Pediatric Sickle Cell Disease Fever Management in the Emergency Department

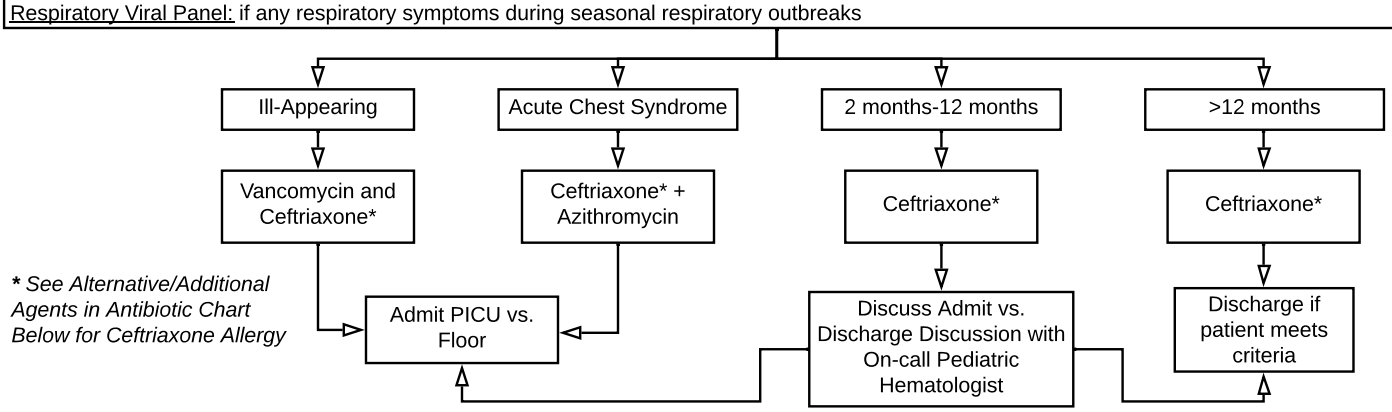
The following information is intended as a guildeline for the acute management of children with fever (≥**38.3 C/ 101 F**) associated with sickle cell disease (SS, SC, S beta- thalassemia). The fever can be a reported home temperatue or directly measured in the ED. Management of your patient may require a more individualized approach. *Utilize the Pediatric Sickle Cell Disease Pain Management Pathway for patients presenting with pain without a fever*

MD/APP/RN Team Assessment

General, Vitals, H&P (ESI TRIAGE LEVEL 2 at minimum): Assess vital signs (including continuous pulse ox), mental, respiratory, and circulatory status; Notify MD if concerned about patient's appearance; Place patient on CR monitor; Apply topical anesthetic to potential IV sites (patients with central venous catheter should be treated utilizing the Fever/Central Line Order Set; Comprehensive History & Physical Examination
Assess and Document Pain: Treat pain according to Pediatric Sickle Cell Disease Pain Management Clinical Pathway
Individualzed Care Plan: Look for FYI tab with individualized care plan if one exists for the patient

Laboratory and imaging studies on all patients: CBC + differential, Reticulocyte count, Blood culture. In addition: CXR for all patients ≤5

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***
UA/Urine Cx/Urine Pregnancy: Clinical suspicion for UTI; consider for following if there is no acute focus of infection (girls 2-12 months, uncircumcised boys 2-12 months, circumcised boys 2-6 months, history of UTI or renal anomaly); Urine HCG on post-menarchal girls, girls ≥12 years
Type and Screen: pale, tachycardia, ill-appearing; suspected splenic sequestration; Acute chest syndrome; Hgb < 5 g/dl or 20% decrease from baseline; retic <1%
CXR: >5 yo with cough, parental report of difficulty breathing/respiratory sx, chest pain, new hypoxemia, or clinical suspicion for pneumonia/acute chest syndrome
Respiratory Viral Panel: if any respiratory symptoms during seasonal respiratory outbreaks



Admission Criteria
Recommended admission:
- Age 0-6 months
- Temp ≥40 C
- WBC <5 k or >30 k, and/or platelet count <100,000
- Sign of systemic toxicity, especially hypotension, poor perfusion, or unexplained tachycardia
- Infiltrate on CXR
- Evidence of other acute complication including severe pain, aplastic crisis, splenic sequestration, acute chest syndrome, stroke, priapism, or delayed hemolytic transfusion reaction

Consider admission for:
- Age 7-12 months or older children with clinical concerns
- Hx of previous episodes of bacteremia, sepsis, or severe acute chest syndrome
- Concerns about compliance or reliable follow-up
- Family uncomfortable with discharge or states preference for inpatient observation

Discharge Criteria
- Patient does not meet admission criteria
- Observe with repeat vital signs and clinical assessment at least 1 hour post antibiotic
- If clinically stable with reliable family and Pediatric Hematologist approval

Discharge Instructions and Outpatient Management
- Prescribe antimicrobials if indicated (oral antibiotics for bacterial source of fever or Oseltamivir (Tamiflu) if influenza suspected
- Definitive repeat evaluation in 24 hours in ED, Hematology clinic, or PCP (eval should include vital signs and physical exam, with or without repeat CBC, retic, and parenteral antibiotic)
- If seen in ED or by PCP for 24-hour follow up, the on-call Pediatric Hematologist should be contacted at the repeat visit
- 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**

Antibiotics

Medication	Dosage	Notes
Standard Agents		
Ceftriaxone	75 mg/kg IV or IM x 1 (max dose 2 g)	
Severe Illness Agents		
Cefotaxime	100 mg/kg IV x 1 (max dose 2 g)	
Vancomycin	20 mg/kg IV x 1 (max dose 1250 mg)	
Alternative/ Additional Agents		
Levofloxacin	10 mg/kg IV x 1 (max dose 750 mg)	- substitute levofloxacin for known/suspected cephalosporin allergy and NO concern for CNS infection - use in combination with Vancomycin for severe febrile illness
Meropenem	40 mg/kg IV x 1 (max dose 2 g)	- substitute Meropenem for known/suspected cephalosporin allergy in combination with vancomycin for proven/suspeted CNS infection

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