Purpose Statement

To standardize the care of patients who present to Arkansas Children’s with Sickle Cell Disease-pain crisis.

Goal

To reduce the amount of time from patient presentation to our facility to the time the patient receives pain medication to 30 minutes or less.
**Inclusion Criteria:**
Patients with known SCD presenting with pain

Assess pain according to age appropriate pain scale
Patients presenting with SCD pain will be placed in exam room for triage

Pt in room, triaged, assessed by LIP, placed on monitor within 10 minutes of presentation
If no room available, place on hall bed and monitor

Consider administering intranasal (IN) Fentanyl 1.5 mcg-2 mcg/kg (max 150 mcg per dose)

Place PIV Obtain lab-CBC/retic

If IN Fentanyl administered, reassess/document pain 30 minutes after administration

Administer Ketorolac IV 0.5 mg/kg IV Q6 hr (max 30 mg) if >2 yrs of age OR
Ibuprofen PO 10 mg/kg Q6 hr (max 600 mg) if <2 yrs of age AND
Acetaminophen PO 15 mg/kg Q4 hr (max 650 mg)
Morphine IV 0.1-0.2 mg/kg initial dose (max 5 mg)
If pain >5, may give Morphine Q30 minutes—max 3 doses

Reassess/document pain 30 minutes after each dose of Morphine

Considerations:
Diphenhydramine 0.5 mg/kg PO (max 50 mg) Q6 hr PRN itching
Do not order Diphenhydramine IV

**Determine disposition**
(Consider admission if pain 4-7. Discuss with family)

Patients that have required a hydromorphone PCA for pain control in the past will have flag in chart triggering an automatic Anesthesia Pain Service Consult Pager # 501-405-6079

**Discharge Criteria**
Pain <4- D/C home with analgesic prescription

**Inpatient Admit Criteria**
Pain >7- Admit to Hem/Onc Service Notify if complications occur
On admission, ED LIP discuss placing PCA order with admit team

**Admission to Hematology for inpatient pain control to include PCA within 30 minutes of admission to floor**

**PURPOSE:**
To administer pain medication within 30 minutes of patient’s arrival to the Emergency Department
Sickle Cell Disease (SCD) Pain Crisis Pathway
Inpatient

### Inclusion Criteria:
Patients with known SCD presenting with pain

### Assess pain according to age appropriate pain scale

### Order
- **Incentive spirometer:** Q1 hour while awake
- **Polyethylene Glycol (Miralax):** Oral: 0.2 to 0.8 g/kg/day; maximum daily dose: 17 g/day
- **Ranitidine Oral Dosing:**
  - Infants, Children, and Adolescents ≤16 years: 2 to 4 mg/kg/day once daily; maximum daily dose: 150 mg/day
  - Adolescents >16 years: 150 mg once daily at bedtime
- LIP orders Patient-Controlled Analgesia (PCA) and breakthrough pain/itching medications
  - *Patients that have required a hydromorphone PCA for pain control in the past will have flag in chart triggering an automatic Anesthesia Pain Service Consult (Pager # 501-405-6079)*

### Scheduled for 72 hours
Administer
- **Ketorolac IV 0.5 mg/kg Q6 hr (max 30 mg) if >2 yrs of age**
- **Ibuprofen PO 10 mg/kg Q6 hr (max 600 mg) if >6 months of age for 3 days**
- **Acetaminophen PO 15 mg/kg (max 1 gram) Q6 hr**

#### Hydromorphone PCA Dosing
- 0.002-0.006 mg/kg/hour background
- 0.002-0.005 mg/kg/Q10 min bolus

#### Morphine PCA
- 0.01-0.03 mg/kg/hour background
- 0.01-0.02 mg/kg/Q10 min bolus

### ITCHING*
1. **Diphenhydramine 0.5 mg/kg PO Q6 hr (max 50 mg) PRN (wait 1 hour before moving to Ondansetron)**
2. **Ondansetron 0.1-0.15 mg/kg IV Q6 hr (max 8 mg) PRN (wait 30 minutes before moving to Naloxone)**
3. **Naloxone 0.001 mg/kg IV Q10 min up to 2 doses**

**DO NOT order Diphenhydramine IV**

### NAUSEA/VOMITING*
1. **Ondansetron 0.1-0.15 mg/kg IV Q6 hr PRN (max 8 mg)**
   - (wait 30 minutes before moving to diphenhydramine)
2. **Diphenhydramine 0.5 mg/kg PO Q6 hr PRN (max 50 mg)**
   - **DO NOT order Diphenhydramine IV**

**DO NOT duplicate therapies**

### After 72 hours
- **Acetaminophen PO 15 mg/kg (max 1 gram) Q6 hr scheduled**
- **Ibuprofen PO 10 mg/kg (max 600 mg) Q6 hr scheduled**

**PURPOSE**
Multimodal analgesic approach for better pain coverage

*Administer medications in numerical order
**DO NOT duplicate therapies**
**Metrics**

1. Increase the use of the sickle cell disease pain pathway by 50% by June 30, 2020.

2. Increase the number of patients with sickle cell disease pain crisis receiving pain medications within 30 minutes of arrival to the ED by 25% by June 30, 2019 (baseline data pending, subject to change).
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References

