at least once a week and whenever they are visibly soiled.

5. Play Rooms or Play Areas

• Play rooms or play areas should be designed so that they are safe for the children and are visible to the staff.
• Play rooms or play areas should be designed to have a hand sink with running water and liquid soap available for hand washing OR
• Play areas should have alcohol hand sanitizers for children to use before and after playing with the toys.
• Staff monitored play rooms or play areas should have a ‘dirty toy bin’ in it and a ‘clean toy bin’ or clean toys after each use.
• Non-monitored play rooms or play area need to have toy storage boxes and cupboards and are to be cleaned on a regular basis (weekly).
• High hand contact surfaces such as playhouses, climbing toys, table tops and chair arms should be cleaned and disinfected on a daily basis.
• The flooring in the play area should be cleaned on a daily basis.
• Electronic games and computers are to be cleaned weekly.
• Computer keyboard covers shall be either of the immersible type or wipe them daily with a sanitized cloth according to manufacturer’s directions.

References:


Introduction

Information technology (IT) devices, including computers, monitors, keyboards, mice, hand held devices, mobile telephones, pagers, etc, can become contaminated with microorganisms when touched with gloves or unwashed hands which have been in contact with a client or surface in the client environment or workplace.

Information technology is classified as non-critical equipment (does not come into contact with mucous membranes, non-intact skin or sterile body areas) which requires regular cleaning and low-level disinfection.

Electronic devices used in healthcare should be considered either:
  a. “clean” – not in contact with clients or their environment, touched only by workers after cleaning their hands (e.g. nursing station computer, computer on a medication dispensing cart), or
  b. “dirty” – comes in contact with clients or their environment, may be touched by workers during the client encounter without hand hygiene prior (e.g. patient education tablet, bedside medical record access device).

Policy

1. Hand hygiene is the most important factor in the prevention of transmission of microorganisms. IT devices must be approached with clean hands. Staff should **not** wear gloves when using an IT device unless this is required in their specific workplace. Perform hand hygiene between client contact and accessing a device. Consider placing alcohol-based hand rub in a convenient location, close to stationary IT devices.
2. All touch surfaces of **IT devices used at or near the point of care** must be cleaned and disinfected with a hospital grade disinfectant. See Table 1 for types of devices.

3. When cleaning and disinfecting IT devices, use the same type of cleaner or disinfectant and the same frequency as is normally used to clean and disinfect other surfaces in that area (see below for List of recommended agents and Table 1 for cleaning frequency):

3.1 If the IT device is in a high-risk area, such as a **client room, operating theatre, laboratory area or client equipment reprocessing area**, clean and disinfect with the disinfecting process normally used for other equipment in the room/area. Clean mobile IT devices on rolling stands between each client.

3.2 If the IT device is used in the room of a **client on Additional Precautions**, clean and disinfect all external surfaces of the device, before it is removed from the room, with the usual agent used for precautions room cleaning.

3.3 If the IT device is in a low-risk area, such as an office in a non-clinical area, clean and disinfect external surfaces with the same agents as other devices, such as the telephone, etc. in that office.

4. Impervious keyboard covers, skins, or solid, fluid-resistant keyboards that can withstand frequent cleaning with hospital-grade disinfectants are recommended, and are available through IT Services.

**Purpose**

To prevent transmission of infection from client to client, or from client to healthcare worker (HCW), or HCW to clients or between HCWs via the workstation/device.

**Procedure**

1. All surfaces should be cleaned with a soft wipe or cloth **dampened** with an approved cleaner/disinfectant, obvious soil must be removed prior to the final wipe. Avoid the use of cloths that are saturated with fluid. Keyboards may be vacuumed or air cleaned to remove debris.

2. Liquid disinfectants must **not** be sprayed or poured directly onto IT devices.

3. Surfaces must be allowed to air dry before use.

4. If a screen becomes streaked or develops a film of cleaner/disinfectant, wipe with a soft, damp cloth and polish dry.

5. LCD screens are not made of glass (computer, iPhone, iPad screens), therefore they are not impervious, and require careful cleaning. Use a wipe containing up to 0.5% hydrogen peroxide to clean the screen, air dry then wipe with a soft damp cloth.

6. Establish procedures/schedules for assigning responsibility and accountability for routine cleaning/disinfection of IT devices in client care areas. Refer to Table 1.
7. If personal IT devices are being accessed during client care, clean devices between clients and before leaving client care areas.

**List of Recommended cleaning products:**

Wipes containing up to **0.5% accelerated hydrogen peroxide for LCD screens**. Soft wipe/cloth pre-moistened with a ready to use (RTU), approved hospital grade cleaner/disinfectant, accelerated hydrogen peroxide or quaternary ammonium products are acceptable for plastic surfaces and glass screens- use the usual cleaning product in your workplace. 0.5% accelerated hydrogen peroxide is the most readily available.

| Table 1: Cleaning and Disinfection IT Devices – Frequency and Responsibility |
|-------------------------------------------------|-----------------|----------------|
| Equipment/Device                                 | Frequency        | By Whom         |
| Fixed system used at point of care               | Daily and at discharge | User &/or as assigned by Manager |
| • wall mounted in client room                     | Daily and between clients | OR attendant/cleaner |
| • OR theatre                                     |                  |                  |
| Portable systems used at the point of care        | Daily and between clients | User &/or as assigned by Manager |
| such as computers on wheels, wireless laptops,   |                  |                  |
| tablets - “dirty” items. These devices have       |                  |                  |
| multiple users and travel from bedside to         |                  |                  |
| bedside.                                         |                  |                  |
| Portable/fixed system used near the point of     | Daily, between shifts | User &/or as assigned by Manager |
| care (remain in hallway outside the client room)  | and after client discharge |                  |
| – “clean” items.                                  |                  |                  |
| All other fixed systems located in clinical area  | Daily            | User &/or as assigned by Manager |
| - nursing unit office or work station,           | Between users    |                  |
| laboratory, reprocessing – “clean” or single     |                  |                  |
| user.                                            |                  |                  |
| Systems in non-clinical offices                  | Weekly           | User             |
| • Single user                                     | Between shifts   | User &/or as assigned by Manager |
| • Multiple user workstation                      |                  |                  |
| Systems in public areas for client/visitor use   | Daily            | Proprietor       |
| Personal systems (pager, cell phone, portable    | Daily            | Owner/User       |
| personal computer)                                | Between clients if accessed during client care |                  |

References:
1. Alberta Health Services. *Best Practice IPC Guidelines Cleaning and Disinfection of IT*


Introduction

Animals have been found to benefit people socially, psychologically, and physiologically. The goal of pet visitation and pet therapy programs are to return the person to wellness and independence by providing opportunities for recreational, motivational, and therapeutic benefits. Animals can transmit infectious diseases to humans and humans can transmit infectious diseases to animals. Service animals are not included in this policy.

Policy

1. The Pet Visitation and Pet Therapy Program Policy will pertain to acute care and community-based services in the Saskatoon Health Region.
2. Health care facilities are to adhere to the Pet Visitation and Pet Therapy Program policy to prevent transmission of infectious diseases.
3. Pets are not allowed in areas where food is prepared, stored or served, where supplies, chemicals and/or medications are stored.
4. Pets are not allowed in any ICUs, burn units, dialysis units, nurseries, where any procedures are performed and in any isolation rooms.
5. Pets are to be kept away from any toys or medical equipment.
6. Verbal approval must be obtained by the manager/nurse in charge prior to the first animal visit.
7. Vaccinations are to be up to date prior to first animal visit.
8. When there are regular visiting hours, pet visitation will adhere to these times.
9. Therapy animals that visit inside a SHR facility must be registered with Volunteer Services and identified with a SHR photo identification badge for the handler and the pet.
10. Pet is to have all vaccinations up to date and documentation provided to Volunteer Services prior to their first visit in the pet therapy program.
11. All dogs are to be certified and temperament tested by a Certified Pet Dog Trainer or by St. John’s Ambulance.

Purpose

1. To prevent or minimize the transmission of disease from pets in health care settings.
2. To provide a safe environment for people and animals.
**Procedure for Pet Visitation**

- Practice hand hygiene before and after animal contact.
- Patient, client, friend, or relative provides prior notice to the manager/nurse in charge that they wish to bring a pet to visit.
- The patient-owned animal is to visit that patient only.
- Animal should be healthy and have **all** vaccinations up to date.
- Animal is to be leashed at all times or be transported in a carrier.
- Patient-owned animal is to be under the control of the handler at all times.
- Patient-owned animal should not be handled or petted by non-family members.
- Visiting session is to be for one hour only to reduce animal fatigue.
- Do not put the animal directly onto the bed. Place a disposal impermeable barrier between the bed and the animal. Dispose of this barrier when the visit is finished.
- Suitable animals for visitation only include household pets but do not include the following high risk species:
  - Animals under 1 year old
  - Farm animals
  - Wild animals
  - Animals recently domesticated (e.g. hedgehogs, Potbellied pigs)
  - Recent shelter animals
  - Hamsters, gerbils, mice, rats
  - Birds
  - Reptiles and amphibians
  - Fish

**Procedure for Pet Therapy Program**

- The manager, staff and security should be advised when the pet therapy program occurs.
- The manager should designate an animal visitation liaison to provide support and facilitation to animal handlers while visiting the facility.
- Obtain oral and written consent from patients/residents to be in pet therapy program.
- Animals in the pet therapy program should be at least one year old and be in good health.
- Animal is not to visit health care facility starting from the onset of and until at least one week beyond the resolution of:
  - Episodes of vomiting or diarrhea
  - Urinary or fecal incontinence
  - Episodes of sneezing or coughing of unknown origin
  - Open wounds
  - Ear infections
  - Skin infections
  - Orthopedic conditions
  - Heat stress
- All animals participating in the pet therapy program must have a yearly check-up and documentation from a veterinarian to verify **all** vaccinations are up to date and animal is healthy.
- All animals should be bathed on a monthly basis and groomed within 24 hours prior to visiting to minimize shedding of animal dander.
- Groom animal to remove loose hair and trim their nails before a visit.
All dogs are to be certified and temperament tested by a Certified Pet Dog Trainer or by St. John’s Ambulance. This evaluation should assess the following situations:
- Reactions to strangers
- Reactions to loud noises and/or stimuli
- Reactions to angry voices and threatening gestures
- Reactions to being crowded
- Reactions to being patted in a vigorous or clumsy manner
- Reactions to a restraining hug
- Reactions to other animals
- Ability to follow and obey handler’s commands, etc.

Any animal who exhibits negative, aggressive or fearful behavior is not to be a part of the pet therapy program.

All animals used in a pet therapy program are to be fed commercially prepared dog food.

The animals are not to be fed during the visit.

Fresh water is to be provided by the animal handler for the animal during the visit.

All animals are to be under the care of a pet handler at all times during the program.

The animal is to be leashed at all times or in a carrier.

If the animal urinates or defecates, gloves are to be worn to clean up the animal wastes. Place animal waste into a plastic bag, tie up bag, and place into the garbage. Hand hygiene is to be performed after glove removal. Notify housekeeping to ensure the area is properly cleaned and disinfected.

The animal handlers should be healthy and free of communicable diseases.

The animal handler is to ensure all individuals wash their hands before and after animal contact.

Animal handler should ensure that supplies for hand washing are available where sinks are located and carry dispensers of alcohol hand sanitizer with them for use by all individuals before and after animal contact.

Animal handler should not visit patients/residents or individuals that have allergies, open wounds, agitation or aggression, fear of animals or are in isolation.

Animal handler should not allow individuals to touch the animal in the mouth, nose or perianal area or handle the animal in a manner that may frighten or harm the animal.

Animal handler should not allow the animal to lick individuals, touch any toys, medical equipment or dressings or to contaminate the environment in any way.

If any toys or medical equipment are contaminated in any way, cleaning and disinfection is to occur prior to reuse (See Policy #50-20 - Toys and Toy Cleaning). All contaminated dressings are to be discarded and new dressings put on.

If the animal bites or scratches or has any other inappropriate behavior, visitation rights are to be revoked.

In the case of accidental scratches, put measures in place to prevent this situation from reoccurring.

References:


Introduction

Construction and renovation projects in healthcare facilities pose a threat to patients and may, occasionally, also be a health risk to staff and visitors. All healthcare facilities should be able to promote and support an environment that is safe for patients, visitors and healthcare workers.

Policies and standards have been developed to limit the transmission of infectious agents (fungal, bacterial and viral) to patients during construction, maintenance and renovation (CMR) projects in patient care areas and patient care-related areas in health care facilities because transmission of infectious agents to patients has been documented to occur during these activities.

There are Canadian Standards that address Infection Prevention and Control (IP&C) for construction, maintenance and renovation. IP&C concepts also need to be incorporated into design, to facilitate desired practices by the healthcare worker and to provide a safe environment.

Policy

1. All CMR projects will involve the SHR ICP (Infection Control Professional) in each phase of the project (from initial design through project completion).
2. All new construction, renovation and maintenance projects must be carried out in accordance with proper infection prevention and control standards and engineering procedures to reduce the risk of exposure to (airborne) contaminants.
3. The Infection Prevention and Control Checklist (Appendix 1) must be completed for all CMR projects.
4. All contractors, sub-contractors, materials suppliers, vendors, employees or agents are bound by infection prevention procedures outlined for the project when working in public and patient areas and will cease operations when notified that infection prevention and control measures have been breached.

Purpose

1. To reduce the potential for healthcare acquired infections (HAI’s) related to CMR.
2. To ensure patient and personnel safety needs are met through implementing and maintaining IP&C measures, including clear lines of communication.
Procedure

1. Classification of Project:
Saskatoon Health Region (SHR) Planning will classify CMR projects according to the definitions provided in the IP&C SHR Risk Assessment Matrix (Appendix I). The project requirements that relate to the class of project will be included in contract tender documents.

2. Construction Checklist:
The person responsible for the project (Project Manager) will complete the top portion of IP&C SHR Risk Assessment Matrix (Appendix I). A copy of the matrix will be forwarded to the site IP&C prior to the start of the work.

3. Design Phase:
The SHR ICP will be an integral member of the project teams for CMR projects involving health care facilities within the SHR owned, operated facilities and affiliate sites.

The SHR ICP will approve the design phase of each project as it relates to IP&C issues. These include but are not limited to:
- Class of project
- Traffic patterns for people and supplies
- Ventilation systems
- Hand washing facilities
- Patient care areas including accommodations for patients requiring additional precautions
- Composition of vertical and horizontal surfaces
- Water supply and plumbing
- Storage of equipment and supplies
- Storage and disposal of infectious waste

4. Demolition/Construction Start-up Phase:
Prior to the start of the work, a meeting will be held with representatives from Environmental Services, Facilities Management, IP&C, Workplace and Employee Wellness (OH&S), and the users of the area as appropriate to discuss issues related to infection prevention and control such as:
- Ventilation systems
- Patient location
- Dust elimination/control
- Traffic patterns
- Supplies/storage
- Transportation of demolition materials
- Hoarding
- Negative pressure

5. Construction Phase:
The SHR ICP will perform spot inspections to ensure that the appropriate preventative measures are initiated and adhered to, and has the authority to stop construction if there is a significant failure to adhere to the required preventative measures.

The project manager will respond to the deficiencies in a time line that is agreed upon with the ICP.
The health care staff (including medical and nursing staff) shall be responsible for maintaining patients’ health and safety. Therefore they shall be aware of patient population at risk, potential hazards that construction activities pose to patients and the relevant preventative measures.

The ICP will follow-up on concerns related to infection from the clinical department undergoing the CMR project.

During construction checklists to document the monitoring of negative pressure, hoarding, walk off mats and filters will be used as necessary (Appendix IV). The checklists to be used will be agreed upon by the ICP and the constructor.

The ICP will also document her/his inspection using appendix III. This inspection sheet shall be made available to the constructor.

6. Commissioning/Pre-occupancy Phase:
Prior to re-opening of an area, a post-project or move coordination meeting will be held with representatives from Workplace and Employee Wellness, IP&C, Environmental Services, Facilities Management and the users of the area as appropriate to discuss IPC issues such as:
- Terminal cleaning
- Settle time (time between terminal cleaning and return to use)
- Timing of re-opening
- Walk through
- General environmental services schedules for new areas
- Ventilation system checks (i.e. air balance, pressurization, microbial contamination, air exchange rates)

7. Communication:
Communication is essential at all stages. Meetings should include the following:
- Frequent/weekly update meetings with the project manager and the ICP to discuss upcoming stages and to anticipate issues before hand
- called by the multidisciplinary team (and involve IP&C) as required.

Definitions

Construction, Maintenance and Renovation (CMR):
Includes activities by a person(s) who breach the integrity of ceilings, walls, floors and ventilation systems including activities related to installation of wiring, cables, plumbing and air handling or maintenance.

Patient Care Areas:
The in-patient and the outpatient units of a health care facility. This includes waiting rooms, clinics, emergency rooms and diagnostic areas.

Patient Care-Related Areas:
Areas proximal to patient care areas (i.e. above, below, adjacent or within). This includes areas such as supplies, equipment processing, distribution and Pharmacy.

Negative Pressure System:
Occurs when the static pressure in an enclosed work area is lower than the pressure outside the enclosed work area.
Healthcare Associated Infection (HAI):
Infections produced by microorganisms acquired during a stay at a health care facility.

Microbial Contamination:
The introduction of micro-organisms into an environment potentially causing instability, disorder, harm or discomfort.

References


5. CSA standards: (Z317.13) Infection Control during Construction or renovation of Health care Facilities


Construction, Renovation and Maintenance  
Infection Control Risk Assessment

<table>
<thead>
<tr>
<th>Location of Construction:</th>
<th>Project No.:</th>
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<thead>
<tr>
<th>Project Coordinator:</th>
<th>Project Start Date:</th>
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<tr>
<th>Work Performed by:</th>
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<tr>
<td>☐ Contractor _________</td>
<td>Phone #: ___________</td>
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<td>☐ Maintenance Contact Person: ____________</td>
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<th>Supervisor:</th>
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<th>Estimated Duration:</th>
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</table>

**STEP 1  Identify the “Type of Construction Activity”**

- **Type A**
  - Inspection and Non-Invasive Activities. Include, but is not limited to, removal of ceiling tiles for visual inspection limited to 1 tile per 50 square feet, painting (but not sanding), wall covering, electrical trim work, minor plumbing, and activities which do not generate dust or require cutting of walls or access to ceilings other than for visual inspection.

- **Type B**
  - Small scale, short duration activities which create minimal dust. Includes, but is not limited to, instillation of telephone and computer cabling, access to chase spaces, cutting of walls or ceiling where dust migration can be controlled. It also includes plumbing that requires disruption to the water supply to more than one patient care area (e.g., >2 rooms) for less than 30 minutes.

- **Type C**
  - Any work, which generates a moderate to high level of dust or requires demolition or removal of any fixed building components or assemblies. Included, but is not limited to, sanding of walls for painting or wall covering, removal of floor coverings, ceiling tiles and casework, new wall construction, minor duct work or electrical work above ceilings, major cabling activities, and any activity which cannot be completed within a single work shift. It also includes plumbing that requires disruption to the water supply of more than one patient area (e.g., >2 rooms) for more than 30 minutes but less than one hour.

- **Type D**
  - Major demolition and construction projects. Includes, but is not limited to, activities which require consecutive work shifts, requires heave demolition or removal of a complete cabling system, and new construction. It also includes plumbing that results in disruption of the water supply of more than one patient care area (e.g., >2 rooms) for more than 1 hour.

**STEP 2  Using the following table identify and circle the “Population Risk Groups”**

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
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<tbody>
<tr>
<td>Lowest Risk</td>
<td>Medium Risk</td>
<td>Medium to High</td>
<td>High Risk</td>
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<tr>
<td>Office areas</td>
<td>Unoccupied wards</td>
<td>Public area</td>
<td>Laundry and</td>
</tr>
<tr>
<td>Patient care areas unless listed in Group 3 or 4</td>
<td>Outpatient</td>
<td>Emergency room (except trauma rooms)</td>
<td>ICU’s</td>
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<td>Diagnostic Imaging</td>
<td>Operating rooms (including prep, induction, PACU, and scrub areas</td>
<td>Anaesthesia storage areas</td>
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<td>Appendix I – Construction, Renovation and Maintenance Infection Control Risk Assessment</td>
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<tr>
<td>soiled linen cleaning areas</td>
<td>clinics (except oncology and surgery)</td>
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<td>Physical plant workshops and housekeeping areas</td>
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<td>Admission and discharge units</td>
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<td>Waiting rooms</td>
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<td>Autopsy and morgue</td>
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<td>Occupational therapy areas remote from patient care areas</td>
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<td>Physical therapy areas remote from patient care areas</td>
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<td>Labour and Delivery (LDRP)</td>
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<td>Newborn Nurseries</td>
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<td>Nuclear medicine</td>
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<td>Hydrotherapy</td>
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<td>Echocardiography</td>
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<td>General medical and surgical wards</td>
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<td>Long Term care</td>
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<td>Food preparation, serving, and dining areas</td>
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<td>Respiratory therapy</td>
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<td>Clean linen handling and storage areas</td>
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<td>and workrooms</td>
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<tr>
<td>Oncology units and outpatient clinics for cancer patients</td>
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<td>Transplant units and outpatient clinics</td>
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<td>Wards an outpatient clinics for patients with AIDS or other immunodeficiency diseases</td>
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<td>Dialysis units</td>
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<td>Critical care nurseries (NICU)</td>
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<td>Labour and delivery operating rooms</td>
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<td>Cardiac catheterization and angiography areas</td>
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<td>Cardiovascular and cardiology</td>
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<td>Endoscopy</td>
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<td>Pharmacy admixture rooms</td>
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<td>Sterile processing and supply</td>
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<td>Central processing department</td>
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<td>Burn care units</td>
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<td>Trauma rooms</td>
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<td>Isolation rooms</td>
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<td>Cystoscopy</td>
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<td>Dental procedure rooms</td>
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</table>
## Preventative Measures Analysis

### STEP 3  Match the patient Risk Level with the Construction Activity Level

<table>
<thead>
<tr>
<th>Population Risk Group</th>
<th>Type A</th>
<th>Type B</th>
<th>Type C</th>
<th>Type D</th>
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</thead>
<tbody>
<tr>
<td>GROUP 1</td>
<td>CLASS I</td>
<td>CLASS II</td>
<td>CLASS II</td>
<td>CLASS III – IV</td>
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<tr>
<td>GROUP 2</td>
<td>CLASS I</td>
<td>CLASS II</td>
<td>CLASS III</td>
<td>CLASS IV</td>
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<tr>
<td>GROUP 3</td>
<td>CLASS I</td>
<td>CLASS III</td>
<td>CLASS III – IV</td>
<td>CLASS IV</td>
</tr>
<tr>
<td>GROUP 4</td>
<td>CLASS I – III*</td>
<td>CLASS III - IV</td>
<td>CLASS III - IV</td>
<td>CLASS IV</td>
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</tbody>
</table>

### STEP 4  Determine Preventative Measures Required:

* An Infection Control Permit will be required when the Construction Activity and Risk Level indicate that Class III and Class IV control procedures are necessary. Each class includes the preceding class’s preventative measures. Attach this Risk Assessment to the permit for IP&C approval.

<table>
<thead>
<tr>
<th>√ Class</th>
<th>During Construction Project</th>
<th>Upon Completion of Project</th>
</tr>
</thead>
</table>
| I       | • Execute work by methods to minimize raising dust from construction operations  
          • Immediately replace a ceiling tile displace for visual inspection | • Clean work area upon completion of task |
| II      | • Provide active means to prevent airborne dust from dispersing into atmosphere  
          • Water mist work surfaces to control dust while cutting  
          • Seal unused doors with duct tape  
          • Block off and seal air vents  
          • Place dust mat at entrance and exit of work area  
          • Remove or isolate HVAC system in areas where work is being performed | • Wipe work surfaces with disinfectant  
          • Contain construction waste before transport in tightly covered containers  
          • Wet mop and /or vacuum with HEPA filtered vacuum before leaving work area  
          • Remove isolation of HVAC system in areas where work is being performed |
| III*    | • Remove or isolate HVAC system in area where work is being done to prevent contamination of duct system  
          • Complete all critical barriers (sheetrock, plywood, plastic) to seal areas from non work area or implement control cube method (cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) before construction begins  
          • Maintain negative air pressure within work site utilizing HEPA equipped air filtration units  
          • Contain construction waste before transport in tightly covered containers  
          • Cover transport receptacles or carts. Tape covering unless solid lid | • Do not remove barriers from work area until completed project is inspected by IP&C and thoroughly cleaned by Housekeeping.  
          • Removed barrier materials carefully to minimize spreading of dirt and debris associated with construction  
          • Vacuum work area with HEPA filtered vacuums  
          • Wet mop area  
          • Removed isolation of HVAC system |
### Appendix I - Construction, Renovation and Maintenance Infection Control Risk Assessment

| IV* | • Isolate HVAC system in area where work is being done to prevent contamination of duct system  
• Complete all critical barriers (sheetrock, plywood, plastic) to seal areas from non work area or implement control cube method (cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) before construction begins  
• Maintain negative air pressure within work site utilizing HEPA equipped air filtration units  
• Seal holes, pipes, conduits, and punctures  
• Construct anteroom and require all personnel to pass through this room so they can be vacuumed using a HEPA vacuum cleaner before leaving work site or they can wear clothe or paper coveralls that are removed each time they leave the work site  
• All personnel entering work site are required to wear shoe covers. Shoe covers must be changed each time the worker exits the work area  
• Do not remove barriers from work area until completed project is inspected by IP&C and thoroughly cleaned by housekeeping  
• Remove barrier material carefully to minimize spreading of dirt and debris associated with construction  
• Contain construction waste before transport in tightly covered containers  
• Cover transport receptacles or carts. Tape covering unless solid lid  
• Vacuum work areas with HEPA filtered vacuums  
• Wet mop area  
• Removed isolation of HVAC system |

Appendix II - Construction, Renovation and Maintenance Infection Control Measures Permit

**Construction, Renovation and Maintenance**

**Infection Control Measures PERMIT**

<table>
<thead>
<tr>
<th>Location:</th>
<th>Project No.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Coordinator:</td>
<td>Project Start Date:</td>
</tr>
<tr>
<td>Work Performed by: □ Contractor OR □ FES Contact Person</td>
<td>Phone #</td>
</tr>
<tr>
<td>Name:</td>
<td></td>
</tr>
<tr>
<td>Maintenance Supervisor:</td>
<td>Estimated Duration:</td>
</tr>
<tr>
<td>Phone #:</td>
<td></td>
</tr>
</tbody>
</table>

**Preventative Measures Analysis**
Circle the patient Risk Level and the Construction Activity Level

<table>
<thead>
<tr>
<th>Population Risk Group</th>
<th>Type A</th>
<th>Type B</th>
<th>Type C</th>
<th>Type D</th>
</tr>
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<tbody>
<tr>
<td>GROUP 1</td>
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<td>CLASS II</td>
<td>CLASS II</td>
<td>CLASS III – IV</td>
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<tr>
<td>GROUP 2</td>
<td>CLASS I</td>
<td>CLASS II</td>
<td>CLASS III</td>
<td>CLASS IV</td>
</tr>
<tr>
<td>GROUP 3</td>
<td>CLASS I</td>
<td>CLASS III</td>
<td>CLASS III – IV</td>
<td>CLASS IV</td>
</tr>
<tr>
<td>GROUP 4</td>
<td>CLASS I – III*</td>
<td>CLASS III - IV</td>
<td>CLASS III - IV</td>
<td>CLASS IV</td>
</tr>
</tbody>
</table>

When the population risk group is 4 and the construction activity is Type A, IP&C shall be consulted to determine the appropriate measures.

When the preventative measure is a III/IV, the Infection Control Risk Assessment and this permit is to be submitted to IP&C.

Describe work hours. Can or will the work be done during non-patient care hours?

Using the guide provided on the back of this sheet, and on the attached Risk Assessment, give a brief description of work being performed with specific plans for containment, traffic flow, debris removal.

**Permit Requested By:**

**Supervisors Confirmation Work is as outlined:**

<table>
<thead>
<tr>
<th>Date:</th>
<th>Position:</th>
<th>Name:</th>
<th>Date:</th>
</tr>
</thead>
</table>

**IP&C Practitioner Consult** (to include additional requirements, exceptions or deletions):

**Permit to be posted at work site entrance**

Standards Council of Canada. Infection Control during construction, renovation, and maintenance of health care facilities.

CSA 2007,Z317.13-07
Appendix II - Construction, Renovation and Maintenance Infection Control Measures Permit

APPENDIX J
V1.1 Sept 2009
Facilities & Engineering Services

Below are highlights of the CSA Z317-13-07 and do not include of all the requirements. Use the standard to determine the preventative measures required for this project.

Preventative Measures I and II (to be included in Preventative Measures III and IV):

□ Establish safe route for transportation of clean or sterile supplies and equipment away from the construction area.
□ Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction.
□ Establish traffic patterns for construction workers that avoid patient care areas.
□ Designate elevator for construction workers.
□ Minimize exhaust output from the elevator cab in the construction area.
□ Determine if domestic cold/hot/recirculation water lines will be affected by the construction (7.1.3.1.)
□ Place debris in covered containers or cover it with a moistened sheet before transporting it for disposal.
□ Place supplies and equipment in covered containers during transportation through the facility to prevent contamination in other areas.
□ Removed the debris in the evening when patients are in their rooms and visitors have left. If not possible, removed at the end of the workday to minimize exposure.

Preventative Measures III (See 7.2.3 of the standard for details)

□ Complete all critical barriers or implement hoarding method before construction begins.
□ Impermeable dust barrier, from floor to underside of the deck including the areas above false ceiling, consisting of two layers of .15 (6 ml) fire-retardant polyethylene and gypsum wallboard.
□ Use impermeable vessels constructed to contain contaminants.
□ Vacuum mechanical and electrical systems and spaces above drop or false ceiling if necessary.
□ Remove protective clothing before entering patient care areas.
□ Seal holes, pipes, conduits, and punctures appropriately.
□ Disable the ventilation system and seal duct openings in construction area.
□ Barriers not removed from work area until project is complete.
□ Isolate HVAC system area where work in being done to prevent contamination of duct system.
□ Maintain negative pressure within work site (24/7) including pressure gauges and an alarm.
□ Exhaust air shall not be discharged to areas occupied by patient risk groups 3 / 4.
□ Permanent air handling systems should not be used for the exhausting air. Temporary duct work may be installed for such purposes however it should not be connected to the facility’s HVAC system.
□ Clean in area surrounding each construction zone with a HEPA vacuum daily.
□ Notify housekeeping to increase the frequency of cleaning in the areas adjacent to the construction area while the project is underway.

Preventative Measures IV (See 7.2.4 of the standard for details)

□ All access shall be from outside the occupied areas of the facility, or construct anterooms that access point to the construction area if access is from within.
□ Walk off mat must be placed outside and inside the anterooms.
Appendix II - Construction, Renovation and Maintenance Infection Control Measures Permit

- Constructors must leave through the anteroom so that they can be vacuumed with a HEPA vacuum before leaving or wear protective clothing that is to be removed each time they leave the construction area.
- Repair holes in walls within 8 h or seal them temporarily.
- Hats worn by employees within the construction area must be changed prior to putting the coveralls on.
- Post PPE procedure in each area.

PERMIT TO BE POSTED AT WORK SITE ENTRANCE
Standards Council of Canada. Infection Control during construction, renovation, and maintenance of health care facilities.
## Infection Prevention & Control Construction Inspection Sheet

<table>
<thead>
<tr>
<th>Date of Inspection:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Location (Building, Floor, Wing and Room):</td>
</tr>
<tr>
<td>Project Description:</td>
</tr>
<tr>
<td>Project manager/contact:</td>
</tr>
</tbody>
</table>

* Please note items with * need corrective measures before completed

### Dust Containment

1. Two layers of 6 mil poly if less than one day.
2. Rigid barrier if greater than one day.
3. Hoarding sealed from floor, wall and ceiling.
4. Is dust containment door present.
5. Rubber stripping on door of barrier.
6. Anteroom with sufficient space to remove PPE, and clean boots.
7. Anteroom contains:
   - Checklists
   - Construction permit
   - Alcohol hand sanitizer
   - Signage outlining entrance and exiting procedures.
8. Walk-off carpeting or tacky mat in anteroom and outside anteroom.
9. Rubber stripping on door of barrier.
10. Duct, electrical and plumbing holes are sealed.

### Air Quality

11. Negative pressure maintained at 7.5 Pa (.03wc).
12. HVAC intake and exhaust sealed with plastic / non-permeable material.
13. Ventilation system is disabled from the construction area.
14. Air from HEPA filter is exhausted outside.
15. Windows, doors, air intakes and exhaust vents sealed to adjacent construction/demolition.

### Housekeeping

16. It is clean in area surrounding the construction site?
17. Vacuum cleaner used to clean work area is HEPA – filtered.
18. When is the debris removal done (days and time).
19. Debris is removed in clean covered bins.
20. Route of debris removal avoids patient care areas if possible.
21. Materials brought into work site are covered during transport and stored in a clean dry location prior to transport.
22. Tools or supplies removed from work site are vacuumed with HEPA equipped vacuum or damp dusted.
23. Project area is swept and cleaned at the end of each day (wet mopped as needed).
## Appendix III - Infection Prevention & Control Construction Inspection Sheet

### Personal Protective Equipment

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<thead>
<tr>
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<tbody>
<tr>
<td>24.</td>
<td>Are workers traveling in areas used by patients/clients?</td>
</tr>
<tr>
<td>25.</td>
<td>Is there a HEPA filter equipped vacuum for workers to vacuum boots, or supplies to damp dust boots?</td>
</tr>
<tr>
<td>26.</td>
<td>Workers are wearing coveralls, and boot covers while in work area, and removing in anteroom?</td>
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</tbody>
</table>

### Plumbing and Water Quality

<p>| | |</p>
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<tbody>
<tr>
<td>27.</td>
<td>Water lines are flushed to clear before reuse of plumbing.</td>
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<tr>
<td>28.</td>
<td>Water is superheated to 66.5°C and hyperchlorinated before being repressurized.</td>
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<tr>
<td>29.</td>
<td>Dead legs are removed as close to the main line as possible.</td>
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<tr>
<td>30.</td>
<td>If dead leg not removed, then water drained and capped off and tagged.</td>
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### Documentation

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<tbody>
<tr>
<td>31.</td>
<td>Is construction permit posted?</td>
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<tr>
<td>32.</td>
<td>Daily negative pressure and hoarding checklist is complete?</td>
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<tr>
<td>33.</td>
<td>Daily filter checklist is complete?</td>
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</tbody>
</table>

### Comments:

- Inspected By:
### Appendix IV – Infection Control Checks

#### Daily Negative Pressure & Hoarding Checks:

<table>
<thead>
<tr>
<th>Date</th>
<th>Negative Pressure (am&amp;pm)</th>
<th>Check Hoarding (am&amp;pm)</th>
<th>Comments</th>
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# Appendix IV - Infection Control Checks

## Daily Filter Checks:

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<tr>
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<th>Pre-Filter</th>
<th>HEPA</th>
<th>Pleated Filter</th>
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## Appendix IV - Infection Control Checks

### Walk-off mat check:

<table>
<thead>
<tr>
<th>Date</th>
<th>Tacky mat (when changed)</th>
<th>Walk off mat (clean/vacuumed and when wet down)</th>
<th>Comments</th>
<th>Signature</th>
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POLICIES & PROCEDURES

Number: 50-50
Title: Resident Pets, Personal Family/Friend Pets, Pet Visitation and Pet Therapy Program - LTC

Authorization: [X] SHR Regional Infection Prevention and Control Executive Committee

Source: Infection Prevention & Control
Date Initiated: September, 2010
Date Approved: September 14, 2010
Date Reaffirmed:
Date Revised:
Scope: SHR Agencies & Affiliates

Introduction

Animals have been found to benefit people socially, psychologically, and physiologically. The goal of resident pets, personal family/friend pets, pet visitation and pet therapy programs is to promote and improve wellness and independence by providing opportunities for recreational, motivational, and therapeutic benefits. Long Term Care (LTC) homes are homes where healthcare is provided. As animals can transmit infectious diseases to humans and humans can transmit infectious diseases to animals, it is necessary to minimize these risks. This policy does not relate to service animals except where specifically noted.

Policy

1. The Resident Pets, Personal Family / Friend Pets, Pet Visitation and Pet Therapy Program Policy will pertain to LTC homes within the Saskatoon Health Region.
2. Only animals that do not exhibit negative, aggressive or fearful behaviour should be a resident pet or visit a LTC home. If the animal bites and/or scratches or has any other inappropriate behavior, visitation rights are to be revoked.
3. Animals should not have any direct contact with resident’s invasive devices, wounds or bandages.
4. Pets shall not be allowed in dining rooms when food is being prepared, stored or served, where clean supplies (including linen) or chemicals are being stored, medication rooms, where any procedures are being completed, and in any other area as identified specifically by the LTC facility.
5. Every reasonable and practical effort shall be made to keep animals away from residents with allergies, phobias or dislikes. Residents who do not wish to have contact with animals shall have documentation in their care guides and/or signage on the door to their rooms.
6. During any infectious disease outbreak, there will be no pet visits until the outbreak is declared to be over by Public Health Services, unless extenuating circumstances exist (e.g. compassionate care).

7. This policy will supersede any existing pet policies. However, specific facility policies may continue to be used to outline specific processes that exist in their facility.

**Purpose**

1. To provide a safe environment for people and animals.

2. To prevent or minimize the transmission of disease from pets in LTC settings.

3. To ensure meaningful benefit of resident pet, visiting pet and pet visitation programs.

**Procedures for all pets:**

- Animals should not drink out of toilets.
- Feed only commercially prepared food to the pets. Animals should not be fed raw meat or poultry.
- Where possible and desired, discourage the animals from lying on beds without an impermeable, disposable barrier, where possible and desired.
- All animals shall have current required vaccinations, be clean, groomed regularly and in good health and free of any disease or parasites.

**Procedures Specific to Resident Pets:**

Resident pets live in a LTC home or visit on a regular (e.g. daily) basis with a staff person.

- If the LTC home allows resident pets, the facility must have a designated person/s responsible for the health and personal needs of the pet including annual veterinarian check-ups, immunizations, and licensing. Designated person(s) are also responsible to completing and maintaining the Care Plan for their designated pet.
- Animals permitted as resident pets include cats, dogs, birds, and fish, etc.
- Nonhuman primates and reptiles should be avoided.
- Animals are to be groomed, nails trimmed, and if applicable, bathed on a regular basis. If an animal becomes visibly soiled, then facility should bath the pet.
- Birds who reside in LTC facilities, are to be kept in a cage at all times or have their wings clipped to limit their movement.
- Staff members designated to clean and disinfect the bird cage or fish tank should wear a gown or apron, gloves and mask (a mask is for cleaning the bird cage only) and ideally be a non-care staff member.
- Clean the fish tank frequently to prevent mold growth or build up on the fish tank filters, lights or lid.
- Do not store the litter box in any rooms where food is being prepared, served or stored, procedures are done or in the furnace room.
- If pet is a cat, the litter box is to be cleaned and disinfected frequently. With gloves on and with the use of a scoop remove feces daily into a plastic bag, tie closed, and put into the regular garbage. Clean and disinfect litter box with boiling water that is allowed to stand for 5 minutes at least weekly or more frequently if it is needed. Hand hygiene is to be performed after glove removal. Staff who clean the litter box should not be pregnant.
• If a pet is owned by a resident on precautions, the animal can stay in that person’s room. However the animal should not have the ability to wander in other resident’s rooms or go into common areas.
• If a service animal lives in a facility with a resident, the animal should be required to follow all requirements of the policy. However, the animal would be given more freedom within the facility, based on a discussion with the Infection Control Professional.

**Procedures for Personal Family / Friend Pets and Pet Visitation or Therapy Programs:**

Personal friends or family may visit their loved one with a pet. Pet Visitation programs are organized programs with volunteers (group or individuals) that encourage mutually beneficial interaction between companion animals and people. Pet Therapy programs (also called Animal Assisted Therapy) exist when a therapist or social worker uses an animal as a therapeutic modality to assist a resident in their therapy goals.

• Permission should be sought prior to an interaction between a resident and animal.
• Residents, families, staff, visitors and volunteers must practice hand hygiene before and after handling the pet.
• Owners or handlers must practice hand hygiene between residents when there is direct contact (e.g. shaking hands) and after direct contact with the pet and their waste.
• Owners or handlers shall be responsible for the needs of the pet (food, water, and outdoor breaks), properly disposing waste and ensuring the area is cleaned with paper towel, soap and water and followed with a facility disinfectant. Let air dry.
• Animals must be under the control of their owners or handlers at all times and if on a leash it should be less than 2 meters.
• Animals should not visit LTC facility if they are experiencing the following symptoms from the onset of and until at least one week beyond the resolution:
  - Episodes of vomiting or diarrhea
  - Urinary or fecal incontinence
  - Episodes of sneezing or coughing of unknown origin
  - Open wounds
  - Ear infections
  - Skin infections
  - Orthopedic conditions
  - Heat stress
  - Enteric parasites.
• The animal handlers or owners should be healthy and free of symptoms that may indicate a communicable disease (cough, diarrhea or fever).
• Where possible, if residents are going to hold small animals they should have a barrier between their clothes and the animal.
• Animals should not visit rooms where residents are on precautions. However, a resident on precautions can visit an animal outside of their room if they are free of a suspected or confirmed communicable disease and can contain secretions (i.e. cough or draining wound) with proper hand hygiene. If a family or friend chooses to visit their loved one in their room with a pet, they should not visit any other residents with their animal.
Procedures Specific to Personal Family / Friend Pets:

- Where possible, approval should be obtained by the supervisor prior to the first animal visit.

Procedures Specific to Pet Visitation or Therapy Program:

- An animal visitation liaison shall be designated to provide support and facilitation to animal handlers while visiting the home and to provide all of the procedures that should be met by the owner with each visit.
- Pets must be in the owner’s home for at least six months to qualify as a visiting animal.
- The animal handler should be provided with a bottle of alcohol hand sanitizer to carry with him/her during the visit to encourage hand hygiene.
- Pets should not visit without their first set of vaccinations.
- Handlers should provide proof of their animal’s yearly check-up and documentation from a veterinarian to verify all vaccinations are up to date and animal is healthy (unless a vaccine is deemed a contraindication due to the animal’s older age).
- Prior to visiting, handlers should provide proof that their animals have passed a temperament evaluation. There may be difficulty in accessing these services for rural facilities. All animals that have not received a temperament assessment should be observed on a continuous basis by the visitation liaison to ensure they are well trained/behaved. If there is any evidence of aggressive behavior immediately remove the animal.
- In the case of accidental scratches, put measures in place to prevent this situation from reoccurring.
- Visiting animals should not be fed food treats by residents.
- Where possible, make every attempt to discourage visiting animals from licking resident’s skin. If a pet has licked a resident ensure the skin is washed and hand hygiene occurs.
- Restrict visiting animals to no longer than a one hour visit to reduce animal fatigue.

Procedures for non-domesticated animal visitation (e.g. Petting Zoo):

Non-domesticated animal visitation pertains to activities such as a petting zoo visiting a LTC home or taking residents off-site to a petting zoo.

- Residents, families, staff, visitors and volunteers must practice hand hygiene before and after handling/petting the animals.
- Communication must occur with animal keeper prior to the visit to make sure that all the show animals are healthy on the day of the visit.
- Animals should not visit LTC facility if they are experiencing the following symptoms from onset to at least one week beyond the resolution of:
  - Episodes of vomiting or diarrhea
  - Urinary or fecal incontinence
  - Episodes of sneezing or coughing of unknown origin
  - Open wounds
  - Ear infections
  - Skin infections
  - Orthopedic conditions
  - Heat stress
  - Enteric parasites.
- Animal handlers must supervise the handling at all times.
- Staff assistants should carry a bottle of alcohol hand sanitizer to encourage hand hygiene.
- If residents are going to hold small animals have a barrier between their clothes and the animal.
- Birds should only be observed and not handled without a barrier (e.g. lap cover). Hand hygiene to follow.

References:


Introduction

An outbreak is the occurrence of more cases, or clustering of cases, of a particular infection or infectious disease than is normally expected, the occurrence of an unusual organism, or the occurrence of unusual antibiotic resistance patterns. Definitions of cases and outbreak vary with each disease/infection; see specific diseases for details (i.e., scabies outbreak, influenza outbreak, etc).

Policy

1. Routine surveillance may identify an outbreak however it is the responsibility of all health care workers to isolate, investigate and communicate concerns about a possible outbreak promptly so that Infection Prevention & Control (IP&C) can determine next steps (Appendix A).

2. IP&C supports the ward in the investigation of outbreaks among patients. IP&C notifies Public Health and consults Occupational Health and Safety when staff cases are identified.

3. An outbreak control team will be assembled whenever an outbreak is confirmed and a planning meeting held (see membership and purpose below).

Purpose

1. To control and prevent further dissemination.

2. To identify factors that contributed to the outbreak.

3. To analyze those contributing factors and recommend preventative measures.

4. To facilitate clear communication.
Procedure

1. Contact the Infection Control Professional (ICP) at your site whenever an unusual type or number of patients or staff with signs of infection/illness is recognized based on case finding to support an outbreak investigation (Appendix A and Appendix B).

2. Based on information from the unit, IP&C will determine if an outbreak exists and recommend control measures.

3. IP&C, in collaboration with the unit Manager, will assemble an outbreak control team consisting of the following members (this list is not exclusive, members will depend on the type and extent of outbreak):
   - Infection Control Officer
   - Administration representative &/or Site Manager
   - Unit/Department Manager/MoN & Educator
   - ICP for involved site
   - Occupational Health & Safety
   - Public Affairs
   - Risk Management
   - As appropriate: Public Health, Pharmacy, Laboratory, Facilities Services, CPAS, Human Resources, and other members as required.

4. A planning meeting of the outbreak control team is held when an outbreak is identified. The purpose of the meeting is to establish action plans that will:
   - Facilitate clear communication to staff, physicians, students, patients, volunteers and visitors,
   - Establish a media spokesperson,
   - Delegate responsibilities appropriately based on the specific disease outbreak guidelines,
   - Obtain or plan for obtaining anticipated resources - staff, supplies, medications, etc,
   - Determine in-service/education requirements and how to address them,
   - Make major decisions such as unit closure, visitor restrictions, procedure cancellations, initiation of the Emergency Preparedness Plan.

Subsequent meeting frequency will be determined by the team.

5. Internally, each affected department determines its resource requirements to contribute to the outbreak control effort and may require its own planning meeting or outbreak response plan.

6. The affected unit maintains a line list of cases, both patients and staff members, which will be communicated to IP&C or OH&S as arranged. Unit staff assists with other data collection, culturing, notification or other outbreak control duties as required by the control team.

References:


**Operation:** Suspect Outbreak Management – Acute and Rural Acute Care

**Supplies:** [IPC policy section 55 – Outbreak Management](#) and [section 30-40 – Signage](#)

<table>
<thead>
<tr>
<th>Unit Initiated Activities</th>
<th>What?</th>
<th>How?</th>
<th>Why?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don’t Wait – Isolate</td>
<td>Use the correct additional precaution</td>
<td>Stop transmission</td>
<td></td>
</tr>
<tr>
<td>Complete line lists</td>
<td>Obtain history from client and chart</td>
<td>Confirm infection</td>
<td></td>
</tr>
<tr>
<td>Review &amp; compare</td>
<td>Compare the line list with the correct outbreak P&amp;P</td>
<td>Confirm outbreak</td>
<td></td>
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<table>
<thead>
<tr>
<th>Unit or Manager Initiated Activities</th>
<th>What?</th>
<th>How?</th>
<th>Why?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call</td>
<td>Use the IPC Outbreak Call List</td>
<td>Discuss next steps</td>
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</table>
 IPC Outbreak Call List

<table>
<thead>
<tr>
<th>Monday – Friday (0800 – 1630h)</th>
<th>Contact Information</th>
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<tbody>
<tr>
<td>Site ICP:</td>
<td>RUH: 1164; 1780; 1760</td>
</tr>
<tr>
<td>SPH: 0511; 5668</td>
<td>SCH/Rural Acute: 8284</td>
</tr>
<tr>
<td>Call Switchboard to have your site ICP paged if you cannot reach them.</td>
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</table>

<table>
<thead>
<tr>
<th>Monday – Friday (after hours), Weekends and Stat Holidays</th>
<th>Step #1: Site On-call Manager → Site On-call Director → IP&amp;C Director → Infectious Disease Doctor On-call</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Step #2: Leave a message for Site ICP</td>
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# Appendix C – Suspect Outbreak Management Work Standard

## Work Standard

<table>
<thead>
<tr>
<th>Title:</th>
<th>Suspect Outbreak Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role:</td>
<td>Various healthcare workers, managers, directors, Infection Prevention and Control, Occupational Health &amp; Safety</td>
</tr>
<tr>
<td>Location:</td>
<td>SHR Acute and Rural Acute Care; Long Term Care (LTC)</td>
</tr>
<tr>
<td>Department:</td>
<td>Variable</td>
</tr>
<tr>
<td>Document Owner:</td>
<td>Shelly McFadden, Director Safety and Wellness</td>
</tr>
<tr>
<td>Date Prepared:</td>
<td>January 17, 2014</td>
</tr>
<tr>
<td>Date Revised:</td>
<td>June 9, 2014</td>
</tr>
<tr>
<td>Date Approved:</td>
<td></td>
</tr>
</tbody>
</table>

## Essential Tasks:

1. **Unit Initiated Activities**
   - **Don’t wait – Isolate** the suspect infection, infectious disease, unusual organism or unusual antibiotic resistance patterns using the correct additional precaution to stop the transmission.
   - Do not wait for a confirmed laboratory result, isolate based on client symptoms.

2. **Unit Initiated Activities**
   - **Confirm** if the client meets the case definition by completing the appropriate client line lists (e.g., SHR and Affiliate IPC Policy and Procedure Manual; LTC GI and Respiratory Outbreak Manuals) with information from the client and the client chart.
   - Staff line lists are provided to department managers by OH&S for Acute, Rural Acute, and LTC owned and operated sites during an outbreak.

3. **Unit or Facility Initiated Activities**
   - **Acute and Rural Acute: Confirm** if there is an outbreak by reviewing the information on the client line lists with the appropriate SHR and Affiliate IP&C outbreak policy definitions
   - **LTC: Confirm** if there is an outbreak by reviewing the Public Health “Don’t Wait – Isolate” poster for outbreak definitions for Gastrointestinal or Respiratory.

4. **Unit or Manager Initiated Activities**
   - **Acute and Rural Acute: Call** the appropriate contact using the IPC Outbreak Call List to discuss the information gathered and next steps.
   - **LTC: Call** CDC nurse at 306-655-4612 and ICP at 306-655-3813. Refer to the LTC outbreak manuals for Gastrointestinal or Respiratory on SHR external website for ongoing management.
**Introduction**

An outbreak is the occurrence of more cases of a particular infection than is normally expected, the occurrence of an unusual organism, or the occurrence of unusual antibiotic resistance patterns.

**Policy**

1. The Infection Prevention & Control Department, in conjunction with Public Health Services (PHS), is responsible for the investigation of outbreaks.

2. Although routine surveillance should serve to identify most outbreaks, it remains the responsibility of all health care workers to communicate concerns promptly so the Infection Prevention & Control Department can initiate action.

**Purpose**

1. To control and prevent further disease.

2. To provide guidelines for the investigation of a suspected outbreak.

3. To identify factors that contributed to the outbreak.

4. To analyze those contributing factors and recommend preventative measures.

**Procedure**

Refer to Outbreak Management Protocol in Long Term Care manual for step by step on-site outbreak management guidelines.

A number of elements of outbreak investigation often occur simultaneously and the importance and sequence may vary with the particular problem.
The elements are listed as follows:

1. Establish the existence of an outbreak.
   - Verify the diagnosis and identify the infectious agent.
   - Institute control measures based on a tentative hypothesis - the likely reservoir, source(s), and mode of transmission of the disease. Identify available resources (equipment, personnel, and laboratory supplies).
   - A specific, written definition characterizing the cases occurring should be developed. The case definition is a standard set of criteria for deciding whether an individual should be classified as having the infection that is under investigation. A case definition includes clinical criteria and restrictions by time, place and person.
   - The case definition should be used to identify cases and compare rates with the normal incidence.
   - Prevailing practices related to the outbreak should be documented. Appropriate laboratory specimens should be collected to identify the causative agent.

2. Communication regarding the outbreak should be established with the site Director of Care and the site Administrator, the attending physician, General Manager, Continuing Care & Geriatrics, SHR Medical Department Head-Long-term Care, and the medical microbiologist on-call.

3. Identify additional cases.
   - Cases should be identified that may have occurred prior to the outbreak being identified or that may continue to occur.

4. Describe the outbreak according to time, place and person.
   - Provide line listings to PHS so that an epidemic curve can be plotted for the period of the outbreak and an attempt made to determine source.
   - Any geographic clustering that may help to identify the source or population at risk should be reported to PHS.
   - Characteristics of cases that help to identify the population at risk should be reported to PHS.
   - Attack rates should be calculated.

5. Develop a hypothesis.
   - Based on the above findings, postulate the cause for the outbreak i.e. a reservoir of the organism, method of spread. Review the literature about a similar outbreak.
   - Review control measures put in place initially, and ensure they are appropriate to the hypothesis. The effect of the intervention should be recorded.
6. Test the hypothesis.

- Take measures to test the hypothesis i.e. collect samples for culture of material/equipment epidemiologically linked to the outbreak. Whether or not these are conducted depends on the severity of the problem and the personnel/resources available.

7. Refine and finalize the hypothesis.

- Evaluation of control measures should determine the need to correct or implement any measure, which may prevent a future outbreak.
- Evaluation of the success with which the facility managed the outbreak should determine the need to adjust the contingency plan.
- A final written report of the management and outcome of the outbreak should be forwarded to the appropriate individuals.

References:


# POLICIES & PROCEDURES

## Antibiotic Resistant Organism (ARO) Outbreak – Acute Care

<table>
<thead>
<tr>
<th>Number:</th>
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<tbody>
<tr>
<td>Title:</td>
<td>Antibiotic Resistant Organism (ARO) Outbreak – Acute Care</td>
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### Authorization:
- [x] SHR Infection Prevention & Control Committee
- [ ] Facility Board of Directors

### Source:
- Infection Prevention & Control

### Date Initiated:
- November, 2006

### Date Reaffirmed:
- [ ]

### Date Revised:
- November 2017

### Scope:
- SHR Acute Care

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## Introduction

An Antibiotic Resistant Organism (ARO) outbreak is identified by Infection Prevention & Control (IP&C) based on validation that there is a clustering of at least 3 hospital-associated cases demonstrating linked transmission of the same organism in a defined geographical or procedural space.

## Definitions

**Contact:** Client “A” is a contact, if client “A” shared a room for 24 hours or greater with client “B” who has a new ARO OR, if client “A” has been admitted to the bed of client “B”, who has a new ARO, for 24 hours or greater without a proper contact precautions terminal clean done during that 24 hours.

**Prevalence Day:** The prevalence day is the day swabs are collected on clients on the outbreak unit. Example below: Mondays are your prevalence day every week during the outbreak.

**Prevalence Week:** The 7 days prior to and including the prevalence day. On the prevalence day we are looking to see what transmission has happened during the previous week, which includes a prevalence of the unit that day as well as any Admission/Discharge/Transfer (A/D/T) screens or contact tracing screens that were attributed to the previous week. The example below shows the prevalence week beginning on the 3rd and ending on the 9th. The prevalence swabs that are done on the 9th will tell us what has been transmitted since the last swabs were done on the previous prevalence day (the 2nd). The 10th is the first day of the next prevalence week.
**Policy**

1. The Infection Control Officer (ICO) or his/her designate will direct the investigation and management of an ARO outbreak.
2. During the outbreak the ICO may make decisions and recommendations that fall outside of this guideline. The rationale will be provided to the unit manager and other unit stakeholders.
3. Internally, each affected department determines its own resource requirements to contribute to the outbreak control effort, ensuring that they are following IP&C foundational standards. Each department may require its own planning meeting or outbreak response plan and may consult IP&C as required.

**Purpose**

1. To control and prevent further transmission of the AROs.
2. To provide guidelines for the investigation and management of an ARO outbreak.
3. To provide guidance in 3 phases of an ARO outbreak:
   - Suspect Outbreak,
   - Confirmed Outbreak, and
   - Outbreak Over

**Procedure**

See the Work Standard for ARO Outbreaks for detailed procedures for ARO Outbreaks in Acute Care.

The ICO will use their judgment at each step about whether to call an outbreak or not.

**Brief overview:**

1. Several cases (minimum of 3) of hospital-associated ARO are identified on a nursing unit.
2. Infection Control Practitioner (ICP) determines if there may be links between cases, indicating transmission, and will begin to investigate further. Suspect outbreak measures are started.
3. Suspect outbreak phase IP&C measures are put in place.
4. A/D/T screens, as well as prevalence screens will begin on the unit for 2 weeks.
5. The ICP verifies that cases are linked epidemiologically. Usually, at least 3 cases showing transmission links are required before calling a confirmed outbreak.
6. Confirmed outbreak may or may not be called.
7. If transmission is found to continue, confirmed outbreak is called.
8. Confirmed outbreak phase IP&C measures are initiated.
9. Continued A/D/T screens, with the addition of contact precautions for clients transferred off the outbreak unit. Continued weekly prevalence screening. Enhanced screening will continue until there are no ARO outbreak transmission for 3 consecutive prevalence weeks before calling the outbreak over.
10. When there are 3 consecutive weeks of negative results from prevalence screens, A/D/T screens and contact tracing screens, the outbreak is called over.
11. The nursing unit will continue A/D/T screening (without the requirement for contacts to be placed on contact precautions) for 2 weeks. Housekeeping will continue to clean as per outbreak protocol for 2 weeks before returning to their regular cleaning protocol.

References

**Essential Tasks:**

1. **Validation of an ARO Outbreak**
   - The Infection Control Practitioner (ICP) validates that the ARO cases have an epidemiological link and, in consultation with the Infection Control Officer (ICO), declares an outbreak.
   - An electronic line list is started by the ICP. The ICP will call Population & Public Health at 306-655-4612 for an outbreak number. The ICP completes the Outbreak Notification Report for Population & Public Health, who will send it to Saskatchewan Ministry of Health.

2. **ARO Outbreak Phases**
   - An outbreak is divided into three phases depicted in the cycle below:
     - **Suspect Outbreak** / **Confirmed Outbreak** / **Outbreak Over**
   - Explanations for each phase can be found in Appendix A – Phases of Outbreak Cycle
   - The 3 phases of outbreak indicate the level of IP&C measures to implement and practice (See Appendix B – Unit Processes During ARO Outbreak Phases) which describes specific practices required during an outbreak, over and above those routine practices during “normal operations”.
   - Changes to the Phase of Outbreak are determined and communicated by the Infection Prevention and Control (IP&C) department.

3. **ARO Outbreak Phases**
   - An outbreak is divided into three phases depicted in the cycle below:
     - **Suspect Outbreak** / **Confirmed Outbreak** / **Outbreak Over**
   - Explanations for each phase can be found in Appendix A – Phases of Outbreak Cycle
   - The 3 phases of outbreak indicate the level of IP&C measures to implement and practice (See Appendix B – Unit Processes During ARO Outbreak Phases) which describes specific practices required during an outbreak, over and above those routine practices during “normal operations”.
   - Changes to the Phase of Outbreak are determined and communicated by the Infection Prevention and Control (IP&C) department.

4. **Communication During Phases of Outbreak**
   - Communication regarding IP&C measures needing to be in place will be made to appropriate staff depending on the phase of ARO outbreak.
   - Infection Prevention & Control will notify appropriate staff by telephone as well as with a memo by email. This memo will contain pertinent information on Infection Control Measures required during the outbreak. This memo will be updated as needed by IP&C (usually weekly) or as measures are revised if needed.
Suspect Outbreak:

- Unit Manager, Environmental Services Manager/Supervisors and IP&C Manager will be notified in person/by phone of suspect outbreak and the increased IP&C measures that are required.

**Memo:** Declaring “Suspect Outbreak” will be distributed to the Unit Manager, Environmental Services Manager/Supervisors and IP&C Manager, as well as to Directors of the unit, Environmental Services and IP&C.

Confirmed Outbreak:

An ARO Outbreak Team will be assembled to meet regarding the confirmed ARO outbreak and increased IP&C measures that are required.

- **Outbreak Team Members:** In conjunction with the Unit Manager and the ICO, the ICP arranges an ARO outbreak huddle, which will include representatives from the following departments providing services to the unit, including but not limited to:
  - IP&C Manager,
  - ICO,
  - Unit ICP,
  - Site Leader,
  - Unit Manager,
  - Unit Educator,
  - Unit Coordinator,
  - Environmental Services Manager,
  - Environmental Services Supervisors,
  - ACAS Manager,
  - Practitioner Affairs Representative,
  - Pharmacy,
  - Laboratory Manager,
  - Phlebotomy Manager,
  - Diagnostic Imaging Manager,
  - Food & Nutrition Services Manager,
  - Nursing Student Liaison,
  - Cancer Centre Liaison,
  - Occupational Health & Safety,
  - Interprofessional Practice, etc.

Purpose of Outbreak Team:

- Facilitate clear communication to staff, physicians, students, clients, volunteers and visitors.
- Delegate responsibilities appropriately based on the specific ARO outbreak measures discussed.
- Obtain or plan for obtaining anticipated resources - staff, supplies, medications, etc.
- Determine in-service/education requirements and how to address them.
- Make major decisions such as unit closure, visitor/student restrictions, procedure cancellations, initiation of the Emergency Preparedness Plan, etc.
- Determine frequency of subsequent ARO outbreak huddles to deal with outlining issues that come up on a day to day basis.

**Memo:** Declaring “Confirmed Outbreak” will be distributed to “All SHR E-mail Users” and posted on the IP&C InfoNet Outbreak Management page, outlining increased IP&C measures required by all departments. This memo will be emailed and posted no later than 1400h, to ensure departments have adequate time to implement their department specific ARO outbreak protocols.

- Regular huddles will be scheduled by the ICP and the unit manager.

Outbreak Over:

**Memo:** Declaring “Outbreak Over” will be distributed to “All SHR E-mail Users” and posted on the IP&C InfoNet Outbreak Management page. This memo will be emailed and posted no later than 1400h, to ensure departments have adequate time to return their department to normal practices.
### 5. Manager Of Nursing (MON) Role

- Play a lead role during an ARO outbreak.
- Support their staff to adhere to outbreak protocols, implementation of IP&C measures, visitor restrictions, etc.
- Ensure every shift in-charge person is aware of outbreak measures and their responsibilities.
- The outbreak unit MON should inform the MON on-call for the site, of the unit situation, limitations, etc.
- A tool has been developed for each phase of outbreak to help guide the unit manager and other managers to lead their department on the ARO outbreak unit. See [Appendix D – ARO Outbreak Checklist](#).

The outbreak unit MON will look for gaps in IP&C practices and in your environment.

### 6. ARO Outbreak Screening Protocol

Client screening may be extended as determined by the ICO (i.e., to other units/pods that are associated with the unit).

1. **Screening for ALL Unit Clients During Phases of Outbreak:**
   - **Suspect Outbreak:**
     - A. Admission – Outbreak ARO swab must be completed within 24 hours of admission.
     - B. Discharge – Outbreak ARO swab must be collected before discharged.
     - C. Transfer – Outbreak ARO swab is taken before transfer to another unit or healthcare facility. **No precautions required for transferred client at this suspect phase of the outbreak.**
     - D. Prevalence screening for 2 weeks.
   - **Confirmed Outbreak (see continued transmission):**
     - A. Admission – Outbreak ARO swab must be completed within 24 hours of admission.
     - B. Discharge – Outbreak ARO swab must be collected before discharged.
     - C. Transfer – Outbreak ARO swab is taken before transfer to another unit or healthcare facility. **Contact Precautions are required on the receiving unit/healthcare facility until the ARO screen collected on Day 7 is negative.** See [Appendix E – Outbreak Transfer Communication Tool Template](#).
     - D. Prevalence screening continues once a week for the duration of the outbreak.
   - **Outbreak Over:**
     - A. Continue A/D/T screening for at least 2 more weeks. **No additional precautions required for transferred clients. The receiving unit/healthcare facility still needs to collect an ARO screen 7 days after transfer from the “Outbreak Over” unit.**

2. **Screening Contacts of a New “Positive” Client During ALL Phases of Outbreak:**
   - The ICP will fill out the ARO Surveillance Orders Medical Directive with the required dates and types of swabs needed. See [IP&C Policy 60-30 Screening for AROs – Medical Directives](#).
   - Any contacts of a new ARO positive client will be placed on Contact precautions until client is cleared with one swab at least 7 days from last contact with the unknown new ARO.
   - Contacts will have an alert placed on in the Laboratory Information System (LIS) as an Epidemiologic Significant Occurrence (ESO), indicating the need for screening cultures.
   - If a contact is discharged before the required screening swabs are performed, an ESO that prints on the new admission will remind the staff to collect a screening swab at the time of readmission.
55-30 Work Standard for ARO Outbreaks

- See handout in *Contacts of an Antibiotic Resistant Organism on Contact Precautions – Client, Family & Visitor Information* for client/family information related to contacts on ARO Outbreak units.

### 3. Environmental Screening

- If indicated, the ICO designates appropriate environmental cultures to be performed.

### 7. Laboratory Samples

- The ICP clearly outlines the body sites to be screened as sites vary by organism. See IP&C Policy 60-30 Appendix C - Specimen Collection Guide.
- When the staff send specimens write on the requisition: “Outbreak-Stat – Outbreak #”
- ICP, on the advice of the ICO or designate and in collaboration with the microbiology lab, will determine the day of the week to perform weekly prevalence screens.

### 8. Control Measures

Control measures vary with the type of ARO, the phase of the outbreak or extent of the outbreak.

Additional IP&C measures to stop transmission include but are not limited to:

**a) Client Placement**

- Follow protocol from IP&C Policy Manual section 30 Additional Precautions.
- Every effort should be made to place positive ARO’s in private rooms. See the *Additional Precautions and Client Placement Guide* for assistance.
- If a private room cannot be assigned follow the *Client Washroom Assignment Decision Tool* to determine which client uses the bathroom and which client(s) use a commode to mitigate transmission from bathroom sharing.
- Attempt to cohort clients with the same ARO if private rooms are not available.

**b) Hand Hygiene**

- Improving hand hygiene (HH) will decrease transmission.
- Ensure HH audits are completed at least once per week. Blind HH audits provide more accurate HH compliance results. If there is a HH auditor from another unit or return to work program, coordinate to have that person do blind HH audits.
- Become familiar with the “4 Moments of Hand Hygiene”, appropriate steps of proper HH and the correct amount of time needed to perform proper HH. This makes it possible to give respectful in the moment correction to anyone seen not performing HH correctly. See IP&C Policy 20-20 Hand Hygiene.
- Implement an action plan using ideas to increase HH compliance for staff, clients and visitors.
- Audit the placement of ABHR to ensure it is at point of care around the unit to support HH efforts.

**c) Personal Protective Equipment (PPE)**

- The dedicated PPE station such as a supply cart needs to be properly stocked and must be located outside the room. Supplies should include:
  - *Outside the room*:
    - Alcohol-based hand rub (ABHR)
    - Gloves (3 sizes)
    - Clean gowns
55-30 Work Standard for ARO Outbreaks

- Mask with attached visor as required
- Hospital grade disinfectant

**Inside the room:**
- Waste basket
- Dirty hamper
- ABHR

- The dedicated PPE supply station must not become cluttered with other items and must not be used for storing additional items.
- Use PPE appropriately. **Remember: New PPE must be used for each client.**
- Perform PPE audits on the unit to assess staff use of PPE. See [Appendix I – PPE Audit Tool Template](#). Correction of inappropriate PPE practices should be respectful and in the moment. Communication of these results should be shared with any manager who has staff who did not use PPE properly to allow for increased education within their department.
- **HH must be performed at the appropriate moments when donning and doffing PPE.**
- See IP&C Policy [20-150 Personal Protective Equipment (PPE) - Donning and Doffing](#).
- PPE for dedicated unit staff vs. unit support services. See [Appendix F – Multi-Unit Staff Protocol for Entering an ARO Outbreak Unit](#):

<table>
<thead>
<tr>
<th>Staff</th>
<th>PPE Use</th>
<th>Instructions</th>
</tr>
</thead>
</table>
| Dedicated unit staff (RNs, LPNs, CCAs, Unit Assists, etc.) | Yes | • Must wear PPE when contacting the client or the client environment.  
• Gown and gloves are required for the care of every client on additional precautions. |
| Unit support services (physicians, residents, therapies, dieticians, pharmacy, food and nutrition, housekeeping, etc.) | Yes | • Must wear new PPE for every client  
• Visit clients on additional precautions last |

Clients on additional precautions should remain in their room, unless medically necessary tests are required.

<table>
<thead>
<tr>
<th>Staff</th>
<th>PPE Use</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dedicated unit staff (RNs, LPNs, CCAs, Unit Assists, etc.)</td>
<td>No</td>
<td>• Use routine practices (do not have to gown, glove unless situation deems it necessary).</td>
</tr>
<tr>
<td>Unit support services (physicians, residents, therapies, dieticians, pharmacy, housekeeping, etc.)</td>
<td>Yes</td>
<td>• Must wear new PPE for every client.</td>
</tr>
</tbody>
</table>

**Note:** Food & Nutrition staff is not required to wear PPE in non-precaution rooms when delivering trays or snacks when ARO outbreak standard work is followed as agreed upon with IP&C.

d) **Client Care Equipment**
- The unit should ensure that a routine cleaning schedule is in place and is followed for cleaning shared equipment. Extra support staff may be necessary for this during outbreak. See [Appendix C – Unit Cleaning Guidelines Checklist Example](#).
- Environmental Services and unit staff are to determine if there are any items on the unit
that neither group is cleaning and may be missed by both groups.

- Dedicate equipment, as much as possible, to individual clients that are positive.
- If equipment must be shared it must be thoroughly cleaned and disinfected between clients with an approved hospital grade disinfectant according to manufacturer’s recommendations ensuring that the appropriate wet contact time is achieved.
- More equipment may need to be purchased in order to have enough to adequately assign equipment on the unit.
- Some equipment such as blood pressure cuffs can be kept at the bedside and be used on a single client for their entire stay. The item should be cleaned routinely during their stay and should be on the routine cleaning schedule to ensure it is not becoming heavily contaminated. At discharge it is thoroughly cleaned and disinfected before being assigned to the next client.
- Commodes are a common vector for spreading infectious organisms. Dedicating a commode to a single client as much as is possible is important. If it must be shared, ensure to clean and disinfect all surfaces including the underneath surfaces as well as the top surfaces between every use. See Appendix G – Cleaning/Disinfecting Commodes Work Standard. The dedicated commode can be kept at the bedside as long as it is cleaned after every use and there is sufficient space.

e) Environmental Cleaning

Suspect and Confirmed Outbreak:

- Environmental Services will implement twice daily cleaning of the unit (high touch surfaces, including bathrooms) with appropriate hospital grade disinfectants (i.e., Oxivir TB, etc.). Bleach will be used to clean/disinfect toilet bowls for all outbreaks.
- A “Terminal Clean” includes changing curtains and washing the walls, and is implemented on all rooms upon discharge or transfer regardless of ARO status.
- Environmental Services, when dedicated to the unit, will wear clean PPE and change it between EVERY client space. If Environmental Services cannot be dedicated to the unit, staff will use the unit dedicated cleaning cart and will also wear clean PPE on entry to the unit and doff PPE upon exiting the unit (in addition to between every client space).
- If a client test is positive in a multi-bed room – a terminal clean is done on the entire room. The terminal clean involves changing all the curtains in the room, as well as washing all the walls and the bathroom.

f) Traffic Flow

Client Flow:

- Limit transfers to or from outbreak units to other units unless medically necessary.
- To limit spread of the organism, no social visiting by clients on other units. Socializing should take place in areas away from the units.
- Limit transfers within the unit.
- Attempt to cohort clients with the same ARO if possible.
- Transport for tests and procedures:
  - Inpatient wards – please remind receiving unit staff that all clients leaving your unit need to be treated with additional precautions because they are coming from an outbreak unit where transmission risk is high.
  - Receiving department – please remember to ask if a client is coming from an outbreak unit so they can be put on additional precautions in the OR and Recovery Room/other departments where tests are being done.

Nursing Unit Staff:

- Movement of nursing unit staff from an outbreak unit to a non-outbreak unit is in contravention of IP&C best practice guidelines for outbreak. If it is determined that it is
medically necessary for a nurse with specialized skills to be transferred back to a non-outbreak unit for client safety, have a conversation with IP&C to understand the totality of risks so the decision is made with full knowledge and ownership of the risks. If it is determined to be necessary to move the staff to another unit they must change into a clean uniform before entering another unit.

- Staff may leave the outbreak units for breaks as usual after removing all PPE and performing HH but should not go to a non-outbreak unit for those breaks.

Unit Support Services:
- Multi-disciplinary professionals and support staff (i.e., physicians, residents, therapies, dieticians, pharmacy, etc.) continue to provide essential services.
- These departments should visit outbreak units last if possible, perform HH on entry and exit of the unit, clean/disinfect their personal equipment (i.e., cell phones, stethoscopes, etc.) and implement their department specific outbreak protocol. Consult IP&C if there are questions. See Appendix F – Multi-unit Staff Protocol for Entering an ARO Outbreak Unit.

Shared Spaces:
- Unit kitchens are closed to client and visitor access (only staff can access kitchen areas for clients).
- Other shared spaces/common rooms on the unit may be closed for the duration of the outbreak (i.e., playroom, family room, etc.).

g) Bio-load Reduction
- Ensure ALL clients have DAILY baths as well as changes of bedding.
- Clients who are positive with MRSA should use individual bottles of Chlorhexidine gluconate (CHG) antimicrobial soap for bathing and client HH. The CHG helps to decrease the biological matter available on the skin to be shed into the environment. If there is less in the environment, there is less chance of transmission.
- VRE and ESBL are organisms that live in the bowel (not on the skin like MRSA) it is less useful to use CHG soap for these ARO’s. A risk assessment should be performed to decide whether to use CHG on these other ARO’s.

h) Disposal of Body Fluids
- Ensure that all fluids (i.e., blood, urine, feces, and other fluids such as: water jugs/cups, IV bags, wash basins and any other liquids, etc.) are being disposed of in the dirty service room.
- Whenever possible use bed pan/commode liners (i.e., Zorbie, Hygie) in the containers or disposable containers with absorbing beads and dispose of body fluids.
- Some units have washer/disinfector (i.e., Meiko, Arjo) machines. This is safer than other manual emptying methods.
- Wipe the area around the hopper or washer/disinfector with a bleach wipe to decontaminate the area after dumping.

i) Client, Family and Visitors
Client:
- Provide the client with the Client and Family Hand Hygiene pamphlet.
- Provide opportunities for the client to perform HH or assist the client with their HH.
Visitors:
- Instruct visitors about HH using soap and water OR alcohol-based hand rub:
  o before entering the unit and again when entering the client room,
  o when leaving the client room and again upon leaving the unit, and
<table>
<thead>
<tr>
<th>55-30 Work Standard for ARO Outbreaks</th>
</tr>
</thead>
<tbody>
<tr>
<td>- after direct contact with the client or the client room.</td>
</tr>
<tr>
<td>- Provide visitors with the Instructions for Visitors: During an Outbreak handout.</td>
</tr>
<tr>
<td>- Visitors should only visit their family member and no other clients.</td>
</tr>
<tr>
<td>- IP&amp;C recommends a limit of 2 visitors per client at any given time so that visitors do not overflow into other client bed spaces.</td>
</tr>
<tr>
<td>- Avoid visiting if ill.</td>
</tr>
<tr>
<td>- Avoid bringing children into the hospital.</td>
</tr>
<tr>
<td>- Do not put their belongings on the client bed.</td>
</tr>
</tbody>
</table>

You may also provide the client or visitor with an ARO fact sheet from section 70 of the IP&C Policy and Procedure Manual. They can be found at these links: [MRSA](#), [VRE](#), and [ESBL](#).
**55-30 Appendix A – Phases of Outbreak Cycle**

**NORMAL OPERATIONS**

- **NEW CASES OF SAME ARO**
  - **SUSPECT OUTBREAK**
    - IP&C investigates to see if there are links between the cases (organism, time frame, and place).
    - IP&C measures (actions) are implemented to try to slow down/stop transmission. (Examples: increase screening to include Admission, Discharge and Transfer (A/D/T) screens and weekly prevalence screens for the next 2 weeks, increased environmental cleaning and improve HH and PPE practices etc.).

- **TRANSMISSION CONTINUES?**
  - **YES**
    - **CONFIRMED OUTBREAK**
      - IP&C investigations show there are clear links between cases (contact, A/D/T and prevalence screens).
      - Actions taken to slow down/stop transmission have NOT been successful in preventing further transmission.

  - **NO**

- **OUTBREAK OVER**
  - Occurs when NO transmission has happened for 3 consecutive prevalence weeks.
  - Return to normal operations except:
    - Nursing unit will continue A/D/T screening for 2 weeks.
    - Housekeeping will continue using the outbreak cleaning product twice a day for 2 weeks.

- **3 consecutive prevalence weeks of negative screens**

- Outbreak continues until there are 3 consecutive prevalence weeks of negative screens (contact, A/D/T, and prevalence screens).
**APPENDIX B**

**IMPORTANT:**

**Staff (Cohorting)**

- Screens all clients
- Standard assignment: No restriction or cohorting.
  - Wear appropriate PPE for additional precautions.

**Kitchen Access**

- As per unit policy
  - Standard practices
  - Standard assignment: No restriction or cohorting.
  - Wear appropriate PPE for additional precautions.

<table>
<thead>
<tr>
<th>Process Requirements</th>
<th>Normal Operation (Basic Requirements)</th>
<th>Suspect Outbreak</th>
<th>Outbreak Confirmed</th>
<th>Outbreak Over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review Period to Next Step</td>
<td>Ongoing</td>
<td>2 consecutive prevalence weeks with no new positives</td>
<td>3 consecutive prevalence weeks with no new positives</td>
<td>At least 2 weeks</td>
</tr>
<tr>
<td>Cleaning of:</td>
<td>Environment</td>
<td>• Standard regular cleaning</td>
<td>• Clean 2x/day with outbreak product (i.e., Oxivir TB)</td>
<td>• Clean unit equipment as determined and scheduled by unit staff and Environmental Services.</td>
</tr>
<tr>
<td></td>
<td>Equipment</td>
<td>• Clean unit equipment at appropriate frequency (See example: Appendix C – Cleaning Guidelines Checklist) and as determined and scheduled by unit staff and Environmental Services.</td>
<td>• On transfer and discharge: o Terminal clean rooms with any ARO positive patient as per usual practice o If in a multi-bed room – terminal clean the entire room</td>
<td>• Clean unit equipment as determined and scheduled by unit staff and Environmental Services.</td>
</tr>
<tr>
<td>Screening of Clients</td>
<td>• Based on IP&amp;C Policy 60.30 – Screening for AROs – Medical Directive 022</td>
<td>• Admission – Surveillance Orders – Medical Directive 027</td>
<td>• Admission/Discharge/Transfer (A/D/T) screening on all clients</td>
<td>• A/D/T screening on all clients</td>
</tr>
<tr>
<td>Contact to an ARO</td>
<td>• No Contact Precautions for contacts of an ARO related to an ARO Outbreak. Send swabs on day 7.</td>
<td>• No Contact Precautions for contacts of an ARO. Send swabs on day 7.</td>
<td>• Contacts require additional Contact Precautions until swabs are negative on day 7.</td>
<td>• No Contact Precautions for contacts of an ARO. Send swabs on day 7.</td>
</tr>
<tr>
<td>Transferring of Clients</td>
<td>Standard practice</td>
<td>Standard practice</td>
<td>Standard practice</td>
<td>Standard practice</td>
</tr>
<tr>
<td>Hand Hygiene Audits</td>
<td>Monthly</td>
<td>1 – 2 x/week, including blind audits</td>
<td>1 – 2 x/week, including blind audits</td>
<td>1 x/week, including blind audits</td>
</tr>
<tr>
<td>Signage on Unit</td>
<td>Standard signage</td>
<td>Post Appendix E – Small SUSPECT Outbreak Poster</td>
<td>Post Appendix M – Small CONFIRMED Outbreak Poster</td>
<td>Remove outbreak signage and replace with standard signage (if it was removed).</td>
</tr>
<tr>
<td>Environmental Audits</td>
<td>1x every other week for ATP and fluorescent auditing.</td>
<td>1 – 2x/week for a combination of ATP, fluorescent, and visual audits.</td>
<td>Daily ATP and fluorescent auditing.</td>
<td>• 1x/week for ATP and fluorescent auditing.</td>
</tr>
<tr>
<td>Kitchen Access</td>
<td>As per unit policy</td>
<td>As per unit policy</td>
<td>No client or visitor access</td>
<td>As per unit policy</td>
</tr>
<tr>
<td>Client Movement (Cohorting)</td>
<td>Standard practices</td>
<td>Standard practices</td>
<td>Restrict unless medically necessary</td>
<td>Standard practices</td>
</tr>
<tr>
<td>Staff</td>
<td>Standard assignment: No restriction or cohorting. Wear appropriate PPE for additional precautions.</td>
<td>Standard assignment: No restriction or cohorting. Wear appropriate PPE for additional precautions.</td>
<td>Restrictions – nurses never go from outbreak unit to non-outbreak unit during their shift unless they have specialized training that is needed</td>
<td>Standard assignment: No restriction or cohorting. Wear appropriate PPE for additional precautions.</td>
</tr>
</tbody>
</table>

**IMPORTANT:** Depending on the context and at the discretion of the Infection Control Officer (ICO) a rationale will be provided for all decisions made that fall outside of this guideline.
## 55-30 Appendix C - Unit Cleaning Guidelines Checklist Example

<table>
<thead>
<tr>
<th>MONTH:</th>
<th>DATE:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S M T W T F S S M T W T F S S M T W T F S S M T W T F S</td>
</tr>
</tbody>
</table>

### DAILY:
- Check Hillrom book in mornings
- Thermometer and holder
- Door alarm - night
- Electronic BP cuff and machine
- Handles for otoscope/ophthalmoscope
- GST machine and entire case
- Doppler
- Clean Med Carts
- Keyboards/Nursing Stations
- Check sharps containers, change prn
- Plug in lift batteries each night
- Transfer belts - launder
- Stethoscopes
- IV Poles

### CLEANING BETWEEN CLIENTS:
- Tourniquets/name tags
- Infusion & tube feed pumps
- Walkers
- Oxygen gauges
- Suction equipment (gauges & containers)
- Commodes
- Ice packs
- Isolation carts
- Wheelchairs/Brodas
- Shower room & chairs
- Basins
- Complete lifts
## Appendix C - Unit Cleaning Guidelines Checklist Example

|       |       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

### WEEKLY:
- Oxygen baskets in patient rooms
- Weigh scale
- Wheelchairs/recliners/broda (complete)
- IV poles in storage
- Linen hampers
- Bladder scanner stand

### STOCKING GUIDELINES – DAILY:
- Wiping/stocking kitchen
- IV trays (comm book)
- Dressing trays (comm book)
- Emergency airway cart - Evening
- Emergency airway cart - Days
- Oxygen tanks
- ABHR (do NOT refill)
- Gloves (do NOT refill)
- Shower rooms (towels & supplies)
- Garbages in Med Carts
- Confidential shredding
- Blanket warmer
- Dirty service room (urinals, pans, sitz, etc.)/SPD
- Isolation gowns
- IV bags – Obs
- Emergency bedside airway supplies
- Check Vac/Coban supplies
- Med Carts – Days
- Med Carts - Evening
### Normal Operations

<table>
<thead>
<tr>
<th>Manager of Nursing (MON)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Notification</strong></td>
</tr>
<tr>
<td>1. MON notifies staff of new healthcare-associated ARO’s in huddles.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Specimen Collection</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Follow 60-30 Appendix C – Specimen Collection Guide</td>
</tr>
<tr>
<td>1. Collect specimen samples as per 60-30 Appendix C – Specimen Collection Guide</td>
</tr>
<tr>
<td>2. Label as “SUSPECT OUTBREAK” with outbreak number when ICP has obtained the number from Population &amp; Public Health.</td>
</tr>
<tr>
<td>3. Ensure the ICO is listed as ordering physician and is copied to the MRP and GP.</td>
</tr>
<tr>
<td>4. Ensure specimen collection and labelling are correct.</td>
</tr>
<tr>
<td>5. Ensure all specimens are collected.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Outbreak Champion</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
</tr>
<tr>
<td>MON may choose to assign a unit outbreak champion to help with communication and coordination of tasks on the unit.</td>
</tr>
<tr>
<td>1. Assist unit staff with outbreak phase protocols</td>
</tr>
<tr>
<td>2. Help staff remember to do all the screening</td>
</tr>
<tr>
<td>3. Help with client placement, bathroom assignment, etc.</td>
</tr>
<tr>
<td>4. Perform HH and PPE audits</td>
</tr>
<tr>
<td>No change from Suspect</td>
</tr>
<tr>
<td>MON may choose to keep the outbreak champion on for the first 2 weeks of outbreak over to maintain improvements.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Client Movement/Placement</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Use Client Washroom Assignment Decision Tool</td>
</tr>
<tr>
<td>1. If spatial isolation is necessary use the Additional Precautions and Client Placement Guide. Avoid</td>
</tr>
</tbody>
</table>

### Suspect Outbreak

<table>
<thead>
<tr>
<th><strong>Normal Operations</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Notify working unit staff.</td>
</tr>
<tr>
<td>2. Advise all staff of suspect outbreak via email/social media if possible.</td>
</tr>
<tr>
<td>3. Notify volunteer services and students of the suspect outbreak. Volunteers/students may choose not to enter the unit based on their personal risk to the organism.</td>
</tr>
<tr>
<td>4. Posters and Signage</td>
</tr>
<tr>
<td>• Post suspect outbreak poster</td>
</tr>
<tr>
<td>• Post applicable ARO fact sheet in staff area.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Additional Screening</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Admission screening medical directive for all clients by Nursing.</td>
</tr>
<tr>
<td>2. Extended stay screens, contact tracing screens, and testing for clearance screens ordered by Infection Control Practitioner (ICP) for Nursing.</td>
</tr>
<tr>
<td>1. Begin Admission/Discharge/Transfer (A/D/T) screening for all clients.</td>
</tr>
<tr>
<td>2. Begin weekly prevalence screening (for 2 weeks) – ICP will consult Infection Control Officer (ICO) and Microbiology (Micro) lab for best day to swab.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Specimen Collection</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Change label on specimens to read “Outbreak STAT – Outbreak #”.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Outbreak Over</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Notify unit staff that the outbreak is now over.</td>
</tr>
<tr>
<td>2. Remove outbreak posters and signage.</td>
</tr>
</tbody>
</table>

### Outbreak Confirmed

<table>
<thead>
<tr>
<th><strong>Normal Operations</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Same as Suspect Outbreak Except…</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Notification</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Notify unit staff that it is now a confirmed outbreak.</td>
</tr>
<tr>
<td>2. Change posters and signage to the confirmed outbreak poster.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Additional Screening</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Notify unit staff that it is now a confirmed outbreak.</td>
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<tr>
<td>2. Change posters and signage to the confirmed outbreak poster.</td>
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</tbody>
</table>

### Outbreak Over

<table>
<thead>
<tr>
<th><strong>Notification</strong></th>
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<tbody>
<tr>
<td>1. Notify unit staff that the outbreak is now over.</td>
</tr>
<tr>
<td>2. Remove outbreak posters and signage.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Additional Screening</strong></th>
</tr>
</thead>
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<td>1. Notify unit staff that the outbreak is now over.</td>
</tr>
<tr>
<td>2. Change posters and signage to the confirmed outbreak poster.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Specimen Collection</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A/D/T screening continues. Use Appendix E – Outbreak Communication Transfer Tool in every chart.</td>
</tr>
<tr>
<td>• Receiving unit will now place all transfers from outbreak unit on additional precautions until the screen 7 days later is confirmed negative.</td>
</tr>
<tr>
<td>2. Continue prevalence screens on assigned day every week.</td>
</tr>
<tr>
<td>• Ensure all screens are done on that day and none are missed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Outbreak Champion</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>MON may choose to keep the outbreak champion on for the first 2 weeks of outbreak over to maintain improvements.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Client Movement/Placement</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ensure all clients transported to tests or procedures are taken on additional</td>
</tr>
<tr>
<td>Clients transported to tests or procedures no longer require</td>
</tr>
</tbody>
</table>
### Additional Precautions

<table>
<thead>
<tr>
<th>Normal Operations</th>
<th>Suspect Outbreak</th>
<th>Outbreak Confirmed</th>
<th>Outbreak Over</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Use <strong>Additional Precautions and Client Placement Guide</strong></td>
<td>placing outbreak organism clients in 3 or 4 bed rooms if possible.</td>
<td>2. Ensure the test or procedure area is aware that the client coming is on precautions prior to arrival.</td>
<td>additional precautions.</td>
</tr>
</tbody>
</table>

### Hand Hygiene (HH)

<table>
<thead>
<tr>
<th>Normal Operations</th>
<th>Suspect Outbreak</th>
<th>Outbreak Confirmed</th>
<th>Outbreak Over</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Hand Hygiene (HH)</strong></td>
<td>1. Continue to implement contact precautions for positive clients as per “Normal Operations”.</td>
<td>1. Staff who are not dedicated to the outbreak unit (i.e., physicians, phlebotomy, therapies, etc.) must wear clean PPE for <strong>every client</strong>. Housekeeping must wear clean PPE for the cleaning of EVERY client room. 2. PPE supplies must be available outside of <strong>every room</strong> and donning supplies (i.e., garbage receptacle and linen hamper) inside every room.</td>
<td>1. Contact Precautions only required for positive clients as per “Normal Operations”.</td>
</tr>
<tr>
<td>1. Enforce the <strong>4 moments of HH</strong></td>
<td>2. HH audits will increase from 1x/month to 1-2x/week during any outbreak phase.</td>
<td>No change from suspect.</td>
<td>Same as “Normal Operations”</td>
</tr>
<tr>
<td>2. Ensure that clients are supported to perform their 4 moments of HH. Ensure the client can reach ABHR. Ensure clients are assisted to perform HH at appropriate times:  #1 – Before eating, drinking or taking medications,  #2 – Before and after touching wounds, dressings, tubes and devices,  #3 – After using the toilet, bed pan or commode,  #4 – When entering or exiting their room.</td>
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</tbody>
</table>

### Equipment

<table>
<thead>
<tr>
<th>Normal Operations</th>
<th>Suspect Outbreak</th>
<th>Outbreak Confirmed</th>
<th>Outbreak Over</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equipment</strong></td>
<td>1. Ensure equipment is being cleaned and disinfected on schedule with approved hospital grade disinfectant (i.e., ACCEL INTERvention). Increase cleaning of equipment to twice daily.</td>
<td>No change from suspect.</td>
<td>Enhanced outbreak cleaning continues for at least 2 more weeks.</td>
</tr>
<tr>
<td>1. Use <strong>Appendix G – Cleaning/Disinfecting Commodes Work Standard</strong> to ensure appropriate cleaning of commodes.  2. Use <strong>Appendix C – Unit Cleaning Guidelines Checklist Example</strong> to ensure appropriate cleaning of all other equipment.</td>
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</tr>
</tbody>
</table>

### Environment

<table>
<thead>
<tr>
<th>Normal Operations</th>
<th>Suspect Outbreak</th>
<th>Outbreak Confirmed</th>
<th>Outbreak Over</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Environment</strong></td>
<td>1. Declutter – Ensure that all horizontal surfaces remain clean.</td>
<td>No change from suspect.</td>
<td>Enhanced outbreak cleaning continues</td>
</tr>
<tr>
<td>1. Keep unit tidy (i.e., no garbage on the floor).</td>
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</tbody>
</table>
### 55-30 Appendix D - ARO Outbreak Checklist

<table>
<thead>
<tr>
<th>Infection Control Practitioner (ICP)</th>
<th>Normal Operations</th>
<th>Suspect Outbreak</th>
<th>Outbreak Confirmed Same as Suspect Outbreak Except...</th>
<th>Outbreak Over</th>
</tr>
</thead>
</table>
| **Notification** | ICP notifies the MON of new healthcare-associated AROs linked to their unit. | 1. Notify unit leadership and Environmental Services of suspect outbreak.  
2. The ICP will obtain an outbreak number from Population & Public Health and provide it to the unit. | 1. Notify the unit leadership of confirmed outbreak.  
2. IP&C will notify the facility departments in all departments (i.e., linen, Food & Nutrition, Therapies, Environmental Services, Physicians, etc.) by means of a memo.  
3. The MON or the ICP will arrange daily huddles and send the calendar invites as necessary. | for at least 2 more weeks |
| **Additional Screening** | Order extended stay screens every 30 days using 60-30 Appendix B – ARO Surveillance Medical Directive | 1. ICP will deliver the medical directives to the unit.  
2. Weekly prevalence screening – ICP will call Micro lab to determine the best day to send swabs. | No change from suspect. | Same as “Normal Operations” |
| **Communicate with Environmental Services** | As necessary. | *IP&C will communicate with Environmental Services regarding additional cleaning protocols such as:*  
1. Twice daily cleaning with the outbreak product (i.e., Oxivir TB)  
2. Terminal cleans of positive client rooms.  
3. If positive client is in a multi-bed room, the entire room should be terminally cleaned upon discharge or transfer of that client.  
4. Focus on high touch areas in the client rooms (i.e., door handles, bed rails, etc.).  
Environmental audits:  
1. 1-2x/week (visual, fluorescent, ATP) | Request Environmental Audits:  
1. Daily for ATP or fluorescent  
2. Weekly visual audits of processes – Ensure Environmental Service Workers are following the “Routine Cleaning and Enhanced Cleaning Standard Work Guidelines”. | For 2 weeks:  
1. Environmental Audits: 1x/week for ATP, fluorescent and visual.  
2. Clean 2x/day with outbreak product (i.e., Oxivir TB). |
| **Waste Disposal** | 1. Ensure blood and body fluids are disposed of properly (no dumping or rinsing body fluids/containers in the client toilet or sinks).  
2. Use disposable containers or bed pan/commode liners (i.e., Zorbie bags) as appropriate. Bed pan/commode pots are emptied in the soiled disposal room or use bad pan/commode liners (i.e., Zorbie) and/or disposable containers. | 1. Review waste disposal practices on your unit. | No change from suspect. | Same as “Normal Operations” |
| **Infection Control Practitioner (ICP)** | | | | |

### Normal Operations:
- No clutter in hallways (i.e., equipment).
- Floor beside waste receptacles.

### Suspect Outbreak:
- Uncluttered to support Environmental Services extra cleaning efforts.
- Unit kitchen is closed to clients and visitors.
- Communicate with Environmental Services under Suspect Outbreak regarding **additional cleaning protocols** below.

### Outbreak Confirmed Same as Suspect Outbreak Except...:
For at least 2 more weeks
Acute Care [ARO] Outbreak Protocol

This form needs to accompany all clients transferred off of [Site & Unit] to another unit or facility within the region.

The client admitted to your unit was a client on unit [Site & Unit] which is currently experiencing a [ARO] outbreak.

The client is currently [ARO] negative. As a part of the [ARO] outbreak protocol:

1. The client requires Contact Precautions. Every effort should be made to place client in a private room.

2. Complete a [ARO] screen 7 days after the discharge/transfer from [Site & Unit].

   Date: ___________ □ Positive □ Negative   Initial________

3. Notify the Infection Prevention & Control Department at [Insert ICP phone number] once the [ARO] screen result is finalized and negative to remove the client from Contact Precautions.
Multi-unit staff refers to staff that support, consult and assess clients on multiple units (i.e., Medical/Surgical JURSIs, Residents, MRPs, Speech Therapy, Occupational Therapy, Physical Therapy, Respiratory Therapy, Pharmacy, Social Work, Spiritual Care, Patient Care Supervisor, Code Team, Porters, etc.).

Steps for entering the outbreak unit:
1. Perform hand hygiene (HH). Use either an alcohol-based hand rub (ABHR) that contains 70% alcohol OR soap and water.

Steps for accessing charts:
1. Perform HH just before accessing the charts.
2. Perform HH when finished with charts at one nursing station.
3. Move to next nursing station and repeat steps 1 and 2.

Steps for accessing clients and their environment to do an assessment (Client NOT on Additional Precautions):
1. Perform HH. Don a clean isolation gown.
2. Perform assessment.
3. Remove gown and perform HH.
4. Move to next client and repeat steps 1 to 3.

Steps for accessing clients and their environment to do an assessment (Client IS ON Additional Precautions):
1. Perform HH. Don Personal Protective Equipment (PPE) according to Additional Precautions signage.
2. Perform assessment.
3. Remove PPE and perform HH.
4. Move to next client and repeat steps 1 to 3.

Leaving the outbreak unit:
1. Perform HH.
55-30 Appendix G – Cleaning/Disinfecting Commodes Work Standard

<table>
<thead>
<tr>
<th>Name of Activity:</th>
<th>Cleaning/Disinfecting Commodes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role performing Activity:</td>
<td>Unit Assist/Nursing</td>
</tr>
</tbody>
</table>

**WORK STANDARD**

<table>
<thead>
<tr>
<th>Location:</th>
<th>Saskatoon Health Region (SHR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department:</td>
<td>Infection Prevention &amp; Control (IP&amp;C)</td>
</tr>
<tr>
<td>Document Owner:</td>
<td>IP&amp;C and Nursing Affairs</td>
</tr>
<tr>
<td>Region/Organization where this Work Standard originated:</td>
<td>SHR</td>
</tr>
<tr>
<td>Date Prepared:</td>
<td>September 2, 2016</td>
</tr>
<tr>
<td>Last Revision:</td>
<td></td>
</tr>
<tr>
<td>Date Approved:</td>
<td></td>
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</table>

**Essential Tasks:**

1. **Don appropriate PPE**  
   - Minimum: Gloves  
   **NOTE:** As appropriate, use gown and visor mask for risk of exposure to body fluids and cleaning product.

**CLEANING** – If commode is not visibly soiled and a bed pan/commode liner was used to collect body fluids move to disinfection step.

2. **If visibly soiled remove all surface debris using bleach wipes moving from cleanest to dirtiest.**  
   1. Back of chair back  
   2. Front of chair back  
   3. Arm handles  
   4. Chair legs (so not need to disinfect wheels)  
   5. Top of seat  
   6. Bottom of seat – visually inspect to ensure cleanliness  
   7. Commode bucket

3. **Doff gloves and perform Hand Hygiene as per SHR protocol.**

**DISINFECTING** – If commode is not visibly soiled and a bed pan/commode liner was used to collect body fluids follow the below steps.

4. **Don appropriate PPE**  
   - Minimum: Gloves  
   **NOTE:** As appropriate, use gown and visor mask for risk of exposure to body fluids and cleaning product.

5. **Disinfect all surfaces**  
   - Use: Bleach Wipes  
   One wipe for each of these sequences:  
   - Seat back, arm rests then legs  
   - Top then bottom of seat, commode bucket  
   **NOTE:** Surfaces should be wet after wiping if not, repeat with new wet wipe.

   Move from the ‘cleanest’ area to the ‘dirtiest’ area.
   1. Back of chair back  
   2. Front of chair back  
   3. Arm handles  
   4. Chair legs (no need to disinfect wheels)  
   5. Top of seat  
   6. Bottom of seat – visually inspect to ensure cleanliness  
   7. Commode Bucket

6. **Air dry** (Drying time is required for product effectiveness).

7. **Doff PPE and perform Hand Hygiene as per SHR protocol.**
Client and Family Hand Hygiene

Contacts of an ARO Related to an ARO Outbreak

Visitor Instructions: During an Outbreak
### PPE - Audit

**Date:** ____________________________  
**Auditors Name:** ______________________  
**Unit:** ________________________________

<table>
<thead>
<tr>
<th>Room</th>
<th>Room</th>
<th>Room</th>
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#### Donning PPE

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<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
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<th>No</th>
<th>Yes</th>
<th>No</th>
<th>Yes</th>
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<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>Was alcohol based hand rub or soap and water used prior to donning PPE?</td>
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<td>Was the 2nd step in PPE donning the gown?</td>
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<td>Was a visor mask donned for droplet precautions? (Mark N/A if not applicable)</td>
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<tr>
<td>Was hand hygiene performed if hands were contaminated prior to donning gloves? (Mark Yes if hands weren’t contaminated)</td>
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<tr>
<td>Was the last step in donning PPE putting on gloves?</td>
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</tbody>
</table>

#### Doffing PPE

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Yes</th>
<th>No</th>
<th>Yes</th>
<th>No</th>
<th>Yes</th>
<th>No</th>
<th>Yes</th>
<th>No</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was the removal of gloves the first step of doffing PPE?</td>
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<tr>
<td>Was hand hygiene performed after gloves were removed?</td>
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<tr>
<td>Was the gown removed as the next step?</td>
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<tr>
<td>Was hand hygiene performed after the gown was removed?</td>
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<tr>
<td>Was hand hygiene performed after doffing the visor mask (if mask was required) (Mark N/A if not applicable)</td>
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</tbody>
</table>
Expectations of All Hospital Staff

Perform hand hygiene according to the “4 moments” as well as before entering the unit, using alcohol-based hand rub or soap and water.
- Always perform hand hygiene before putting gloves on and after removing them.

Beverages are only allowed if they are contained in a wipe-able, closed cup or bottle as long as it is kept in the “safe zone” established on the unit.
- Food, however, is not allowed on the unit.

Avoid hand and wrist jewelry.

No artificial or painted fingernails are allowed.

Launder all clothing worn to the unit after every shift (i.e., uniforms, lab coats etc.). Clothing should be above the elbow and not dangling (i.e., ties, lanyards, etc.).

Clean your stethoscope and any other equipment you bring with you, prior to use on each client.

Avoid bringing personal belongings to the unit (i.e., book bags, backpacks, purses, etc.).
This unit is in a SUSPECT OUTBREAK

Organism: ____________________________

ATTENTION

STAFF:
When in an outbreak, follow these steps to minimize risk of transmission:
✓ Be diligent with hand hygiene.
✓ Remind and assist our clients to perform hand hygiene properly.
✓ Assist visitors to use PPE properly.
✓ Disinfect commonly used items before and after use (i.e., stethoscope).
✓ Wear clothing that is easily laundered in hot soapy water and dried in a hot dryer after every shift.
✓ Do not eat or drink on the unit.

VISITORS:
✓ Perform hand hygiene with alcohol-based hand rub or soap and water before and after your visit.
✓ Only meet with one client per hospital visit.
✓ If you are ill, please delay your visit until you are well.
✓ Avoid sitting on or setting your belongings on the client bed.

These extra protective measures are a requirement of the Infection Prevention & Control policy 55-30 ARO Outbreak.
This unit is in a SUSPECT OUTBREAK

Organism: __________________________

ATTENTION

STAFF:
When in an outbreak, follow these steps to minimize risk of transmission:
✓ Be diligent with hand hygiene.
✓ Remind and assist our clients to perform hand hygiene properly.
✓ Assist visitors to use PPE properly.
✓ Disinfect commonly used items before and after use (i.e., stethoscope).
✓ Wear clothing that is easily laundered in hot soapy water and dried in a hot dryer after every shift.
✓ Do not eat or drink on the unit.

VISITORS:
✓ Perform hand hygiene with alcohol-based hand rub or soap and water before and after your visit.
✓ Only meet with one client per hospital visit.
✓ If you are ill, please delay your visit until you are well.
✓ Avoid sitting on or setting your belongings on the client bed.

These extra protective measures are a requirement of the Infection Prevention & Control policy 55-30 ARO Outbreak.
This unit is in a Confirmed Outbreak

Organism: ___________________________

ATTENTION

STAFF:

When in an outbreak, follow these steps to minimize risk of transmission:

✓ Be diligent with hand hygiene.
✓ Remind and assist our clients to perform hand hygiene properly.
✓ Assist visitors to use PPE properly.
✓ Disinfect commonly used items before and after use (i.e., stethoscope).
✓ Do not float to a non-outbreak unit if you have already started work on an outbreak unit.
✓ Wear clothing that is easily laundered in hot soapy water and dried in a hot dryer after every shift.
✓ Remove all food and drinks from the nursing station.
✓ Remove shared items from staff rooms (i.e., magazines, food trays).
✓ Non-dedicated staff/support staff must wear PPE for every client. Using new PPE for every client and performing appropriate hand hygiene.

VISITORS:

✓ Perform hand hygiene with alcohol-based hand rub or soap and water before and after your visit.
✓ Only meet with one client per hospital visit.
✓ Visitors are restricted to 2 people at a time.
✓ If you are ill, please delay your visit until you are well.
✓ Avoid sitting on or setting your belongings on the client bed.

These extra protective measures are a requirement of the Infection Prevention & Control policy 55-30 ARO Outbreak.
This unit is in a Confirmed Outbreak

Organism: __________________________

ATTENTION

STAFF:
When in an outbreak, follow these steps to minimize risk of transmission:

- Be diligent with hand hygiene.
- Remind and assist our clients to perform hand hygiene properly.
- Assist visitors to use PPE properly.
- Disinfect commonly used items before and after use (i.e., stethoscope).
- Do not float to a non-outbreak unit if you have already started work on an outbreak unit.
- Wear clothing that is easily laundered in hot soapy water and dried in a hot dryer after every shift.
- Do not eat or drink on the unit.
- Remove shared items from staff rooms (i.e., magazines, food trays).
- Non-dedicated staff/support staff must wear PPE for every client. Using new PPE for every client and performing appropriate hand hygiene.

VISITORS:

- Perform hand hygiene with alcohol-based hand rub or soap and water before and after your visit.
- Only meet with one client per hospital visit.
- Visitors are restricted to 2 people at a time.
- If you are ill, please delay your visit until you are well.
- Avoid sitting on or setting your belongings on the client bed.

These extra protective measures are a requirement of the Infection Prevention & Control policy 55-30 ARO Outbreak.
**Introduction**

Gastrointestinal (GI) illness is characterized as:

- Two or more loose, watery stools, above what is normal for the person, within a 24 hour period, or
- Two episodes of vomiting in a 24 hour period, or
- One episode of vomiting and loose stool in a 24 hour period, or
- Two people (patient, resident or staff) showing blood in stool.

GI illness outbreak definition: three or more people (any combination of patients/residents/staff) in the same unit/department/facility exhibiting symptoms of GI illness in a 24 hour period.

**Policy**

1. GI illness meeting the outbreak definition shall be reported immediately to the site Infection Prevention & Control Professional (ICP).

2. The Infection Control Officer/Medical Health Officer or his/her designate shall direct the investigation and management of a GI illness outbreak.

**Purpose**

1. To control and prevent further spread of GI illness.

2. To provide guidelines for the investigation and management of a GI outbreak.

**Procedure**

1. Validation (see algorithm – Appendix A):

   Infection Prevention & Control (IPC) or Public Health Services (PHS) validates the outbreak. Active case finding for patient cases is conducted by the unit staff and ICP. Active case finding and investigation for staff cases are overseen by Occupational Health & Safety to investigate staff illness.
For outbreaks in long term care facilities, refer to the SHR Long Term Care Outbreak Manual.

Unit staff initiate Patient/Resident and Staff line listing forms (Appendix B and C as attached) and continue to update the original form as new information is available. This may include date recovered, new symptoms, etc. Continue to add new cases to the original list as they are identified.

2. Laboratory Samples/Diagnosis:

The Infection Control Officer determines if there is a need for and/or the type of laboratory testing to be performed. ICP will call the lab supervisor and give them a “heads up” so they can check that they have enough stock for potential extra testing. When IPC gets an outbreak number the lab supervisor will be notified immediately of the number and a list of samples that have already been tested that need to have the outbreak number assigned to them will be formulated and forwarded.

In order to ensure timely testing of specimens, contact IPC or PHS for an outbreak number. Record the outbreak number on the lab requisition.

If specimens must be sent prior to obtaining an outbreak number, write “query outbreak” on the lab requisition.

Stool specimens are to be collected within 48 hours (preferably within 24 hours) of onset of symptoms.

Initially collect stool specimens from at least six symptomatic people. Testing would typically include the following from each case:

- One sample for viral studies (Norovirus and Rotavirus) placed in a sterile specimen container with no transport media or preservative,
- One sample for Clostridium difficile placed in a sterile specimen container with no media or preservative, and
- One sample for C&S, placed in enteric pathogen transport media (Carey-Blair™)

Label all specimens as per SHR laboratory protocol and record on the viral studies requisition “Suspect Outbreak - ? Norovirus”. Transport specimens to the lab immediately. For best results, specimens should be processed in the lab within 24 hours of collection. Transport specimens collected as per your regular laboratory protocol.

In some cases rural hospitals send samples to SDCL (Saskatchewan Disease Control Laboratory) they shall notify the lab by email at sdcl.outbreak@health.gov.sk.ca that they are sending the samples.

3. Outbreak Control Team:

See Outbreak Management Policy regarding membership and purpose of the team.

The Infection Control Professional /Infection Control liaison arranges a planning meeting in conjunction with the Unit/Department Manager/ Director of Care and the Infection Control Officer and/or Medical Health Officer.
In consultation with the Manager on call, for weekend and after hours coverage, contact the Medical Health Officer on call at 655-4620.

The overall functioning of the unit/facility is assessed in relation to the phase of the outbreak as determined by the Outbreak Control team. Examples of restrictions include but are not limited to:

- Unit may be closed to admissions, transfers, and may be restricted for visitors (see IPC Policy 55-70 Visitor Restrictions During Outbreaks).
- Cohort ill patients to one area of the unit.
- Notify teaching facilities of the outbreak so that faculty can decide, in consultation with IP&C or PHS, what student restrictions are to be put in place. Ensure students receive training in infection control procedures before beginning work on an outbreak unit.
- Notify volunteers and apply restrictions for students (see # 4 – staff restrictions), if they choose to continue to attend.
- Cancel group activities/meetings/gatherings scheduled on the outbreak unit.
- Evaluate if outside contractors can continue to perform work on the outbreak unit. Cancel/reschedule outside contractors unless the job is urgent or related to resolving the outbreak (i.e., plumbing).

The Outbreak Control Team may recommend opening the Site Incident Command Center or a Health Emergency Operation Centre based on the extent of the outbreak and anticipated support requirements, (security, public affairs, purchasing, etc.).

4. Control Measures:

**Note:** For *Clostridium difficile* refer to [IPC Policy 40-30](#) for additional measures.

a) Isolate symptomatic patients/residents and place on Contact/Droplet Precautions when symptoms are present. Place patients/residents on Contact Precautions for 48 hours after their last symptoms.

b) Upon validation of an outbreak:

- Patients/residents are to be advised of the outbreak situation, and the need to report symptoms.
- Restrict visitors to unit/department/facility.
- Post STOP sign and GI Illness information at entrances.
- Retain line listing forms on the unit for ICP/IC liaison to review daily or fax to a central location as instructed (see Appendix B and C).

Hand Hygiene:

- Locate alcohol-based hand rub (ABHR) at each unit/department/facility entrance for all to use.
- Place hand sanitizer in patient/staff/visitor lounge areas for use before and after eating, if hand washing with soap and water is not available.

Cleaning:

- Enhance environmental cleaning in patient rooms and common areas of frequently touched surfaces must be done at least 2 times per day (see Appendix D).
• Perform routine cleaning and disinfection of frequently touched environmental surfaces and equipment in isolation and cohorted areas, as well as high-traffic clinical areas.
• Switch to accelerated hydrogen peroxide solution (i.e., PerCept). Note there must be a 5 minute wet-contact time.
• Continue enhanced cleaning for one week after the end of the outbreak. If the outbreak lasts greater than 25 days then enhanced cleaning for two week after the end of the outbreak.
• Place heavily soiled laundry in a leak-proof bag. Wear gown and gloves to handle soiled laundry. Send soiled laundry directly to laundry services. Do not place soiled bags on the floor.
• Garbage is handled in the routine manner.
• Upon terminal cleaning, ensure all supplies are disposed of/cleaned appropriately.

Communal Food:
• Remove all communal food from nursing station and staff lounge areas.
• Assist patients to perform hand hygiene prior to a meal or snack if they require assistance.
• Close unit kitchen/nourishment center to all patients and visitors.
• Empty, shut off, and sanitize the bulk ice machine and the scoop. Leave it shut off until the outbreak is declared over.
• Automatic ice dispensing machines require cleaning of high contact areas twice per day.

• Staff restrictions:
  - As much as possible cohort staff to either affected or unaffected patients within the unit.
  - Staff to notify other facilities/hospitals at which they work that they have worked in an outbreak situation. HCW’s who work on an outbreak unit should not work elsewhere until at least 48 hours have elapsed since the end of the last shift on the outbreak unit and they are asymptomatic.
  - All staff that are ill with GI symptoms shall remain off work for 48 hours after symptoms subside; exception Food Services staff who prepare and/or serve food, shall be off for 72 hours after symptoms subside.
  - Staff may leave the outbreak unit for breaks as usual after removing all protective equipment and performing hand hygiene.

• Additional restrictions:
  - Any further control measures required will be determined by the Outbreak Team.
References:


APPENDIX A

Is this a G.I. Outbreak?

A patient develops diarrhea and/or vomiting.

Is an infectious agent possible?
(e.g. have not had laxatives or enema within 48 hours)

Yes

Start Droplet/Contact Precautions on patient who has diarrhea and/or vomiting

Does anyone else have diarrhea or vomiting? (patient or staff)

Yes

Do three or more people have GI symptoms? (patients or staff)
- Vomiting (2 episodes within 24 hours) or
- Diarrhea (2 episodes within 24 hours) or
- Vomiting and diarrhea (1 episode of each within 24 hours)
- OR Do 2 people have blood in their stools?

CALL Infection Prevention & Control

Yes

Likely to be a G.I. outbreak
- Droplet/Contact precautions for all symptomatic pts
- Send symptomatic staff home
- Send stool samples and begin control measures with help of IP&C
- Start G.I Patient and Staff Line Listing for all symptomatic cases (Appendix B&C)

No

Less likely to be GI Outbreak
Consider other causes of diarrhea — antibiotics, laxatives, constipation, food related (e.g. sensitivities)
- Isolate patients
- Use contact precautions
- Still send stool samples

Call your IPC if you are concerned or if the situation changes.

No

Not an Outbreak (yet)
• Continue to observe patients or staff for development of symptoms

Isolate symptomatic patients in a single room to reduce the risk of cross contamination

An outbreak can only be declared by Infection Prevention and Control in collaboration with Public Health

Yes

No
Appendix B - GI Patient Line Listing

**Date:** ______________________  **Unit/Facility** ________________________________

**Definition:** Gastrointestinal (GI) illness is characterized as:

- Two or more loose, watery stools, above what is normal for the person, within a 24 hour period, **or**
- Two episodes of vomiting in a 24 hour period, **or**
- One episode of vomiting and loose stool in a 24 hour period, **or**
- Two people (patient, resident or staff) showing blood in stool.

**GI illness outbreak definition:** three or more people (any combination of patients/residents/staff) in the same unit/department/facility exhibiting symptoms of GI illness in a 24 hour period.

<table>
<thead>
<tr>
<th>If no patient sticker, please include:</th>
<th>Patient Sticker</th>
<th>Patient Sticker</th>
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</tr>
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<tbody>
<tr>
<td>Full Name</td>
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<tr>
<td>HSN</td>
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<td>DOB</td>
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<tr>
<td>Sex</td>
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<tr>
<td>Physician</td>
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<td>Room #</td>
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<td>Bed #</td>
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<tr>
<th>Symptom onset</th>
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<th>Time</th>
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| Expired                               |                 |                |
|---------------------------------------|                 |                |

**SYMPTOMS**

1. Nausea
2. Abdominal Cramps
3. Diarrhea
4. Bloody stool
5. Fever
6. Vomiting
7. Fatigue/Malaise
8. Antibiotics
9. Laxatives/Enemas/stool softeners
10. Known Cause

**SPECIMENS**

<table>
<thead>
<tr>
<th>Date Collected</th>
<th>Results</th>
<th>Lab Confirmed case</th>
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**Yes = Y  No = X : criteria met OR not met**

**Fax to Infection Prevention & Control daily @0600 hours (RUH 0609, SPH 6142, SCH 7554)**
Appendix C - GI Staff Line Listing

Date: ________________________    Unit/Facility _____________________________________

Definition: Gastrointestinal (GI) illness is characterized as:

- Two or more loose, watery stools, above what is normal for the person, within a 24 hour period, or
- Two episodes of vomiting in a 24 hour period, or
- One episode of vomiting and loose stool in a 24 hour period, or
- Two people (patient, resident or staff) showing blood in stool.

GI illness outbreak definition: three or more people (any combination of patients/residents/staff) in the same unit/department/facility exhibiting symptoms of GI illness in a 24 hour period.

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<tr>
<th>Full Name</th>
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<th>DOB</th>
<th>Sex</th>
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<th>Symptom onset</th>
<th>date</th>
<th>time</th>
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<th>Date isolated/precautions</th>
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Expired

### SYMPTOMS

1. Nausea
2. Abdominal Cramps
3. Diarrhea
4. Bloody stool
5. Fever
6. Vomiting
7. Fatigue/Malaise
8. Antibiotics
9. Laxatives/Enemas
10. Stool Softeners
11. Known Cause

### SPECIMENS

<table>
<thead>
<tr>
<th>Date Collected</th>
<th>Results</th>
<th>Lab Confirmed case</th>
<th>Suspected case</th>
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yes = Y  no = X : criteria met OR not met

Fax to Infection Prevention & Control daily @ 0800 hours
Appendix D - Enhanced Cleaning for Facilities and Engineering (FES) and Unit Staff

Patient’s rooms – areas cleaned by FES staff two to three times per day:
- door surfaces where people push to open the door
- bed side table, bed railings, TV remote, telephone and any shared items
- bathrooms (toilets, toilet handles, sinks and taps)

Common areas cleaned by FES staff two to three times per day:
- frequently touched surfaces including but not limited to hallway handrails, telephones, nursing stations/conference rooms, TV remote controls, door pushes/pulls, fridge handles, elevator buttons (inside and outside), ledges around nurses desks, garbage can lids, washroom stall doors and handles, staff washrooms, and other conference rooms where Physician/Nurses from that unit consistently work in are cleaned two to three times a day
- Common areas used by identified patients such as lounge areas, hallways, quiet rooms will be ‘A’ cleaned once per day during the outbreak. (For more information on please contact FES)

**You may copy this chart to use as a checklist.**

**Checklist for Enhanced Cleaning by unit staff**

<table>
<thead>
<tr>
<th>Mark times cleaned for each</th>
<th>time cleaned</th>
<th>time cleaned</th>
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<tbody>
<tr>
<td><strong>Clean 2-3 times per day, paying particular attention to likely areas of greatest environmental contamination</strong></td>
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<tr>
<td>Commodes</td>
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<tr>
<td>Bed pans - cover and clean in soiled rooms. Use bed pan washer if available</td>
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<tr>
<td>Boosters</td>
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<td>Patient’s lifts</td>
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<td>Patient’s wheel chairs</td>
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<td>Walkers</td>
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<td></td>
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<tr>
<td>Telephone and desk at nursing station</td>
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<tr>
<td>Charts</td>
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<tr>
<td>Computers and equipment (e.g. keyboards and printers)</td>
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<tr>
<td>Thermometers</td>
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<tr>
<td><strong>IV poles/pumps</strong></td>
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<td></td>
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<tr>
<td>Automatic ice dispensing machines</td>
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<tr>
<td>Medication carts – top and drawer handles</td>
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<tr>
<td>Employee items in staff rooms (e.g. microwaves, fridges, counters and cupboard handles)</td>
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<tr>
<td>Portable fans</td>
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<tr>
<td>Linen Cart</td>
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<tr>
<td>Nursing carts</td>
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<tr>
<td>SPD cart drawer handles</td>
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Introduction

1. Definitions:

Suspected case: Person has clinical features of scabies infestation (See #2 below).

Clinical case: Person has the clinical features of scabies but skin scraping does not positively confirm the presence of scabies.

Confirmed case: Person has skin scraping showing mites, eggs or fecal pellets, or a written opinion by a dermatologist based on signs and symptoms.

Close contact: Unprotected, direct contact with skin, clothing or linens of a person with untreated scabies.

Crusted (Norwegian) scabies: This form of scabies is characterized by widespread, extensive crusting and scaling of the skin. Rash may be present and on any area of the body and up to 2,000,000 mites may be present. This form is usually seen in immune compromised people, may have been present for an extended period of time and is considered highly infectious.

Outbreak: Two or more patients/residents/clients in one unit/facility/home diagnosed with scabies within a 4 to 6 week period (1 incubation period) OR

One patient/resident/client on one unit/facility/home plus one or more staff members providing caring for that patient/resident/client are diagnosed with scabies within a 4 to 6 week period (1 incubation period).

2. Clinical features of scabies infestation:

- Skin penetration visible as papules or vesicles.

- Burrows formed by mites under the skin are visible as linear tracts.
Lesions are seen most frequently in inter-digital spaces, anterior surfaces of wrists and ankles, axillae, folds of skin, breasts, genitalia, belt-line and abdomen. Infants may have lesions of the head, neck, palms, and soles.

Itching does not always occur with a primary infestation, but when it does, it is most intense at night or after a hot bath or shower.

Policy

1. The Infection Control Officer or his/her designate will direct the investigation and management of a scabies outbreak.

Purpose

1. To control and prevent further spread of scabies.

2. To provide guidelines for the investigation and management of a scabies outbreak.

Procedure

1. Validation:

   Infection Prevention & Control validates the outbreak and its extent. This may involve consultation with a dermatologist to confirm the diagnosis by positive skin scrapings or through clinical signs and symptoms.

   Assessment of all current patients/residents/clients, staff, volunteers and students in the unit/facility/homes for symptoms must be carried out prior to administration of treatment of cases or prophylaxis of contacts. All patients/residents/clients cared for and staff assigned to these individuals within the last 6 weeks (one incubation period) will be traced and contacted (See Appendix A - Protocol for Scabies Investigation).

2. Laboratory Samples:

   A person trained in collection of the specimen obtains skin scrapings and are analyzed by the Microbiology Laboratory. Obtain 4 to 6 scrapings from different parts of the body. Contact the laboratory on how to collect and transport the specimens to the lab.

   Note: A negative scraping may be a false negative.

3. Outbreak Control Team:

   See Outbreak Management policies 55–10 or 55-20 regarding membership and purpose of the outbreak control team.

   The Infection Control Professional /IC liaison arranges a planning meeting in conjunction with the Unit/Department Manager/ Director of Care and the Infection Control Officer or Medical Health Officer and Public Health Services staff.
4. Control Measures:

Upon validation of an outbreak, in acute care the unit is closed to admissions and transfers. Discharged patients should be assessed for symptoms and advised of the need for treatment or prophylaxis.

In long term care and the community service facilities, infection control measures are to be put into place to prevent the further spread of scabies.

A physician order is required for patient/resident/client treatment and should be written by the Medical Health Officer or the family physician.

Only patients/residents/clients who have symptoms or positive skin scrapings need to be placed on Contact Precautions until 24 hours after initiation of treatment. Patients with Crusted scabies must remain on precautions until symptoms have resolved (no expansion of rash and red itchy spots and no new burrows). This may be from 4 days to several weeks. Contact investigations are to be conducted to identify additional cases and contacts.

Treatment of symptomatic cases and prophylaxis of all contacts (including asymptomatic patients, residents, clients, staff, volunteers and visitors and/or caregivers/family members of cases) should take place within the same 24 hour period.

A. Symptomatic Patients/Residents/ Clients

Treatment of symptomatic cases:

1. Ensure there are adequate supplies of linen, scabicide, nail and toenail clippers, long sleeved gown/long sleeved shirt, laundry bag, and any other supplies that will be required.

2. Use Contact Precautions (glove and gown) while in health care facilities (see Contact Precautions 30–10 in the Infection Prevention and Control Manual) and (gloves and a long sleeved shirt) if in the home to assist individual in applying the scabicide. If staff and family members are applying the scabicide to more than one individual, they are to change their gloves and gown/shirt, do hand hygiene and put on a clean gown/shirt and gloves after each individual.

3. Ensure infested individual has clean, dry skin, no jewelry, and short clean fingernails and toenails.

4. Apply scabicide as ordered and according to the drug information insert. Do not forget to do under the fingernails and toenails. Use the appropriate amount of scabicide and cover the entire body from the neck down. Check head and scalp for infestation as these areas may also need treatment in severe infestations and those with minimal hair (e.g. babies).

5. If children (under the age of two) and pregnant women are infested, have them see their family doctor for treatment recommendations.

6. Leave the scabicide on the body for the amount of time in the directions (usually 8 to 14 hours). This is best done before bed. Put on clean nightwear.

7. If the individual gets up to use the bathroom during the night and wash their hands, have them reapply scabicide to the hands before going back to bed.

8. In the morning, have a bath or shower to remove the scabicide. Put on clean clothing.
Environment:

1. At the same time as the treatment, the infested individual’s bed should be striped, cleaned and disinfected and remade. If the mattress can not be disinfected, clean and vacuum the mattress and vacuum the rug around the bed. 
   a. In acute care, it works well to arrange a clean empty room system where treated patients can be relocated while their room is stripped, cleaned, and disinfected to accommodate the next treated patient, and so on. 
   b. In the home, it is best to have the individual sleep in an alternate bed while the main bed is cleaned and vacuumed and left vacant for 72 hours. 
   c. If infested individual sleeps or lounges on other furniture, these need to be cleaned and vacuumed as well and left unused for 72 hours. 
   d. Vacuum the rugs in the bedroom and areas where individual lounges. 
   e. Remember to clean and vacuum the 2nd bed (alternate sleeping area) and to launder the linen after use for those 72 hours. 
   f. Once vacuuming has been completed, remove the vacuum bag and put it directly into a garbage bag, tie closed and remove to the outside garbage.

2. Clean and disinfect all items with which infested individuals have had skin contact in the previous two days. These include blood pressure cuffs, wheelchair arms and cushions, any hand contact surfaces, etc.

Laundry:

1. All towels, facecloths, clothes, pajamas, housecoats, slippers, furniture throws used by the infested individual 3 days prior to treatment with a scabicide should be laundered in hot soapy water and dried in a hot dryer.
2. The bed linen is stripped and sent to be laundered. Wash in hot soapy water and dry in a hot dryer. Once the individual has been treated and baths/showers in the morning, the bed linen is stripped again and laundered in the same manner. If individual has slept in an alternate bed, the linen from this bed must also be laundered in hot soapy water and dry in a hot drier.
3. In acute care, patient’s clothing is bagged and sent home for the family to launder.
4. In long term care and in the home, the laundry is to be taken to the laundry area, washed with hot soapy water and dried in a hot dryer.
5. If a child sleeps with a stuffed animal, it should be laundered and put into a hot dryer. If the stuffed animal can not be washed and/or put into a hot dryer, place it into a plastic bag, tie closed, and store it for at least 7 days before reusing or place it into the freezer for 72 hours.
6. Any other items that can not be washed and hot air dried can also be placed into a plastic bag, tie closed and stored for at least 7 days or placed into a freezer for 72 hours.

B. Asymptomatic Individuals

Prophylaxis

1. Prophylaxis of asymptomatic individuals is limited to close contacts, spouses, roommates and staff that have had skin to skin contact with the infested individuals.
2. These individuals receive a one-time application of scabicide. Apply scabicide as ordered and according to drug information insert, including under the fingernails and toenails before bed.

3. Individuals leave the scabicide on for the recommended time. Bath or shower in the morning and put on clean clothes. Launder nightwear and bed linen in hot soapy water and dry in a hot dryer. Remake the bed with clean bed linen.

C. Symptomatic Staff

1. Every employee case must be reported to Occupational Health & Safety, who can facilitate medical consultation and staff case management.
2. Staff and students who have worked on this unit/facility/home since the source case or the previous 6 weeks, whichever is the shorter time, must be contacted and assessed.
3. Staff diagnosed with scabies are relieved of direct patient contact until 24 hours after initiation of treatment.
4. Staff members whose symptoms do not resolve (e.g. develop new burrows and rash expands) are to be assessed by Occupational Health and Safety as they may need a second treatment and be cleared prior to returning to work.
5. Follow directions above under symptomatic patients/residents/clients for cleaning the environment and doing the laundry.
6. Household, sexual and other close contacts (skin to skin contact or sharing clothes or bed linens) of a staff case should receive treatment (if symptomatic) or prophylaxis during the same 24 hour period as the staff treatment.

D. Asymptomatic Staff/Volunteers/Physicians

Prophylaxis

1. Staff collect scabicide (coordinated by Occupational Health & Safety) on or before treatment day or at the end of their shift on treatment day, apply the medication at home, and then bath or shower as per the drug information insert.
2. Follow asymptomatic individual directions above.
3. Family members of asymptomatic staff do not require prophylaxis.

PLEASE NOTE: If pregnant, consult a physician prior to treatment.

E. Pets

1. Pet prophylaxis is not needed as animal scabies is a different species.

5. Outbreak Conclusion:

1. In Acute Care, the unit may be reopened to admissions and transfers when all patients involved have received treatment or prophylaxis and follow-up baths. Symptomatic patients may still be cared for in isolation.
2. Staff and families are to continue to monitor for at least 6 weeks following the last exposure for development of any new cases.
References:


Appendix A - Protocol for Scabies Investigation

Does the patient/resident/client have symptom presentation consistent with scabies infection?

- Determine appropriate course of action for differential diagnosis (i.e., Dermatologist)
- Consider Atypical Scabies
- Consider treatment failure, re-infestation or alternate diagnosis (i.e., Dermatologist)

YES

- Itchy red rash
- Plus Papular (bumpy) eruptions, pustules and nodules

YES

- Re-treat and repeat environmental cleaning

YES

- Symptom severity has decreased within two (2) weeks of initial treatment

- Discontinue isolation and contact precautions 24 hours after completion of treatment if mild case.
  - If symptoms are severe or cover entire body, continue with contact precautions until successful treatment has been achieved. May need 2 or more treatments. If no new burrows or rashes, can discontinue isolation and contact precautions 4 days after treatment.

YES

- Treat cases and close contacts within the same 24-hour period with a scabicide.
  - Apply scabicide to every surface of the body from the neck to the soles of the feet.
  - Change and launder linens, towels, pajamas, housecoats, etc. before and after scabicide application.
  - Seal non-washable items in a plastic bag at room temperature for seven (7) days or place in a freezer for 72 hours
  - Initiate contact investigation and search for additional cases

NO

- Report outbreak one (1) or more cases to Public Health
  - Report outbreak to Infection Prevention & Control Professional
  - Use standard precautions for all patients with suspected rash
  - Physician to obtain 4-6 skin scrapings per case for lab confirmation

YES

- Are skin scrapings positive for scabies?

NO

- Proceed with scabicide treatment if alternate diagnoses are ruled out and symptom presentation is consistent with scabies infestation

YES

- Consider alternate diagnosis

### Appendix B - Patient/Resident (Symptomatic) Line Listing for Scabies

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<th>SITE/FACILITY/UNIT:</th>
<th>PHONE #:</th>
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If no addressograph, please include:

- Full Name
- PHN
- DOB
- Physician

<table>
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<tr>
<th>Room #</th>
<th>Onset Date and Time</th>
<th>Diagnosed (By Who/When)</th>
<th>Isolation Yes/No</th>
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#### Symptoms

- Symmetrical skin eruptions
- Wavy lines (about 1” long)
- Itching
- Flaky, scaly skin
- Dots surrounded by redness/streaks
- Rash - list location(s)
- Rash face/scalp (Peds)
- New/undiagnosed rash
- Rash hand/feet (Peds)
- Other (Specify)

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<thead>
<tr>
<th>RX started</th>
<th>2nd Treatment (as applicable)</th>
<th>Update and Comments</th>
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</table>
Appendix C - Staff Line Listing Scabies (Symptomatic)

Date: ____________________ Site/Facility/Department/Unit: _________________________________  Phone Number: _____________

<table>
<thead>
<tr>
<th>Full Name</th>
<th>D.O.B D/M/Y</th>
<th>Sex</th>
<th>Discipline</th>
<th>Date of Onset</th>
<th>Symptoms and Frequency</th>
<th>Duration</th>
<th>Date Last Worked</th>
<th>Date Returned</th>
<th>Date Spec. Collected</th>
<th>Result</th>
<th>Comment (e.g. work elsewhere)</th>
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</tbody>
</table>

**Code for Symptoms**
R - Rash
I - Itching
Anything else, specify exact symptom
Appendix D – Scabies Client Treatment Listing

Date: ________________________  Unit/Facility: _____________________________________

Clinical features of scabies infestation:
- Skin penetration visible as papules or vesicles.
- Burrows formed by mites under the skin are visible as linear tracts.
- Lesions are seen most frequently in inter-digital spaces, anterior surfaces of wrists and ankles, axillae, folds of skin, breasts, genitalia, belt-line and abdomen. Infants may have lesions of the head, neck, palms, and soles.
- Itching does not always occur with a primary infestation, but when it does, it is most intense at night or after a hot bath or shower.

Outbreak: Two or more patients/residents/clients in one unit/facility/home diagnosed with scabies within a 4 to 6 week period (1 incubation period)  OR
One patient/resident/client on one unit/facility/home plus one or more staff members providing caring for that patient/resident/client are diagnosed with scabies within a 4 to 6 week period (1 incubation period).

<table>
<thead>
<tr>
<th>If no client sticker, please include:</th>
<th>Client Sticker</th>
<th>Client Sticker</th>
<th>Client Sticker</th>
<th>Client Sticker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Name</td>
<td>Y/N</td>
<td>Y/N</td>
<td>Y/N</td>
<td>Y/N</td>
</tr>
<tr>
<td>HSN</td>
<td></td>
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<tr>
<td>DOB</td>
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<tr>
<td>Sex</td>
<td></td>
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<tr>
<td>Physician</td>
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</tr>
<tr>
<td>Room #</td>
<td></td>
<td></td>
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<tr>
<td>Bed #</td>
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</tbody>
</table>

PREPARATION
- Linen (two changes of bed linen, towels, pyjamas)
- Gowns and gloves (contact precautions)
- Laundry bags
- Finger/toe nail clippers (single use)
- Scabicide

<table>
<thead>
<tr>
<th>TREATMENT CHECKLIST</th>
<th>Y/N</th>
<th>Y/N</th>
<th>Y/N</th>
<th>Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean dry skin (client bath or shower)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>No jewellery (e.g., rings)</td>
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<tr>
<td>Nails trimmed by authorized staff (e.g., podiatrist, footcare nurse, site policy). Fingernails are the priority.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Clean bed linens</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clean nightwear</td>
<td></td>
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<tr>
<td>Apply scabicide (entire body from neck to toes, genital area, under nails)</td>
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<td></td>
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</tr>
<tr>
<td>Leave scabicide on as indicated in product monograph (e.g., 8-14 hours)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Reapply scabicide if client up during night (e.g., use of washroom, wash hands, reapply scabicide to hands)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Bath or shower client after scabicide contact time (e.g., in the morning if applied prior to bed)</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Provide clean clothing for client</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change bed linens</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Launder nightwear and bed linen in hot, soapy water and dry in hot dryer</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Have family members take home personal clothes and belongings in a bag.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>POLICIES &amp; PROCEDURES</td>
<td></td>
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<tr>
<td>------------------------</td>
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<tr>
<td>Number: 55-60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Title: Influenza-like Illness Outbreak</td>
<td></td>
<td></td>
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<td></td>
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</table>

<table>
<thead>
<tr>
<th>Authorization:</th>
</tr>
</thead>
<tbody>
<tr>
<td>[X] SHR Regional Infection Prevention &amp; Control Committee</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source: Infection Prevention &amp; Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Initiated: October 3, 2007</td>
</tr>
<tr>
<td>Date Approved:</td>
</tr>
<tr>
<td>Date Reaffirmed:</td>
</tr>
<tr>
<td>Date Revised: October 2010</td>
</tr>
<tr>
<td>Scope: SHR Agencies &amp; Affiliates</td>
</tr>
</tbody>
</table>

Introduction

Influenza-like illness (ILI) is characterized as:

Acute onset of respiratory illness with cough and fever (which may or may not be present in the elderly) AND with one or more of the following: sore throat, arthralgia, myalgia, or prostration.

ILI outbreak definition: three or more people (any combination of patients/residents/staff) in the same unit/department exhibiting symptoms of ILI in a 24 hour period.

Policy

1. ILI meeting the outbreak definition will be reported immediately to the site Infection Prevention & Control Professional (ICP) and/or Medical Health Officer.

2. The Medical Health Officer/Infection Control Officer or his/her designate is responsible for declaring the influenza outbreak, making the recommendations to initiate antiviral prophylaxis for residents, and expanding the infection control measures required to contain the outbreak and minimize the health consequences.

Purpose

1. To control and prevent further spread of ILI.

2. To provide guidelines for the investigation and management of an ILI outbreak.
**Procedure**

1. **Validation:**

   Infection Prevention & Control (IP&C) or Public Health Services (PHS) validates the outbreak and its extent. This may include involving Occupational Health & Safety to investigate staff illness.

   Public Health Services assigns an outbreak number to all outbreaks in the Saskatoon Health Region to facilitate the follow-up of specimens and results.

   For outbreaks in long term care facilities, refer to the "SHR Long Term Care Outbreak Management Manual.

   Unit Charge Nurse/Supervisor/designate initiates Patient and Staff line listing forms (Appendix A and B attached) and continues to update the original form as new information is available. This may include date recovered, new symptoms, etc. Continue to add new cases to the original list as they are identified.

2. **Laboratory Samples:**

   The Infection Control Officer determines the need for and type of laboratory testing to be performed.

   - Nasopharyngeal swabs are to be collected within 72 hours of onset of symptoms. Refer to Influenza policy in section 40, Appendix A “Collection of Specimen for Influenza”. Initially collect specimens from up to six symptomatic people.

   Label all specimens as per usual protocol and record on the viral studies requisition “Suspect Outbreak - ? Influenza” and include the outbreak number (SKHR-Year-XXX) obtained by ICP from Public Health Services. Transport specimens to the lab immediately. For best results, specimens should be processed in the lab within 24 hours of collection.

   **Note:** Do not delay collecting specimens (outbreak with onsets on the weekend) because you do not have an outbreak number. Contact PHS-CDC on Monday and an outbreak number will be assigned. PHS-CDC will contact the lab to add the outbreak number to specimens that have been sent to the lab.

   For LTC facilities, outside regular hours, specimens collected:

   - In the evening (Monday-Friday) are to be refrigerated and sent to the lab the next morning. On Saturdays, contact Dynamex Courier (975-1010), where available, for pick-up and take to St Paul's Hospital (SPH) lab.
   - Saturday evening and Sunday are to be refrigerated and sent to SPH lab on Monday morning.
   - On Stat holidays, contact PHS who will contact the microbiologist on call for virology. Send specimens to SPH lab.

   As soon as one swab confirms the presence of influenza, no further swabs need to be collected.
If initial swabs are negative but illness continues to occur, it is necessary to continue to collect specimens until a positive result is obtained or another organism is identified or IP&C/PHS advise that no further specimens need to be taken.

3. Outbreak Control Team:

See Outbreak Management policy regarding membership and purpose of the team.

The Infection Control Professional /Infection Control liaison arranges a planning meeting in conjunction with the Unit/Department Manager/ Director of Care and the Infection Control Officer or Medical Health Officer.

The Outbreak Control Team may recommend opening the site Incident Command Center based on the extent of the outbreak and anticipated support requirements, (security, public affairs, purchasing, etc.).

4. Control Measures:

a) Place symptomatic patients/residents on Contact and Droplet Precautions.

b) Upon validation of an outbreak:

- The unit is closed to admissions and transfers.
- All patients/residents are advised of the outbreak situation, including those being discharged, and advised of the need to report symptoms.
- Post STOP sign and Influenza information at entrances (unit or facility as appropriate) to advise visitors. Refer to teaching handout in section 70. Locate hand sanitizer at each unit/department/facility entrance for all to use.
- When influenza A is confirmed the Infection Control Officer or Medical Health Officer (MHO) will provide recommendations for antiviral treatment and prophylaxis. Prophylaxis/treatment is to be provided as soon as logistically possible with priority given to treatment of those who are ill. Note that delay in prophylaxis/treatment reduces the effectiveness of the intervention.
- In LTC facilities the “Use of tamiflu in Influenza Outbreaks” (DC169) or the “Physicians order form for Amantadine or Relenza in Influenza outbreaks” (DC-398) form serves as the physician’s order process once the MHO has confirmed the appropriate antiviral treatment.

In acute care, physician’s orders for antiviral medication for treatment or prophylaxis must be individually ordered for each patient. During an outbreak, when prophylaxis of patients or residents is deemed necessary as a control measure MHO consultation is required- IP&C, Infectious Diseases, the MHO and Pharmacy will coordinate this activity.

- Retain line listing forms on the unit for ICP/ IC liaison to review daily or fax to a central location as instructed. See Appendix A & B.
• Enhance environmental cleaning of frequently touched surfaces.
  - Increase frequency of cleaning of hand contact surfaces and shared items to two to three times per day.

• Wear gown and gloves to handle soiled laundry.

• Garbage is handled in the routine manner.

• Visitor restrictions: Visitors with ILI symptoms are not allowed to visit except in a patient/resident end-of-life situation. Visitors who routinely provide nursing care may continue to visit and must comply with additional precautions where indicated. As much as possible other visitors should be restricted to end-of-life or critical care visits only.

• Cancel group activities/gatherings scheduled on the outbreak unit, i.e. visiting groups, pet therapy, day programming, etc.

• Cancel/reschedule outside contractors scheduled to perform work on the outbreak unit unless the job is urgent or related to resolving the outbreak (i.e. oxygen, respiratory equipment).

c) Staff restrictions: (see SHR Regional Human Resources Policy “Management of Employees, Physicians, and Other Health Care Workers during Influenza Outbreaks in Health Care Facilities”.

• Employees/Physicians/health care staff/students or volunteers who are ill with ILI are to remain off work (not work in any health care facility) for at least 5 days after the onset of symptoms or until their acute symptoms have completely resolved, whichever is longer. This applies to both vaccinated and unvaccinated persons.

• Ill persons are encouraged to consult their physician for testing and treatment for influenza.

• Employees/Physicians/health care staff vaccinated 14 days or more before the onset of the outbreak will continue to work as usual unless they develop symptoms.

• Cohort staff to work in only affected or unaffected unit(s)/ facility, not both, whenever possible.

• Staff to notify other facilities/hospitals at which they work that they have worked in an outbreak situation.

• Recommendations for vaccinated students and volunteers who are not ill with influenza-like illness will be made in consultation with the responsible VP, OHS, any outside Agency and the MHO/ICO (or designate).

• Unvaccinated Employees/Physicians/health care staff who do not have valid medical contraindications to influenza immunization should all be re-offered influenza vaccine. It takes 14 days for protective immunity to develop post-immunization.
- Those who choose to receive vaccine will be able to return to work 2 weeks after being immunized or sooner if they choose to begin prophylaxis with an appropriate antiviral- they will be permitted to return to work, if they are symptom free, after taking their first dose of the antiviral. They must continue the antiviral medication for 14 days after vaccination or until the outbreak is declared over, whichever comes first.
- Those who decline immunization and those with valid medical contraindications to influenza vaccine will be able to return to work, if they are symptom free and if they choose to begin antiviral prophylaxis and continue it until the outbreak is declared over. See above.
- Those who decline immunization and antiviral medication are restricted from work on an outbreak unit and those who have been exposed to influenza on the outbreak unit/facility are restricted from work on any other unit or facility until the incubation period has passed (8 days from last exposure).
- In the rare instance that an employee has a valid contraindication to influenza immunization AND to antiviral medications, they will not be permitted to return to work until the outbreak is declared over by the MHO.

- Unvaccinated students and volunteers will not be permitted to continue placement or volunteer work in the outbreak unit/department.

- Staff may leave the outbreak unit for breaks as usual after removing all protective equipment and performing hand hygiene.

5. Termination of Outbreak:
The Infection Control Officer or Medical Health Officer will declare the outbreak over, at which time all excluded staff, students, volunteers and others may return to work/placement provided they are symptom free.

Reference:

## Appendix A - Patient Line Listing for Influenza-Like Illness

<table>
<thead>
<tr>
<th>DATE:</th>
<th>SITE/FACILITY/UNIT/</th>
<th>PHONE #</th>
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<tbody>
<tr>
<td>If no addressograph, please include:</td>
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<tr>
<td>Full Name</td>
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<td>HSN</td>
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<td>DOB</td>
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<tr>
<td>Physician</td>
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</tbody>
</table>

### Room #
- Onset Date
- Onset Time
- Isolation (Y/N)

### Symptons
- Fever
- Cough
- Muscle Aches
- Joint Pain
- Sore Throat
- Temp (°C)
- Fatigue/Malaise
- Other (Specify)

### Specimens
- Date Collected
- DFA Result
- Culture Results

### Duration of Illness

### Update and Comments
## Appendix B – Staff Line Listing for Influenza-Like Illness

**Date:** ____________________  **Site/Facility/Department/Unit:** ________________________________  **Phone Number:** ____________________

<table>
<thead>
<tr>
<th>Full Name</th>
<th>D.O.B D/M/Y</th>
<th>Sex</th>
<th>Discipline</th>
<th>Date of Onset</th>
<th>Symptoms and Frequency</th>
<th>Duration</th>
<th>Date Last Worked</th>
<th>Date Returned</th>
<th>Date Spec. Collected</th>
<th>Result</th>
<th>Comment (e.g. work elsewhere)</th>
</tr>
</thead>
</table>

### Code for Symptoms

- **F** - Fever
- **C** - Cough
- **MA** - Muscle Aches
- **JP** - Joint Pain
- **ST** - Sore Throat
- Anything else, specify exact symptom
Introduction

An outbreak is the occurrence of more cases, or clustering of cases, of a particular infection or infectious disease than is normally expected; the occurrence of an unusual organism; or the occurrence of unusual antibiotic resistance patterns. Definitions of cases and outbreak vary with each disease/infection; see specific diseases for details (i.e. scabies outbreak, influenza outbreak, etc). These specific policies also refer to visitors; however, this policy is intended to be a general policy for visitors during outbreaks that may include but is not limited to Influenza, Norovirus, Antibiotic Resistant Organisms, Chicken Pox, Scabies or novel infections such as SARS or H1N1. Visitors who are ill and enter a health care facility may transmit infection to patients, health care workers or other visitors. Visitors who are well that visit ill patients (patients who have a communicable disease) may also transmit illness to these same groups, in addition to the public. Visitors who are in groups at high risk to develop severe disease as a result of exposure to micro-organisms (such as young children and pregnant women) may be at risk when visiting an ill patient.

Policy

1. Visitors are to be informed of the outbreak and take necessary precautions to limit its spread.

Purpose

1. To protect the patients, visitors, hospital staff and the public by preventing and controlling the spread of infectious diseases throughout the facility and/or into the community.

2. To provide guiding principles that enable staff to advise visitors on how to safely visit their loved ones during an outbreak.
Procedure

1. Signage
   - Signage is available from Infection Prevention and Control.

2. Instructions that apply to all visitors
   - Visiting of critically ill patients for compassionate reasons is permitted.
   - Non-essential visitors should be restricted from affected areas during an outbreak.
   - The judgment as to whether a visit is essential is to be made primarily by the visitor with consultation with staff.
   - Visitors are limited to a maximum of 2 per patient at the bedside at any time. It is preferred that only 2 pre-identified visitors be designated per patient.
   - All visitors must use hand hygiene upon entering the facility and unit as well as before and after visiting the patient. Staff members are to educate visitors on proper hand hygiene practices if visitors are unaware.
   - Staff should also provide instructions on how to don and remove the PPE required for the visit.
   - All visitors should visit only close family members or those patients for whom the visit is necessary for their well being or care.
   - Visitors should limit their movement (restricted to patient’s room, not public areas such as cafeteria or lounges) within the building and directly leave the facility after they have finished visiting.

References:


Appendix A - Visitors Algorithm

Visiting of critically ill patients for compassionate reasons is permitted. Non-essential visitors should be restricted from affected areas during an outbreak.

Visitors
Check the following:

Are you well?
Are you vaccinated for ______? Are you over the age of 12? Are you an essential visitor?

Yes

May visit well or ill patients

No

See Nurse regarding Precautions

You may visit patients at end of life
Children must be closely supervised

- Wear PPE
- Limit surfaces touched
- Go directly to patient
- Keep visit time short
- Use proper hand hygiene
- Discard PPE properly
- Leave directly

Is patient well?

Yes

Use proper hand hygiene

No

Wear PPE Discard PPE
**Introduction**

AS REQUIRED BY THE SASKATCHEWAN PUBLIC HEALTH ACT, specific communicable diseases are reported to Saskatoon Health Region, Public Health Services. Public Health routinely follow up on notifiable diseases to obtain a history of illness, look for the source, identify others who are ill and/or those at risk, provide prophylaxis when indicated, exclude (from daycare, school, or workplace) as necessary, and provide information about the disease including transmission, all under authority of the Public Health Act.

**Policy**

1. The attending physician must notify Public Health of the following notifiable communicable diseases:

<table>
<thead>
<tr>
<th>Category 1</th>
<th>Haemophilus influenza invasive disease, types a,b,c,d,e and f</th>
<th>Rabies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute flaccid paralysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aeromonas</td>
<td>Haemorrhagic fevers-viral</td>
<td>Rickettsial disease</td>
</tr>
<tr>
<td>Amoebiasis</td>
<td>Hantavirus</td>
<td>Rubella</td>
</tr>
<tr>
<td>Anthrax</td>
<td>Hepatitis A</td>
<td>Salmonellosis, excluding typhoid and paratyphoid</td>
</tr>
<tr>
<td></td>
<td>Influenza - lab confirmed</td>
<td>SARS (Severe Acute Respiratory Syndrome)</td>
</tr>
<tr>
<td>Antibiotic-resistant organisms (VRE,VRSA, MRSA, PRP*)</td>
<td>Legionellosis</td>
<td>Shigellois</td>
</tr>
<tr>
<td>Botulism</td>
<td>Leptospirosis</td>
<td>Smallpox</td>
</tr>
<tr>
<td>Brucellosis</td>
<td>Leprosy</td>
<td>Staphylococcal disease–invasive, toxigenic</td>
</tr>
<tr>
<td>Campylobacteriosis</td>
<td>Listeriosis</td>
<td>Streptococcal A – invasive</td>
</tr>
<tr>
<td>Chickenpox</td>
<td>Lyme disease</td>
<td>Streptococcal B – neonatal</td>
</tr>
<tr>
<td>Chlamydia pneumoniae</td>
<td>Malaria</td>
<td>Tetanus</td>
</tr>
<tr>
<td>Cholera</td>
<td>Measles</td>
<td>Toxoplasmosis</td>
</tr>
<tr>
<td>Congenital rubella syndrome</td>
<td>Meningococcal invasive disease</td>
<td>Trichinosis</td>
</tr>
<tr>
<td>Creutzfeldt-Jakob Disease - Classical or new variant</td>
<td>Mumps</td>
<td>TSE (transmissible spongiform encephalopathy)</td>
</tr>
<tr>
<td></td>
<td>Paratyphoid</td>
<td>Tularemia</td>
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</table>
Category 1 (Continued)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Cause</th>
<th>Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cryptosporidiosis</td>
<td>Parvovirus B 19</td>
<td>Typhoid</td>
</tr>
<tr>
<td>Cyclospora</td>
<td>Pertussis</td>
<td>Verotoxigenic <em>Escherichia coli</em></td>
</tr>
<tr>
<td>Diptheria</td>
<td>Plague</td>
<td>West Nile virus</td>
</tr>
<tr>
<td>Encephalitis – vectorborne (food poisoning of animal, bacterial, viral or chemical origin, not including salmonellosis or shigellois)</td>
<td>Pneumococcal diseases - invasive</td>
<td>Yellow fever</td>
</tr>
<tr>
<td>Food poisoning</td>
<td>Poliomyelitis</td>
<td><em>Yersinia enterocolitica</em></td>
</tr>
<tr>
<td>Giardiasis</td>
<td>Psittacosis</td>
<td></td>
</tr>
</tbody>
</table>

* Vancomycin-resistant enterococcus, Vancomycin-resistant *Staphylococcus aureus*, Methicillin-resistant *Staphylococcus aureus*, Penicillin resistant *Pneumococcus*

**Category 11**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Cause</th>
<th>Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>acquired immune deficiency syndrome (AIDS)</td>
<td>Hepatitis B</td>
<td>Human T lymphotropic virus, Types 1 and 11</td>
</tr>
<tr>
<td>Chancroid</td>
<td>Hepatitis C</td>
<td>Lymphogranuloma venereum</td>
</tr>
<tr>
<td><em>Chlamydia trachomatis</em></td>
<td>Hepatitis D</td>
<td>Neonatal congenital herpes</td>
</tr>
<tr>
<td>Gonococcal infections</td>
<td>Hepatitis – other viral</td>
<td>Syphilis</td>
</tr>
<tr>
<td>Granuloma inguinale</td>
<td>Human immunodeficiency</td>
<td>Tuberculosis</td>
</tr>
<tr>
<td></td>
<td>virus infection</td>
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</tr>
</tbody>
</table>

**Purpose**

1. To prevent the spread of communicable diseases.
2. To provide prophylaxis and/or counseling to persons exposed to communicable diseases.

**Procedure**

1. To report communicable diseases call 655-4612, Monday to Friday 8:00 a.m. – 4:30 p.m. or 655-4620 after hours.
2. Public Health requests a phone call at the time of assessment for the following:
   - Persons bitten by an animal when the animal is unknown to the victim or the animal’s behavior is abnormal; Rabies Immune Globulin and rabies vaccine is available.
   - Persons with meningococcal disease/invasive *H.influenzae* type b, Public Health will provide prophylaxis to contacts when identified.
   - Persons with suspected foodborne illness; please collect stool specimens.
   - Community needlesticks; Public Health will provide Hepatitis B immunization series and do a risk assessment.
   - Sexual assaults; Public health will complete Hepatitis B immunization series.
3. Public Health will contact the patient once the physician has advised him/her of the results.
4. The Public Health nurse will notify the Infection Prevention & Control Professional.

**Reference:**

Introduction

Antibiotic Resistant Organisms (AROs) include organisms such as Methicillin Resistant Staphylococcus aureus (MRSA) and Vancomycin Resistant Enterococcus (VRE), as well as groups of very resistant organisms like Carbapenemase Producing Organisms (CPOs). AROs are being seen with greater frequency in most hospitals and other healthcare facilities. These organisms may cause life-threatening infections and have been associated with facility outbreaks. Treatment of these organisms is complicated by the fact that the organisms are resistant to multiple antimicrobial agents, so treatment options are limited.

Screening clients for the presence of AROs, followed by implementation of additional precautions for those found to be infected or colonized, has been shown to be effective in controlling outbreaks in hospitals and long term care facilities. Clients on some units are at a higher risk of severe complications from AROs and, therefore, will have increased screening and additional precautions (i.e., Intensive Care Unit [ICU]).

Routine Practices, including proper hand hygiene, cleaning/disinfection, and personal protective equipment (PPE) based on a risk-assessment, are paramount in preventing the transmission of all AROs and must be maintained on all units, with all clients.

Definitions

Pediatric Inpatient Department (PIPD): Clients with MRSA and CPO will continue to be placed on additional precautions. Clients with VRE will not be placed on additional precautions. Screening for MRSA and CPO will occur as indicated by the ARO Admission Screen Medical Directive (Appendix A). Additional screening for MRSA and CPO will occur as directed by IP&C – Saskatoon on the ARO ICP Surveillance Orders Medical Directive (Appendix B). Screening for VRE will not routinely occur on PIPD, but may occasionally be ordered as directed by IP&C – Saskatoon.
Title: Screening for Antibiotic Resistant Organisms (AROs) – Medical Directives

**Cleared:** The client has had three sufficient negative ARO swabs as determined by the Infection Control Practitioner (ICP) and is declared as “previously ARO positive” on the Laboratory Information System (LIS) Epidemiologically Significant Occurrence (ESO). The client’s alert is also removed in the Registration System. Contact Precautions are no longer required but screening cultures are to be collected on each admission to acute care.

**Contact:** Client “A” is a contact if Client “A” shared a room for 24 hours or greater with Client “B” who has a new ARO and was not on appropriate additional precautions, OR, if Client “A” has been admitted to the bed of Client “B”, who has a new ARO, for 24 hours or greater without a proper Contact Precautions terminal clean done during that 24 hours. An MRSA or VRE contact requires an ARO screen to be collected 7 days after last contact with the new ARO client (Client “B”) who was not on appropriate additional precautions. A CPO contact requires an ARO screen to be collected on Days 0, 7, 14, and 21 after last contact with the new CPO client (Client “B”), as well as Contact Precautions until one negative screen at least 7 days from last contact is negative and IP&C - Saskatoon has determined they may come off of additional precautions.

**NOTE:** CPO contacts will have one of two ESO Alerts: Option 1 – Recent CPO contacts (those who have not had a negative CPO screen) will require Contact Precautions and mandatory private room in addition to their screening for CPO. Option 2 – CPO contacts (those who have had at least one negative CPO screen at least 7 days after contact) will not require Contact Precautions but will still require additional CPO screening. IP&C - Saskatoon will determine which ESO applies.

**Contact Tracing:** The process an ICP uses to determine which clients are contacts and adding the applicable ESO Alert into the Laboratory Information System (LIS).

**ESO Alert:** An ESO Alert is added into the LIS by the ICP for each applicable individual client and prints to the unit’s fax machine when a client is admitted or anytime they are transferred to another bed, in order to remind staff about the appropriate additional precautions, room placement and to refer staff to the medical directives for swabbing instructions. The ESO Alert reinforces the medical directives.

**“High risk” unit:** Units with clients deemed most vulnerable. These include Adult/Pediatric ICU/CCU, Transplant, and Oncology units. Clients with MRSA, VRE, and CPO will continue to be placed on additional precautions. Screening for MRSA and VRE will occur for all admissions to the unit and screening for CPO will occur as indicated by the ARO Admission Screen Medical Directive (Appendix A). Additional screening for MRSA, VRE, and CPO will occur as directed by IP&C - Saskatoon on the ARO ICP Surveillance Orders Medical Directive (Appendix B).

**Medical Directive:** Medical Directive means a prescription for a protocol, procedure, treatment or intervention that may be performed for a range of clients who meet certain conditions. It is always printed and does not require the signature of the attending Practitioner or medical resident (Region-wide Policies and Procedures: Medical Directives - 7311-60-027).

**“Non-high risk” unit:** Any unit not included as a “high risk” unit. Clients with MRSA and CPO will continue to be placed on additional precautions. Clients with VRE will not be placed on additional precautions. Screening for MRSA and CPO will occur as indicated by the ARO Admission Screen Medical Directive (Appendix A). Additional screening for MRSA and CPO will occur as directed by IP&C - Saskatoon on the ARO ICP Surveillance Orders Medical Directive (Appendix B). Screening for VRE will not routinely occur on “non-high risk” units, but may occasionally be ordered as directed by IP&C - Saskatoon.
Number: 60-30
Title: Screening for Antibiotic Resistant Organisms (AROs) – Medical Directives

NOTE: Some screening, such as Contact Tracing Surveillance Orders for VRE may be required while the client is on a “high risk” unit but would not be required while on a “non-high risk” unit. Refer to the ARO ICP Surveillance Orders Medical Directive (Appendix B).

SCM Health Issue Alert: The “SCM Health Issue” Alert is placed in the client header by IP&C - Saskatoon when the client is positive for an ARO. Additional precautions may be required based on the unit the client is on (as defined above).

Policy

1. **Clients who will be in an acute care facility for more than 48 consecutive hours (excluding newborns at their birth facility or with a NICU admission)** are evaluated for their risk of having contracted an ARO in the past or through their current admission. Medical directives are used to guide either nursing staff or ICPs in the appropriate screening requirement and subsequent additional precautions required. The types of Medical Directives are as follows:
   - **ARO Admission Screen Medical Directive** (Appendix A) – used to screen clients who will be in an acute care facility for more than 48 consecutive hours (excluding newborns at their birth facility or with a NICU admission). This Medical Directive is directed to licensed nurses – Registered Nurses, Registered Psychiatric Nurses and Licensed Practical Nurses and the screen must be completed prior to the 48 hour timeframe.
   - **ARO ICP Surveillance Orders Medical Directive** (Appendix B) – used to order “Extended Stay”, “Contact Tracing”, “Transfer from Outbreak Unit”, “Prevalence Screening” and “Testing for Clearance”. This Medical Directive is directed to ICPs so that the appropriate swabs can be completed by nursing.

2. The **Specimen Collection Guide** (Appendix C) guides the nurse in using the appropriate swab and method of collection for each type of screen ordered on the Medical Directive. The Specimen Collection Guide is also located on the reverse of each of the Medical Directives. Some contraindications may exist for the usual sites to be swabbed. Please refer to the Specimen Collection Guide for all possible sites needing to be swabbed dependent on the client’s individual assessment.

Purpose

1. To prevent and control the spread of AROs by appropriately screening clients who will be in an acute care facility for more than 48 consecutive hours, as well as screening clients throughout their stay due to an identified risk.

NOTE: For prevention of ARO transmission, refer to IP&C - Saskatoon 40-110 MRSA- Acute Care and 40-190 VRE policies, provincial guidance documents regarding CPO (CPO FAQ sheet for health care providers, CPO Information sheet for patients and families, CPO Patients screening and management algorithm, and the CPO Huddle talk). Refer to 55-30 ARO Outbreak – Acute Care policy for screening requirements during an ARO outbreak in acute care.

Procedure

1. **On pre-admission (i.e., during a Pre-Admission Clinic visit):**
   - “OP Registration Form (Face Sheet)”: The nurse will check for an “Alert”, if applicable (i.e., MRSA, VRE, or CPO) to use the correct additional precautions for care with the client in that unit.
ESO Alert: The nurse will check if there are any “ESO Alerts” that printed to the unit’s fax machine to alert the nurse of additional precautions and to refer the nurse to the medical directives for screening requirements.

NOTE: Health care facilities will begin removing or revising the ESBL flags/comments in their admitting/lab systems; however, this process may take a while. In the interim, disregard the ESBL flags. Even though they are present, these clients no longer require contact precautions or ESBL swabs collected.

ARO Admission Screen Medical Directive (Appendix A): The nurse will fill out the “ARO Admission Screen Medical Directive” in anticipation of a scheduled admission, and will collect the appropriate swabs and implement any indicated additional precautions required.

2. On admission to the Emergency Department:
   - “SCM Health Issue” Alert: The nurse will check the client header in SCM for any “Alert” (i.e., MRSA, VRE, or CPO, etc.) to use the correct additional precautions for care with the client in that unit.
   - ESO Alert: The nurse will check if there are any “ESO Alerts” that printed to the unit’s fax machine to alert the nurse of additional precautions and to refer the nurse to the medical directives for screening requirements.

NOTE: Health care facilities will begin removing or revising the ESBL flags/comments in their admitting/lab systems; however, this process may take a while. In the interim, disregard the ESBL flags. Even though they are present, these clients no longer require contact precautions or ESBL swabs collected.

If the client is admitted as an inpatient while in the Emergency Department, or if the client will be staying in the Emergency Department for more than 48 hours:
   - ARO Admission Screen Medical Directive (Appendix A): The nurse will fill out the “ARO Admission Screen Medical Directive” within the first 48 hours and will collect the appropriate swabs and implement any indicated additional precautions required.

3. On admission as an “Inpatient”:
   - “Inpatient Registration Form (Face-sheet)”: The nurse will check for an “Alert”, if applicable (i.e., MRSA, VRE, or CPO), to use the correct additional precautions for care with the client in that unit.
   - SCM Health Issue Alert: The nurse will check the client header in SCM for any “Alert” (i.e., MRSA, VRE, or CPO, etc.) to use the correct additional precautions for care with the client in that unit.
   - ESO Alert: The nurse will check if there are any “ESO Alerts” that printed to the unit’s fax machine to alert the nurse of additional precautions and to refer the nurse to the medical directives for screening requirements.

NOTE: Health care facilities will begin removing or revising the ESBL flags/comments in their admitting/lab systems; however, this process may take a while. In the interim, disregard the ESBL flags. Even though they are present, these clients no longer require contact precautions or ESBL swabs collected.

ARO Admission Screen Medical Directive (Appendix A): If not already done on pre-admission (i.e., during a Pre-Admission Clinic visit or during an extended stay in the Emergency
4. Throughout the client’s stay as an inpatient:
   - The nurse will check for any new “SCM Health Issue” Alert, ESO Alert or ARO ICP Surveillance Orders Medical Directive (Appendix B) for further additional precautions or screening swabs required during the client’s admission.

5. Procedures for each Medical Directive:
   a. ARO Admission Screen Medical Directive (Appendix A)
      NOTE: For prevention of ARO transmission, refer to IP&C - Saskatoon 40-110 MRSA- Acute Care and 40-190 VRE policies, provincial guidance documents regarding CPO (CPO FAQ sheet for health care providers, CPO Information sheet for patients and families, CPO Patients screening and management algorithm, and the CPO Huddle talk). Refer to 55-30 ARO Outbreak – Acute Care policy for screening requirements during an ARO outbreak in acute care.

      - To prevent and control the spread of AROs early by appropriately screening clients who will be in an acute care facility for more than 48 consecutive hours.
      - The ARO Admission Screen Medical Directive is to be completed within the first 48 hours of their acute care facility stay.

      NOTE: Some departments may have additional unit specific ARO screening policies on admission based on specific needs to that unit (i.e., NICU).

      Medical Directive:
      - An “ARO Admission Screen Medical Directive” is to be completed by a licensed nurse on all clients who will be in an acute care facility for more than 48 consecutive hours (excluding newborns at their birth facility or with a NICU admission). Based on an individual assessment of the client during screening, a licensed nurse (Registered Nurse, Registered Psychiatric Nurse or Licensed Practical Nurse) may order lab tests for ARO admission screening.

      Procedure:
      - Licensed nursing staff will review medical and social history and interview client and/or family members to determine if client meets the screening criteria.
      - If any of the criteria are met, they will follow the directions for additional precautions and specimen collection as indicated. The “ARO Admission Screen Medical Directive” is available through Former SHR Printing Services and a sample is included with this policy (Appendix A). Appropriate methods of collecting ARO specimens are described in the “Specimen Collection Guide” on the back of each Medical Directive (Appendix C).

   b. ARO ICP Surveillance Orders Medical Directive (Appendix B)
      NOTE: For prevention of ARO transmission, refer to IP&C - Saskatoon 40-110 MRSA- Acute Care and 40-190 VRE policies, provincial guidance documents regarding CPO (CPO FAQ sheet for health care providers, CPO Information sheet for patients and families, CPO Patients screening and management algorithm, and the CPO Huddle talk). Refer to 55-30 ARO Outbreak – Acute Care policy for screening requirements during an ARO outbreak in acute care.
i. **Extended Stay Surveillance Orders**
   - Clients who have been in the hospital for 30 days will have “Extended Stay” ARO specimens collected to determine if there has been a healthcare-associated transmission of an ARO during their stay.
   - To prevent and control the spread of AROs by screening all clients with long hospital stays. This will occur every 30 days during their admission.

**NOTE:** Some departments may have unit specific ARO screening protocols on their unit where less frequent screening is required (i.e., DUBE, NICU).

   - “Extended Stay Surveillance Orders” will consist of a test for MRSA, VRE, depending on the unit:
     - On “high risk” units – Will include MRSA and VRE
     - On “non-high risk” units – Will only include MRSA

**Medical Directive:**
   - Based on an individual assessment of the client, an ICP may order lab tests to be collected for extended stay ARO screening.

**Procedure:**
   - The ICP will send or deliver the completed pre-printed order sheet to the nursing unit for client testing to occur.
   - The pre-printed order sheet will be placed in the doctor’s orders section of the medical record and the ICP will indicate clearly in the box provided, the appropriate test to perform and specimen to collect. The appropriate “Chart Flag” will be used to indicate the presence of a new order.
   - If repeated tests and specimen collection are required it will be clearly indicated on the order sheet. The nursing staff is responsible for recording in the client’s care plan when the repeat testing is indicated and sending a swab on the date indicated on the order.
   - Appropriate methods of collecting ARO specimens are described in the “Specimen Collection Guide” on the back of each Medical Directive (Appendix C).

ii. **Contact Tracing Surveillance Orders**
   - Clients who have been in contact for 24 hours or more with a client with a newly identified ARO will be “Contact Traced” for the presence of that same ARO.
   - A contact is defined above under the “Definitions” section.
   - An MRSA or VRE contact requires a screen to be collected **7 days after last contact** with the new ARO client who wasn’t on appropriate additional precautions for your unit.
   - A CPO contact requires a screen to be collected on **Day 0, 7, 14, and 21**, as well as **Contact Precautions and MANDATORY private room** until one negative screen at least 7 days from last contact is negative and IP&C - Saskatoon has determined they may come off of additional precautions.
   - See 60-30 Appendix E: Screening Process for Contacts of AROs.

**NOTE:** CPO contacts will have one of two ESO Alerts: Option 1 – Recent CPO contacts (those who have not had a negative CPO screen) will require Contact Precautions and mandatory private room in addition to their screening for CPO. Option 2 – CPO contacts (those who have had at least one negative CPO screen at least 7 days after contact) will not require Contact Precautions but will still require additional CPO screening. IP&C - Saskatoon will determine which ESO applies.

**NOTE:** Contacts of MRSA or VRE do not require additional precautions:
   - On “high risk” units - Contact Tracing Surveillance Orders for MRSA and CPO will be required. Contact Tracing Surveillance Orders for VRE will only be required while client is on the “high risk” unit.
• On “Non-high risk” units – Contact Tracing Surveillance Orders for MRSA and CPO will be required. Contact Tracing Surveillance Orders for VRE will not be required while on the “Non-high risk” unit.
• Refer to 55-30 ARO Outbreak – Acute Care policy for additional precautions and screening requirements for ARO contacts during an ARO outbreak in acute care.

NOTE: Contacts who refuse screening for “Contact Tracing” will be placed on additional precautions.

Medical Directive:
• Based on an individual assessment of the client, an ICP may order lab tests to be collected for contact tracing ARO screening

Procedure:
• The ICP will send or deliver the completed pre-printed order sheet to nursing unit for client testing to occur.
• The pre-printed order sheet will be placed in the doctor’s orders section of the medical record and the ICP will be indicated clearly in the box provided, the appropriate test to perform and specimen to collect. The appropriate “Chart Flag” will be used to indicate presence of a new order.
• If repeated tests and specimen collection are required it will be clearly indicated on the order sheet. The nursing staff is responsible for recording in the client’s care plan when the repeat testing is indicated and sending a swab on the date indicated on the order.
• Appropriate methods of collecting ARO specimens are described in the “Specimen Collection Guide” on the back of each Medical Directive (Appendix C).

iii. Outbreak Transfer Surveillance Orders
• Refer to 55-30 ARO Outbreak – Acute Care policy for additional precautions and screening requirements for ARO contacts during an ARO outbreak in acute care.

Medical Directive:
• Based on an individual assessment of the client, an ICP may order lab tests to be collected for transfers from an outbreak unit.

Procedure:
• The ICP will send or deliver the completed pre-printed order sheet to nursing unit for client testing to occur.
• The pre-printed order sheet will be placed in the doctor’s orders section of the medical record and the ICP will be indicated clearly in the box provided, the appropriate test to perform and specimen to collect 7 days after transfer from the ARO outbreak unit. The appropriate “Chart Flag” will be used to indicate presence of a new order.
• Appropriate methods of collecting ARO specimens are described in the “Specimen Collection Guide” on the back of each Medical Directive (Appendix C).

iv. Prevalence Screening Surveillance Orders
• Clients who are at risk of acquiring a specific ARO (i.e., due to an outbreak) will be tested for that ARO by “Prevalence Screening”.
• To investigate a larger population of clients in situations where there is a noted increase of an ARO; therefore, there is an increased risk for those clients to acquire a healthcare-associated ARO.
• The ICP will consult with the Infection Control Officer (ICO) to determine the scope of the “Prevalence Screen”. The scope will refer to which clients/units/wards will be tested and
how many weeks the test will be repeated. Refer to the 55-30 ARO Outbreak – Acute Care policy.

Medical Directive:
• Based on an individual assessment of the client, an ICP may order lab tests to be collected for ARO prevalence screening.

Procedure:
• The ICP will send or deliver the completed pre-printed order sheet to nursing unit for client testing to occur.
• The pre-printed order sheet will be placed in the doctor’s orders section of the medical record and the ICP will be indicated clearly in the box provided, the appropriate test to perform and specimen to collect. The appropriate “Chart Flag” will be used to indicate presence of a new order.
• If repeated tests and specimen collection are required it will be clearly indicated on the order sheet. The nursing staff is responsible for recording in the client’s care plan when the repeat testing is indicated and sending a swab on the date indicated on the order.
• Appropriate methods of collecting ARO specimens are described in the “Specimen Collection Guide” on the back of each Medical Directive (Appendix C).

v. Testing for Clearance Surveillance Orders (for MRSA or VRE positive clients only).
• Testing for Clearance will not occur for CPO positive clients.
• Clients must wait at least 3 months from their last positive screen.

NOTE: Clearance of MRSA or VRE is not indicated on “high risk” units. Clients on those units are too acutely ill to rely on test results for clearance. Other clients, for whom clearance of MRSA or VRE is not routinely indicated includes, but is not limited to, clients receiving renal services, acutely ill/unstable clients, clients receiving intensive care or clients receiving oncology services. Consult your ICP BEFORE starting the clearing process for these other clients.

• Ensure that the client is not using chlorhexidine antibacterial soap or taking the following IV or oral antibiotics for at least 48 hours before attempting to retest (Contact the ICP if unsure if an antibiotic will affect the screen):

<table>
<thead>
<tr>
<th>ARO</th>
<th>Potentially susceptible antibiotics</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Note: Treatment of infections should be based on laboratory susceptibility testing results)</td>
<td>- Updated January 30, 2020</td>
</tr>
<tr>
<td>MRSA</td>
<td>Amikacin, Bacitracin, Clindamycin, Daptomycin, Doxycycline, Fusidic Acid, Gentamicin, Linezolid, Mupirocin, Rifampin, Telavancin, Tetracycline, Tigecycline, Tobramycin, Trimethoprim/Sulfamethoxazole (Cotrimoxizole, Bactrim, Septra), Vancomycin</td>
</tr>
<tr>
<td>VRE</td>
<td>Daptomycin, Linezolid, Telavancin, Tigecycline</td>
</tr>
</tbody>
</table>

• In total, three consecutive sets of negative samples from all colonized/infected/documented positive body sites (i.e., wounds, indwelling devices) need to be completed. If a urine culture or blood culture was a positive site, swab for MRSA or VRE using their usual screening sites. See the Specimen Collection Guide for appropriate method of collection. Contact the ICP if unsure of which sites to swab.

NOTE: If trying to clear MRSA, three samples from ALL wounds/devices need to be collected regardless of whether they were positive in the past or not.

• To clear the “Alert” status on the client and take them off additional precautions, the ICP needs to be notified of the negative results and will then assess whether those swabs were
sufficient for clearing and whether the client can be taken off additional precautions at that time.

- See Appendix D – MRSA and VRE Retesting Process to Clear Positive Status for detailed instructions on the ARO clearing process.

**Medical Directive:**

- Based on an individual assessment of the client, an ICP may order lab tests to be collected for testing for clearance surveillance order.

**Procedure:**

- The ICP will send or deliver the completed pre-printed order sheet to nursing unit for client testing to occur.
- The pre-printed order sheet will be placed in the doctor’s orders section of the medical record and the ICP will be indicated clearly in the box provided, the appropriate test to perform and specimen to collect. The appropriate “Chart Flag” will be used to indicate presence of a new order.
- If repeated tests and specimen collection are required it will be clearly indicated on the order sheet. The nursing staff is responsible for recording in the client’s care plan when the repeat testing is indicated and sending a swab on the date indicated on the order.
- Appropriate methods of collecting ARO specimens are described in the “Specimen Collection Guide” on the back of each Medical Directive (Appendix C).

**References**


**Antibiotic Resistant Organism (ARO)**

**Admission Screen Medical Directive**

**MD-004**

These orders are to be completed for all hospital inpatient admissions (excluding newborns at their birth facility or with a NICU admission). Based on an individual assessment of each client, licensed nurses may order lab tests as directed. If any answers are “Yes”, send swabs accordingly and place on additional precautions as indicated. Complete the following screening criteria:

<table>
<thead>
<tr>
<th>Question</th>
<th>YES</th>
<th>NO</th>
<th>Swab for MRSA/ CPO</th>
<th>Use Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client is known to be positive for MRSA</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Client is known to be positive for CPO</td>
<td></td>
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<tr>
<td>Client is previously positive for MRSA (i.e., has had negative</td>
<td></td>
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<tr>
<td>swabs and has been cleared by Infection Prevention &amp; Control)</td>
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<td></td>
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<tr>
<td>Client has had close contact* with a known MRSA positive client</td>
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<tr>
<td>Client has had close contact* with a known CPO positive client</td>
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<tr>
<td>Client has a history of travel to a high risk geographical area† in the</td>
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<tr>
<td>last 12 months</td>
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<tr>
<td>Client has received health care** outside of Canada in the last 12</td>
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<td></td>
<td></td>
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<tr>
<td>months</td>
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</tr>
<tr>
<td>Client has received health care** within Canada in the last 12 months</td>
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<tr>
<td>Client has used IV street drugs or lived in a communal setting (i.e.,</td>
<td></td>
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<tr>
<td>homeless shelter, correctional facility) in the last 12 months</td>
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<tr>
<td>Client’s primary residence is north of or within Prince Albert</td>
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<tr>
<td>Client/legal guardian is unable to answer any of the above questions</td>
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<tr>
<td>Client is being admitted to a “High Risk Unit”: ICU, CCU, PICU,</td>
<td></td>
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<tr>
<td>Transplant, or Oncology</td>
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<tr>
<td>Client has had all of the above required screening swabs sent within the</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>last 7 days</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Client does not meet any of the criteria listed above</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Close Contact is defined as: Household member or roommate in hospital*

**Health care:** Refers to a long term care/hospital admission or an outpatient medical procedure, including but not limited to hemodialysis and/or chemotherapy and/or cosmetic procedures

†**High risk geographical areas currently include:** Indian subcontinent (i.e., India, Sri Lanka, Bangladesh, and Pakistan)

Screening swab(s) sent: [ ] MRSA  [ ] VRE  [ ] CPO  [ ] Admission screen completed by ______ (initials)

This Medical Directive has been approved by the Physician Lead of Infection Prevention & Control (the Infection Control Officer) for the Saskatoon Area of the Saskatchewan Health Authority and complies with the Saskatoon Health Region Medical Directives Policy (7311-60-027).

Review will occur every 3 years. This Directive is in effect through to the end of December 2022.

These orders do not require a prescribing practitioner signature

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Form #102780  12/20  Category: Medical Directives  Page 1 of 1
**Antibiotic Resistant Organism (ARO)**

**Infection Control Practitioner (ICP) Surveillance Orders Medical Directive**

MD-022

Based on an individual assessment of clients, Infection Control Practitioners (ICP) may order lab tests to determine if there has been a healthcare-associated transmission of an Antibiotic Resistant Organism (ARO) in any of the following circumstances:

- Extended stay risk due to a hospital stay for 30 days or more
- Contact with a client or the environment of a client with a newly identified ARO
- As a component of outbreak investigation
- Testing to clear a client’s ARO Alert status

Specific tests may be ordered only for stays on “High Risk Units” (ICU, CCU, PICU, NICU, Transplant, or Oncology).

Licensed nurses may collect specimens based on the ICP orders.

### Reason for Surveillance
- [ ] Extended Stay
- [ ] Contact Tracing
- [ ] Outbreak Transfer
- [ ] Prevalence Screening
- [ ] Testing for Clearance

### Lab Investigations

***See Specimen Collection Guide on reverse for proper collection sites and methods***

- [ ] Methicillin Resistant Staphylococcus aureus (MRSA)
  + Other site(s): ________________________________________

- [ ] Vancomycin Resistant Enterococcus (VRE)
  + Other site(s): ________________________________________

- [ ] Carbapenemase Producing Organism (CPO)
  + Other site(s): ________________________________________

- [ ] Other ARO: ________________________________________
  Site(s): _____________________________________________

Collect the chosen specimen(s) and repeat if indicated below:

- [ ] ONLY screen if on “High Risk Unit” on (date): _____________
- [ ] Screen only on (date): _________________________
- [ ] Screen on dates: #1 _____________ #2 _____________ #3 _____________
- [ ] Screen every _______ days, starting date: _____________ and ending/including date: _____________
- [ ] Screen EVERY 30 DAYS starting from date of admission until the client is discharged

This Medical Directive has been approved by the Physician lead of Infection Prevention & Control (the Infection Control Officer) for the Saskatoon Area of the Saskatchewan Health Authority and complies with the Saskatoon Health Region Medical Directives Policy (7311-60-027). Review will occur every 3 years.

This Directive is in effect through to the end of December 2022.

**ICP Printed Name:** ________________________________  **ICP Signature:** ________________________________

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These orders do not require a prescribing practitioner signature

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**Form #103907**  **12/20**  **Category: Medical Directives**
Specimen Collection Guide

*Use ESwab™ for ALL ARO Screens

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### Equipment

<table>
<thead>
<tr>
<th>Equipment</th>
<th>ESwab™ - Addressograph label - Bacteriology requisition - Specimen bag for transport</th>
</tr>
</thead>
</table>

1. Perform hand hygiene and put on gloves.
2. Position client on their back or side for VRE Screen and CPO Screen.
3. Remove the white swab from the pouch. **Use ONE swab for EACH SCREEN:**
   - **For MRSA Screen (Nose and groin*) swab:**
     - Place the swab into one of the client’s nostrils. Rotate 5 times, pressing lightly against the inside of the nose to collect the nasal sample. Repeat in second nostril with the same swab.
     - **Using the same swab**, collect sample from each side of the groin
     **Exception:**
     - *Axilla swab only if it will be detrimental to a client’s physical or psychological wellbeing to have a groin swab performed
   - **For VRE Screen (Rectal*/Stoma** swab):**
     - Gently insert the swab approximately 2 cm beyond the anal sphincter. Rotate swab and withdraw from anus.
     **Exceptions:**
     - *Perianal swab for neutropenic clients (see IP&C Policy 40-60: Immune Compromised Clients for definition of neutropenic).
     **For perianal swab:**
     - *Expose perineum and rotate the swab as you run the tip firmly on the surface of the perineum and the anal areas
     **Stoma opening swab, instead of rectal swab**, if client has a colostomy/ileostomy.
   - **For CPO Screen (Rectal*/Stoma** swab):**
     - See instructions for VRE Screen
   - If “**Testing for Clearance**” is ordered on the ARO Surveillance Orders Medical Directive (MD-022), **also swab all “Other” sites** (i.e. wounds, indwelling devices) previously found positive. **If clearing for MRSA, also include swabs of all current “Other” sites, regardless of whether they have been positive. Use a new swab for each “Other” site:**
     - Cleanse the wound/indwelling device with sterile normal saline from cleanest to dirtiest.
     - Ensure the wound/indwelling device is dry before swabbing.
     - Rotate the swab while moving from one edge of the wound/indwelling device to the other. Ensure the entire wound/indwelling device has been swabbed.
     - *If a urine culture or blood culture was a positive site, swab for MRSA/VRE as above.

4. Open the ESwab™ tube and place the swab into the liquid.
5. Break the swab shaft off at the pre-molded break point (the indented, pink mark). Leave bottom half of swab applicator in the tube. Dispose of the top of the swab stick in trash can. Recap the ESwab™ tube and turn the cap securely tight.
6. Label tube with client’s identification sticker (ensure there is no overlap) and label with appropriate collection site. For example:
   - **For MRSA Screen:** Label as “Nose and groin”
   - **For VRE Screen:** Label as “Rectal/Stoma”
   - **For CPO Screen:** Label as “Rectal/Stoma”
7. Place labelled tube into a clean bag, ensuring the outside of the bag remains clean.
8. Remove gloves and perform hand hygiene.
9. Complete requisition with client’s identification sticker and label with appropriate screen and site swab was collected from. For example:
   - **For MRSA Screen:** Label as “Nose and groin swab for MRSA Screen”
   - **For VRE Screen:** Label as “Rectal/Stoma swab for VRE Screen”
   - **For CPO Screen:** Label as “Rectal/Stoma swab for CPO Screen”
10. Send the bagged specimen with requisition to the lab.
• Contact your Infection Control Practitioner (ICP) to determine when the retesting process can begin. Certain conditions may lead to delayed testing for clearance as they present a risk for continued colonization of the MRSA or VRE.

• **Wait at least 3 months (from the last positive date)** before retesting for MRSA or VRE.
  - Ensure all treatment for infection (i.e., Urinary tract infection, pneumonia, etc.) is complete at least 48 hours before retesting process begins.

• Ensure the client is taking **no IV or oral antibiotics, or using antibacterial soaps (i.e., Chlorhexadine soap)** 48 hours before each set of cultures, so as to not interfere with culture results.

• **Required Testing Sites** (See the **Specimen Collection Guide** for appropriate method of collection):
  - Three sets of cultures from **all documented positive sites** as well as the usual screening sites for the organism are required.
    - If testing for MRSA, also take three sets of cultures from ANY wound* or device site**, even if it has not been positive in the past.
    - If a urine culture or blood culture was a positive site, swab for MRSA or VRE using their usual screening sites.

  One set of cultures NEGATIVE from all required sites.

  Obtain **two more sets** of cultures from all required sites at least one week apart.

  If any site is POSITIVE

  Repeat cultures in 3 months.

  If three negative sets of cultures from all required sites.

  **Fax results** to Infection Prevention & Control - Saskatoon (306-655-6142). IP&C - Saskatoon will notify you once client has been cleared and can be removed from precautions.

  **LTC/RENAL SERVICES:** Repeat testing of ALL required sites monthly x 6 months (monthly x 12 months for Renal Services). Renal Services will continue screening annually.

**NOTE:** There is no clearance process for CPO.

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*Wound sites – include draining or open wounds/incisions

**Device sites – swab opening surrounding device
Discover a MRSA or VRE Positive Client who was NOT on appropriate additional precautions for your unit

The positive client (index client) has been in the hospital for ≥ 24 hours before being placed on appropriate additional precautions.

No

No follow-up needed.

Yes

Contacts of the index client for ≥ 24 hours, as determined by Infection Prevention & Control – Saskatoon (IP&C – Saskatoon), are identified and flagged with an ESO Alert.

Yes

Collect swab for the identified organism on the required date noted on the Appendix B – ARO Surveillance Orders Medical Directive.

- See 60-30 Screening for AROs – Medical Directives for screening criteria
- See Appendix C – Specimen Collection Guide for collection method

MRSA or VRE test is negative

Notify IP&C – Saskatoon.

MRSA or VRE test is positive

Transmission has occurred – Contact IP&C – Saskatoon.
Discover a CPO Positive Client

The positive client (index client) has been in the hospital for ≥ 24 hours.

Yes

Contacts of the index client for ≥ 24 hours, as determined by Infection Prevention & Control – Saskatoon (IP&C – Saskatoon), are identified, flagged with an ESO Alert and placed on additional precautions and MANDATORY private room, until determined by IP&C – Saskatoon.

Yes

Collect swabs for CPO, as required, on the dates noted on the Appendix B – ARO Surveillance Orders Medical Directive.
- See 60-30 Screening for AROs – Medical Directives for screening criteria
- See Appendix C – Specimen Collection Guide for collection method

CPO tests are negative

Notify IP&C – Saskatoon.

CPO tests are positive

Transmission has occurred – Contact IP&C – Saskatoon.

No

No follow-up needed.
POLICIES & PROCEDURES

Number: 70-10
Title: Teaching Handouts

Authorization: [X] SHR Regional Infection Prevention & Control Committee
Source: Infection Prevention & Control
Date Initiated: June 6, 2001
Date Reaffirmed: June 2017
Date Revised: February 2020
Scope: SHR Agencies & Affiliates

Policy

Purpose
1. The following handouts are provided to assist the healthcare worker in their work.

Procedure

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<td>Chickenpox</td>
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<tr>
<td>Client and Family Hand Hygiene Brochure</td>
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<td>Visitor Information for Immune Compromised Patients</td>
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<td>Visitor Instructions: During an ARO Outbreak</td>
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<td>West Nile Virus</td>
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</table>
Airborne Precautions
Client, Family and Visitor Information – For Acute Care

Airborne precautions are used when you have (or may have) germs that can be passed on to others. These germs may spread to others when they breathe the same indoor air as you.

The airborne precautions client will be placed in a room with an airborne precaution sign to notify staff, family, and visitors of the required precautions. This room will be a single room with specialized air changes, a single room with a portable HEPA filtration unit or a single room, of which the door must remain closed. Some of our clients are very ill and need all of us to be careful to protect them. We thank you for your help.

When additional precautions are in place the staff will:
• Clean hands before and after client contact.
• May wear a special mask (an N95).

While on airborne precautions the client should:
• Clean hands frequently, especially after coughing and sneezing.
• Cover nose and mouth with a tissue or upper arm when coughing and sneezing.
• Clean hands before leaving, when you return and after using tissues.
• Limit items in the room so it is easy to clean (i.e., books, cards, newspaper). Have things you do not need taken home.
• Limit visitors.
• Stay in your room. Leave the room for required tests or therapy only. If you need to leave your room for procedures, tests or therapies:
  o Make sure the nurse knows where you are going
  o Clean hands with alcohol-based hand rub or soap and water as shown on the back of page
  o Gloves are not required
  o Staff will provide a clean housecoat or gown if you do not have freshly laundered clothes
  o Staff will wear a gown, gloves and may wear a special mask if they need to help you
  o If you leave the building, clean your hands before leaving and when you return
• Do not visit:
  o Common areas such as TV, reading and family rooms
  o Unit kitchen and mobile food carts
  o Public washrooms

What does this mean for family and friends?
• Please speak to the client nurse before entering and whether you are required to use an N95.
  o For tuberculosis, an N95 is required at all times for those entering the room.
  o For chickenpox or measles, avoid visiting if you have never had the disease. If you are immune (previously had the disease) or have been vaccinated, no respirator is required.
• It is very important that the entry/exit doors to this room remain closed. The client bathroom door needs to remain open.
• Always clean your hands before entering and when exiting the room.
• If you are able to visit without providing care, cleaning your hands before and after the visit is required.
• If you are providing direct care (feeding, bathing, toileting, transferring) you need to wear a gown, gloves and may need to wear a special mask (ask the client nurse for direction).
• Avoid visiting or assisting other clients.
• Use public washroom facilities, not the client bathroom.
• Avoid use of common areas when visiting (TV lounges, kitchen area or nutrition carts).

*See how to clean hands on back of page

Saskatoon Health Region
Infection Prevention & Control

11/15
Cleaning hands with alcohol-based hand rub:

1. Apply hand sanitizer
2. Scrub palm to palm
3. Palm to back
4. Thumbs
5. Between fingers
6. Knuckles to palm
7. Fingertips
8. Your hands are clean!

Cleaning hands with soap and water:

1. Wet hands
2. Soap
3. Scrub palm to palm
4. Palm to back
5. Thumbs
6. Between fingers
7. Knuckles to palm
8. Fingertips
9. Rinse
10. Dry
11. Use towel to turn off tap and open door

If you have any questions, please speak to your nurse.
What is Chickenpox?
Chickenpox is a very contagious viral disease that causes an itchy outbreak of skin blisters.

Chickenpox can be a very serious infection particularly in patients and residents with a weak immune system.

What are the symptoms?
Symptoms, if present, can range from mild to severe. Common initial symptoms are runny nose, headache, fever, general feeling of tiredness, or appearance of a blister. A rash may not be the first sign.

After coming in contact with the chickenpox virus, it can take 2-3 weeks for symptoms to start, although you may be contagious as soon as 10 days after you are in contact with the virus.

This means that you are considered contagious for approximately 14 days (starting 10 days after your first exposure) but can be longer than 14 days depending on how many repeat exposures you have had.

How is it transmitted?
Chickenpox spreads easily. It is most contagious 1 or 2 days before the rash appears.

It spreads from person to person through direct contact with the virus. You can get chickenpox if you touch a blister, or the liquid from a blister. You can also get chickenpox if you touch the spit of a person who has chickenpox. The virus enters the body by the nose or mouth and can make you sick also.

It can also spread through the air, if you are near someone with chickenpox who is coughing or sneezing.

If you cannot remember whether or not you’ve had chickenpox or you’ve been near someone who has it, you may be at risk of spreading the chickenpox virus to others. A blood test can be done to determine if you are immune to the virus.

What should I do if I haven’t had chickenpox and have been in contact with it?
• You may be asked not to visit.
• If permitted to visit, you may be asked to wear a mask.
• Do not visit any other patients in the hospital.
• If you are feeling unwell, have cold-like symptoms, a rash, or a fever, do not visit. These could be the first symptoms of chickenpox.
• Hand washing before and after visiting can help prevent the spread of chickenpox.
**Hand Washing Protocol**

**Hand Cleansing with Water:**
- Wet hands under warm running water.
- Apply soap and rub together for at least 15 seconds, washing well between the fingers and around nails.
- Rinse well with warm running water.
- Dry with hand towel or paper towel.
- Turn the tap off using paper towel or hand towel (remember...your hands were dirty when you turned the tap on).
- Throw the paper towel in the trash. If you are using a hand towel, do not share it with other people and wash it often.

**Hand Cleansing with Hand Sanitizer:**
- Apply approximately 1 tsp. of sanitizer to your palm.
- Cover each area, rubbing vigorously and interlacing fingers.
- Rub for 10-15 seconds until hands are dry.
- Do not rinse off.
Frequently Asked Questions

How does washing my hands keep myself and others safe?

Hands are the number one way infections (germs) are spread from person to person.

How often should hospital staff clean their hands?

Yes, there are four hand hygiene moments for staff:
1. Before and after entering a client’s space,
2. Before and after putting on gloves,
3. Before performing a procedure,
4. After being exposed to bodily fluids.

What should I do if I notice my healthcare provider isn’t cleaning his or her hands when they should?

As a client or family member, you have every right to ask your care providers to clean their hands before caring for you or your loved one. If they forget, it is ok to politely ask them or give them a gentle reminder. It may feel a little awkward but we want to make sure your care experience is a positive one.

Will cleaning my hands a lot hurt my skin?

Using soap and water too often can dry out your hands. Hand sanitizer will not hurt your skin and should be used most of the time. Try to use soap and water when your hands are visibly dirty.

Why does it sting when I use hand sanitizer?

Hand sanitizer contains alcohol, which can cause any scratches or cuts you may have to sting, but it will not make them worse.

The hand sanitizer and/or soap dispenser in my room is empty. How do I get more?

Please let your nurse know it is empty. If it hasn’t been filled by the end of the shift, ask again.

When in doubt, clean your hands!
When to Clean Your Hands

How to Clean Your Hands Using Hand Sanitizer

How to Clean Your Hands Using Soap and Water

Four Moments for Client Hand Hygiene

When to Clean Your Hands

- Before and after touching wounds, dressings, and tubes and devices
- Before eating, drinking, or taking medications
- Before needlestick
- After using the toilet, before leaving your room, and after entering and exiting your room
What is C. difficile?
C. difficile (C.diff) is one of the many kinds of bacteria that can be found in feces (bowel movement). C. diff disease happens when antibiotics kill your good bowel bacteria and allow the C. diff to grow. When C. diff grows it produces toxins (poisons). These toxins can damage the bowel and may cause diarrhea. C. diff disease is usually mild but sometimes can be severe. In severe cases, surgery may be needed, and in extreme cases C. diff may cause death.

C. diff is the most common cause of infectious diarrhea in hospitals or long-term care homes.

What are the symptoms of C. difficile?
The usual symptoms are watery diarrhea, fever and abdominal pain.

Who is at risk for C. difficile?
• anyone taking antibiotics
• hospitalized patients, especially older patients
• persons with other bowel diseases or who have had bowel surgery
• persons on chemotherapy for cancer

How do you treat C. difficile?
The diarrhea is treated with a special antibiotic that kills the C. difficile bacteria.

How is C. difficile spread?
In hospitals and health-care facilities it is spread from one person to another, usually on the hands of caregivers or after contact with a contaminated object like toilets and bedpans. C. difficile can survive on surfaces for a long time if they are not properly cleaned.

What Special Precautions are required for C. difficile?
It is important that precautions are taken to stop it from spreading to other patients in the hospital or residents in care homes. These include:

• Single room accommodation if possible (the door can remain open)
• Gloves and gown must be worn by everyone who cares for you.
• A sign outside your door to remind others who enter your room about the need for special precautions
• Equipment used in your daily care will remain in the room
• Everyone who leaves your room including family and friends must clean their hands well.
• You must clean your hands before you leave the room.

What precautions should I take at home?
If you have diarrhea, a separate toilet is preferred but not essential. The important thing to remember is that toilets and bathrooms should be kept clean and hands need to be washed well.
• Continue with your usual activities if you feel well enough.
• Everyone who might help you with your personal hygiene or with going to the toilet should wash their hands after assisting with you.
• Wash your hands after you go to the bathroom, after handling soiled laundry and before preparing food or eating food.
• Maintain excellent personal hygiene through regular bathing/showers and **always use your own towel and soap**. The bathtub should be cleaned and disinfected with a household cleaner.
• Regular household cleaning using good friction are important to effectively remove C. difficile from surfaces.
• Use a regular household cleaner or diluted household bleach to kill germs. Remember to allow the disinfectant to air dry on the cleaned surface and to wear housekeeping gloves when using these chemicals.
• Dishes and cutlery should be washed with normal household dishwashing products.
• Although soiled linen may carry many germs, the risk of infection is low if the diarrhea on the sheets or clothing is disposed of first in the toilet and then washed separately from other household laundry.
• Regular clothing may be cleaned using the regular wash cycle. Dry items in the dryer if possible.

Can I give this to my family or friends?
Healthy people who are not taking antibiotics are not likely to catch this germ if they wash their hands well.

Relapses can occur. If diarrhea persists or comes back, contact your doctor. You should not use any drugs from the drugstore that will stop your diarrhea (e.g. Imodium).

---

**Hand washing Protocol**

- Wet hands under warm running water.
- Apply soap and rub together for at least 15 seconds, washing well between the fingers and around nails.
- Rinse well with warm running water.
- Dry with hand towel or paper towel.
- Turn the tap off using paper towel or hand towel (remember...your hands were dirty when you turned the tap on).
- Throw the paper towel in the trash. If you are using a hand towel, do not share it with other people and wash it often.

**Hand sanitizers are not effective against C. difficile.**
Contact Precautions

Client, Family and Visitor Information – For Acute Care

Contact precautions are used when you have (or may have) germs that can be passed on to others. These germs can be spread by anybody and transferred to other people or surfaces that they touch, such as your bedside table or medical equipment.

The contact precautions client will be placed in a room with a contact precaution sign to notify staff, family and visitors of the required precautions. Some of our clients are very ill and need all of us to be very careful to protect them. We thank you for your help.

When contact precautions are in place the staff will:
- Clean hands before and after client contact.
- Wear a gown and gloves when in contact with the client or their environment.

While on contact precautions the client should:
- Clean hands frequently, especially after coughing and sneezing.
- Cover nose and mouth with a tissue or upper arm when coughing and sneezing.
- Limit items in the room so it is easy to clean (i.e., books, cards, newspaper). Have things you do not need taken home.
- Limit visitors.
- Stay in your room. Leave the room for required tests or therapy only. If you need to leave your room for procedures, tests or therapies:
  - Make sure the nurse knows where you are going
  - Clean hands with alcohol-based hand rub or soap and water as shown on back of page
  - Gloves are not required
  - Staff will provide a clean housecoat or gown if you do not have freshly laundered clothes
  - Staff will wear a gown and gloves if they need to help you
  - If you leave the building, clean your hands before leaving and when you return
- Do not visit:
  - Common areas such as TV, reading and family rooms
  - Unit kitchen and mobile food carts
  - Public washrooms

What does this mean for family and friends?
- Always clean your hands before entering and when exiting the room.
- If you are able to visit without providing care, clean your hands before and after the visit.
- If you will be providing direct care (feeding, bathing, toileting, transferring) you need to wear a gown and gloves.
- If the client is in a multi-bed room, the privacy curtain should be pulled at all times.
- Avoid visiting or assisting other clients.
- Use public washroom facilities, not the client bathroom.
- Avoid use of common areas when visiting (TV lounges, kitchen area or nutrition carts).

*See how to clean hands on back of page
Cleaning hands with alcohol-based hand rub:

1. Apply hand sanitizer
2. Scrub palm to palm
3. Palm to back
4. Thumbs
5. Between fingers
6. Knuckles to palm
7. Fingertips
8. Your hands are clean!

Cleaning hands with soap and water:

1. Wet hands
2. Soap
3. Scrub palm to palm
4. Palm to back
5. Thumbs
6. Between fingers
7. Knuckles to palm
8. Fingertips
9. Rinse
10. Dry
11. Use towel to turn off tap and open door

If you have any questions, please speak to your nurse.
Infection Prevention & Control

Contact Precautions
Long Term Care Family and Visitor Information

Your family member or friend has been placed on Contact Precautions will be placed in a room with an orange sign indicating Contact Precautions. Spread of germs to other residents, staff or visitors. This spread can happen when people have direct contact with the resident or surfaces in the room. If you have any questions, please speak to the nurse before entering the room.

Additional Precautions in Resident Rooms (Single or Multi-bed):
- If you are sitting on a wipe able chair in the resident’s room but having no contact - gown and gloves are not required. Wash your hands well when leaving the room.
- If you are providing direct care to the resident (i.e., assisting a resident who is in bed with a meal, bathing or positioning) - a gown and gloves are required.

Important Points:
1. Take valuables into the room and place on paper towel.
2. Do not use the resident’s washroom; or sit on their bed or on their cloth chair.
3. Visit the resident on contact precautions after any other residents you may want to visit.
4. Clean your hands well before using common areas (TV lounges, kitchen area or nutrition carts) and upon leaving the room of a resident on precautions.
5. If the resident on precautions wants to leave their room, they must wash their hands. Please assist them as necessary.

Wash your hands or use hand sanitizer before and after you visit and after resident contact.

Safely Removing Gown and Gloves

NOTE: If you remove your gown and gloves incorrectly, you can get germs on yourself or the environment.

NOTE: Remove your gown and gloves before you leave the room or at the doorway to the resident’s room.

1. Remove gloves first as shown. Discard into garbage.
   - The outside of gloves are contaminated
   - Take off gloves at doorway just inside the client room/space
   - Glove-to-glove, pull forward and discard
   - Then place fingers under other glove cuff pull forward and discard
   - Discard one at a time – do not ball gloves together to minimize risk of self-contamination

2. Perform hand hygiene. See next page for instructions.
3. Remove the gown last as shown.

4. Perform hand hygiene. See below for instructions.

**Cleaning hands with hand sanitizer:**

1. Apply hand sanitizer
2. Scrub palm to palm
3. Palm to back
4. Thumbs
5. Between fingers
6. Knuckles to palm
7. Fingertips
8. Your hands are clean!

**Cleaning hands with soap and water:**

1. Wet hands
2. Soap
3. Scrub palm to palm
4. Palm to back
5. Thumbs
6. Between fingers
7. Knuckles to palm
8. Fingertips
9. Rinse
10. Dry
11. Use towel to turn off tap and open door
Contacts of an Antibiotic Resistant Organism (ARO) Related to an ARO Outbreak
Client, Family & Visitor Information – For Acute Care

What are contact precautions?
Contact precautions are used when you have (or may have) germs that can be passed on to others. A client on contact precautions is placed in a room with a contact precaution sign to notify staff, family and visitors of the required precautions. These precautions are used to help decrease the spread of Antibiotic Resistant Organisms (AROs).

Why have I been placed on contact precautions?
You have been identified as someone who may have higher risk of being in contact with an ARO due to your current stay, or a previous recent stay on an Acute Care Unit experiencing an ARO outbreak. This contact could have been direct contact with another person who was later found to have an ARO, or with their environment (i.e., shared bathroom). You are not currently positive for an ARO. You have been placed on contact precautions until you can be screened for the ARO.

How long do I need to be on contact precautions?
Contact precautions are required until you have had one negative ARO screen at least 7 days after contact with an ARO if you have been identified during your current stay, OR one negative ARO screen if you are being readmitted to hospital.

What is an Antibiotic Resistant Organism?
Antibiotic Resistant Organisms, or AROs, are microorganisms (germs) that are resistant to many commonly used antibiotics. A person can be colonized with an ARO or have an ARO active infection.

What is colonized?
This means that you are not sick and have no symptoms, but you still have an ARO living on your body. People who are colonized do not need any treatment.

What is an active infection?
This means that you have symptoms of infection (i.e., redness, heat, pain, and swelling).

How are AROs spread?
- They spread from person to person by poorly washed or unwashed hands.
- They can be spread by touching contaminated surfaces such as railings, door handles and sink faucets.
- Some AROs are carried in the bowel, so the bathroom is a place that can be contaminated and therefore transmit the bacteria to others using the same bathroom.

What can I do when I am on contact precautions?

Clients:
- Clean hands frequently, especially after using the bathroom, before eating and after coughing and sneezing.
- Cover your nose and mouth with a tissue or your upper arm when coughing and sneezing.
- Limit items in the room so it is easy to clean (i.e., books, cards, newspaper). Have things you do not need taken home.
- Do not visit on other hospital units.
- Limit visitors.
- Stay in your room. Leave the room for required tests or therapy only. If you need to leave your room for procedures, tests or therapies:
  - Make sure the nurse knows where you are going
  - Clean hands with alcohol-based hand rub or soap and water as shown on back of the page
  - Gloves are not required
  - Staff will provide a clean housecoat or gown if you do not have freshly laundered clothes
  - Staff will wear a gown and gloves if they need to help you

Saskatoon Health Region

Infection Prevention & Control
If you leave the building, clean your hands before leaving and when you return
- Do not visit:
  - Common areas such as TV, reading and family rooms
  - Unit kitchen and mobile food carts
  - Public washrooms

**Family/Visitors:**
- Always clean your hands before entering and when exiting the room.
- If you are able to visit without providing care, clean your hands before and after the visit.
- If you will be providing direct care (feeding, bathing, toileting, transferring) you need to wear a gown and gloves.
- If the client is in a multi-bed room, the privacy curtain should be pulled at all times.
- Avoid visiting or assisting other clients.
- Use public washroom facilities, not the client bathroom.
- Avoid use of common areas when visiting (TV lounges, kitchen area or nutrition carts).

**Cleaning hands with alcohol-based hand rub:**

1. **Apply hand sanitizer**
2. **Scrub palm to palm**
3. **Palm to back**
4. **Thumbs**
5. **Between fingers**
6. **Knuckles to palm**
7. **Fingertips**
8. **Your hands are clean!**

**Remember to rub for a full 15 seconds. Rub hands until the product is completely dry.**

**Cleaning hands with soap and water (if available):**

1. **Wet hands**
2. **Soap**
3. **Scrub palm to palm**
4. **Palm to back**
5. **Thumbs**
6. **Between fingers**
7. **Knuckles to palm**
8. **Fingertips**
9. **Rinse**
10. **Dry**
11. **Use towel to turn off tap and open door**

If you have any questions, please speak to your nurse.
Droplet and Contact Precautions

Client, Family and Visitor Information – For Acute Care

**Droplet and contact precautions** are used when you have (or may have) germs in your lungs or throat that can be passed on to others. These germs may spread to others who are nearby when you cough or sneeze. The germs also spread when someone with germs on their hands touch surfaces, such as a bedside table or medical equipment, and then someone else touches that same surface.

The droplet and contact precautions client will be placed in a room with a droplet and contact precaution sign to notify staff, family and visitors of the required precautions. Some of our clients are very ill and need all of us to be very careful to protect them. We thank you for your help.

**When droplet and contact precautions are in place the staff will:**
- Clean hands before and after client contact.
- Wear a mask & eye protection (within 2 meters of the client) and gown and gloves when in contact with the client or their environment.

**While on droplet and contact precautions the client should:**
- Clean hands frequently, especially after coughing and sneezing.
- Cover nose and mouth with a tissue or upper arm when coughing and sneezing.
- Limit items in the room so it is easy to clean (i.e., books, cards, newspaper). Have things you do not need taken home.
- Limit visitors.
- **Stay in your room. Leave the room for required tests or therapy only.** If you need to leave your room for procedures, tests or therapies:
  - Make sure the nurse knows where you are going
  - Clean your hands with alcohol-based hand rub or soap and water as shown on back of the page
  - Gloves are not required
  - Masks are required
  - Staff will provide a clean housecoat or gown if you do not have freshly laundered clothes
  - Staff will wear a gown, gloves and mask/eye protection if they need to help you
  - If you leave the building, clean your hands before leaving and when you return
- Do not visit:
  - Common areas such as TV, reading and family rooms
  - Unit kitchen and mobile food carts
  - Public washrooms

**What does this mean for family and friends?**
- Always clean your hands before entering and when exiting the room.
- If you are able to visit from a distance of 2 meters, clean your hands before and after the visit.
- If you are only visiting but at a closer distance, put on a mask and eye protection before entering and discard it when you leave the room.
- If you will be providing direct care (feeding, bathing, toileting, transferring) you need to wear a gown and gloves in addition to the mask and eye protection.
- If the client is in a multi-bed room, the privacy curtain should be pulled at all times.
- If the client is in a multi-bed room, visitors need to wear gown, gloves and mask/eye protection if visitors are within 2 meters of the client.
- Avoid visiting or assisting other clients.
- Use public washroom facilities, not the client bathroom.
- Avoid use of common areas when visiting (TV lounges, kitchen area or nutrition carts).

*See how to clean hands on back of page*
Cleaning hands with alcohol-based hand rub:

1. Apply hand sanitizer
2. Scrub palm to palm
3. Palm to back
4. Thumbs
5. Between fingers
6. Knuckles to palm
7. Fingertips

Your hands are clean!

Cleaning hands with soap and water:

1. Wet hands
2. Soap
3. Scrub palm to palm
4. Palm to back
5. Thumbs
6. Between fingers
7. Knuckles to palm
8. Fingertips
9. Rinse
10. Dry
11. Use towel to turn off tap and open door

If you have any questions, please speak to your nurse.
**Droplet and Contact Precautions**

*Long Term Care Family and Visitor Information*

**Droplet and Contact Precautions** are used when the resident has (or may have) germs in their lungs or throat that can be passed on to others. These germs may spread to others who are nearby when you cough or sneeze. The germs also spread when someone with germs on their hands touch surfaces, such as furniture, and then someone else touches that same surface.

Your family member or friend has been placed on Droplet and Contact Precautions to prevent the spread of germs to other residents, staff or visitors. This spread can happen when people have direct contact with the resident or surfaces in the room. **If you have any questions, please speak to the nurse before entering the room.**

The resident will be placed in a room with green sign indicating Droplet and Contact Precautions. To prevent this germ from being taken out of the room and passed on to other residents, certain precautions will be taken.

**What does this mean for family and friends?**

- **Hand Hygiene:**
  - Always clean your hands before entering and when exiting the room.
  - If you are sitting on a chair in a resident’s room but having no contact and are able to visit from a distance of 2 meters – a gown, gloves, mask and eye protection are **not** required. Wash your hands well when before and after leaving the room.

- **Mask and Eye Protection:**
  - If you are only visiting (with no direct contact) at a closer distance than 2 meters, put on a mask and eye protection before entering and discard it when you leave the room.

- **Gloves, Gown, Mask and Eye Protection:**
  - If you will be providing direct care (i.e., assisting a resident who is in bed with a meal, bathing or positioning) you need to wear a gown, gloves and mask/eye protection.
  - If the resident is in a multi-bed room, visitors need to wear gown, gloves and mask/eye protection if visitors are within 2 meters of the resident.

When **Droplet and Contact Precautions** are in place the staff will:
- Clean hands before and after resident contact.
- Wear a mask and eye protection (within 2 meters of the resident) and gown and gloves when in contact with the resident or their environment.

While on **Droplet and Contact Precautions** the resident should:
- Clean hands frequently, or be assisted to do so, especially after coughing and sneezing.
- Cover nose and mouth with a tissue or upper arm when coughing and sneezing, if able.

**Important Points:**
1. It is advisable for the resident to stay in their room, if they have an active infection (coughing and sneezing). If the active infection is not over and the resident is feeling well enough to want to leave the room, they must wash their hands and wear a mask (if they are able to tolerate it). Please assist them as necessary.
2. Take valuables into the room and place on paper towel.
3. Use a public washroom. Do not use the resident’s washroom.
4. Visit the resident on precautions after any other residents you may want to visit.
5. Clean your hands well before using common areas (TV lounges, kitchen area or nutrition carts) and upon leaving the room of the resident on precautions.

**Wash your hands or use hand sanitizer before and after you visit and after resident contact.**
**Safely Removing Gown and Gloves**

**NOTE:** If you remove your gown and gloves incorrectly, you can get germs on yourself or the environment.

**NOTE:** Remove your gown and gloves before you leave the room or at the doorway to the resident’s room.

1. Remove gloves first as shown. Discard into garbage.

2. Perform hand hygiene. See next page for instructions.

3. Remove the gown last as shown.

4. Perform hand hygiene. See below for instructions.

- The outside of gloves are contaminated
- Take off gloves at doorway just inside the client room/space
- Glove-to-glove, pull forward and discard
- Then place fingers under other glove cuff pull forward and discard
- Discard one at a time – do not ball gloves together to minimize risk of self-contamination

- Untie at neck and then the waist
- Slide 2 fingers under cuff of gown; pull hand into gown.
- Using covered hand, grab opposite sleeve and pull over hand
- Fold gown inward, rolling it outside-in, away from you
- Then place in disposal receptacle
Cleaning hands with hand sanitizer:

1. Apply hand sanitizer
2. Scrub palm to palm
3. Palm to back
4. Thumbs
5. Between fingers
6. Knuckles to palm
7. Fingertips

Your hands are clean!

Cleaning hands with soap and water:

1. Wet hands
2. Soap
3. Scrub palm to palm
4. Palm to back
5. Thumbs
6. Between fingers
7. Knuckles to palm
8. Fingertips
9. Rinse
10. Dry
11. Use towel to turn off tap and open door
Droplet Precautions
Client, Family and Visitor Information – For Acute Care

**Droplet precautions** are used when you have (or may have) germs in your lungs or throat that can be passed on to others. These germs are spread to others who are nearby when you cough or sneeze.

The droplet precautions client will be placed in room with a droplet precaution sign to notify staff, family and visitors of the required precautions. Some of our clients are very ill and need all of us to be very careful to protect them. We thank you for your help.

**When droplet precautions are in place the staff will:**
- Clean hands before and after client contact.
- Wear a mask & eye protection (within 2 meters of the client).

**While on droplet precautions the client should:**
- Clean hands frequently, especially after coughing and sneezing.
- Cover nose and mouth with a tissue or upper arm when coughing and sneezing.
- Limit visitors.
- **Stay in your room. Leave the room for required tests or therapy only.** If you need to leave your room for procedures, tests or therapies:
  - Make sure the nurse knows where you are going
  - Clean hands with alcohol-based hand rub or soap and water as shown on the back of page
  - Gloves are not required
  - Mask is required
  - Staff will provide a clean housecoat or gown if you do not have freshly laundered clothes
  - Staff will wear a mask and eye protection if they need to help you
  - If you leave the building, clean your hands before leaving and when you return
- Do not visit:
  - Common areas such as TV, reading or family rooms
  - Unit kitchen and mobile carts
  - Public Washrooms

**What does this mean for family and friends?**
- Always clean your hands before entering and when exiting the room.
- If you are able to visit from a distance of 2 meters, clean your hands before and after the visit.
- If you are only visiting but at a closer distance, put on a mask and eye protection before entering and discard it when you leave the room.
- If you will be providing direct care (feeding, bathing, toileting, transferring) you need to wear a mask and eye protection.
- If the client is in a multi-bed room, the privacy curtain should be pulled at all times.
- Avoid visiting or assisting other clients.
- Use public washroom facilities, not the client bathroom.
- Avoid use of common areas when visiting (TV lounges, kitchen area or nutrition carts).

*See how to clean hands on back of page*
Cleaning hands with alcohol-based hand rub:

Cleaning hands with soap and water:

If you have any questions, please speak to your nurse.
What is Hand Hygiene?
Hand hygiene refers to removing or killing germs on the hands as well as keeping the skin in good condition. Healthy skin is the first line of defence against germs, therefore, careful attention to skin care is important.

Why should we do Hand Hygiene?
Hand hygiene is the single most important thing everyone can do to reduce illness to themselves, their family, friends, co-workers and members of the community.

Hands are always at risk for picking up germs that may be harmful to one’s health. Once hands have germs on them they can transfer them to other people, from item to item, and to surfaces that other people’s hands come into contact with.

What Methods are there for Hand Hygiene?
There are two methods for cleaning the hands:

1. Use if an alcohol based hand rub (ABHR) - also called hand sanitizer.
   - ABHR can be a liquid, gel or foam that contains between 60-90% alcohol (e.g. ethanol, isopropanol) which reduces the number of germs on hands.
   - AHBR with at least 70% alcohol is required in health care areas whereas 62% alcohol is good for personal and home use.
   - ABHR is used when the hands are not visibly dirty.
   - ABHRs contain skin softeners to reduce skin irritation.

2. Use of soap and water
   - Antimicrobial soap removes most germs from the hands and is recommended for use in health care.
   - Antimicrobial soap is in foam or liquid form.
   - This soap is to be used when hands are visibly dirty, when patient/client has diarrhea, and when ABHR is not available.
   - Plain non-antimicrobial soap reduces the number of germs on the hands and it is in foam, liquid or powder forms.
   - Plain non-antimicrobial soap is recommended for public washrooms, long term care, and in the community.

When Should I do Hand Hygiene?
Hand Hygiene should be performed:

1. Before any hand contact with a client and/or their environment
2. Before any procedure using sterile equipment or fluids
3. After exposure to body fluids (i.e. blood, urine, feces, vomit)
4. After any hand contact with the client and/or their environment

Additional times you should wash your hands include:
- when your hands are dirty
- before handling food and/or eating
- before putting on gloves and after removing gloves
- before and after smoking
- after using the washroom
- after touching or blowing your nose, coughing, or sneezing
- after caring for people with diarrhea
- after changing diapers (wash child’s hands as well)
- after touching ‘high touch’ objects such as door knobs, toilet handles, computer keys, elevator buttons, etc.
- after touching anything that may have germs on it.
Remember, hand hygiene is the best way to stop the spread of germs.
Influenza
for The General Public

What is influenza?
• Influenza is an infection caused by influenza viruses.
• There are several different types of influenza viruses.

How does a person get influenza?
• The virus is spread:
  ➢ directly from person to person through coughing and sneezing
  ➢ indirectly from touching contaminated surfaces and objects, and then touching the eyes/nose/mouth.
• The virus can survive on some surfaces for up to 48 hours.

What are the signs and symptoms?
• Symptoms develop 1 to 4 days after a person has become infected.
• Influenza has a sudden onset with fever, headache, muscle aches, tiredness and cough.
• Fever may not be prominent in the children or the elderly.
• Nausea, vomiting and diarrhea are not common in adults but may occur in children.
• Influenza is more severe that the common cold (see table below).
• In severe cases, influenza may result in pneumonia, bronchitis, kidney or heart failure.
• Most symptoms resolve in 5 to 7 days.

What is Pandemic Influenza and why is it so severe?
• Pandemic Influenza is a worldwide outbreak of Influenza.
• It is caused by a new type of virus which occurs every 10 to 30 years. Because the virus is completely new, the body has no immunity to it. This means that more people will develop the illness than in non-pandemic years.

Common Cold versus Influenza

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Common Cold</th>
<th>Influenza</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever</td>
<td>Rare (mild)</td>
<td>Common 39 - 40°C (sudden onset)</td>
</tr>
<tr>
<td>Aches and Pains</td>
<td>Occasional (mild)</td>
<td>Common (often severe)</td>
</tr>
<tr>
<td>Fatigue/weakness</td>
<td>Occasional (mild)</td>
<td>Common (severe)</td>
</tr>
<tr>
<td>Headache</td>
<td>Rare except with sinus congestion</td>
<td>Common (can be severe)</td>
</tr>
<tr>
<td>Sore Throat</td>
<td>Common</td>
<td>Occasional (mild)</td>
</tr>
<tr>
<td>Cough</td>
<td>Common (mild to moderate)</td>
<td>Common (can be severe)</td>
</tr>
<tr>
<td>Nasal Discharge</td>
<td>Common</td>
<td>Occasional</td>
</tr>
<tr>
<td>Chest Discomfort</td>
<td>Occasional (mild to moderate)</td>
<td>Common (can become severe)</td>
</tr>
<tr>
<td>Symptoms Last</td>
<td>5 – 10 days</td>
<td>Up to 2 weeks</td>
</tr>
</tbody>
</table>
How is influenza treated?
- Get plenty of rest and drink lots of fluids.
- Acetaminophen (Tylenol) or Ibuprofen (Advil) helps to lessen fever, aches and pains. A.S.A. (Aspirin) should not be given to children younger than 17 years of age due to possibility of developing Reye’s Syndrome (a very serious neurological disease).
- Gargle with a glass of warm water containing ½ teaspoon of salt to ease a sore throat. Lozenges and sugarless hard candy are also effective.
- Do not smoke or drink alcohol – smoking irritates the airways and alcohol dries the tissues which makes them more susceptible to other infections.
- Prescription medication(s) may be prescribed by your doctor.

How is influenza prevented?
- Influenza immunization is the best method of prevention.
- Avoid crowded places.
- Cough or sneeze into your arm or sleeve instead of your hands.
- Wash hands frequently with soap & water.
- Use hand sanitizers with at least 60% alcohol when soap & water are not available.
- People with influenza symptoms, should stay home to avoid passing it on to others.
- Prescription medications may be prescribed by your doctor.

When should I call my doctor?
- Call your doctor if any of the following symptoms develop:
  - shortness of breath while resting
  - difficult or painful breathing
  - coughing up bloody sputum
  - wheezing
  - a fever greater than 39° C that lasts more than 4 days or if it is getting worse
  - you start to feel better and suddenly get a fever over 39° C and start to feel sick again
  - drowsiness, disorientation or confusion
  - extreme pain in your ear.
- For children, call the doctor if the child:
  - has a heart or lung disease or any chronic illness which requires regular medical care
  - has a disease or is taking drugs or treatments that affect the immune system
  - has trouble breathing
  - is less than 6 months old and has a temperature over 38.5°C
  - is irritable and cannot be calmed down
  - is listless and doesn’t play with toys
  - drinks little fluid and does not urinate at least every 6 hours when awake
  - has severe vomiting or diarrhea.
- For children, call 911 if the child:
  - has severe trouble breathing
  - has blue lips
  - is limp or unable to move
  - has a stiff neck
  - seems confused
  - has a seizure.

For more information contact the Provincial Health Information Line at 1-877-800-0002
Or Public Health Services at 655-4612
What are Lice?
Lice are small (the size of a sesame seed) and difficult to find. These wingless insects live on the scalp and other hairy areas of the human body. They survive by sucking the blood of the host. Female lice lay 6 eggs, or nits, every 24 hours. The nits are more visible and appear as small silvery/white ovals firmly attached to the hair shafts. Nits hatch in approximately 8-9 days. Nits must be laid by live lice. You cannot “catch nits”.

What are the signs and symptoms of Lice?
The main indication of lice is a persistent itchy scalp. The scratch marks can often become reddened and rash-like. If left untreated, excoriations can become infected.

How does it spread?
Anyone can get lice no matter how clean or careful they are. Lice cannot jump or fly and therefore need to be directly transported from one person to another (e.g. head to head contact). Transport can occur on any object that comes in contact with infected body hair and can include clothing, hats, towels, combs, brushes and bedding. Human lice cannot survive on animals and therefore, pets cannot transmit lice.

How are Lice treated?
There are several special medicated shampoos available to treat lice and should be used according to the directions provided. The two most common agents used are Permethrin (Nix™ or Kwella-P™) and Lindane 1% (PMS-Lindane, Hexit™). Nits may not always be affected by these products and must be removed by hand using a fine tooth comb and/or tweezers. Any items that have been in contact with body hair should be thoroughly washed in hot, soapy water. This includes clothing, bedding, brushes, combs, and hair accessories. Lice rarely survive off the body for longer than 36 hours. Nits will not hatch when temperatures are greater than 38°C or lower than 24°C, therefore they will not hatch if they are not on a human body.

You can learn more about lice at www.headlice.org/faq/lousology

How are Lice prevented?
Heads should be checked regularly if lice are suspected. Avoid the sharing of hats, towels, brushes, combs and hair accessories. If lice are found, use appropriate treatment methods and notify anyone who may have been in direct contact with the infested person.
What is MRSA and why is it serious?

- MRSA stands for Methicillin Resistant Staphylococcus aureus.
- Staphylococcus aureus or “staph” is a bacteria (germ) that lives harmlessly on the skin and in the nose of about one third of normal healthy people.
- Staph can enter the body through a break in the skin and cause an infection.
- This infection will often look like spider bites or bumps that are red, swollen, painful, and can have pus or other fluid. These infections may need to be covered and treated with antibiotics.
- If common antibiotics, like Methicillin, do not kill the staph bacteria, that means it has become resistant to those antibiotics. This type of staph is called MRSA.
- Resistance is to antibiotics only, not to cleaners, disinfectants or alcohol based hand rubs (hand sanitizer).
- Regular “staph” and MRSA may cause serious infections in your blood, lungs, bones, and other tissues.
- An MRSA infection can be treated successfully with the right antibiotics.

How is MRSA spread?

- In the community, it is spread by contact with MRSA skin infections or by sharing the personal items (towels, facecloths, housecoats, razors, etc.) with someone who has MRSA.
- In hospitals and health-care facilities, it is spread from one person to another, usually on the hands of caregivers or after contact with objects which have MRSA on them.

Will I always have MRSA?

- Some people will become clear of MRSA. Your doctor will treat the first infection and if you remain healthy, the MRSA may disappear. Talk to your doctor about whether follow up tests are needed to see if the MRSA continues to be present on your skin or in your nose.

Can family and friends get MRSA from me?

- It is possible for family and friends to get MRSA from you, especially if they have serious health problems.
- If you are a MRSA carrier, healthy people are usually not at risk as long as you clean your hands often and have good personal hygiene.
- If you have an infection, there is an increased chance for spread because these bacteria are able to survive on surfaces for a long time. Fluid from wounds can spread infection.
- You can reduce risks to others by using the following personal care guidelines.
Living with MRSA

Personal Care Guidelines

- Wash your hands thoroughly and frequently with soap and water (See Appendix A).
- Carry alcohol-based hand rub (hand sanitizer) with you so you can clean your hands if soap and water are not available (See Appendix A).
- Bath or shower daily. An all over body wash is important to reduce the amount of germs on your skin.
- Cough into your arm/shoulder, or cover your nose and mouth with a tissue. Throw the tissue in the garbage and wash your hands.
- Keep your fingernails short to prevent germs from growing under your nails.
- Do not share towels, wash cloths, razors, toothbrushes, clothing or sporting gear with others.
- Wear clean clothes daily and wash them before wearing again.
- Wash pyjamas, sheets and towels in hot soapy water at least weekly.
- Take good care of your skin. Remember MRSA lives on your skin. Any break or crack can allow the bacteria to enter and cause an infection. If you get a cut or scrape, clean it with soap and water, then cover it with a bandage.
- See a doctor at the first sign of infection, such as redness, swelling, pain or pus.
- Tell your health care provider that you have MRSA. They will take special steps to prevent spread to others.
- If you work in a health care setting, contact your employer or Occupational Health and Safety as you may need to take special precautions at work.

Keep your environment clean.

Cleaning Guidelines

- Clean frequently touched surfaces such as light switches, door knobs, table tops, chair arms, computer keys, etc. Choose a cleaner that says “disinfectant” on the label.
- Clean and disinfect bathrooms, toilet seats, handles, and sink taps on a regular basis.
- Wash dishes and cutlery in the usual manner with dish soap and hot water or in a dishwasher.
- Wash clothing, bedding and towels in hot soapy water and dry in a hot dryer. A hot dryer will kill the germs.
- Wash bedding, clothing or towels that are soaked with body fluids or drainage, or put them into a plastic bag until they can be washed. Wash with warm soapy water with bleach (follow direction on bleach container). Use bleach for the unbleachables for clothes that can not be bleached. Dry in a hot dryer and make sure the clothes are completely dry.

Do not share any towels. Use your own towel and store it in a separate place so others will not use it.

How do I stop MRSA from spreading?

- Follow the “Personal Care Guidelines” above.
- Cover infected areas with a bandage or dressing. Cover the bandage with clothing if possible.
- Place used bandages or dressings into a separate plastic bag then place directly into the garbage.
- Always wash your hands before and after changing or handling your bandage.
- Do not participate in contact sports until your sores have healed.
- Do not go to a public gym sauna, hot tub or pool until sores have healed.
- Wipe up any pus or other body fluid that splashes onto a surface in your home. Use a clean paper towel to wipe the area clean and then wipe with a disinfectant. Wipe down surface a second time and let it air dry.
- Disinfect all gym equipment after use. This is standard practise for gyms and the gym should supply the disinfectant.
- Shower immediately after participating in sports or working out in a gym.
- Shower well with soap before and after using a public sauna, hot tub or pool.
not use these facilities if you have an infection.
- Bath or shower on a daily basis or prior to sexual relations or any intimate contact. If a wound is present, in addition to daily bathing or shower, cover the wound.

**What about Children and MRSA?**

- If you have MRSA and there are children in your life, you can still interact with them. Wash your hands and prevent children from coming into contact with your infections by keeping wounds covered are the best ways to avoid spreading MRSA.
- If a child in your family has MRSA, keeping them out of sports, school or daycare would only be necessary if the infection can not be covered with a clean dry bandage. Otherwise closely follow the Personal Care Guidelines.

**Good hygiene is the number 1 way to stop the spread of MRSA.**

**Remember to:**

1. Wash your hands often.
2. Take care of yourself by eating healthy and get enough rest.
3. Take good care of your skin.
4. Keep skin infections covered to avoid spreading MRSA to others.

**References**


CDC. Community-Associated MRSA information for the Public. 2008.


PIDAC. Best Practises for Hand Hygiene. 2009.

Stop! Clean Your Hands: Canada’s Hand Hygiene Campaign developed in conjunction with CHICA Canada, the Canadian Council on Health Services Accreditation, the Canadian Council on Health Services Accreditation, the Canadian Safety Institute and the Public Health Agency of Canada. 2008.
Appendix A – Hand Cleaning Guidelines

Hand Cleaning with Hand Sanitizer:

- Apply sanitizer, the size of a quarter, to your palm.
- Rub all areas of the hands - the palms, backs of hands, wrists, between the fingers and the nails.
- Rub for 15 seconds until hands are dry. You need 15 seconds of wet contact time to kill the germs.
- Do not rinse off.
- Hand washing with water and soap will be required if hands are dirty.

Hand Cleaning with Soap and Water:

- Wet hands under warm running water.
- Apply soap and rub together for at least 15 seconds.
- Wash well between the fingers and around nails, the wrists, palms and the backs of the hands.
- Rinse well with warm running water.
- Dry with a hand towel or a paper towel. A single use paper towel is best.
- Turn the tap off using a paper towel or hand towel (remember...your hands were dirty when you turned the tap on).
- Throw the paper towel in the trash. If you are using a hand towel, do not share it with other people and wash it often.
- Apply hand lotion on your hands at least daily to reduce skin breakdown due to frequent hand washing and to improve the health of your hands.

Remember, hand hygiene is the best way to stop the spread of germs.
What is Norovirus?
Norovirus is a small virus that causes mild to moderate vomiting and diarrheal illness, usually in adults. It has often been referred to as "stomach flu". Norovirus infections spread very quickly and have been linked to outbreaks of vomiting and/or diarrhea in institutions such as child-care centres and long term care facilities as well as on cruise ships, at schools and in households. The virus was first identified in 1972 after an outbreak of gastrointestinal illness in Norwalk, Ohio.

How do people get a Norovirus infection?
Norovirus is found in the stool and sometimes in the vomit of ill persons. The virus is spread very easily from person to person by coming into contact with the fecally contaminated hands of an ill person or by contact with fecally-contaminated objects (e.g. door knobs, stair railings,) and then touching your mouth. It is also spread by ingesting contaminated food and water. Airborne transmission has been suggested to explain the rapid spread in institutional settings. Proper hand-washing is the best way to prevent the spread of a Norovirus infection.

What are the signs and symptoms of a Norovirus infection?
- Nausea
- Vomiting
- Diarrhea
- Stomach cramps
- Low-grade fever

How soon after exposure do symptoms appear?
Symptoms usually appear in 12-48 hours after swallowing contaminated food or water. Severe illness is uncommon. Infected persons usually recover in 2 to 3 days without long-term effects.

What is the treatment for a Norovirus infection?
There is no specific treatment for a Norovirus infection. Persons should get bed rest and drink plenty of fluids. Persons who become severely dehydrated should seek medical attention.

How can a Norovirus infection be prevented?
- Wash hands with soap and water or use hand sanitizer after toilet visits and before preparing or eating food.
- Wash raw vegetables before eating.
- Cook foods thoroughly before eating.
- Food handlers with symptoms of Norovirus-like illness should not prepare or touch food.
- Health care workers with symptoms of Norovirus-like illness should remain at home until 48 hours after symptoms have resolved.
- Thoroughly disinfect contaminated surfaces.
- Wash soiled articles of clothing.
Hand Washing Protocol

Hand Cleansing with Water:
- Wet hands under warm running water.
- Apply soap and rub together for at least 15 seconds, washing well between the fingers and around nails.
- Rinse well with warm running water.
- Dry with hand towel or paper towel.
- Turn the tap off using paper towel or hand towel (remember...your hands were dirty when you turned the tap on).
- Throw the paper towel in the trash. If you are using a hand towel, do not share it with other people and wash it often.

Hand Cleansing with Hand Sanitizer:
- Apply approximately 1 tsp. of sanitizer to your palm.
- Cover each area, rubbing vigorously and interlacing fingers.
- Rub for 10-15 seconds until hands are dry.
- Do not rinse off.
What is Scabies?
Scabies is a contagious skin condition that characterized by small itchy bumps and blisters caused by tiny mites that burrow into the top layer of human skin to lay their eggs. It occurs all over the world, and can affect people of all races and social classes. Scabies spreads quickly in crowded conditions where there is frequent skin-to-skin contact between people. Hospitals, child-care centers and nursing homes are examples. People with weakened immune systems and the elderly are at risk for a more severe form of scabies, called Norwegian or crusted scabies.

What are the signs and symptoms of Scabies?
The symptoms of scabies are an allergic reaction to the mites. There is usually an itching skin irritation and tiny reddened dots with surrounding redness or streaks of redness. The itching is usually much worse at night or after a hot bath or shower. The rash is often found in the finger and toe webs, under the breasts or buttocks, at the belt line and around the wrists, elbows, knees, ankles and armpits.

How does it spread?
The mite is generally transmitted from person-to-person by close body contact (skin to skin) with a person already infested with scabies. Contact, such a quick handshake or hug, will usually not spread infestation. Sharing clothes, housecoats, slippers, towels, and bedding, sleeping bags, and furniture throws can spread scabies.

How soon after infestation will symptoms begin?
For a person who has never been infested with scabies, symptoms may take 4-6 weeks to begin. For a person who has had scabies, symptoms can appear within one to four days. You do not become immune to an infestation of scabies.

How are scabies treated?
There are several prescription creams, lotions and soaps available to treat scabies. The most common agents are Nix™ and Kwellada™. Instructions for use are included with the products and should be followed carefully (e.g. whole body is to be treated from the neck down and ensure there is coverage under the nails and toenails. Use the full amount recommended in the instructions). Normally, only one treatment is needed but sometimes 2 or more treatments are required. Itching can persist for up to 2 weeks or longer. Your health care provider may prescribe additional medication (oral antihistamine medication) to relieve itching if it is severe.

No new rashes should appear 24-48 hours after effective treatment. If someone assists in the application of the treatment onto the infested individual, that person should wear gloves when they are applying the treatment. If there will be any opportunity for any skin contact during the treatment, wear a gown or a long sleeved shirt to cover those areas. Treatment should be done at bedtime to reduce the risk of the medication being washed off during normal daily activities. If the person uses the washroom at night and washes their hands, reapply the treatment to the hands before returning back to bed.
How are scabies prevented?
Persons with symptoms should be checked and diagnosed by their doctor so that scabicide treatment can be completed as soon as possible. Persons living in the same house and having skin-to-skin contact with someone with scabies should be treated at the same time to prevent scabies before symptoms develop.

Avoid sharing items such as clothing, housecoats, slippers, bedding, furniture throws, and towels with someone who is or may be infested. If any of these items have been used within the 3 days prior to treatment, they should be machine-washed in hot soapy water and dried in a hot dryer, or dry cleaned following treatment.

Mattresses which have been used by an infested person should be cleaned and vacuumed thoroughly in all cracks and crevices. Do not use mattress for 72 hours after vacuuming. Infested individual lounges or sleeps on other cloth furniture, these need to be cleaned and vacuumed as well. Vacuum the carpets in these rooms at the same time. Remove vacuum cleaner bag and place into a garbage bag, tie closed and remove to outside garbage container.

It is critical that the timing of the scabies treatment and the cleaning/vacuuming be done within the same 24 hour period so that the individual is not re-infested.

Did my pet spread scabies to me?
No. Pets become infested with a different kind of scabies mite. If your pet is infested with scabies, (also called mange) and they have close contact with you, the mite can get under your skin and cause itching and skin irritation. However, the mite dies in a couple of days and does not reproduce. The mites may cause you to itch for several days, but you do not need to be treated with special medication to kill the mites.

Until your pet is successfully treated, mites can continue to burrow into your skin and cause you to have symptoms.
What is Shingles?
Shingles is the reactivation of the varicella zoster virus. This same virus causes the childhood illness chickenpox. You can only get shingles if you had chickenpox in the past or if you have had the chickenpox vaccine ("shot").

After you have chickenpox (usually as a child), the virus that causes it stays in your body in certain nerve cells. Most of the time your immune system keeps the chickenpox virus in these cells. As you get older, or if your immune system gets weak, the chickenpox virus may escape from the nerve cells and cause shingles.

Most people who get shingles are more than 50 years old or have a weak immune system.

What are the signs and symptoms of Shingles?
Shingles causes a painful, blistering rash. Sometimes the pain starts 2 to 3 days before the rash appears.

The rash begins with reddish bumps. In a few days, these bumps turn into blisters. You might feel a stinging or burning pain. The rash may wrap around your back and chest, or it may be on one side of your face.

The blisters usually crust over and fall off after 7 to 10 days. You may see changes in the color of your skin when the scabs fall off.

Even though the rash gets better or goes away in a few weeks, the pain may last longer. In most people, the pain goes away in 1 to 3 months.

Shingles can also affect your eyes, causing swollen eyelids, redness and pain. People who have shingles of the eye should see an eye doctor right away.

Can I Leave My Room?
Attending activities with other patients/residents is usually possible if the lesions are kept covered. Once the lesions crust over they are no longer infectious. Staff should wear gloves and a gown when applying and removing dressings, and when giving personal care where there is a possibility they will come in contact with vesicular fluid.

The Immune Compromised Patient/Resident
The immune compromised patient/resident may have more severe shingles where the lesions are generalized (disseminated herpes zoster). Participation in activities may alter and measures to control transmission will be different.
**Can I Infect Other People?**
Direct and indirect contact with the fluid in the blisters can cause chickenpox in individuals who have never had it or have not been vaccinated. Shingles does not cause shingles in another person. A person gets shingles from their own chickenpox virus. Your roommate and staff that care for you should have had chicken pox or been vaccinated.

**Will I be treated?**
Antiviral medications are available and should be started 24 to 72 hours after the onset of the lesions. There are measures to control the pain such as medications and creams.

**What is Postherpetic Neuralgia (PHN)?**
"Postherpetic neuralgia" is the name used when the pain of shingles lasts for a long time after the rash is gone. About 1 in 5 people with shingles will get postherpetic neuralgia.

Like shingles, postherpetic neuralgia causes a stinging or burning pain. Your skin might become very sensitive to temperature changes or a light touch, such as from a bed sheet or moving air.

Most people with postherpetic neuralgia get better with time. Almost all of them are free of pain within one year. A few people have chronic pain (pain that doesn't go away).

**How is postherpetic neuralgia treated?**
Postherpetic neuralgia is often treated with over-the-counter pain medicines and capsaicin cream (two brand names: Capsin™, Zostrix™). If these medicines don't help enough, your doctor might try some other treatments, such as a patch that contains lidocaine (brand name: Lidoderm™).

Some medicines that are used to treat depression and seizures can also help the nerve pain of postherpetic neuralgia. These medicines don't work very fast, though. It might be several weeks before they help your pain.

Early treatment may decrease the severity of postherpetic neuralgia.
Your family member or friend requires protection from any serious infection. Please help to protect the patient by thoroughly reading this sheet and following the rules as outlined below:

Patients are at risk for infection from microorganisms (germs) that are naturally occurring on their own body (their normal flora)!

Do not visit if you are/have:
- Under 10 years of age and your immunization is not current
- Fever
- Rash or itch
- Cold sore
- Cough/running nose/sneezing
- Diarrhea and/or vomiting
- Conjunctivitis (Pink Eye)
- Been exposed in the last 4 weeks to Chicken Pox, shingles, measles, rubella (German measles), mumps, TB, whooping cough, Strep throat, Hepatitis A, or viral respiratory infection.

Other important restrictions
- Keep door closed at all times
- No live or dried flowers or plants
- Pet visitation not allowed
- Only 2 visitors at a time
- Restrict clutter for ease of cleaning

Hand washing is the best defence against infections
- Before entering and upon leaving the room
- After touching your face, hair or any surfaces
- After coughing or sneezing into your hands

Hand washing Instructions:
- 15-30 second hand wash with soap and water or
- A hand sanitizer (if hands are not visibly soiled). Rub sanitizer over entire surface of hands with a washing motion until they are completely dry.

We are committed to providing the best possible care for our patient. If you have any questions, do not hesitate to ask the nurse for assistance.
Visitor Instructions: During an Outbreak

Please follow these directions while on our unit to help prevent further transmission of this infection:

1. Perform hand hygiene properly, for 15 seconds, with alcohol-based hand rub or soap and water. There are 4 moments of hand hygiene we ask of you.

   **Moment 1:** When entering and exiting the hospital

   **Moment 2:** When entering and exiting the nursing unit and the client room

   **Moment 3:** Helping a client eat their meal

   **Moment 4:** Before and after helping with toileting or diaper change

Remember to clean your hands before eating and after using the bathroom, coughing/sneezing and blowing your nose.

**How to clean your hands:**

![Handwashing Instructions Diagram]
2. Only meet with one client per hospital visit.
   - Hospitals are full of germs and when there is an outbreak of a contagious germ we want to make sure it is not being spread. By only meeting with 1 client during your hospital visit this helps to prevent possible spread to the other clients.

3. Visitors are restricted to 2 people at a time.
   - The space between clients is small and when there are more than 2 visitors at the bedside it is easy to accidentally touch the curtain or other furniture of another client. This can spread germs from that client to your loved one or from your loved one to that other client.
   - Other visitors are encouraged to find a comfortable spot in the lounge to wait their turn to visit.
   - There may be individual circumstances that would allow for more than 2 at a time. Please discuss this with the nurse.

4. Avoid bringing children to visit when possible.
   - Children find it hard to sit still and like to explore their surroundings. When they wander and explore (even close to where you are visiting) they can very easily come into contact with germs from other clients. These germs can then be spread to everything else they touch and spread infections.

5. If you are ill, please delay your visit until you are well.
   - Clients in the hospital are more at risk of catching other infections. If you are not feeling well you may accidentally give it to your loved one.
   - If your loved one may pass away before you are well, please ask the nurse about what personal protective equipment you should wear to protect others from your germs.
   - Example: Wear a mask if you have a cold and be sure to practice hand hygiene blow your nose.

6. Avoid setting your belongings on the client bed.
   - There are lots of germs in the hospital. If you place your belongings on the bed your belongings become contaminated with germs. You then take these germs home with you and can make you and others in your home ill.
   - You may also have germs on your belongings and transfer those germs that were already on your belongings onto the client’s bed. Then they may become sick from these germs as well.
   - Do not sit or lay on the client bed. Similar to not putting your belongings on the bed, we ask that you not sit or lay on the bed to help stop the spread of germs. We have provided chairs for your visit and will find you one if you do not have what you need.
What is West Nile Virus?

West Nile virus (WNV) is a virus that primarily infects birds, although it has been found in other mammals such as horses and bears. Human cases are becoming more common. When humans become infected with the virus, they usually experience mild, flu-like illness that resolves on its own. Occasionally, particularly in the elderly, this develops into encephalitis.

How is it transmitted?
Infected mosquitoes spread West Nile Virus. There is no person-to-person spread, or animal-to-person spread. There is no evidence of anyone getting WNV from handling infected carcasses, however it is always recommended that gloves be worn to handle any dead bird or animal remains, to prevent acquisition of other types of infection.

What are the symptoms of West Nile?

Most infections are mild and symptoms include the sudden onset of fever, headache and general body aches, nausea and/or vomiting, occasionally a skin rash on the trunk of the body and swollen lymph glands. These symptoms generally last 3-6 days.

More severe infection may be marked by headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, paralysis and, rarely, death. The incubation period for West Nile Virus encephalitis is usually 3-14 days.

The long-term effects of serious cases are not fully understood, but studies to date show that prolonged health problems are possible. These can include physical effects (long-term muscle weakness and paralysis, fatigue, and headache), cognitive effects (confusion, depression, problems with concentration, and memory loss), and/or functional effects (difficulty with preparing meals, going out, shopping).

Although individuals with weaker immune systems are at greater risk for serious health effects, WN virus can cause severe complications for people of any age and health status. This is why it is important to reduce your risk of becoming infected.

What can I do?

Your chance of being bitten by a mosquito capable of spreading West Nile virus is small. However, if there are reports of infected mosquitoes, infected horses or dead birds in your area, you should take immediate action to minimize your risk of mosquito bites.

- Limit the time you spend outdoors at dawn and dusk, when mosquitoes are most active.
- Wear light-colored long-sleeved shirts, long pants, and a hat when outdoors.
- Use insect repellents. Read and follow the manufacturers’ directions for safe use.
- Make sure that door and window screens fit tightly and have no holes.

You can also take steps to reduce mosquito populations around your home and property. Mosquitoes need standing pools of water to breed, so remove standing water from such items as pool covers, saucers under flower pots, pet bowls, and wading pools. Empty and clean bird baths twice a week. Also, clean eaves troughs regularly to prevent clogs that can trap water.