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|  | Policies and Procedures Title: PAIN MANAGEMENT – PEDIATRIC CARE I.D. Number: 1045 |
| Authorization: [X] SHR Interprofessional Practice Pediatric Pain Management Committee [X] SHR Nursing Practice Committee | Source: Nursing Cross Index: Date Revised: May 2012 Date Effective: February 2002 Scope: Royal University Hospital Saskatoon City Hospital St. Paul’s Hospital Rural, LTC & Saskatoon Home Care |

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1. PURPOSE

- 1.1 To optimize the prevention, assessment and management of pain in children.
- 1.2 To make pain management a collaborative effort consisting of all members of the healthcare team, the patient and the patient’s family.
- 1.3 To educate health professionals, patients and families as a crucial aspect of pain assessment, prevention and management.
- 1.4 To provide the best pain management include pharmacological, psychological and physical methods.
- 1.5 To provide pain management evidence based guidelines and maintain individuality for each patient.
- 1.6 To prevent pain when possible. Pain is better prevented than treated. Requirements for analgesics are lower if children are pretreated before painful experiences.
- 1.7 To identify types of pain that children may experience:
 - 1.7.1 Procedural pain such as injections, blood draws, heel pokes, IV starts, splinting, dressing changes, catheterization, sutures, NG insertion.
 - 1.7.2 Pain related to acute/chronic disease such as cancer pain, cerebral palsy, meningitis.
 - 1.7.3 Pre and post-operative pain.
 - 1.7.4 Recurrent and chronic pain such as abdominal, headache and musculoskeletal.
 - 1.7.5 Palliative Care such as “end of life” and chronic disease.

2. POLICY

2.1 Pain Assessment

- 2.1.1 Regular pain assessment is a standard of care and will be incorporated into all healthcare interactions and interventions using an evidence informed, developmentally – appropriate process and documented in the patient record.
- 2.1.2 Child’s pain can be influenced by cultural beliefs, past experiences and caregiver’s coping strategies/responses to pain
- 2.1.3 Every patient will have a pain assessment:
 - at time of health care interaction and/or time of admission
 - with vital signs
 - when the patient is at risk for pain and/or receiving pain management interventions
- 2.1.4 Pain will be reassessed within one hour of a pain management intervention and reassessment will continue q4h or more often until the pain relief goal is achieved.
- 2.1.5 Unrelieved pain should be brought to the attention of the interdisciplinary team.

2.2 Pain Classification

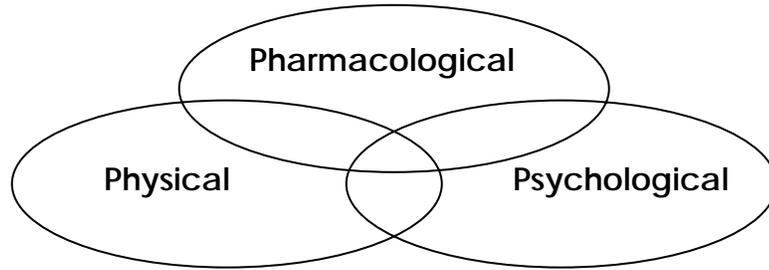
- 2.2.1 Acute pain is of sudden onset, is felt immediately following injury, is severe in intensity, but is usually short – lasting. It arises as a result of tissue injury stimulating nociceptors and generally disappears when the injury heals.
- 2.2.2 Chronic pain is continuous or recurrent pain that persists beyond the normal time of healing. Chronic pain may begin as acute pain and persists for long periods or may recur due to a persistence of noxious stimuli or repeated exacerbation of an injury. Chronic pain may also arise and persist in the absence of medical illness. Chronic pain can negatively affect all aspects of daily life.

3. PROCEDURE

3.1 Methods of Pain Assessment

- 3.1.1 Pain assessment must be multidimensional using self-report when possible, family perceptions and health care provider observations of behavioral and physiologic signs of pain depending on the age/cognitive state of the child and/or communication capabilities (see Appendix A).
- 3.1.2 Pain Rating Scale Tool
 - 3.1.2.1 Use developmentally appropriate scoring tool (see Appendix B and C)
 - 3.1.2.2 Consistent use of a pain tool promotes better continuity of care and allows for more accurate tracking of pain over time.
 - 3.1.2.3 Same pain scale should be used consistently by all healthcare providers caring for that child. Type of pain rating scale used must be documented.
- 3.1.3 Develop pain management plan with interdisciplinary health care team, patient and family incorporating:
 - Pain assessment findings and identified pain goals
 - Etiology of pain

- Maximum pain treatment for first procedure to reduce anxiety and pain
- Treatment strategies – 3 P’s approach (pharmacological, psychological and physical)



3.2 Pain Management – Pharmacological Strategies

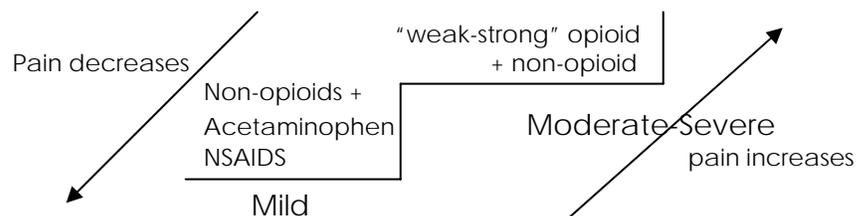
3.2.1 Analgesics should be given based on four principles:

- by the ladder (World Health Organization Analgesia Ladder)
- by the clock
- by appropriate route
- by the child

3.2.1.2 By the ladder:

- Used as a guide for using analgesic treatments in two steps according to the child’s level of pain severity
- Analgesics are “stepped” according to pain severity: mild, moderate to severe pain. Analgesic agents should match the severity of the pain and increase/decrease progressively.
- Use of more than one class of analgesic (e.g. acetaminophen + NSAID) promotes better pain relief, may reduce opioid requirements and helps to minimize side-effects
- Mild Pain Step 1: Simple Analgesics (non-opioid)
 - Topical anesthetics
 - Non-opioids/NSAIDS (oral)
 - Tricyclic antidepressants, anticonvulsants (gabapentin) for neuropathic pain
- Moderate to Severe Pain: Step 2 Strong Opioid:
 - Opioids (morphine, oxycodone)

WHO Analgesia Ladder



3.2.1.3 By the Clock (scheduled)

- Give analgesic regularly for pain that is expected to be constant (e.g. post-op).
- Analgesics should be ordered and given as scheduled medications (“around the clock”). PRN dosing should be used for breakthrough pain only (e.g. pre-ambulation, pre-procedures).

- 3.2.1.4 By the appropriate route: use the least invasive route
 - Oral route when possible
 - IM is not acceptable
- 3.2.1.5 By the child: ongoing assessment, adjustment and evaluation allow for individualization of the pain management plan.
- 3.2.2 Prescribing Guidelines
 - 3.2.2.1 Pediatric Drug Dosage Guidelines (see Appendix D) – a guide for prescribing commonly used analgesic medications according to safe dose range, route and interval for children one month of age and children up to 50 kg in body weight. Children weighing greater than 50 kg should receive “adult doses”
 - 3.2.2.2 Commonly used analgesics – Nurses are expected to have a good understanding of analgesics commonly used in pediatrics. The nurse is required to know which medications are most appropriate and the frequency with which they should be administered:
 - **Acetaminophen**
 - Most commonly used medication for treatment of mild pain
 - Common side-effects are minimal and rare in the normal prescribed dose
 - These drugs have a “ceiling effect” which means that escalating the dose above the recommended dosage does not provide additional analgesia
 - **NSAIDs** (non-steroidal anti-inflammatories)
 - For treatment of mild to moderate pain. They act on the peripheral nervous system to provide pain
 - Can be used as co-analgesics
 - Common side effects include GI irritation/upset and antiplatelet effects contributing to some bleeding tendencies
 - These drugs have a “ceiling effect” which means that escalating the dose above the recommended dosage does not provide additional analgesia
 - **Opioids**
 - For treatment of moderate to severe pain. They act on the central nervous system to provide pain relief
 - Treatment of opioid side effects such as nausea, vomiting and pruritus is imperative so that adequate pain management is not compromised
 - Constipation is another common side-effect. Patients receiving opioids for 2-3 days or greater should be closely monitored for constipation and will require stool softeners
 - **Local Anesthetics**
 - Topical anesthetics should be used for all skin-breaking procedures including, but not limited to, venipuncture, IV starts, lumbar puncture, skin biopsies and bone marrow
 - Topical analgesics can be used for chronic pain
 - **Adjuvants** – medication which has a primary indication other than pain, but is analgesic in some painful conditions
 - Anticonvulsants (gabapentin) tricyclic antidepressants (amitriptyline), clonidine are important in the treatment of neuropathic pain
 - Benzodiazepines may be helpful for the treatment of painful muscle spasms
 - Anticholinergics may be used for bladder and smooth muscle spasms (buscopan, oxybutynin)

- Anxiolytics to relieve anxiety (lorazepam, diazepam)
- Oral Sucrose 24% (infants up to 12 months of age) for minor procedural pain and invasive procedures (Sucrose solution for infant/pediatric Procedural Pain Management Policy #1102)
- Topical analgesics can be used for chronic pain

3.2.3 Pain Management Technologies

- PCA (Policy #1053)
- Epidural (Policy # 1007)
- Peripheral Nerve Block (Policy #1072)
- Procedural Sedation/Analgesia Guidelines – Pediatric (Policy #1121)

3.3 Pain Management – Physical Strategies

3.3.1 Physical comfort measures

3.3.1.1 Use of physical strategies in conjunction with pharmacological and psychological strategies can promote lower levels of anxiety, distress and pain (see algorithm for examples)

3.3.2 Complementary Alternative Therapies in consultation with the medical team:

- Acupuncture
- Reiki

3.4 Pain Management – Psychological Strategies

3.4.1 Use developmentally appropriate psychological comfort measures

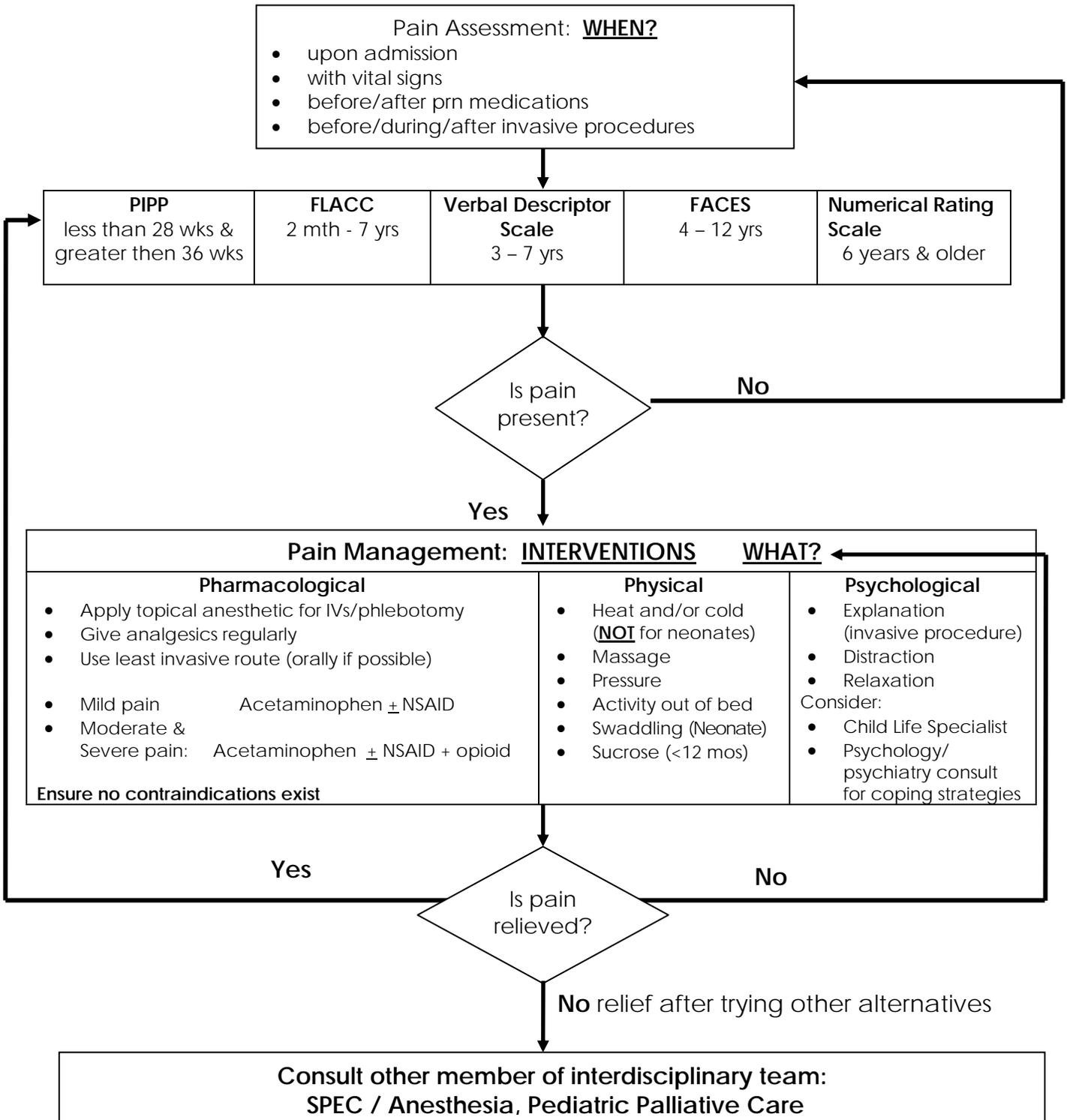
3.4.1.1 Use of psychological strategies in conjunction with pharmacological and physical strategies can promote lower levels of anxiety, distress and pain (see algorithm for examples)

3.5 Implementation of Pain Management

3.5.1 Potential health benefits for patients:

- Improved assessment of pain on admission and throughout hospitalization using standardized measures
- Improved pain management of acute, procedural and chronic pain
- Patients and families will be partners in their pain management plan
- Improved communication with families with families about pain assessment and management
- Earlier discharge from hospital and good pain management at home
- Reduced risk of developing chronic pain

Algorithm – Pain/Assessment and Management of the Child



Algorithm based on the Hospital for Sick Children’s Pain Assessment Policy and the Pain Management Clinical Practice Guideline

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Appendix A

Developmental Differences of Children According to Age

| Developmental Group | Expression of Pain | Working with Children |
|------------------------------|--|--|
| Infants | May: <ul style="list-style-type: none"> • Exhibit body rigidity or thrashing, may include arching • Exhibit facial expression of pain (brows lowered and drawn together, eyes tightly closed, mouth open and squarish) • Cry intensely, loudly • Be inconsolable • Draw knees to chest • Exhibit hypersensitivity or irritability • Have poor oral intake • Be unable to sleep | <ul style="list-style-type: none"> • Allow a pacifier • Use a quiet soothing voice • Touch, rock, cuddle • Keep infant warm • Positions of comfort during procedures • Remember that infants experience pain |
| Toddlers | May: <ul style="list-style-type: none"> • Be verbally aggressive, cry intensely • Exhibit regressive behavior or withdraw • Exhibit physical resistance by pushing painful stimulus away after it is applied • Guard painful area of body • Be unable to sleep | <ul style="list-style-type: none"> • Positions of comfort during procedures • Keep frightening objects out of line of vision • Provide concrete feedback - "good job" • Allow child to have their doll, blanket, toy |
| Preschoolers/ Young Children | May: <ul style="list-style-type: none"> • Verbalize intensity of pain • See pain as punishment • Exhibit thrashing of arms and legs • Attempt to push stimulus away before it is applied • Be uncooperative • Need physical restraint • Cling to parent, nurse or significant other • Request emotional support (e.g. hugs, kisses) • Understand that there can be secondary gains associated with pain • Be unable to sleep | <ul style="list-style-type: none"> • Positions of comfort during procedures • Explain procedure just beforehand • Talk throughout procedure • Distract with noise ie. counting • Use positive terms |
| School-Age Children | May: <ul style="list-style-type: none"> • Verbalize pain • Use an objective measurement of pain • Experience nightmares related to pain • Exhibit stalling behaviors (e.g. "Wait a minute") • Have muscular rigidity such as clenched fists, gritted teeth, contracted limbs, body stiffness, closed eyes or wrinkled forehead • Be unable to sleep | <ul style="list-style-type: none"> • Offer simple choices to help child feel more in control • Positions of comfort during procedures • Allow questions • Address child's fears • Give rewards, i.e. sticker |
| Adolescents | May: <ul style="list-style-type: none"> • Localize and verbalize pain • Deny pain in presence of peers • Have changes in sleep patterns or appetite • Be influenced by cultural beliefs • Exhibit muscle tension and body control • Display regressive behavior in presence of family • Be unable to sleep | <ul style="list-style-type: none"> • Positions of comfort during procedures • Preserve modesty • Provide opportunity for questions • Listen to concern • Explain procedure carefully and allow choices |

Appendix B

Premature Infant Pain Profile (PIPP)

The PIPP is a bio-behavioural observational tool for acute and procedural pain

Population – full and preterm neonate.

See below for instructions:

| Procedure | Indicators | 0 | 1 | 2 | 3 | Score |
|--|---------------------------------|---|---|---|--|-------|
| | GA in weeks | ≥ 36 weeks | 32-35 weeks and 6 days | 28-31 weeks and 6 days | < 28 weeks | |
| Observe infant for 15 sec prior to event | Behavioral state | Active Awake Opened eyes Facial movement | Quiet Awake Opened eyes No facial movement | Active Sleep Closed eyes Facial movement | Quiet Sleeping Closed eyes No facial movement | |
| Record HR _____ | Heart Rate | ↑ 0-4 bpm | ↑ 5-14 bpm | ↑ 15-24 bpm | ↑ ≥ 25 bpm | |
| Record SpO ₂ _____ | O₂ Saturation | ↓ 0-2.4% | ↓ 2.5-4.9% | ↓ 5-7.4% | ↓ ≥ 7.5% | |
| Observe infant for 30 sec immediately after event | Frowned Forehead | Absent | Minimal | Moderate | Maximal | |
| | Eyes Squeezed | Absent | Minimal | Moderate | Maximal | |
| | Nasolabial furrow | Absent | Minimal | Moderate | Maximal | |
| TOTAL | | | | | | |

Steven, B, Johnston, C., Petroschen, P. et al: Premature Infant Pain Profile: development and initial validation, *Clinical Journal of Pain*, 1996; 12: 13-22.

Scoring Method for the PIPP

1. Familiarize yourself with each indicator and how it is to be scored by looking at the measure.
2. Score gestational age (from the chart) before you begin.
3. Score behavioral state by observing the infant for 15 seconds immediately before the event. See below a description of each behavioral state.
4. Record baseline heart rate and oxygen saturation.
5. Observe the infant for 30 seconds immediately after the event. You will have to look back and forth from the monitor to the infants face. Score physiological and facial action changes seen during that time and record immediately after the observation period.
6. Calculate the final score.

Scores range from 0-21:

- 0-6 absent or mild pain
- 7-13 mild to moderate pain
- 13-21 moderate to severe pain

Appendix C

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

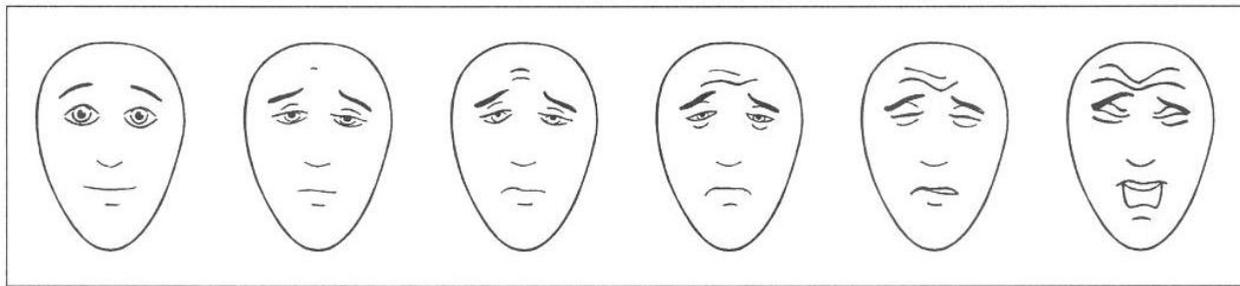
(A) Self-report for verbal patients 8 years and up: Verbal Numerical Scale (VNS) www.usask.ca/childpain/NRS

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 |

Appendix D



PEDIATRIC ANALGESIC DRUG DOSAGE GUIDELINE



Age: 1 month (term infants) & older; up to 50 kg Refer over for patients > 50 kg

CAUTION: *Unit specific administration & monitoring guidelines must be followed*

| CLASS | DRUG | DOSE/ROUTE/INTERVAL | COMMENTS |
|---|--|---|--|
| | ACETAMINOPHEN | PO 10 – 15 mg/kg/dose q4h <u>or</u> q6h PR 15 – 20 mg/kg/dose q4h <u>or</u> q6h <u>Procedural Pain or Pre-, Peri- or Post-Operative:</u> Loading Dose: 30 – 40 mg/kg/dose x 1 dose (max. 2 g/dose; start maintenance dose in 4 hours) | Procedural Pain <u>or</u> Pre or Post-op: may administer scheduled up to 6 doses/24h x 96 hours PRN or long term scheduled: max. 5 doses per 24 hours Max.: 4 grams/day (6 grams in first 24 hours) |
| NSAID | IBUPROFEN | PO 4 – 10 mg/kg/dose q6h <u>or</u> q8h | Max. 40 mg/kg/day, up to 3.2 grams/24h |
| | NAPROXEN 2 yrs and older | PO 5 – 7 mg/kg/dose q8h <u>or</u> q12h PR 5 – 10 mg/kg/dose q12h (round dose to nearest 125 mg) | Max. 20 mg/kg/day, up to 1500 mg/24h |
| OPIATES *Monitor for Respiratory Depression* | MORPHINE (Immediate Release) | PO 0.2 – 0.5 mg/kg/dose q4h <u>or</u> q6h IV 0.05 – 0.2 mg/kg/dose q2h <u>or</u> q4h IV Infusion (initial) 0.01 – 0.05 mg/kg/hour | Max PO 15 mg/dose IV 10 mg/dose These are initial doses. Higher dosing may be required for specific indications. |
| | HYDROMORPHONE 6 months and older | PO 0.03 – 0.08 mg/kg/dose q3h <u>or</u> q4h IV 0.015 – 0.02 mg/kg/dose q3h, q4h <u>or</u> q6h | Max initial PO dose 1-2 mg/dose Max initial IV dose 0.2-0.6 mg/dose Note: Hydromorphone is at least 5 times more potent than morphine |
| | fentaNYL | IV 0.5 – 2 micrograms/kg q1h <u>or</u> q2h IV Infusion: (initial) 0.5 – 2 micrograms/kg/hour (range) 0.5 – 5 micrograms/kg/hour | Maximum of 50 micrograms/dose These are initial doses. Higher dosing may be required for specific indications. Infusion preferred for continued therapy. |
| | CODEINE OxyCODONE ACETAMINOPHEN with CODEINE | No longer recommended for use in children. <i>Consider oral morphine as an alternative</i> | Ineffective in approximately 1/3 of people. Up to 5% of population are ultra-rapid metabolizers and may experience serious toxicity. |
| ANTIEMETIC | dimenhyDRINATE | PO, IV, PR 0.5 – 1 mg/kg/dose q4h <u>or</u> q6h | 2 - 5 yrs: Max. 75 mg/24h 6 - 12 yrs: Max. 150 mg/24h NOTE: do NOT use concurrently with diphenhydrAMINE (e.g. Benadryl®) |
| | ONDANSETRON | IV, PO 1 – 24 mo.: 0.1 mg/kg/dose q12h 2 yrs & older: 0.1 mg/kg/dose q8h <u>or</u> q12h | |
| | PROCHLORPERAZINE 2 yrs and older | PO 0.1 mg/kg/dose TID or QID IV 0.1 – 0.2 mg/kg/dose q8h <u>or</u> q6h | Maximum dose: PO 15 mg/24h IV 40 mg/24h |
| OTHER AGENTS | SUCROSE | Infants and Children to 2 years of Age | |
| | sucrose 24% 1 drop = 0.04 mL | Administer dose 2 minutes prior to start of procedure. Repeat every 5 minutes x 3 doses maximum/procedure Maximum 5 – 6 mL/day | |
| | | Birth to 1 month 2 – 25 drops/dose (usual 5 -10 drops) | 1 – 24 months 25 – 50 drops (1 – 2 mL)/dose |
| | AMITRIPTYLINE, CLONIDINE & GABAPENTIN: refer to Patients > 50 kg chart (over) | | |
| Source: SHR Department of Pharmaceutical Services (RUH, SCH, SPH). If you have further questions about analgesics, please contact Pharmacy. For pain that is not adequately controlled, please consult Anesthesia Acute Pain Service, Pharmacy, PICU or Pediatric Palliative Care services | | | |



PEDIATRIC ANALGESIC DRUG DOSAGE GUIDELINE



Patients greater than 50 kg including overweight & obese children

CAUTION: *Unit specific administration & monitoring guidelines must be followed*

| CLASS | DRUG | DOSE/ROUTE/INTERVAL | COMMENTS |
|--|---|---|--|
| | ACETAMINOPHEN | PO, PR 325-650 mg q4h <u>or</u> q6h Procedural Pain or Pre-, Peri- or Post-Operative: Loading Dose: 30 – 40 mg/kg/dose x 1 dose (max. 2 g/dose; start maintenance dose in 4 hours) <u>Obesity</u> 10 -15 mg/kg <u>IBW</u> /dose (note: delayed onset) | Procedural Pain <u>or</u> Pre or Post-op: may administer scheduled up to 6 doses/24h x 96 hours PRN or long term scheduled: maximum 5 doses per 24 hours Maximum: 4 grams/24h (6 grams in first 24 hours) |
| NSAID | IBUPROFEN | PO 200-800 mg q6h <u>or</u> q8h | Maximum dose: 3.2 grams/24h |
| | NAPROXEN | PO 500mg x 1 then 250 mg PO q8h <u>or</u> q6h PR 500 mg x 1 dose then 250 mg q8h <u>or</u> q12h | Maximum dose: 1500 mg/24h |
| OPIATES *Monitor for Respiratory Depression* | MORPHINE (Immediate Release) | PO 10 mg q4h IV 2.5 – 5 mg q 2 <u>or</u> q4 h Infusion (initial) 1 – 2 mg/hour (max. 5 mg/hour) <u>Obesity</u> initial dose on TBW; infusion on IBW | Maximum dose: 20 mg/dose These are initial doses. Higher dosing may be required for specific indications. For morphine infusions greater than 4 mg/hour, consider use of patient controlled analgesia (PCA). |
| | HYDROMORPHONE | PO Initial: 1 – 2 mg q3h <u>or</u> q4h Usual: 2 – 4 mg q3h <u>or</u> q4h IV 0.2 – 0.6 mg q2h <u>or</u> q3h <u>Obesity</u> initial dose on TBW; infusion on IBW | Patients with previous opiate exposure may require higher initial doses. Note: Hydromorphone is at least 5 times more potent than morphine |
| | fentaNYL | IV 0.5 – 2 micrograms/kg q1h <u>or</u> q2h IV Infusion 0.5 – 5 micrograms/kg/hour <u>Obesity</u> initial dose on TBW; infusion on LeanBW | Maximum dose: 50 micrograms/dose These are initial doses. Higher dosing may be required for specific indications. Infusion preferred for continued therapy. |
| | CODEINE OxyCODONE ACETAMINOPHEN with CODEINE | No longer recommended for use in children. <i>Consider oral morphine as an alternative</i> | Ineffective in approximately 1/3 of people. Up to 5% of population are ultra-rapid metabolizers and may experience serious toxicity. |
| ANTIEMETIC | dimenhyDRINATE | PO, IV 50 – 100 mg q4h <u>or</u> q6h | Maximum dose: Oral: 400 mg/24 hours IV: 100 mg/dose |
| | ONDANSETRON | PO, IV 4 mg q8h <u>or</u> q12h | |
| | PROCHLORPERAZINE | PO 5 – 10 mg TID or QID IV 2.5 – 10 mg q4h | Maximum dose: PO, IV 40 mg/24h |
| OTHER AGENTS <u>Infants to Adolescents</u> | AMITRIPTYLINE <u>2 yrs and older</u> | PO (initial) 0.1 – 0.2 mg/kg/dose once daily at bedtime (up to 10 mg/dose) (range) 0.5 – 2 mg/kg/24h divided BID <u>or</u> TID | For neuropathic pain. Useful as a bridging therapy while gabapentin titrated. Increase dose every 2 – 4 days PRN. |
| | cloNIDine | PO 3 – 10 mcg/kg/24h divided q4h, q6h <u>or</u> q8h (preferred) (neuropathic pain: up to 20 mcg/kg/24h) | Co-analgesic with NSAID or opiate For neuropathic pain, start at q4h interval |
| | GABAPENTIN | PO (initial) 5 mg/kg/dose once daily at bedtime (range) 8 – 40 mg/kg/24h divided TID | For neuropathic pain Maximum dose: 3600 mg/24h |
| <p>Source: SHR Department of Pharmaceutical Services (RUH, SCH, SPH). If you have further questions about analgesics, please contact Pharmacy. For pain that is not adequately controlled, please consult Anesthesia Acute Pain Service, Pharmacy, PICU or Pediatric Palliative Care services</p> <p>References: Lexi Comp Pediatric Dosage Handbook online version, accessed August 2012 BC Children's Hospital, Pediatric Drug Dosage Guidelines, 6th Edition The Hospital for Sick Kids Drug Handbook & Formulary 2008-2009 Rx Files Pediatric Pain: Treatment Considerations, Q & A's, 8th Ed., 2010</p> | | | |

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