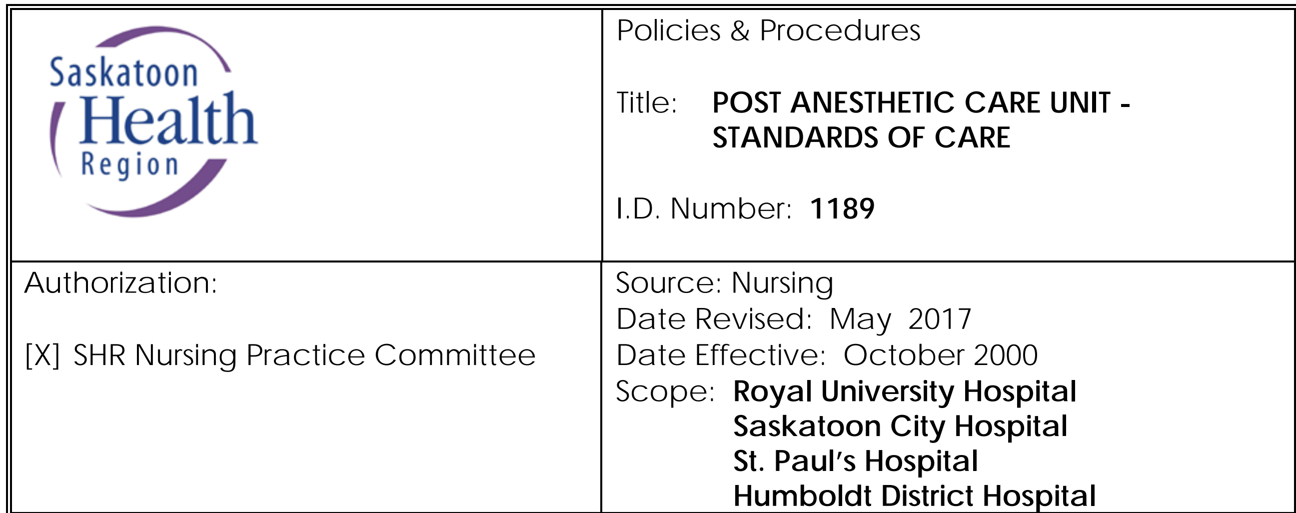

Saskatoon Health Region	Policies & Procedures Title: **POST ANESTHETIC CARE UNIT - STANDARDS OF CARE** I.D. Number: **1189**
Authorization: [X] SHR Nursing Practice Committee	Source: Nursing Date Revised: May 2017 Date Effective: October 2000 Scope: **Royal University Hospital** **Saskatoon City Hospital** **St. Paul's Hospital** **Humboldt District Hospital**

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1. PURPOSE

1.1 To ensure the provision of safe client care in Post Anesthetic Care Unit (PACU).

2. POLICY

2.1 All nursing staff in the PACU will adhere to PACU Standards of Care and will have received specific orientation and training in the care of Post Anesthetic client's.

2.2 All clients at Humboldt District Hospital (HDH) are to be extubated and stabilized in the Operating room prior to being transferred to PACU.

2.3 The Aldrete Scoring System will be applied. Refer to policy Discharge from Post Anesthetic Care Unit # 1188.

2.4 All monitor alarms will be enabled and set according to client's condition.

3. PROCEDURE

3.1 Alarms

3.1.1 Respiratory rate range and continuous monitoring alarms must be documented on PACU Record #101148 on admission and with changes.

3.2 Respiratory

3.2.1 Airway and Breathing

3.2.1.1 All clients with artificial airways (oral, nasopharyngeal, endotracheal, tracheostomy, laryngeal mask airway) will be nursed 1:1 while the airway is in situ.

3.2.1.2 Initial Respiratory rate to be assessed with hand on client's chest.

3.2.1.3 Respiratory rate, depth, quality and effort will be assessed on admission, q15 minutes and as clinically indicated.

3.2.1.4 Chest auscultation must be performed on all intubated (endotracheal or tracheostomy) clients on admission and when clinically indicated.

3.2.1.5 All supraglottic airways including: oropharyngeal / nasopharyngeal / laryngeal mask airways will be removed as soon as laryngeal and pharyngeal reflexes return and adequate muscle tone has returned.

3.2.1.6 Endotracheal tubes (ETT) / nasotracheal tubes will be cared for in accordance with the current SHR Endotracheal Tubes – Care of Policy #1176. Tracheostomies will be cared for in accordance with SHR Tracheostomy Care Policy #1184.

3.2.1.7 Criteria for extubation as per policy Endotracheal Tubes – Extubation #1162 must be met. Two trained personnel (see 3.2.5.3) must be in PACU to extubate client with ETT.

3.2.1.8 All clients' airways will be kept patent using jaw thrust, chin lift and/or oropharyngeal or nasopharyngeal airway, as clinically indicated in accordance with SHR Policies Airway - Nasopharyngeal # 1064 and Airway - Oropharyngeal # 1159.

3.2.1.9 If Client's require suctioning, it must be done in accordance with SHR Policy Suctioning Adult Client's with Artificial Airway #1019

***Note**: Use caution when suctioning pediatric clients due to risk of laryngospasm (Suctioning Pediatric/Neonate Client's Non-Ventilated with Tracheostomy # 1056).*

3.2.2 Pulse Oximetry

3.2.2.1 Continuous measurement of O_2 saturation (SpO_2) must be performed on all clients.

3.2.3 Capnography ($ETC0_2$)

3.2.3.1 Measurement of $ETCO_2$ as per direction of Anesthesiologist

3.2.4 Oxygen Therapy

3.2.4.1 Unless otherwise ordered by the physician, oxygen will be applied in order to maintain the client's oxygen saturation greater than or equal to 92% on room air or greater or equal 94% on supplemental oxygen, with minimum age appropriate respiratory rate.

3.2.5 Mechanical Ventilation

3.2.5.1 Clients requiring mechanical ventilation must have mode, $Fi0_2$, rate, tidal volume and alarms initially set by Anesthesiologist / Registered Respiratory Therapist (RRT), Anesthesia Assist (AA) and adjusted as per physician's orders in consultation with the RRT/AA.

3.2.5.2 Clients will be weaned as per Anesthesiologist's orders.

3.2.5.3 There must be two trained personnel present in the unit while the client is mechanically ventilated:
i.e. 2 RNs
1 RN, 1 RRT
1 RN, 1 AA
1 RN, 1 Anesthesiologist or designate immediately available.

Note: *If at any time there are concerns with the ventilator, remove client from the ventilator and oxygenate client with Manual Ventilation Device (MVD) and page Anesthesia or RRT/AA.*

3.2.6 Positioning

3.2.6.1 Position client to ensure proper body alignment, promote cardiovascular and respiratory homeostasis, related to their surgical procedure.

3.2.6.2 If there is an airway in place, the client will be nursed supine in order to monitor position of airway.

3.2.6.3 Elevate head of bed for all clients to aid in respiratory function, unless contraindicated (for example, spinals).

3.2.6.4 Frequent repositioning of Client's at least Q1H is essential to prevent atelectasis and peripheral stasis if not contraindicated by surgery.

3.2.7 Deep Breathing

3.2.7.1 Encourage deep breathing q 15-30 minutes.

3.3 **Cardiovascular**

3.3.1 Blood Pressure and Pulse

3.3.1.1 Assess blood pressure, pulse rate and regularity on admission and q 15 minutes or more frequently as clinically indicated.

3.3.1.2 Assess blood pressure on pediatric clients as per Anesthesiologist requests.

3.3.2 Temperature

3.3.2.1 Record temporal artery temperature or oral temperatures on all clients on admission and discharge and prn.

3.3.2.2 Temperature to be maintained in the normothermia range of 36.0˚C to 38.0˚C

3.3.2.3 Warm blankets will be applied to all clients on admission for comfort and as required.

3.3.2.4 Apply forced warm air heating when oral / temporal artery temperature is less than 36.0˚C. Temperature will be monitored q 15 minutes as per policy Hypothermia (Mild) Treatment – Use of Warming System #1084.

3.3.2.5 A temperature of 36.0˚C needs to be maintained for 15 minutes x 2 after discontinuation of warmer.

3.3.3 Cardiac Monitor

3.3.3.1 Cardiac monitoring will be initiated on all Client's 17 years of age or older, as ordered, or when clinically indicated. Cardiac monitoring will only be done on pediatric clients if ordered or clinically indicated.

3.3.3.2 A cardiac rhythm strip will be analyzed, interpreted and attached to the PACU Record (SCH, SPH) or included in the chart (RUH) on admission and with changes.

3.3.4 Central Venous Line, Arterial Pressure Monitoring

3.3.4.1 Invasive Arterial Blood Pressure monitoring will be done on all clients with arterial lines in situ and documented q 15 minutes in red ink.

3.3.4.2 Central venous pressure will be monitored as ordered and documented q 15 minutes in red ink.

3.3.4.3 Care of central venous lines and arterial lines as per policies:

- Central Venous Catheters – insertion – Assisting # 1073
- Central Venous Catheters – short term, tunneled, implanted - Care of: #1086
- Central Venous Catheters Care of Peripherally Inserted Central Catheters (PICCs) # 1001
- Central Venous Catheters – Blood withdrawal # 1042
- Central Venous Catheters – implanted ports (central and peripheral) – accessing and discontinuing access #1032
- Central Venous Catheters (Short Term) Removal # 1058
- Central Venous Catheters – PICC Removal # 1003
- Hemodynamic Monitoring – Arterial Line – Adult: Assisting with Insertion, Invasive site care, Blood sampling, Removal # 1092
- Hemodynamic Monitoring – Setting up of Invasive Pressure Monitoring Lines – Adult #1033

3.3.5 Intravenous Therapy

3.3.5.1 Infuse all intravenous fluids at the ordered rate.

3.3.5.2 The solution infusing on admission will be continued unless otherwise ordered.

3.3.5.3 If medication infusion is prescribed and infusing, refer to Saskatchewan Smart IV Pump - IV Monographs regarding medication administration. All medication infusions must be on an IV pump (for example phenylephrine).

3.3.6 Neurovascular

3.3.6.1 Neurovascular assessment will be performed on admission and q15 minutes on all clients having vascular surgery or a surgical procedure performed on a limb, face/neck or back. This includes assessment of distal pulse, sensation, color, temperature, capillary refill and movement.

3.3.7 Intake & Output

3.3.7.1 All fluid intake and output will be monitored as ordered and as clinically indicated. Operative fluids intake and fluid losses will be documented on the PACU record.

3.3.8 Surgical Site and Closed Drainage Systems

3.3.8.1 Surgical Site will be assessed on admission and q 15 minutes and more frequently when clinically indicated if the site is readily accessible. For posterior dressings, these should be assessed on admission and q 30 minutes and as clinically indicated.

3.3.8.2 Dressings will be reinforced prn and the initial dressing should be changed only per physician's order.

3.3.8.3 Closed wound drainage systems will be assessed for patency, drainage characteristics and amount of drainage on admission, q 15 minutes, and prn.

3.3.8.4 Measure and record all drainage prior to discharge and prn.

3.4 **Genitourinary**

3.4.1 Urinary catheters

3.4.1.1 Assess urinary drainage systems for patency and drainage characteristics on admission and q 15 minutes. Measure and record urinary output hourly unless client has a continuous bladder irrigation (CBI).

3.4.1.2 Measure and record all drainage as ordered and prior to discharge.

3.5 **Gastrointestinal**

3.5.1 Clients may have sips of water, ice chips or popsicles if pharyngeal reflexes have returned and if not contraindicated.

3.5.2 Nasogastric (NG)/Orogastric (OG) tubes will be cared for as per Policy Nasogastric Orogastric Tube-Insert, care of, removal #1040. These tubes must only be inserted, irrigated or removed as per physician's order. NG/OG should be assessed for patency, drainage characteristics, and amount of drainage on admission and prn.

3.5.3 The level of insertion of NG/OG/enteral feeding tubes will be documented in nursing notes as per policy Nasogastric Orogastric Tube-Insert, care of, removal #1040.

3.5.4 Nasogastric drainage will be measured and recorded as indicated.

3.6 **Neurological/Neuromuscular**

3.6.1 General Anesthesia

3.6.1.1 Level of consciousness will be assessed on admission, q 15 minutes and prn by using verbal or non-painful stimuli.

3.6.1.2 Neuromuscular function will be assessed on admission, q 15 minutes and prn.

3.6.1.3 Unexpected/unexplained neuromuscular weakness will be reported to the anesthesiologist.

3.6.2 Spinal / Epidural Anesthesia

3.6.2.1 Sensory level (dermatome) will be assessed bilaterally on admission and q 15 minutes using ice using caudal to cephalic approach.

3.6.2.2 The client will be positioned in proper alignment for safety and comfort. The head of the bed may be raised once the client is hemodynamically stable.

3.6.3 IV Regional Anesthetic & Axillary Nerve Blocks

3.6.3.1 Neurovascular check will be completed on admission and q 15 minutes. This includes distal pulse check, sensation, temperature, capillary refill and movement of the affected limb.

3.6.3.2 Affected limb will be maintained in good alignment and free from pressure points.

3.7 **Safety**

3.7.1 The unconscious or intubated client shall have a nurse: client ratio of 1:1.
The conscious pediatric client (8 years of age and under)shall have a nurse: client ratio of 1:1

3.7.2 Side rails will be raised unless direct client care is being given.

3.7.3 Wheels of stretchers/beds will be in locked position.

3.7.4 All client monitor alarms will be initiated and documented upon admission and individualized to the specific client.

3.7.5 Independent double checks will be completed on all high alert medications as per the policy: High Alert Medications – Identification, Double Check And Labeling 7311-60-020.

3.8 **Pain Management**

3.8.1 Pain assessment using a validated pain assessment rating scale appropriate to client's cognitive and communication ability will be done q 15 minutes. Location, severity, quality of pain and degree of sedation will be assessed using pain scale 0 – 10 or age-appropriate scale (see Appendix A).

3.8.2 The effect of analgesic medication will be assessed following administration.

3.8.3 Prior to administration of medication, clients will be assessed for medication allergies.

3.8.4 The amount of analgesia given will be assessed in terms of pre-medication, intra-operative analgesia, client's weight and the severity, quality and location of the client's pain.

3.8.5 Clients must remain in PACU until their pain is controlled and tolerable.

3.8.6 All clients will be positioned to achieve maximum pain relief whenever possible.

3.8.7 All clients will be monitored as per the specific monograph in the Saskatchewan Smart IV Pump - IV Monographs.

3.8.8 All clients with continuous analgesic infusions (i.e. patient controlled analgesia, epidural analgesia, peripheral nerve block) will be monitored as per corresponding policies. See Patient Controlled Analgesia Policy #1053, Epidural / Intrathecal Analgesia Policy #1047, and Peripheral Nerve Block Policy #1072.

3.9 **Psychological**

3.9.1 Protect the client's privacy and modesty whenever possible.

3.9.2 Provide reassurance and emotional support. The client will be frequently orientated to place, time and completion of surgery.

3.9.3 The client will be covered with a clean, dry gown and warm blanket.

3.9.4 Appropriateness for family visitation is based upon client status, client wishes, and activity in the unit and nurse's ability to provide time with the client and family member(s).

3.9.4.1 Pediatric clients will be allowed one family member or care giver in PACU once awake and stable.

3.10 **Documentation/Scoring**

3.10.1 The PACU Record (#101148) and other appropriate SHR records will be used for documenting all client care in PACU.

3.10.2 Minimum required charting for initial assessment in PACU Record progress notes will include: client state of consciousness, position, if artificial airway is in place, supplemental oxygen, pain scale, description of dressing/surgical site, drains and drainage, IV fluids, infusing medications, dermatomes, and appropriate pulses, color and sensation.

3.10.3 All assessments will be documented q 15 minutes and prn unless otherwise indicated. These include:

- Temperature (on admission, discharge, and prn)
- Blood pressure – noninvasive and / or invasive
- Central venous pressure
- Pulse
- Respiratory rate
- SpO_2, time artificial airway / oxygen was discontinued, flow rate of oxygen on transfer to ward
- $ETCO_2$
- Pain scale / Aldrete score
- Surgical site / dressing
- Dermatomes bilaterally
- Neurovascular checks
- Urinary output (q1h)
- Warming device on admission and prn

3.10.4 Severity of pain will be documented using 0-10 Pain Scale q 15 minutes and prn (see Appendix A).

3.10.5 When administering analgesics location and quality of pain, and effect of analgesic medication will be documented.

3.10.6 Document reason why antiemetic/sedation medication is given and the effect of the medication.

3.11 **Transfer**

3.11.1 All clients transferred from PACU will be accompanied by an RN. A unit support worker may also be necessary.

3.11.2 Upon completion of transfer, all clients will have a call bell within reach.

3.11.3 Oxygen therapy will be maintained as required.

3.12 **Report**

3.12.1 The PACU RN will provide a verbal report to the receiving unit RN/LPN. The report will include:

- Client's name and age
- Client's pertinent history: allergies, precautions, surgeries, hospitalizations, medical history and physical limitations
- Surgeon's name and procedure performed
- Type of anesthesia/sedation, preoperative and intraoperative medications
- Unusual events during procedure
- Level of consciousness/orientation
- Vital signs, including temperature
- Status of dressings/surgical site, drainage tubes (i.e.: ICP drains)
- Medications given and effects
- All pain management interventions(i.e.: PCA/PCEA pump settings), effects, present pain score
- History of recent opioid use or requirement/tolerance
- Previous comfort measures, comfort status (e.g. post op nausea and vomiting)
- Total of intake and output in OR and PACU:
    - Estimated blood loss and fluid replacement
    - Amount and type of IV fluids infused and amount to be absorbed
- Tests and treatments performed (labs, x-rays, aerosols, etc.)
- Other assessment findings (e.g., breath sounds, neurovascular status, abdominal distention, bowel sounds)
- Review of postoperative orders
- Valuables/sensory aids disposition
- Social support (family, significant others, caregivers)

3.12.2 A phoned or verbal report will be given to the receiving Unit RN/LPN when the client is transferred from one acute care site to another.

4. REFERENCES

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Appendix A

Pain Measurement Tool

PAIN INTENSITY SCORES

- Age **8+**: Start with (A). If it doesn't work use (B). If that doesn't work use (C).
- Age **4+**: Start with (B). If it doesn't work use (C).
- If the child is term birth to 3 years, or unable to give self-report, use (C).

P rovokes – What makes it worse? What makes it better?
Q uality – What does it feel like? Describe the pain.
R adiates – Where is the pain? Does it go anywhere else?
S everity – Use a scale below to give a 0-10 score.
T ime – When did it start? How long has it lasted?
micunursing.com/pain.htm

(A) Self-report for verbal patients 8 years and up: Verbal Numerical Scale (VNS)

www.usask.ca/childpain/NRS

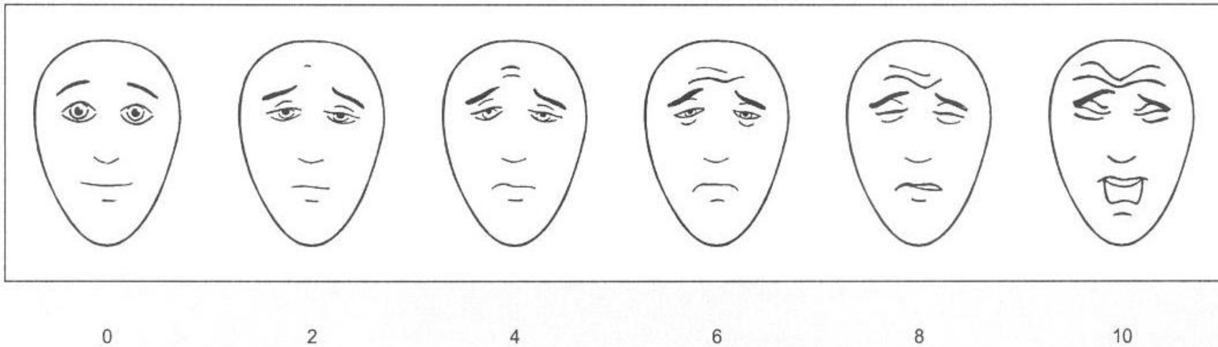
I'd like you to tell me a number from 0 to 10 to show how much it hurts right now (how much hurt or pain you have). 0 would be no pain or no hurt at all. 10 would be the most hurt or the worst hurt you could have.

(For patients who need a simpler verbal self-report scale: "no pain"=0 "mild"= 1-3 "moderate"= 4-7 "severe"= 8-10)

(B) Self-report for age 4 years and up: Faces Pain Scale – Revised (FPS-R)

www.painsourcebook.ca

These faces show how much something can hurt. This face [point to left-most face] shows no pain. The faces show more and more pain [point to each from left to right] up to this one [point to right-most face] – it shows very much pain. Point to the face that shows how much you hurt [right now].



0 2 4 6 8 10

(C) Observation for infants up to adolescents: FLACC

www.childcancerpain.org/content.cfm?content=assess08

Sum the five scores to produce a score from 0 to 10

Criteria	Score 0	Score 1	Score 2
Face	No particular expression or smile	Occasional grimace or frown, withdrawn, uninterested	Frequent to constant quivering chin, clenched jaw
Legs	Normal position or relaxed	Uneasy, restless, tense	Kicking, or legs drawn up
Activity	Lying quietly, normal position, moves easily	Squirming, shifting back and forth, tense	Arched, rigid or jerking
Cry	No cry (awake or asleep)	Moans or whimpers; occasional complaint	Crying steadily, screams or sobs, frequent complaints
Consolability	Content, relaxed	Reassured by occasional touching, hugging or being talked to, distractible	Difficult to console or comfort

CL von Baeyer 20 Apr 2011 C:\Users\Carl\Documents\pediatrics\2010-simplsys\pain-scales-all-ages-1-page-for-ward-color.doc

Appendix B

SASKATOON HEALTH REGION
Saskatoon, Saskatchewan

Guide for Using Pain and Sedation Assessment Tools

If patient is non-verbal, has dementia, or has communication barriers that prevent self-report, use behavioral assessment tool like the PAINAD.

Behavioral Tool – PAINAD

Behavior	0	1	2
Breathing	Normal	-Occasional labored breathing -Short period of hyperventilation	- Noisy labored breathing - Long period of hyperventilation - Cheyne-Stokes respirations
Negative vocalization	None	- Occasional moan or groan - Low level speech with negative or disapproving quality	- Repeated troubled calling out - Loud moaning or groaning - Crying
Facial expression	Smiling or neutral	- Sad, frightened, frown	-Facial grimace
Body language	Relaxed	- Tense, distressed pacing, fidgeting	-Rigid, fists clenched, knees pulled up, pushing or pulling away, striking out
Consolability	No need to console	- Distracted or reassured by voice or touch	-Unable to console, distract or reassure
Total Score (of all 5 behaviors)			**/10**