

# Pediatric Sickle Cell Disease Pain Management in the **Emergency Department**



Pain significantly

improved

Pain

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The following information is intended as a guildeline for the acute management of children with vaso-occlusive crisis (VOC) associated with sickle cell disease (SS, SC, S beta- thalassemia). Management of your patient may require a more individualized approach.

## MD/APP/RN Team Assessment

Vitals, H&P (ESI TRIAGE LEVEL 2 at minimum): Vital signs with blood pressure, temperature >38.3 C/ 101 F (see Sickle Cell Fever Pathway), hydration status, and pulse ox; Degree of pallor/ cardiopulmonary status; Spleen size; Penis (priaprism); Bones/joints (dactylitis, osteomyelitis); Neurologic exam; Allergies Assess and document pain:

(Mild pain: 1-4, Moderate pain: 5-7, Severe pain: 8-10, Different pain than standard: treat level of pain accordingly and consider alternate diagnosis) Recent pain medication, dose, time of last dose

Goal for initial treatment of pain: Pain meds within 30 mins of triage. Consider IN fentanyl if difficult access anticipated/encountered for mod/severe.

Individualized Care Plan: Look in EPIC for individualized care plan if one exists for the patient.

## Laboratory studies: CBC+differential and reticulocyte count for moderate/severe pain

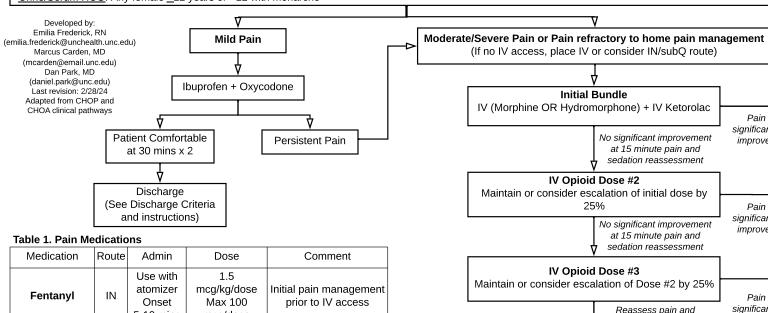
### Additional interventions and diagnostic testing to be considered:

IV Fluids: Attempt oral hydration first. If unable to tolerate PO initiate D5 1/2 NS at maintenance or 1.5 X maintenance; AVOID BOLUSING UNLESS REQUIRING ACTIVE RESUSCITATION FOR SIGNIFICANT HEMODYNAMIC INSTABILITY

Type and Screen: Pale, persistent tachycardia, ill-appearing; suspected splenic sequestration; Acute chest syndrome; Focal neurologic findings; Hgb <6 g/dl or 20% or more below baseline; Reticulocyte count <1%

Chest xray: cough, parental report of difficulty breathing or respiratory sx, chest pain, new hypoxemia, or clinical suspicion for pneumonia/acute chest syndrome Blood and urine cultures: If febrile >38.3C (see Sickle Cell Disease Fever Management Pathway)

<u>Urine/Serum HCG</u>: Any female ≥12 years or <12 with menarche



#### 5-10 mins mcg/dose 0.5 mg/kg/dose Initial dose should be Ketorolac IV Push IV Max 15 given 4 hours after last (Toradol) 2-3 min mg/dose dose of Ibuprofen 0.1 - 0.15Slow IV Morphine IV mg/kg/dose push Max 8 mg/dose 0.015-0.02 Slow IV Hydromorphone mg/kg/dose IV (Dilaudid) push Max 2 mg/dose <6 yo: 0.15 mg/kg/dose up to 2.5 mg; 6-12 yo: 0.2 Oxycodone PO mg/kg/dose up to 5 mg; >12 yo: 0.2 mg/kg/dose up to 10 mg If patient has not 0.2 mg/kg Hydrocodone/ received PO Max 10 mg Acetaminophen acetaminophen in the Hydrocodone last 4 hours alternative NSAID when **Ibuprofen** PO 10 mg/kg IV Toradol not available or oral route preferred

## Admission Criteria Pain inadequately relieved after 2 hours of appropriate IV treatment including 2 or more doses of an IV opioid - Family uncomfortable with discharge

Persistent Significant Pain

IV Opioid #4 Give same dose as Dose #3

and order PCA according to

Hematology recs

or feels additional doses of parenteral analgesics will be needed - Other sequelae of HbSS including

but not exclusive to: focal neurologic findings, Acute chest syndrome, Splenic sequestration, Severe anemia

# - After 1-3 doses of IV analgesia

Patients with pain relief:

sedation at 15 mins

Reassess pain and sedation in 1 hr

- Continued pain relief at least 60 mins after PO analgesia

Discharge Criteria

Patient comfortable

PO Opioid

Patient remains

comfortable

- Absence of other complications of HbSS, tolerating PO, and safe home environment and Hematology f/u

## Discharge Instructions

- Duration of scheduled narcotics and any changes to home pain management
- Hematology follow-up
- Important Sickle Cell Disease Clinic Numbers: Emergent question or consult at all hours 984-974-1000 and ask for pediatric hematologist on call; Routine questions from 8a-4p call office at 919-966-0178