OUTPATIENT EVALUATION AND MANAGEMENT OF FEVER (T ≥ 38.3°C) IN THE CHILD WITH SICKLE CELL DISEASE

1. Rapid triage on arrival. Place immediately into exam room. Blood culture and parenteral antibiotics should be administered within 30 minutes of arrival.

2. Brief history and physical exam with emphasis on:
   - vital signs with BP, peripheral perfusion, degree of pallor, and pulse ox (compare with patient's baseline)
   - cardiopulmonary status -- Use supplemental 0_2 for pulse ox less than baseline or signs of respiratory illness.
   - evidence of systemic or localized infection
   - spleen size (compare with baseline exam)
   - neurologic exam

3. Laboratory:
   - Stat CBC, diff, platelet, retic, and blood culture (use butterfly or angiocath and follow immediately with IV antibiotic).
   - Consider CRP
   - Type, screen, and crossmatch for extreme pallor, respiratory or neurologic symptoms, or acute splenic enlargement. Request leukocyte-depleted and, if available, C, E, Kell-compatible minor antigen phenotype) and sickle-negative RBC. In absence of alloantibodies, urgent transfusion should not be delayed by search for minor-antigen matched units.
   - Consider urinalysis and urine culture, especially without other focus of infection. CSF or other cultures if clinically indicated.

4. Parenteral Antibiotic:
   - Prompt administration of ceftriaxone 50-75 mg/kg IV (2 gm max single dose) through IV access used for phlebotomy. Use IM route if venous access delayed.
   - For patients with known or suspected cephalosporin allergy, substitute meropenem 20 mg/kg IV (1 gm max single dose).
   - For severe illness (e.g., altered mental status, suspected CNS infection, poor perfusion, and/or hypotension), add vancomycin 15-20 mg/kg IV (1 gm max single dose) and use higher dose of ceftriaxone (100 mg/kg, 2 gm max single dose) or meropenem (40 mg/kg, 2 gm max single dose).
   - Parenteral antibiotics should be given immediately after blood culture drawn, before other procedures such as CXR, etc.
   - The presence of a focus of infection (e.g. otitis) does not alter the urgency of giving parenteral antibiotics.

5. Monitor closely for hypotension and shock. NS bolus 10-20 cc/kg IV for dehydration, hypotension, or poor perfusion. For well hydrated patients with normal BP and perfusion, D_5 1/4 NS @ 1 – 1-1/2 x maintenance.

6. Acetaminophen 10-15 mg/kg po (if not given in the last 4 hr) and/or ibuprofen 10 mg/kg po (if not given last 6 hr). Avoid ibuprofen if contraindication present (i.e. gastritis, ulcer disease, coagulopathy, dehydration, or renal impairment).

7. CXR and continuous or frequent pulse ox, particularly if:
   - pulse ox less than patient's baseline (the etiology of a supplemental 0_2 requirement should be investigated)
   - cough, tachypnea, thoracic and/or abdominal pain, or abnormal pulmonary exam

8. Review patient's past history and baseline values for hemoglobin, platelet, retic, spleen size, and pulse ox.

9. Contact on-call pediatric hematologist to discuss management and disposition.
   a) Admission or 23 hour observation should be strongly considered if one or more of the following criteria are present:
      - Age < 1 year with HbSS, Sβ°-thalassemia, or newborn screening results with hemoglobins FS not yet confirmed
      - History of previous episodes of bacteremia or sepsis
      - T>40°C, WBC>30,000/mm3 or <5,000/mm3, and/or platelet count <100,000/mm3
      - Signs of systemic toxicity, especially any hypotension, poor perfusion, or unexplained tachycardia
      - Patient who received meropenem or vancomycin
      - Infiltrate on CXR (see Acute Chest Syndrome Guidelines)
      - Evidence of other acute complications including severe pain, aplastic crisis, splenic sequestration, acute chest syndrome, stroke, or priapism (see other Clinical Guidelines)
      - Concerns about compliance / follow-up
   b) Outpatient management for patients who are not admitted:
      Observe with repeat vital signs, BP, and clinical assessment at least 1 hr post ceftriaxone. If non-toxic and clinically stable with reliable family and hematologist approval, discharge with a specific plan for outpatient follow-up. Minimum follow-up includes phone contact the next day. Repeat exam and 2nd dose of ceftriaxone (with or without repeat CBC and reticulocyte count) 24 hr later may be advisable in some cases.

These guidelines do not indicate an exclusive course of treatment or serve as a standard of care. Variations based on a physician's best medical judgement may be appropriate in individual cases.