

Sickle Cell Disease and Fever

By Clarissa Johnson, M.D.

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Children with sickle cell disease are at risk for bacterial blood stream infections because the spleen does not work as it should. Thanks to vaccines and penicillin, fewer children are dying from pneumococcal bacteria, but sickle cell disease patients still have a higher risk.

A temperature of 101°F or higher may be the first and only sign of serious infection in sickle cell disease. A child can die within six hours of fever if they have a blood stream infection.

Fever also can be a sign of other complications of sickle cell disease including acute chest syndrome, splenic sequestration and aplastic crisis (sudden very severe anemia related to a virus).

Fever:

For a sickle cell disease patient (which includes SS, SC, S-Beta thalassemia), fever is a medical degrees emergency. Patients should seek immediate medical attention for evaluation of a fever 101°F or higher. Do not treat fevers at home with antipyretics before seeking medical evaluation.

Do not recommend giving TYLENOL® or ibuprofen for any fever between 99-100.9°F. If temperature is between 99-100.9°F, the parent/guardian should be instructed to continue checking the temperature. If it reaches 101°F they need to seek medical evaluation. TYLENOL® and ibuprofen should not be given by a parent until the patient has been evaluated by a medical provider and receives antibiotics.



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Medical management of fever is critical



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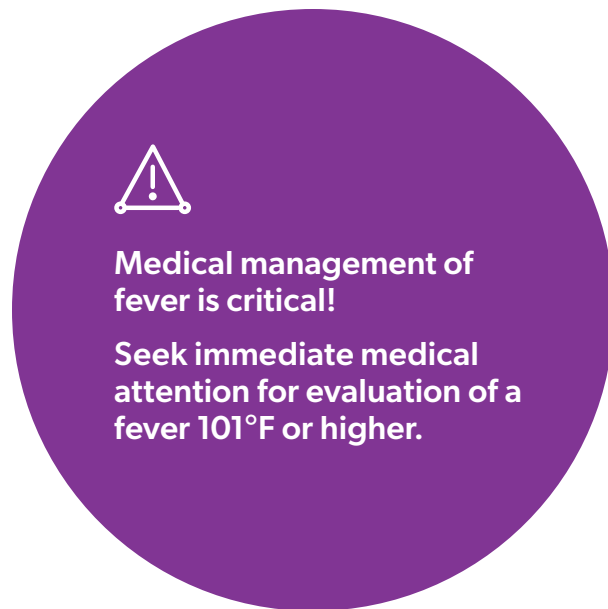
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Recommended initial evaluation includes:

- Complete blood count (CBC) with manual differential, reticulocyte count, type and screen, blood culture, urinalysis and urine culture in females and in males if symptomatic.
- Call out: People with sickle cell disease often have a higher than normal white blood cell count.
- A white blood cell count of 30,000 or greater should raise concern for possible bacteremia.
- Measurement of oxygen saturation.
- Chest X-ray if there are any respiratory symptoms, history of chest pain, history of acute chest syndrome, or abnormal oxygen saturation.
- Hospitalization for observation pending blood culture results for children less than 12 months old.

Broad-spectrum intravenous antibiotics such as IV ceftriaxone (50-75 mg/kg) should be administered immediately after blood culture is obtained (even if focus of infection such as ear or throat is found); children with sickle cell disease and a proven allergy to cephalosporins can receive levofloxacin at a dose of 10 mg/kg (max of 750 mg) IV every 24 hours for outpatient management of febrile episodes. Clindamycin also may be used if you anticipate admission.

Please do not wait for CBC results to give antibiotics as there is nothing that will prevent this dose from being given.



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