PAIN MANAGEMENT

PURPOSE: To outline nursing management of the patient in pain.

SUPPORTIVE DATA: All patients have the right to have their pain assessed and managed.

End tidal carbon dioxide monitoring ($EtCO_2$) may be used per provider order to monitor patients who are receiving opioids that are on the High Alert Medication List.

The provider order must specifically state the criteria for administration for each prn medication is to be administered.

Breakthrough Pain is pain that occurs after scheduled and/or PRN medications have been given and appropriate evaluation time has passed.

Pain medication ordered for breakthrough pain should be given *only after* pain medication ordered for correlating pain is unrelieved.
Example:
Oxycodone 5mg po q 6 hours prn moderate pain scale of 5-10 unrelieved by non-opioids is administered and appropriate evaluation time has passed.
Reference #6 for typical assessment times.

*Please see addendum at end of this standard regarding:
Nursing Responsibilities utilizing multi-modal pain management and PRN PAIN orders

High Dose Morphine Infusion
High dose continuous morphine infusions (10 mg/hr or greater, via a standard infusion pump) administered outside of the ICU are for Comfort Care patients only. The patient must have an ongoing consult from Palliative Care or Pain Management. The order must be written by the primary team and the consulting service's Attending Physician must be listed on the order. Dose changes require a provider order. When a patient has been receiving high dose continuous morphine infusion and is transferred to a different unit when Palliative Care or Pain Management is not available, the infusion should continue per primary care physician order until Palliative Care or Pain management can see the patient. The high dose infusion must be used for continuous morphine infusions of 10 mg/hr or greater. If the patient does not require 10 mg/hr or more, then the morphine infusion should be ordered as a basal rate through a Patient Controlled Analgesia (PCA) pump.

Oral Ketamine
Ketamine may be given orally, as ordered, for the management of complicated pain as a last resort. The injectable solution is prepared in a syringe by Pharmacy and administered orally. Oral ketamine requires a Palliative Care consult or Pain consult. Starting doses are 10-25 mg every 6-8 hrs (usually scheduled) with a maximum dose of 50 mg q8 hrs.

ASSESSMENT:

1. Assess/reassess pain intensity/score a minimum of every 2 hours (ICU & PCU), every 4 hours (Acute Care Units) utilizing the pain assessment tools attached.

   NOTE: The same pain scale should be used through the 24-hour period unless a change in scale is warranted by patient condition

2. Assess/reassess pain characteristics as follows:
   - Baseline assessment (upon first complaint of pain/complaint of new type of pain): location, laterality, quality, time pattern
   - Every 2 hours (ICU), every 4 hours (Acute Care Units)
   - Interview child about the pain, using the word "hurt" and familiar names for body parts (e.g., "tummy")
   - Interview patient's family/primary caregiver regarding usual way patient manifests pain
3. Assess/reassess for physiological signs of pain for non-communicative patients/as supplemental assessment as needed a minimum of every 2 hours (ICU& PCU), every 4 hours (Acute Care Units)
   - Diaphoresis
   - Elevated BP
   - Pallor
   - Tachycardia
   - Tachypnea
4. Assess/reassess for behavioral signs of pain for non-communicative patients/as supplemental assessment as needed a minimum of every 2 hours (ICU& PCU) every 4 hours (Acute Care Units)
   - Crying
   - Avoidance of movement/guarding
   - Restlessness
   - Sleeplessness
   - Withdrawal
   - Grimacing

5. Reassess pain level less than 1 hour after intervention or as clinically indicated.

6. Assess for effectiveness and respiratory depression (i.e., Respiratory Rate < 10 and shallow respirations) for all opioids.
   - Signs of oversedation and respiratory depression:
     - Shortness of breath
     - Snoring
     - Shallow respirations
     - Bradypnea (respiratory rate less than 8)
     - Change in oxygen saturation/ EtCO2 values (if used)
     - Unacceptable level of sedation, Patient is:
       - ➢ Arousable but drowsy, drifts off to sleep during conversation
       - ➢ Somnolent, minimal or no response

7. Assess the following every hour for the first 12 hours, then every 2 hours for the next 12 hours**,** post epidural or intrathecal Duramorph (single dose) administration or post discontinuation of Duramorph infusion:
   - Respiratory rate (including depth of respirations)
   - Oxygen saturation
   - LOC

HIGH DOSE CONTINUOUS MORPHINE INFUSION (Non- ICU Setting via Standard Pump):

8. Ensure order includes Pain Management or Palliative Care consulting service Attending Physician’s name
9. Ensure order is for Morphine sulfate continuous infusion at a dose of 10 mg/hr or greater
10. Ensure morphine bag is housed in a secure lock box while in patient’s room
11. Verify provider’s order and morphine pump settings match with second RN using independent double check prior to administration, with any change in bag/concentration/dosage/setting

12. Confirm box is locked at the beginning of the shift and every time the box is unlocked prior to leaving patient's bedside

INTERVENTIONS:

13. Prevent onset of pain whenever possible by selecting a non-pharmacologic or prescribed pharmacologic intervention based on assessment
14. Collaborate with patient to choose a non-pharmacologic intervention to prevent/ manage pain as appropriate:
    - Promote relaxation (e.g., warm bath/shower, back rub)
    - Promote guided imagery
    - Support painful area with pillow
    - Reposition patient
    - Apply hot/cold packs (as ordered)
    - Encourage range of motion
    - Provide diversional activities (e.g., toys, games, TV, music)
    - Provide uninterrupted rest periods or create an environment which decreases stimulation
    - Encourage patient/family to verbalize feelings
    - Encourage and assist primary caregiver in holding and comforting patient
    - Reduce or eliminate factors which increase the pain experience such as:
        - Fear, knowledge deficit, fatigue, monotony, isolation
15. Administer pharmacological intervention as ordered.
    - Premedicate as ordered prior to increase activity/medical procedures
    - Monitor side effects of pharmacologic agents
    - Reassess effectiveness of pharmacologic intervention and document pain score or physiologic/behavioral response
    - Fentanyl patches:
        - Remove old patch and apply new patch when replacing patch
        - Rotate site of application to prevent skin irritation.
        - Date patch upon application
        - Assess for presence, site, and condition of patch at the beginning of each shift
        - Document initials and site on Medication Administration Record
    - Opioid medication orders must be approved by Anesthesia during first 24 hours post Duramorph administration

SAFETY:

16. Provide a safe environment:
    - Siderails up
    - Bed in low and locked position
    - Call light in easy reach

REPORTABLE CONDITIONS:

17. Hold opioid and notify provider immediately for signs of:
    - Respiratory depression
    - Oversedation
    - Hypotension
18. Notify the provider immediately for:
    - Allergic response to medication
    - Adverse medication reactions
    - Unrelieved/unacceptable pain level
    - Fever, if patient using fentanyl patch

PATIENT/CAREGIVER EDUCATION:	19.	Instruct on the following: • Pain rating scale • Right to pain management • Importance of early intervention • Rationale for non-pharmacologic and pharmacologic interventions • Effects and side effects of pharmacologic agents • To inform the nurse of difficulty breathing • That it may be necessary to awaken the patient to assess effectiveness of medication • Expected course of pain - Concern regarding addiction to pain medication • Direct heat should never be applied to fentanyl patch at any time
ADDITIONAL STANDARDS:	20.	Refer to the following standards as indicated: • Confused Patient • Epidural Catheter: Continuous Infusion – ICU • Fall/Injury Prevention • Patient Controlled Analgesia
DOCUMENTATION:	21.	Document in accordance with "Documentation" standards and Pain Management Nursing Policy

Initial date approved: 08/93	Reviewed and approved by: Professional Practice Committee Pharmacy & Therapeutics Committee Nurse Executive Council Attending Staff Association Executive Committee	Revision Date: 11/94, 08/95, 04/01, 03/02, 10/05, 07/11, 03/14, 5/14, 4/15,10/15, 05/16, 08/16, 01/18, 05/18, 6/20, 5/23, 10/23

****PLEASE see attachments:**

- **Pain Assessment Tools**
- **NARCOTIC ANALGESIC DOSAGE & DURATION COMPARISON,**
- **NARCOTIC ANALGESIA**
- **Nursing Responsibilities utilizing multi-modal pain management and PRN PAIN orders**

References:

Kishner, S., & Scraga, E. D. (2014). Opioid equaivalents and conversions. Retrieved from Medscape.com
LAC+USC Clinical Resources: Lexicomp and Micromedex
Consult: LAC+USC Department of Pharmacy

Safe Medication administration practices, general. Lippincott Procedures. May 2023.

https://procedures.lww.com/lnp/view.do?pId=6605414&hits=administration%2Cmedication%2Cpain%2Cmedications&a=true&ad=false&q=pain+medication+administration?subject=safe medication administration practices

Pain management. Lippincott Procedures, May 2023.

https://procedures.lww.com/lnp/view.do?pId=6605508&hits=painful,management,pain&a=true&ad=false&q=pain%20management

LA General Medical Center General medications Policy #900

LA General Medical Center Pain Management Policy #800

PAIN ASSESSMENT TOOLS

Scale	Population	Score Range
Neonatal Pain Agitation and Sedation Scale (N-PASS)	NICU: Newborns to 100 day old infants	• Less than 30 weeks of age: 0-11 • Greater than or equal to 30 weeks of age: 0-10
Face, Legs, Activity, Cry, and Consolability (FLACC Scale)	• Children up to 5 years of age • Patients over 5 years of age who are: - Developmentally delayed - Have difficulty understanding NRS/ Wong-Baker FACES - Unable to verbalize pain presence/severity - Uncommunicative • Note: This scale will not be used for adult ICU patients, or for PAR or ED patients who are intubated or who have been recently extubated	0-10
Wong-Baker FACES Scale	Greater than 5 years of age	0-10
Numerical Rating Scale (NRS)	Greater than 5 years of age	0-10
Critical-Care Pain Observation Tool (CPOT)	• Adult ICU patients who are unable to communicate • Adult ED/PAR patients who are intubated or who have recently been extubated • May NOT be used for patients receiving neuromuscular blocking agents	0-8 Presence of pain is suspected when score is • Greater than 2 • Increases by 2 or more
Assumed Pain Present (APP)	• Used for nonverbal patients in whom pain cannot be assessed with a scale • Includes patients who are unresponsive due to - Traumatic brain injury - Pharmacologically induced coma - Neuromuscular blockade	• Pain is assumed to be present in these patients • Analgesics administered when clinically indicated (e.g. for procedures, patients has tube, illness, trauma, surgery which would be expected to cause pain)

FLACC SCALE

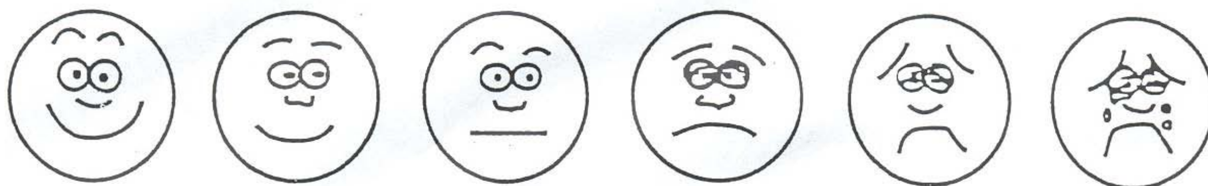
Categories	**Scoring**		
	0	**1**	**2**
Face	No particular expression or smile	Occasional grimace or frown, withdrawn, disinterested	Frequent to constant quivering chin, clenched jaw
Legs	Normal position or relaxed	Uneasy, restless, tense	Kicking or legs drawn up
Activity	Lying quietly, normal position, move easily	Squirming, shifting back and forth, tense	Arched, rigid or arching
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
Each of the five categories (F) Face; (L) Legs; (A) Activity; (C) Cry; (C) Consolability is scored from 0-2, which results in a total score between zero and ten. Used to evaluate pain for children 0 to 5 years.			

WONG-BAKER FACE

WONG-BAKER FACES PAIN RATING SCALE

“ALL PATIENTS HAVE A RIGHT TO PAIN RELIEF”
“TODOS LOS PACIENTES TIENEN DERECHO AL ALIVIO DEL DOLOR”
JCAHO

PLEASE TELL YOUR DOCTOR OR NURSE IF YOU HAVE PAIN
POR FAVOR INFORME A SU DOCTOR O SU ENFERMERA CUANDO TIENE DOLOR



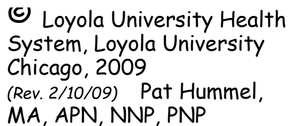
0	2	4	6	8	10
NO HURT	HURTS LITTLE BIT	HURTS LITTLE MORE	HURTS EVEN MORE	HURTS WHOLE LOT	HURTS WORSE
NADA DE DOLOR	UN POQUITO DE DOLOR	UN DOLAR LEVE	DOLOR FUERTE	DOLOR DEMASIAD O FUERTE	UN DOLOR INSOPORT ABLE

From Wong D.L.; Hockenberry-Eaton M., Wilson D., Winkelstein M.L., Schwariz P.: Wong’s Essentials of Pediatric Nursing, ed. 6, St Louis, 2001, p. 1301. Copyrighted by Mosby, inc. Reprinted by permission.

REVISED: 6/01

NEONATAL PAIN, AGITATION, & SEDATION SCALE (N-PASS)

Assessment Criteria	Sedation		Sedation/Pain	Pain / Agitation	
	-2	-1	0/0	1	2
Crying Irritability	No cry with painful stimuli	Moans or cries minimally with painful stimuli	No sedation/ No pain signs	Irritable or crying at intervals Consolable	• High-pitched or silent-continuous cry Inconsolable
Behavior State	No arousal to any stimuli No spontaneous movement	Arouses minimally to stimuli Little spontaneous movement	No sedation/ No pain signs	Restless, squirming Awakens frequently	Arching, kicking Constantly awake or Arouses minimally / no movement (not sedated)
Facial Expression	Mouth is lax No expression	Minimal expression with stimuli	No sedation/ No pain signs	Any pain expression intermittent	Any pain expression continual
Extremities Tone	No grasp reflex Flaccid tone	Weak grasp reflex ↓ muscle tone	No sedation/ No pain signs	Intermittent clenched toes, fists or finger splay Body is not tense	Continual clenched toes, fists, or finger splay Body is tense
Vital Signs HR, RR, BP, SaO_2	No variability with stimuli Hypoventilation or apnea	< 10% variability from baseline with stimuli	No sedation/ No pain signs	↑ 10-20% from baseline SaO_2 76-85% with stimulation – quick ↑	↑ > 20% from baseline $SaO_2 \leq 75\%$ with stimulation – slow ↑ Out of sync/fighting vent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(Rev. 2/10/09) Pat Hummel, MA, APN, NNP, PNP

Pre

+ 1 if <30 weeks gestation / corrected age

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CRITICAL-CARE PAIN OBSERVATION TOOL (CPOT)

Table 1 Description of the Critical-Care Pain Observation Tool

Indicator	Description	Score	
Facial expression	No muscular tension observed	Relaxed, neutral	0
	Presence of frowning, brow lowering, orbit tightening, and levator contraction	Tense	1
	All of the above facial movements plus eyelid tightly closed	Grimacing	2
Body movements	Does not move at all (does not necessarily mean absence of pain)	Absence of movements	0
	Slow, cautious movements, touching or rubbing the pain site, seeking attention through movements	Protection	1
	Pulling tube, attempting to sit up, moving limbs/ thrashing, not following commands, striking at staff, trying to climb out of bed	Restlessness	2
Muscle tension	No resistance to passive movements	Relaxed	0
Evaluation by passive flexion and	Resistance to passive movements	Tense, rigid	1
extension of upper extremities	Strong resistance to passive movements, inability to complete them	Very tense or rigid	2
Compliance with the ventilator (intubated patients)	Alarms not activated, easy ventilation	Tolerating ventilator or movement	0
	Alarms stop spontaneously	Coughing but tolerating	1
OR	Asynchrony: blocking ventilation, alarms frequently activated	Fighting ventilator	2
Vocalization (extubated patients)	Talking in normal tone or no sound	Talking in normal tone or no sound	0
	Sighing, moaning	Sighing, moaning	1
	Crying out, sobbing	Crying out, sobbing	2
Total, range			0-8

Gelinas, C., Fillion, L., Puntillo, K. A., Viens, C, & Fortier, M. (2006).

NARCOTIC ANALGESIC DOSAGE & DURATION COMPARISON

Medication	Pareneral Dose (IV, SC, IM	Oral Dose	Duration of Action (in hours)
Morphine	10 mg *	30 mg	3-4
Morphine, long acting *(e.g. Kadian)*		30 mg	12
HYDROmorphone *(e.g. Dilaudid)*	1.5 mg *	7.5 mg	2-3
OXYcodone		15-20 mg	3-5
OXYcodone long-acting *(e.g. OxyContin)*		20 mg	12
HYDROcodone *(e.g. Norco)*		30-45 mg	3-5
Codeine		180-200 mg	4
Fentanyl	0.2 mg (200 mcg)		2

Source : Kishner, S., & Scraga, E. D. (2014). Opioid equaivalents and conversions. Retrieved from Medscape.com

* **Hydromorphone (*Dilaudid*, IV,SC, IM) 1 mg= approximately Morphine (IV, SC, IM) 7 mg**

The table serves as a guideline for comparison of dose and duration of analgesics. Actual dose and duration effect depends upon individual patient factors such as disease process and patient sensitivity to different medications.

NARCOTIC ANALGESIA

Drug	Onset of Action	Duration of Action	Usual Dosing Interval	Usual Adult * Dosage Range	Other
Morphine**	IV: 5-10 min SQ: 15-30 min PO: 30-60 min	IV: 3-6 hrs SQ: 3-6 hrs PO: 3-6 hrs	IV: q 3-6 hrs SQ: q 3-6 hrs PO: 3-6 hrs	IV: 2-10 mg SQ: 5-10 mg PO: 10-30 mg	IV: 2-4 mg increments q 5 min (up to 15 mg)
Morphine: extended release (*MS Contin*)**	PO: 30-90 min	PO:8-12 hrs	PO:8-12 hrs	PO:15 mg (initial dose)	
Morphine (Duramorph) - Epidural (ED) - Intrathecal (IT)	ED:15-60 min IT: 15-60 min	ED: up to 24 hrs IT: up to 24 hrs	N/A	ED: 5 mg/24 hrs IT: 0.2-1 mg single dose	Peak times for respiratory depression are at 1 hr and again at 6-12 hrs. First 24 hrs requires close monitoring. Respiratory depression can occur up to 24 hrs. Administered by Physicians only
Morphine : extended release (Kadian)**		12-24 hours	PO: 12-24 hrs	PO:10-60mg	• Kadian capsules must be taken whole. Patients who are unable to swallow Kadian should be instructed to sprinkle the capsule contents on applesauce and immediately swallow without chewing • The contents of the Kadian capsules (pellets) may be administered through a 16 French gastrostomy tube. It may not be administered via a nasogastric tube. The following steps must be taken for gastrostomy tube administration: - Flush the gastrostomy tube with water to ensure that it is wet - Sprinkle the Kadian pellets into 10 mL of water. - Use a swirling motion to pour the pellets and water into the gastrostomy tube through a syringe. - Rinse the container in which the pellets were mixed with another 10 mL of water and pour this into the syringe. - Repeat rinsing until no pellets remain in the container.
Fentanyl (*Sublimaze, Duragesic)*** *Transdermal	IV: immediate SQ: 15 min *TD: 12-24 hrs	IV: 30-60 min SQ: 30 min-2 hrs TD: 72 hr/patch	IV: 1-2 hrs SQ: 3-6 hrs TD: 72 hrs	IV: 25-100 mcg SQ: 100 mcg TD: varies	100 times more potent than morphine Muscle rigidity may occur with IV use. Transdermal: Old patch must be removed before new patch is placed. Site must be rotated to prevent skin irritation.
Hydromorphone *(Dilaudid)***	IV/SQ: 15 min PO: 15-30 min	IV/SQ: 4-6 hrs PO: 4-6 hrs	IV/SQ: 2-4 hrs PO: 4-6hrs	IV: 0.5-1 mg SQ: 0.8-1 mg PO: 2-8 mg	Approximately 7 times more potent than morphine
Methadone *(Dolophine)*	PO: 30-60 min	PO: > 8 hrs	PO: 8-12 hrs	Individualized	

Oxycodone: controlled release (*OxyContin*)	PO: 1-2 hrs	PO: 6-10 hrs	PO: 12 hrs	PO: 20 mg (10-80 mg)	
Oxycodone: immediate release (*Roxicodone, OxyIR*)	PO: 10-15 min	PO: 3-4 hrs	PO: 4-6 hrs	PO: 5-20 mg	
Oxycodone w/ acetaminophen *(Percocet, Tylox, Roxicet)*			PO: 4-6 hrs	PO: 10 mg	Opioid content: 2.5-10 mg Acetaminophen content: 300-650 mg
Hydrocodone w/ acetaminophen (*Norco, Vicodin, Lortab*)			PO: 3-4 hrs	10 mg	Opioid content: 2.5-10 mg Acetaminophen content: 300-750 mg
Codeine (sulfate or phosphate)	PO: 30-60 min	PO: 4-6 hrs	PO: 4-6 hrs	PO: 15-60 mg	
Acetaminophen w/ codeine (*Tylenol* w/ codeine): #2, #3, or #4			PO: 3-4 hrs	1-2 tabs	Acetaminophen with codeine elixir 5mL: Opioid content: 12 mg Acetaminophen content: 120 mg Tylenol #2, #3, #4: Acetaminophen content: 300 mg Opioid content: Tylenol#2: 15 mg Tylenol #3: 30 mg Tylenol #4: 60 mg
Meperidine (*Demerol*)	IV:1-5 min	IV: 2-3 hrs	IV: 3-4 hrs	IV: 50-100 mg	Toxic metabolites accumulate w/ repetitive doses, causing CNS excitation (seizure, agitation). Not for Chronic Renal Failure
Tramadol (*Ultram, Ultracet,)*	PO: 1 hr	PO: 7-14 hrs	PO: 4-6 hrs	PO: 50-100 mg 400 mg/day max.	

* For NICU patients, refer to Neofax; For Pediatric patient, refer to the Pediatric Drug Dosage Handbook

**Patients with severe chronic pain or are palliative care may require higher doses based on condition/diagnosis."

Sources: LA General Resources; Lexicomp and Micromedex

Nursing Responsibilities utilizing multi-modal pain management and PRN PAIN orders

PAIN MEDICATION ORDER CHANGES:

Providers are encouraged to use multi-modal pain management and order the following:

- 1st Line: Cold or Hot Packs; Topical Therapy; etc.
- 2nd Line: Acetaminophen
- 3rd Line: NSAIDs (e.g., Ibuprofen, Ketorolac) & Other Non-Opioids (e.g., Gabapentin, Baclofen)
- 4th Line: Oral Opioids
- 5th Line: IV Opioids

NURSING RESPONSIBILITES:

Administer medications and therapies as ordered.

****REASSESS** pain level **LESS than 1 HOUR** after intervention or as **CLINICALLY INDICATED**

SCENARIO #1 – SCHEDULED PAIN MEDICATIONS/AROUND THE CLOCK (ATC):

1. Acetaminophen and/or Ibuprofen ordered "*Around The Clock* (ATC)"
2. PRN Oral Opioid ordered prn pain (5-10)
    a. This will be one specific dose of medication (e.g., Oxycodone) prn pain (5-10).
3. PRN IV Opioid (e.g., Morphine) - prn pain (5-10), unrelieved by non-opioids and oral opioids if ordered.
4. If patient still has pain (5-10) unrelieved by IV Opioids notify Primary Provider

SCENARIO #2 – NON-SCHEDULED PAIN MEDICATIONS

1. Patient has pain (1-10) - Acetaminophen (if ordered)
2. Administer prn NSAIDs (e.g., Ibuprofen) prn pain not relieved by Acetaminophen (if ordered)
3. Patient has pain (5-10)- Administer Oral Opioid (e.g., Oxycodone) prn pain unrelieved by non-opioids if ordered
4. Administer IV Opioid (e.g., Morphine) for pain (5-10) unrelieved by non-opioids and oral opioids if ordered.
5. **If patient still has pain (5-10) unrelieved by IV Opioids notify Primary Provider**

Patients who are strict NPO or patients who refuse orals and are requesting IV will require an additional provider order.

Please call provider for orders.