

Sickle Cell Disease (SCD) Acute Pain Crisis in the Emergency Department

CookChildren's

SAFE AND SOUND
Pain Management

PRESCRIBING

History of SCD and
complaint of pain

Triage by RN,
assessment, VS,
assign a minimum of
ESI Level 2

Order sickle cell panel: <ul style="list-style-type: none"> • NPO • CAM/Pulse ox • Start IV • CBC with differential • Reticulocyte count 	Febrile and/or ill-appearing, without sepsis alert: +/- Blood culture +/- Urine culture +/- Chemistries +/- BBK to store +/- LR IVF (max 20 mL/kg)
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**For isolated acute pain crisis may start maintenance IV fluids or bolus LR 10 mL/kg*

Assess pain
*(onset, duration, location
frequency, intensity)*

SCD Acute Pain
Crisis?

Chest pain, headache and abdominal
pain should NOT be treated with SCD
Pain Crisis Pathway

Assess pain, treat, conduct complete
workup to determine etiology.

- Goals**
- 1st dose within 30 minutes of Triage
 - Repeat dose within 30 minutes, if needed
 - Multimodal analgesia

Obtain treatment
history: home meds,
hospital RX,
research studies

Consult Hematology
and Pain (if followed by
the service)

Taking daily
opioids at
home?

Mild pain?

*Not crying, drinking well,
Pain score 1-3*

Moderate pain?

*Grimacing, irritable
decreased appetite,
Pain score 4-6*

Severe Pain?

*Extremely
uncomfortable,
Pain score 7-10*

Treatment Plan

- Apply warm pack to painful area
- If no NSAID in the last 6 hours, give ibuprofen 10 mg/kg orally (max 800 mg) in combination with acetaminophen 15 mg/kg (max 500 mg)
- Oxycodone 0.1 mg/kg orally (max 10 mg) PRN pain unresponsive to ibuprofen and acetaminophen

Treatment Plan

- Apply warm pack to painful area
- FentaNYL 2 mcg/kg intranasal (max 100 mcg) prior to IV start
- If pt refuses, morphine 0.1 mg/kg IV (max 8 mg)
- Lactated ringers bolus 10 mL/kg, then maintenance IVF
- Ketorolac 0.5 mg/kg IV (max 30 mg) when IV started if no NSAID in the last 4 hours

**Nurse may notify provider if prolonged IV start for repeat intranasal fentaNYL dose 2mcg/kg (max 100 mcg)*

Treatment Plan

- Apply warm pack to painful area
- FentaNYL 2 mcg/kg intranasal (max 100 mcg) prior to IV start
- Morphine 0.1 mg/kg IV (max 8 mg) give when IV is started
- Lactated ringers bolus 10 mL/kg, then maintenance IVF
- Ketorolac 0.5 mg/kg IV (max 30 mg) give when IV is started if no NSAID in the last 4 hours

**Nurse may notify provider if prolonged IV start for repeat intranasal fentaNYL dose 2mcg/kg (max 100 mcg)*

Assess degree of
pain relief in 30 mins

Pain relief?
(pain score improving)

Assess degree of
pain relief in 15 min

Pain relief?
(pain score improving)

- Morphine 0.1 mg/kg IV Q 30 minutes PRN pain unresponsive to current treatment
- If pain unresponsive prior to the 3rd dose consider admission

Confirm patients
home opioid, give 1
dose and monitor
for 1 hour

Monitor
effectiveness

Breakthrough
pain?

Send home with level of
medication to maintain
adequate pain relief
and call H/O clinic
(max of 12 doses)

*Pain score not
improving*

Alternative if Allergic or Morphine Ineffective
Hydromorphone 0.02 mg/kg (max 1 mg)

References

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