ORLANDO HEALTH®
ARNOLD PALMER HOSPITAL For Children

Inpatient Pediatric Vaso Occlusive Pain Management Algorithm for Patients with Sickle Cell Disease ≥ 6 Years of Age

Child with Sickle Cell Disease ≥ 6 years admitted with persistent severe pain

Initiate Morphine PCA
- Consider PCA Loading dose based upon patients clinical assessment
- Continuous dose 0.02-0.05mg/Kg/hr (MAX 3mg/hr, use ideal body weight)
- Patient controlled dose 0.03mg/Kg (MAX 1mg/ dose)
- Lockout interval- 15 min
- 1 hour limit = 0.25mg/kg/hr
- Bolus dose given by RN every 2 hours as needed = 0.05-0.1 mg/kg/dose (MAX: 3mg)

Reassess pain 1 hour after starting PCA

Pain well controlled?

NO → If no improvement in pain score and patient has used ≥ 3 patient controlled doses, increase the continuous dose by 15% per physician assessment

YES → Continue pain assessment every 2-4 hours

Continue pain assessment every 2-4 hours

Pain well controlled?

NO → If no improvement in pain score and patient has used ≥ 3 patient controlled doses per hour, consider increasing the continuous dose OR patient controlled dose (alternating) by 15% every 3 hours up to a max per physician assessment

YES → If PCA usage and/or Functional Pain Score is stable or improved over previous 24 hours, consider weaning, **BEGIN DISCHARGE PLANNING**

Do not use PCA in patients ≥ 6 years if:

Patient or parent refuse
Pain contract in place

Supportive Care
- IV fluids 1 x maintenance (*If ACS is suspected: PO + IVF ≈ 1 x maintenance)
- Ketorolac 0.5 mg/kg (max 30 mg) IV every 6 hours [**Replace Ketorolac w/oral Ibuprofen after 5 days, if needed. If <4 weeks since last 5-day course, use oral Ibuprofen instead (8-10 mg/kg [max 600mg] PO every 6 hours]
- Consider add muscle relaxant as clinically indicated (Muscle relaxant in 12 years of age or older: methocarbamol (Robaxin) 1,500 mg every 6 hours for 2-3 days, then decrease to 1,000 mg every 6 hours (may also be used PRN for muscle spasm)
- Famotidine 0.5 mg/kg (max 20 mg) PO BID
- Miralax 8.5 to 17-gram PO daily
- Docusate 50 to 100 mg PO daily
- Senna 4.4 to 8.8 mg (or ½ to 1 tablet) PO daily
- Ondansetron 0.15 mg/kg (max 4 mg) IV or PO every 8 hours as needed for nausea and/or vomiting
- Start Naloxone drip for itching; Start at 0.25 mcg/kg/hr and may increase by 0.25-0.5 mcg/kg/hr every 2-4 hours (max of 3 mcg/kg/hr on the floor per policy).
- Consider Hydroxyzine 12.5 to 25 mg PO every 6 hours as needed for itching
- Consider Diphenhydramine 12.5 to 25 mg PO every 6 hours as needed for itching
- Continuous pulse oximetry, keep O2 SAT ≥ 94%
- Incentive Spirometry every 1 hour while awake
- Apply heat to the affected area
- Child Life and Social Work consults

NOTE: For patients on opioids at home AND used in the past 24 hours, assess if PCA starting dose is appropriate

If continuous dose increased to max of 0.05mg/Kg/hr, and patient controlled dose increased to max of 0.04mg/Kg, please discuss next steps with attending

If pain remains uncontrolled for 24 hours, consider alternative pain management options

Consider consulting Pain Service for:
- Child hospitalized ≥ 3 days with no clinical improvement despite optimal PCA dosing
- Severe/uncontrolled Avascular necrosis (AVN)
- Unmanageable side effects from PCA
- Complicated pain history

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Date: _____

ACUTE PAIN FUNCTIONAL QUESTIONNAIRE

When people are in the hospital, sometimes they feel too sick or uncomfortable to do all their normal activities. Think about how difficult it would be to do these things today – not whether you want to do them or if you did them.

How difficult is it for you do these things today?

	Not Difficult	A Little Difficult	Somewhat Difficult	Very Difficult	Extremely Difficulty
Take a bath or shower?					
Put on or change your hospital gown or clothes?					
Wash your body?					
Get up from the bed?					
Walk around in the room?					
Wash or shampoo your hair?					
Go outside your room?					
Be up without needing to rest?					
Put on or change pants?					
Do homework or schoolwork?					
Turn over or roll over in bed?					
Put on or change your shirt?					

Scoring
0 – Not difficult
1 – A little difficult
2 – Somewhat difficult
3 – Very difficult
4 – Extremely difficult

Adapted from (Zempsky et al., 2014)