
EMERGENCY DEPARTMENT POLICIES

SUBJECT: Pain Management in the Emergency Department

NO. 54.2

PAGE NO. 1/5

Original date of issue: 6/08

Patient Population

Reviewed:								
Revised:								

Neonate	
Pediatric	√
Adolescent	√
Adult	√
Geriatric	√

POLICY:

As per JCAHO Standard R1.2.160, patients have the right to pain management. In order to meet this standard, the emergency department staff will assess patients for pain and educate all relevant providers about pain assessment and management.

Components of the pain assessment will include use of a 10 point pain scale, or "Grimace Face" pain scale in pediatrics, as part of the initial evaluation, periodically during the patient's stay in the ED, and at discharge.

Management of pain will include, but not be limited to, tailoring oral, intramuscular, subcutaneous, and intravenous analgesics to the patient. The pain management strategy will take into consideration the patient's allergies, co-morbidities, and medication profile.

Management will also include appropriate monitoring of the patient after receiving analgesics to assess for response, sensitivities, and toxicities.

IMPLEMENTATION:

- All nurses and physicians working in the emergency department will be periodically in serviced on pain assessment and management
- Patients will be assessed using a Numerical Rating Scale (NRS): 0 (no pain) - 10 (worst pain imaginable) or Grimace Face Scale in Pediatrics
- Pain related history and physical findings will be elicited by the care team and will include components such as those presented in Appendix 1. The primary nurse for a patient with significant pain will inform an ED physician immediately to begin management,
- Analgesia will be tailored for the patient's pain, see Appendix 2 and 3
 - The recommended initial dose of intravenous morphine in adults is 4 mg (0.05-0.1 mg/kg/dose in pediatrics); up to 10 mg can be given in patients who have chronic pain
 - The recommended initial dose of intravenous hydromorphone is 0.5 mg (0.015mg/kg/dose in pediatrics) up to 1.4 mg in patients who have chronic pain

- Patients receiving greater than an initial dose of 10 mg of morphine or 1.4 mg of hydromorphone should have a "clinical decision" note entered on the chart and consideration given to contacting the pain service
- Repeat dosing of morphine or hydromorphone should not be more frequent than every 30 minutes; when given more frequently a "clinical decision" note should be entered on the chart
- Patients requiring more than three doses of intravenous pain medications in a 3 hour period should be considered for a Pain Service consult
- Patients receiving intravenous opioids and sedative/hypnotics concomitantly will be placed on continuous pulse oximetry and the sedation / analgesia policy will be activated
- Patients receiving intravenous opioids will be reassessed periodically:
 - A NRS score will be assessed and charted within 30 minutes after each IV dose.
 - Excessive sedation or desaturation on pulse oximetry below 94% will be a consideration for additional monitoring.
 - The patient may not be discharged home or be transported to an inappropriately monitored setting, unless reassessed for the following:
 - Level of sedation: arousable to gentle physical stimulation
 - Respiratory rate: < 10 per minute or age appropriate in pediatrics
 - Oxygen saturation: persistently < 94% on room air oxygen when the initial saturation was > 96%

EMERGENCY DEPARTMENT POLICIES

SUBJECT: Pain Management in the Emergency Department	NO. 54.2
	PAGE NO. 3/5

Appendix 1: History and Physical Evaluation of Patients with Pain

History

- History of present illness (HPI)
 - Onset
 - Duration
 - Quality, character
 - Ameliorating and provoking factors
 - Patient rating if possible
- Current medications
- Medication allergies
- Past medical history
 - Any past history of similar pain?
 - What treatment has helped in the past
 - What studies have been done
 - Assess factors that would affect medication use
 - liver disease
 - renal disease
 - Sleep apnea or COPD
 - Morbid obesity
 - peptic ulcer disease
- Psychological assessment
- Social history
- Allergies

Physical Exam

- Vital signs: before and after pain medications
- Pain score: before and after treatment
- Pain as the abnormal 5th vital sign will include a numerical score greater than 5, and may be accompanied by
 - (a) Increased respiratory rate and effort,
 - (b) Body rigidity or thrashing
 - (c) Facial grimacing,
 - (d) Pacing
- In pediatrics, a score greater than 5 may be accompanied by:
 - (a) Crying, grunting, breath holding,
 - (b) Facial grimacing,
 - (c) Clinging to the caregiver or family member,
 - (d) Lack of movement, or

(e) Irritability, restlessness, aggression.

- Focused physical exam: system specific depending on complaint
- Functional assessment

EMERGENCY DEPARTMENT POLICIES

SUBJECT: Pain Management in the Emergency Department	NO. 54.2
	PAGE NO. 4/5

Appendix 2: Non-narcotic analgesics in the Emergency Department

Medication	Usual Adult Dose***	Maximum Adult Daily Dose	Usual Pediatric Dose	Comments
Acetaminophen	650-975 mg by mouth every 4-6 hr	4000 mg	10-15 mg/kg by mouth every 4-6 hr	Lacks the peripheral anti-inflammatory activity of NSAIDs
Aspirin	650-975 mg by mouth every 4-6 hr	4000 mg	x	Inhibits platelet aggregation, may cause post-op bleeding
Ibuprofen	400-800 mg by mouth every 6-8 hrs	2400 mg	10 mg/kg by mouth every 6-8 hrs	200 mg equal to 650 mg of aspirin and acetaminophen; 400 mg superior to 650 mg of aspirin and acetaminophen; 400 mg comparable to acetaminophen/codeine combination
Indomethacin	25-50 mg by mouth every 8 hrs	200 mg	0.3-1 mg/kg or 10 mg rectally	Max pediatric dose of 200 mg/day
Ketorolac	Pts. < 65 yrs of age: 30-60 mg IM initially followed by 15-30 mg every 6 hr. Oral dose following IM dosage: 10 mg every 6-8 hr. IV Dosage: 30 mg IV every 6 hrs. Pts. > 65 yrs of age: 15 mg IV/IM every 6 hrs	Pts. < 65 yrs of age: 120 mg Pts. > 65 yrs of age: 60 mg	0.5 mg/kg/dose max 100 mg/24 hrs	IV/IM comparable to 10 mg morphine with longer duration; use should be limited to 5 days
Naproxen	500 mg by mouth initially followed by 250 mg by mouth every 6-8 hrs	1250 mg the first day, then 1000 mg	10-20 mg/kg/day divided every 8-12 hrs	250 mg probably comparable to 650 mg aspirin with longer duration; 500 mg superior to 650 mg aspirin
Selective COX-2 Inhibitors				
Celecoxib	100-200 mg twice daily	400 mg		Caution in patients with sulfa allergy, renal insufficiency, and heart failure. May also cause and/or worsen hypertension.

EMERGENCY DEPARTMENT POLICIES

SUBJECT: Pain Management in the Emergency Department

NO. 54.2

PAGE NO. 5/5

Appendix 3: Opioid analgesics in the emergency department***

Drug	Equianalgesic dose		Initial ADULT Parenteral Dose***	Initial ADULT Oral Dose ***	Initial PED Parenteral Dose	Initial PED Oral Parenteral Oral Dose	Comments
	Oral	Parenteral					
Morphine	30 mg	10 mg	4 to 10 mg	10 to 30 mg	0.1 mg/kg/dose	0.2-0.3 mg/kg/dose;	Long-acting forms may be given orally every 8 to 12 hours. Some long-acting dosage forms may be given rectally. Metabolites may cause myoclonus in patients with renal failure.
OxyMORPHONE	10	1 mg	0.25 -1 mg	NA	x	x	
Fentanyl		100 mcg	25 to 100 mcg	NA	0.0005-0.001 mg/kg	NA	Short-acting. Available as transdermal patch.
Hydromorphone	7.5 mg	1.5 mg	0.5 to 1.5 mg	2 to 8 mg	0.015 mg/kg/dose	0.03-0.08 mg/kg/dose every 4-6 hr	Potent opioid. Good agent for patients with renal dysfunction.
OxyCODONE	20 mg	NA	NA	5 to 20 mg	NA	0.1-0.2 mg/kg/dose every 3-4 hr	Long-acting form may be given orally/rectally every 8 to 12 hours.
Methadone	5 mg	Metabolism is complex so estimation of dose equivalence is multifactorial and difficult.		2.5 to 5 mg		0.1 mg/kg/dose	Half-life > 24 hrs, so dosing adjustments should be made cautiously. Given every 6 to 8 hrs for pain management. May have role in management of neuropathic pain.
Codeine	200 mg	130 mg	N/A	60-200 mg	N/A	0.5-1 mg/kg	5-10% caucasians lack the enzyme to metabolize to morphine. May cause more nausea and constipation than other opioids.
Hydrocodone	30 mg	NA	NA	10- 30 mg	NA		Often combined with nonopioid analgesics which limits the total dose per day.
Tramadol			NA	50 mg	NA	x	Maximum dose 400 mg/day

*****Note: Dosing in the elderly or medically frail should start at 30 to 50% of the listed initial doses**