Sickle Cell Disease (SCD)
Fever Management Guidelines

Background

For patients > 2 months of age with SS, SC, or $S\beta^0$, or $S\beta^+$ type SCD who have a temperature ≥ 38.5°C (or ≥ 101°F) or history of temperature ≥ 38.5°C (≥ 101°F) within 48 hours of presentation. All patients with SCD should call Pediatric Hematology/Oncology when they have fever. All patients with SCD and fever should be evaluated by a physician and have a CBC, reticulocyte count, and blood culture drawn and given antibiotics, ideally within one hour of presentation. Patients with SCD and fever may be managed on an outpatient basis if they meet low-risk clinical criteria (see below). Otherwise, they should be admitted for inpatient antibiotics and observation.

IV, Laboratory Studies, Chest X-ray

Insert peripheral IV or access port and obtain blood for:

- ✓ CBC with differential
- ✓ Reticulocyte count
- ✓ Blood culture
- o Draw extra tubes for type and screen and BMP and send if clinically indicated or admitted
- o Chest radiograph if clinically indicated
  - Respiratory symptoms
  - New hypoxia (room air saturation >3% below baseline or <93%)
  - Chest pain
  - Clinical suspicion for pneumonia/acute chest syndrome (ACS) or history of ACS
- o Rapid flu during influenza season
- o Urinalysis and urine culture if clinically indicated
  - Clinical suspicion for UTI
  - Age <3 years without obvious source of fever
- o Rapid strep if clinically indicated
- o Stool for culture or viral PCR if clinically indicated

Low-risk Criteria for Outpatient Fever Management

CLINICAL

- >12 months of age (or ≥ 5 years with cephalosporin allergy)
- Well-appearing, good VS, tolerating PO well
- No altered mental status or new neurologic findings
- No concern for splenic sequestration, ACS, or VOE requiring IV analgesia
- No new hypoxia (O2 saturation ≥ 93% if baseline unknown or room air saturation <3% below baseline

LABORATORY/X-RAY FINDINGS

- No significant drop in hemoglobin (Hgb <2 g/dL below baseline)
- Reticulocyte count >1% (unless Hgb >10 g/dL)
- WBC <30K
- CXR (if indicated) without infiltrate

SCD PMH

No history of:

- **Bacteremia or sepsis (check previous blood cultures)**
- Splenic sequestration within the past 4 weeks
- Splenectomy
- Multiple visits for same febrile illness

SCD SOCIAL HISTORY

No history of:

- Non-compliance with penicillin therapy
- Missing or delayed immunizations
- Low likelihood of follow-up (no phone, no transportation, resides in shelter, multiple missed appointments)

Inpatient Fever Management (does not meet low-risk criteria)

- ✓ Administer antibiotics

Routine	Ceftriaxone 75 mg/kg (maximum 2 grams)
Cephalosporin allergy	Clindamycin 40 mg/kg/d divided q8h
Acute chest syndrome	Ceftriaxone + oral Azithromycin (10 mg/kg x 1d, then 5 mg/kg q24h x 4d)
Ill appearing/concern for sepsis	Ceftriaxone + Vancomycin (See Pediatric Vancomycin Dosing Protocol)

- ✓ Place patient on maintenance IV fluids
- ✓ Discuss disposition with on call pediatric hematologist/oncologist (text page with patient name and MRN)

Outpatient Fever Management (meets low-risk criteria)

- Meets low-risk criteria
- ✓ Administer antibiotics

Routine	Ceftriaxone 75 mg/kg IV once (maximum 2 grams)
Cephalosporin allergy	Patients ≥ 5 years: Levofloxacin 10 mg/kg IV once (maximum 750 mg)

- ✓ Confirm working phone number
- ✓ Discuss disposition with on call pediatric hematologist/oncologist (text page with patient name and MRN)
- If blood or urine culture turns positive after discharge at any time, notify on call pediatric hematologist/oncologist, who will take responsibility for follow-up
- On call pediatric hematologist/oncologist to open telephone encounter
- Reason for call: Fever
- Documentation: Encounter specific (e.g. “Patient with SCD, fever, and influenza seen in ED 10/29/14. Given Rocephin and Tamiflu. Needs telephone nurse SCD fever f/u 10/30/14”)
- Route encounter to **P CCC Clinic Support** pool (make P CCC Clinic Support “responsible” and leave telephone encounter open). Do not route to P CCC Clinic Support on Friday or Saturday

Outpatient Fever Follow-up

- ✓ Pediatric hematology/oncology telephone nurse follow-up
  - Follow-up should occur next calendar day.
  - “Take” CCC Clinic Support telephone encounter for SCD fever f/u (On call pediatric hematologist/oncologist will follow-up on Saturdays and Sundays)
  - Review blood culture
  - Call both parents, all numbers, ok to leave message (do not need to call emergency contact unless there is a clinical concern)
  - If no clinical concerns (i.e. decreased fluid intake, decreased wet diapers/voiding, decreased activity, new respiratory symptoms, or worsening pain) and blood and urine cultures negative, no further follow-up necessary (continued fever ok)
  - If clinical concerns, page on call pediatric hematologist/oncologist to discuss
- ✓ Document call and disposition (i.e. patient doing well, keep regular outpatient follow-up) in original telephone encounter, route to sender, and close encounter