SICKLE CELL PAIN MANAGEMENT

Nurse Initiated
(Goal: within 15 mins)

- ESI acuity level 2
- Vital signs with baseline O2 saturations
- Pain assessment
- Apply heat pack to painful area
- Obtain IV access
- Labs: CBC with diff, CMP, Direct Bili, Retic, blood culture if febrile (temp 38.5 or greater)
- Ongoing Pain Reassessment within 30 minutes of pain medication administration, report pain rating to provider

Initial Eval/Treatment
(Goal: within 30 mins)

- 0.9NS bolus, 20mls/kg (max 1L)
- CXR if chest pain, cough, hypoxia, difficulty breathing
- IV Ketorolac
  - <50kgs: 0.5mg/kg
  - >50kgs: 30mg single dose
- If pain rating >5, give loading dose of hydromorphone or morphine (weight based)

Reassess/Rescue
(Goal: every 30 mins)

- Reassess pain 30 mins after pain medication administration
- Pain score 0-4, give PO Norco/Hycet
- Pain score 5-7, give 1/2 the original dose of Hydromorphone or Morphine
- Pain score 8-10, repeat original dose
- IV fluids at 1X maintenance
- Reassess pain 30 mins after pain medication administered and repeat doses q30 minutes for 2-3 doses

Disposition
(Goal: within 2-4 hours of triage)

- Pain is well managed with oral opioid with improved pain score (goal: NRS 0-4)
- Patient/parental acknowledgement of relief
- Tolerating PO intake
- Absence of other sickle cell complications

OR

- Pain is not managed with oral opioids
- Pain is not controlled with improved pain scores after 3 doses of IV opioid
- Not tolerating PO intake
- Febrile, hypoxic, below baseline Hgb, retic <1% if Hgb <10, or thrombocytopenia

Admission: call heme/onc attending

- Alert on call hematologist and discuss the need for PCA management versus scheduled IV push opioids. Hematologist to give PCA dose orders.
- Q 1 hr pain assessment and sedation score
- Continue hydration at 1X maintenance, heat packs to painful area, monitor O2 sat, and continue pain management until arrival to floor.

Hydromorphone Dosing

- <50kgs: 0.02mg/kg
- >50kgs: 1mg

Morphine Dosing

- <40kgs: 0.15mg/kg
- >40kgs: 6mg

If Discharged:

- notify heme/onc attending via perfect serve FYI txt or call
  - Ibuprofen q 6hrs, alternating with Norco/Hycet q 6hrs so child is taking pain medication q 3hours for 24 hours.
  - Then continue Ibuprofen q 6 hours with Norco/Hycet PRN for 24 hours. Then ibuprofen PRN.
  - Encourage hydration and heat
  - Follow up with Hematologist-708-684-3113

Ibuprofen Dose= 10mg/kg

Hyct (7.5mg/15ml) Dose (weight based)

- 2-3yrs(12-15kg): 3.75mL
- 4-6yrs(16-22kg): 5mL
- 7-9yrs(23-31kg): 7.5mL
- 10-13yrs(32-45kg) 10mL
- >14yrs(>45kg):15mL

Give every 6 hours alternating with ibuprofen

Norco Dosing

- 5mg/325mg: 1-2 tabs every 6 hours
- 7.5mg/325mg and 10mg/325mg: 1 tab every 6 hours

Inclusion:
Patients with SS, SC, SR sickle cell disease presenting with pain.

Exclusion:
Sickle cell trait

Reviewed By: B.Schroeder; M. Sarvida
Publication Date: August 2018
Review Date: May 2018