



Clinical Staff Executive Committee

MEDICAL CENTER POLICY NO. 0318

- A. SUBJECT: Pediatric Pain Assessment and Management
- B. EFFECTIVE DATE: April 1, 2014

This policy applies to all neonatal and pediatric patient encounters at the University of Virginia Medical Center.

C. POLICY:

1. All health care providers in all locations throughout the University of Virginia Medical Center, within the scope of their individual practice, shall:
 - a. Provide consistent and proficient screening, assessment, documentation, and treatment of pain while assessing for the risk associated with pain treatment and/or history of persistent pain based on the understanding that all children, including premature and term infants, have the physiologic capacity to experience pain.
 - b. Collaborate and cooperate with the patient, care partners, and members of the patient's health care team, to optimize patient comfort. The common purpose is to safely and ethically optimize the patient's comfort and to improve functional status, understanding that total absence of discomfort may not be a realistic goal.
2. Health care team members have an obligation to:
 - a. Offer individualized pain relief interventions to patients consistent with the patient's medical, developmental, psychological, and social history;
 - b. Respect the child and caregivers' personal, cultural, and religious values in regard to the relief of pain and suffering
 - c. Acquire and maintain the knowledge and skills to assess and manage pain effectively using multimodal therapies:
 - i. Variations in a child's developmental capability and ability to understand and communicate will affect assessment of a child's pain
 - ii. Variations in a child's physiological and pharmacological disposition at various ages and disease states

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- iii. The plan of care for children is developed with an understanding of the family-centered care approach and with a respect for the role of caregivers as partners with health care providers in assessing and managing the child's pain.
 - d. Utilize available resources for pain management.
3. Pain will be considered as the 5th vital sign. Pain will be screened with routine vital signs.
4. The complexity and frequency of assessment, reassessment and monitoring for pain and treatment will be determined by factors such as:
 - a. The patient setting (i.e., inpatient units, outpatient clinics, procedural areas);
 - b. Child and/or caregivers' perception of efficacy of treatment;
 - c. Patient's physiologic condition that may affect the response to treatment (i.e. renal or liver function, compromised respiratory function);
 - d. Age and developmental needs;
 - e. The side-effects and risks associated with the treatment;
 - f. Concurrent use of potentiating medications.

Note: unless otherwise indicated, all hyperlinked materials in this policy are contained in the University of Virginia Health System Pain Resource Manual.

D. DEFINITIONS:

See **Appendix A** "Glossary of Pain-Related Terms."

E. RESPONSIBILITIES:

1. **Institutional:** The UVA Medical Center will maintain an infrastructure conducive to the provision of quality pain assessment and management for all neonatal and pediatric patients. This will include:
 - a. commitment to providing opportunities for continuing education for all staff;
 - b. maintaining an appropriate formulary and resources for a variety of delivery modalities.
2. **Authorized Prescriber:** (MD, DO, DDS, NP, PA, DPM; collectively referred to in this policy as "Licensed Independent Practitioners" or "LIPs"), Outpatient and Inpatient:
 - a. Perform pain assessment as indicated by pain screen and nursing assessment;
 - b. Prescribe appropriate pain relief interventions as warranted by the patient's physical, psychological, emotional, developmental, social and spiritual conditions;

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- c. Consider referral to appropriate consultative service for complex pain management needs. See [PAIN TREATMENT CONSULTATION RESOURCES](#).

3. Registered Nurse (RN):

- a. Comfort measures and indicated non-pharmacological pain relief interventions will be considered as first line therapy;
- b. Screen patients for pain on admission or clinic visits. If pain is present, perform a pain assessment as outlined in Section F below (“PROCEDURE”);
- c. Reassess pain, efficacy of pain relief intervention, child and/or caregivers’ satisfaction with pain relief interventions, and patient safety (i.e. adverse events) as outlined in Section F below (“PROCEDURE”);
- d. Assure maximum comfort with minimal side-effects;
- e. Administer medications as ordered;
- f. Notify the authorized prescriber if adverse effects of pain medications occur, or if pain relief intervention is ineffective;
- g. Provide patient and caregivers’ education related to pain management plan.

4. Licensed Practical Nurse (LPN):

- a. Screen patients for pain
- b. Reinforce patient education related to pain management as determined by RN/LIP;
- c. Implement non-pharmacologic pain relief interventions as appropriate, see [SPECIAL CONSIDERATIONS: INFANTS AND CHILDREN](#)
- d. Notify RN/LIP if patient or caregivers would like pain addressed.

5. Unlicensed Nursing Staff: (i.e., Patient Care Technicians and Patient Care Assistants, Certified Nurse Assistants, Perfusionists, Medical Assistants).

- a. Screen patients for pain with routine vital signs;
- b. Implement non-pharmacologic pain relief interventions as appropriate, see [SPECIAL CONSIDERATIONS: INFANTS AND CHILDREN](#)
- c. Notify RN/LIP if patient or caregivers would like pain addressed.

6. Clinical Pharmacist:

- a. Review all new pain medication orders for potential drug interactions and elimination of duplicate therapies;

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- b. Provide recommendations for analgesic drug dosing and modifications of therapy as needed to achieve optimal pain relief while minimizing the occurrence of adverse events;
- c. Monitor use of high risk analgesic medications (i.e., fentanyl, morphine, hydromorphone, and methadone);
- d. Consult with primary team on medication dosages and supportive medication for adverse effects.

7. **Physical/Occupational Therapist/Speech Language Pathologist:**

- a. Screen patients for pain prior to therapy;
- b. Re-screen for pain after therapy;
- c. Notify RN/LIP caring for the patient, for pain that interferes with ability to participate with therapy.

8. **Respiratory Therapist:**

- a. Screen patients for pain prior to and after completion of therapy or as indicated (therapy does not include basic oxygen therapy);
- b. Notify RN/LIP if patient and caregivers would like pain addressed;
- c. Notify RN/LIP caring for the patient, for pain that interferes with ability to participate with therapy.

F. PROCEDURE:

1. **Pain Screening** is the identification of the presence of pain. Screening will be performed on all patients (see Section E above “RESPONSIBILITIES”):
 - a. During outpatient visits;
 - b. Before and after procedures;
 - c. In the Admission Assessment;
 - d. With routine vital signs;
 - e. On all inpatients at each Head-to-Toe Shift Assessment or Complex Assessment;
 - f. When warranted based on patient needs.
2. **Pain Assessment** is an ongoing systematic process of identifying pain and its characteristics.
 - a. The RN will assess and document a comprehensive pain assessment when:

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- i. pain is present on screening
 - ii. patient or caregiver reports a *new* complaint of pain
- b. The RN will assess the following pain characteristics as clinically indicated in the communicative patient:
- i. Intensity:
 - (1) Numeric Pain Score (Self-Report)
 - (2) [UVAHS Pain Rating Scale](#)
 - a) FACES
 - ii. Pain type (i.e. acute vs. chronic)
 - iii. Location of pain
 - iv. Orientation (i.e., anterior, posterior etc.)
 - v. Descriptors (i.e., throbbing, sharp, dull, aching etc.)
 - vi. Pain onset (i.e., moving, breathing, turning, etc.)
 - vii. Clinical progression (i.e., worsening, improved, resolved)
 - viii. Child and/or caregiver satisfaction with comfort
- c. The RN will use the following validated observational pain assessment tools for the non-communicative patients:

**Note: Lack of behavioral responses in children, especially neonates (premature and term), developmentally delayed, or non-communicative children, does not necessarily indicate a lack of pain.*

- i. Assume Pain Present (APP):

- (1) Assume Pain Present (APP) is utilized when it is reasonable to conclude that the patient is likely to be experiencing pain. APP requires assessment, including:
 - a) the observation of behaviors;
 - b) history of a painful condition, illness, trauma, or surgery expected to cause pain;
 - c) presence of instrumentation such as chest tubes or endotracheal tubes;
 - d) extended stay in a critical care setting;
 - e) invasive and non-invasive procedures (even routine repositioning) that are likely to be painful.

- ii. [Pediatric FLACC Observation Tool](#)
- iii. [Neonatal Pain Assessment Tool N-PASS](#)

**Note: Numbers used for observational tools do not reflect intensity of pain.*

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3. **Reassessment** is the re-evaluation of the patient for pain relief interventions’ effectiveness (including safety and side-effects):
 - a. The RN will reassess the patient for comfort prior to administering **pain relief interventions**;
 - b. When administering pain relief interventions, the RN will reassess pain or patient satisfaction with comfort within four (4) hours;
 - c. When administering **opioids**, the RN will assess the patient for **opioid over-sedation** within 90 minutes following administration. Consideration must be given for the patient’s expected response to the pain relief intervention.
 - d. The RN will use the following tools to assess level of sedation:
 - i. N-PASS scale for all neonates;
 - ii. Level of Consciousness (LOC) in pediatric acute care areas;
 - iii. [ICU Sedation \(Comfort\) Documentation Tool for mechanically ventilated pediatric patients](#);
 - iv. If patient meets **Opioid Over-Sedation Criteria**, the RN will assess respiratory status (rate and quality) and implement appropriate ACTION until opioid-induced sedation is resolved.

**Note: Does not apply to patients in Phase 1, post-procedure recovery. These patients need to be assessed by an MD or RN caring for a neonatal or pediatric post-procedure patient.*

Opioid Over-Sedation Criteria	ACTION
If frequently drowsy, arouses, drifts off to sleep during conversation	-Monitor respiratory status and sedation at minimum every hour , and do not give opioids or other central depressants until acceptable. -Notify MD/LIP (notify APS prior to holding epidural infusion); SBAR communication appropriate. -Recommend MD/LIP to decrease opioid by 25-50% and/or change the doses of other central depressants when patient returns to acceptable level. -For pain, consider offering a non-sedating non-opioid, such as acetaminophen or NSAID if ordered, or a local anesthetic block.
If somnolent, minimal or no response to verbal and physical stimulation.	-Stimulate the patient. -Assess airway. -Apply oxygen. -Observe respiratory rate & depth, and support respiration as indicated by patient status; -Stop opioid or other central depressants. -Call PERT Team; notify Acute Pain Service (APS) if receiving epidural analgesia;

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	<p><i>-Consider administering naloxone in cases of opioid-induced over-sedation if clinically indicated (decreased RR and not responsive to stimulation).</i></p> <p><i>-Stay with patient; continue to monitor respiratory status and sedation level closely until sedation level is stable and respiratory status is satisfactory.</i></p>
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**Note: Refer to specific guidelines pertaining to the Care of Patients receiving IV PCA or Epidural Analgesia infusion for initial assessment and documentation.*

- e. The RN will reassess if child and/or caregiver perceives that the patient is not satisfied with the response to the administered pain relief intervention.

4. **Interventions:**

a. **Pharmacologic:**

- i. A placebo treatment is never substituted for analgesics unless being used as part of research and does not include deception, complies with all required consents, and receives approval by the University Investigational Review Board.
- ii. When choosing an opioid by either IV bolus or IV Patient-Controlled Analgesia (PCA) to treat acute pain:
 - (1) Patient-Controlled Analgesia (PCA) is an appropriate method of medication delivery in many pediatric patients:
 - a) An assessment of the ability to successfully use a PCA system should be based on the child's developmental stage.
 - (2) Opioids may be used in all pediatric patients, with appropriate weight-based dosing:
 - a) **MORPHine** and **FentANYL** are the preferred opioids for most age groups in the treatment of moderate to severe pain in children because of greater clinical experience and more extensive published literature on their use.

**Note: The published data does not support the use of HYDROmorphone in children less than 6 years of age.*

- (3) Classes of medications used in pain management include:

- a) [Opioid and Non-opioid Analgesia Recommendations - Pediatrics <40kg.](#)

- b. **Non-Pharmacologic Measures:** Use of non-pharmacologic measures shall be considered, optimized, and assessed as clinically indicated and as available. See [SPECIAL CONSIDERATIONS: INFANTS AND CHILDREN](#)

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- i. Non-pharmacologic pain relief interventions can be used for mild pain or distress and as adjuncts to pharmacologic management. When appropriate, care should begin with non-pharmacologic pain relief interventions before progressing to pharmacologic agents.
- ii. Caregivers are an important component of pain relief for children. Caregivers should be given opportunities to alleviate pain and anxiety and participate in strategies to aid the child's coping. The health care team will provide preparation for both the child and/or caregivers with information about what to expect in terms of pain (i.e. how much and how long it will last).
- c. **Multi-modal pain relief techniques** are described as the combination of two or more pain relief interventions and/or techniques, working through different mechanisms while providing more effective pain relief and should be:
 - i. Implemented when appropriate;
 - ii. Tailored towards the etiology of the particular type of pain;
 - iii. Used to reduce the stress response associated with acute pain;
 - iv. Decrease the adverse effects of opioid use as a single therapy.

5. **Patient Education and Discharge:**

- a. Based on the patient's condition and assessed needs, the health care team will inform the child and caregivers about any pain risks, the importance of effective pain management, measures that will be used to assess and manage the child's pain.
- b. The health care team will also:
 - i. Provide the patient and caregivers with standard discharge instructions and answer questions/concerns;
 - ii. Communicate the current pain management plan to clinician(s) assuming care if patient is being discharged to home care, hospice, or other facility;
 - iii. Provide the patient and caregivers with developmentally appropriate pain assessment scale(s) or tool(s) used during patient encounter.

6. **Education and Communication:** This policy will be communicated to the appropriate University of Virginia Medical Center personnel *via* the following channels:

- a. Nursing: the nurse educators will be responsible for any education and training related to this policy
- b. Graduate Medical Education Trainees: education will occur during orientation and ongoing education through the Office of the Associate Dean for Graduate Medical Education and Grand Rounds

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- c. All new care providers will be required to complete training during clinical orientation
- d. Important aspects of this policy, as well as updates and revisions, will be communicated *via* clinical staff and nursing publications.

SIGNATURE:



Robert S. Gibson, MD, President, Clinical Staff



R. Edward Howell, CEO, UVA Medical Center



DATE:

Medical Center Policy No. 0318
Approved March 2014
Approved by Clinical Staff Executive Committee
Approved by Children's Hospital Clinical Practice Committee

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Appendix A

Definitions

Acute pain generally refers to a normal response to injury or painful stimulus (nociception) from trauma or surgery, and can be somatic and/or visceral in nature. Acute pain is generally brief and subsides when the stimulus is removed and healing occurs. “A complex constellation of unpleasant sensory, perceptual and emotional experiences associated with autonomic, psychological, emotional, and behavioral responses.”¹

Adjuvant analgesic is a drug such as an anticonvulsant or antidepressant that is prescribed for a primary purpose other than pain relief, but can also be used as an analgesic for certain painful conditions.

Adverse drug reaction (ADR) is any noxious or unintended response to a drug occurring at normal doses used for prophylaxis, diagnosis, or treatment. Therapeutic failure and intentional overdoses are excluded. Reportable ADRs are those that result in:

1. a change or discontinuation of drug therapy;
2. treatment of the ADR;
3. an initial or prolonged hospital stay; or
4. Mortality.

*(From Adverse Drug Reaction Reporting Program, UVAHS)

Assume Pain Present (APP) is utilized when it is reasonable to conclude that the patient is likely to be experiencing pain. APP requires assessment.

Basal infusion is a continuous infusion of a controlled substance delivered through a locked delivery system.

Breakthrough pain is defined as pain that the patient rates on a pain scale as ≥ 4 , despite therapy. In the patient using patient controlled analgesia (PCA), breakthrough is defined as pain described as ≥ 4 while utilizing 75% of the PCA dose.

Clinician bolus describes an order for one or more additional doses to be administered by the clinician via the CADD SOLIS Pump. This dose is to be charted in the Medication Administration Record separately from total PCA doses. Reasons for clinician bolus to be ordered may include additional breakthrough pain, procedural pain or interruption of PCA therapy requiring additional opioid analgesia.

Comfort goal is the level at which the patient identifies or is observed in non-communicative patient that the existing pain does not interfere with function or quality of life. The goal can be changed by the patient.

¹ Terman GW, Bonica JJ. (2003). Spinal mechanisms and their modulation. In Loeser JD, Butler SH, Chapman CR, Turk DC, eds. *Bonica's Management of Pain*. 3rd ed. Philadelphia, Pennsylvania, USA: Lippincott Williams and Wilkins. P. 73.

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Chronic Pain is the abnormal processing sensory input. Chronic pain can be nociceptive or neuropathic in origin and may exist despite healing and regardless of physical cause. Its duration is generally unpredictable: “Pain that persists a month or more beyond the usual course of acute disease or a reasonable time for an injury to heal or that is associated with a chronic pathologic process that causes continuous pain or the pain recurs at intervals for months or years.”

*Chronic pain is a significant problem in the pediatric population. Children and their families experience significant emotional and social consequences as a result of pain and disability. In addition, the physical and psychological sequelae associated with chronic pain may have an impact on overall health and may predispose for the development of adult chronic pain.

Iatrogenic dependence occurs in infants and children exposed to opioids for prolonged periods.

Opiate naive is a term used to describe the patient who does not take opioids regularly and who is not expected to have physical dependence or tolerance.²

Opiate tolerant is a term used in the patient who has consistently taken opioids daily for 3 months or longer.

Opioid ultra-tolerant is a setting on the CADD Pump Library indicating opioid tolerance to an extent requiring higher concentrations and doses of opioids (examples of possible candidates include palliative care or patients with refractory pain) than is programmed in the opioid tolerant pump section.

Pain is

1. an unpleasant sensory and emotional experience” arising from “actual or potential tissue damage or described in terms of such damage. . . . It is unquestionably a sensation in a part or parts of the body but it is also always unpleasant and therefore an emotional experience.”³
2. Pain is whatever the experiencing person says it is, existing whenever the person says it does.
3. Pain may be categorized in the following ways for assessment and treatment: *Acute* pain, *Chronic* pain, or *Acute on Chronic* pain.

Pain Screen identifies the presence of pain. If patient reports pain, a valid pain rating scale is used.

Pain Assessment is an ongoing systematic process of identifying pain and its characteristics. An assessment includes the following:

1. Self-Report (Intensity) for the communicative patient or a valid observational tool for the non-communicative patient (preverbal, developmentally delayed);
2. Location;
3. Frequency/Duration;

² Turk, DC, Okifuji, A. (2003). Pain terms and taxonomies. In Loeser, JD.; Butler, SH.; Chapman, CR, Turk DC eds. *Bonica's management of pain* (3 ed.). USA Lippincott Williams & Wilkins. pp. 18–25.

³The International Association for the Study of Pain (IASP) Taxonomy. (2011). <http://www.iasp-pain.org/Content/NavigationMenu/GeneralResourceLinks/PainDefinitions/default.htm#Pain>

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4. Descriptors;
5. Quality;
6. Acute vs. Chronic pain;
7. Precipitating & alleviating factors; and
8. Child and/or caregivers satisfaction with comfort level.

Pain Reassessment is the re-evaluation of the effectiveness (including safety and side-effects) of a pain relief intervention. For opioid effectiveness/sedation, reassessment includes observation for sedation from opioid over-sedation using N-PASS in all neonates, LOC in all pediatric acute areas, and ICU Sedation (Comfort) Documentation Tool in all mechanically ventilated pediatric patients, and occurs with reassessment following any opioid analgesic intervention or centrally depressant medication.

Physical dependence indicates physical adaption to an opioid characterized by withdrawal symptoms when the opioid is suddenly discontinued or reversed with an antagonist.

Pseudoaddiction is an iatrogenic syndrome of drug-seeking behavior that develops as a consequence of inadequate pain management and is not related to addiction.

Substance use disorder is a problematic pattern of substance use in which two of the following are present: (DSM-5).

1. The substance is often taken in larger amounts or over a longer period than was intended;
2. There is a persistent desire or unsuccessful efforts to cut down or control substance use;
3. A great deal of time is spent in activities necessary to obtain the substance, use the substance, or recover from its effects;
4. Craving, or a strong desire or urge to use the substance;
5. Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home;
6. Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance;
7. Important social, occupational, or recreational activities are given up or reduced because of the substance;
8. Recurrent substance use in situations in which it is physically hazardous;
9. The substance is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol;
10. Tolerance, as defined by either of the following:

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- a. A need for markedly increased amounts of alcohol to achieve intoxication or desired effect; or
 - b. A markedly diminished effect with continued use of the same amount of alcohol; or
11. Withdrawal, as manifested by either of the following:
- a. The characteristic withdrawal syndrome for the substance; or
 - b. The substance is taken to relieve or avoid withdrawal symptoms.

Symptoms of tolerance and withdrawal occurring during appropriate medical treatment with prescribed medications (i.e., opioid analgesics, sedatives, stimulants) are specifically *not* counted when diagnosing a substance use disorder.

Tolerance is a physiologic adaptation to a medication resulting in a reduced effect following chronic use and requiring increasing dosage to maintain effectiveness over time. Tolerance rarely occurs with analgesic use if dosing is effective and pain levels remain stable.

Withdrawal is a clinical syndrome that manifests after stopping or reversing a drug after prolonged exposure to that drug.