Fever Management Guidelines for Infants and Children with Sickle Cell Disease

Fever Alert
Historically septicemia due to *Streptococcus pneumoniae* has been the most common cause of death in young children with sickle cell disease. Fever is the initial symptom of sepsis. **Prompt antibiotic therapy can be lifesaving.**

Evaluation and Initial Management
All children with sickle cell disease with a temperature ≥ 101°F (or a recent history of fever in that range) should be seen immediately and treated as follows:

1. **History & Physical Exam**

2. Draw a blood culture & CBC with differential and reticulocyte count. Immediately give an intravenous infusion of ceftriaxone (Rocephin ®) 75mg/kg (maximum dose - 2 grams). Infuse over 30 min. to avoid nausea/vomiting. If IV access cannot be obtained, ceftriaxone may be given IM (see package insert for injection criteria).

3. A chest X-ray should be obtained if the child has any of the following symptoms: fever ≥ 103.5°F, cough, chest pain or physical findings suggestive of pneumonia.

   **Caution:** prompt physical assessment and an initial dose of IV antibiotics should have a high priority. **Do not delay treatment by waiting for blood count or chest X-ray.**

Admission Guidelines
Admit if the child appears toxic. Strongly consider admission if the following factors apply: (If uncertain consult a pediatric hematologist)

* Child is under 6 months old (or not up to date on Prevnar vaccines)
* Temperature is ≥ 103°F
* Infiltrate on chest X-ray or any respiratory compromise (cough, tachypnea, retractions, O₂ desaturation)
* Prophylactic penicillin dose missed within the last 72 hours.
* Hgb and/or retic count are well below baseline (if known) or WBC ≥ 25,000
* If 24 hour follow up by phone or return visit is uncertain due to history of poor compliance or lack of transportation
* Previous history of Pneumococcal sepsis
Inpatient Management

* Administer ceftriaxone 75 mg/kg/day q 24 hours
* Daily CBC, chemistry profile, and blood culture (if still febrile)
* Close observation for any deterioration in clinical status that may indicate sepsis
* Frequent assessment of vital signs (continuous pulse oximetry recommended)

Outpatient Management and Treatment

If the evaluation suggests that outpatient management is possible (after a blood culture has been drawn and ceftriaxone has been given), there should be a 1-2 hour observation period in the emergency room. Temperature and pulse should be monitored and a physician should examine the patient immediately prior to discharge.

If a focus of infection is identified, such as otitis media or URI, it should be treated in the standard way. However the presence of such a focus does not lessen the need to obtain a blood culture and give the IV ceftriaxone dose.

Children < 5 years old, without a focus of infection, should increase penicillin dosing frequency to QID for 3 days until culture results are available. If cultures are negative after this time, they should resume their BID scheduled dose.

Children ≥ 5 years old may not be on prophylactic penicillin. If there is no focus of infection they can be started on PenVK 250mg po QID for 3 days until culture results are available.

Caution: A telephone number where parents can be reached in the event of a positive blood culture must be documented. A repeat outpatient visit in 24 hours is advised for all patients.

24 Hour Pediatric Hematology Consult Available

**Monday through Friday (8:00 – 4:30 p.m.)**

**Oklahoma City Area**
- Joan Parkhurst Cain, M.D.
- Comprehensive Sickle Cell Clinic
- The Children’s Hospital at OU Med Center
- (405) 271-5311

**Tulsa Area**
- Ashraf Mohamed, M.D.
- Pediatric Hematology/Oncology
- Saint Francis Hospital
- (918) 502-6720

**Evening or Weekend:**

**Oklahoma City:** Joan Parkhurst Cain, M.D., William Meyer, M.D., Rene McNall, M.D., Laura Rooms, M.D., David Crawford, M.D., Charles Sexauer, M.D., Ashley Baker, M.D. or Hanumantha Pokala, M.D. (405) 271-5437

**Tulsa:** Ashraf Mohamed, M.D., Wendy Bourland, D.O., Martina Hum, M.D., or Greg Kirkpatrick, M.D. (918) 502-6720

Warning

These guidelines may not apply in all instances and must be modified in specific circumstances according to the judgements of the individual physician.

Guidelines prepared by Joan Parkhurst Cain, M.D. (Revised 4/16/10)