

# Guidelines for Primary Care and Emergency Room Physicians

## 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  $\geq 101^\circ$  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  $\geq 103.5^\circ$  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  $\geq 103^\circ$  F
- \* Infiltrate on chest X-ray or any respiratory compromise (cough, tachypnea, retractions, O<sub>2</sub> desaturation)
- \* Prophylactic penicillin dose missed within the last 72 hours.
- \* Hgb and /or retic count are well below baseline (if known) or WBC  $\geq 25,000$
- \* 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  $\geq$  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 Sick 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.