



FOUNDATIONS
of Emergency Medicine

Always Evaluate:

- Cardiopulmonary S/Sx
- Hemoglobin Level
- Reticulocyte Count

Foundations Frameworks

Approach to the Sickle Cell Crisis

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Vaso-Occlusive Crisis

- Caused by anemia, dehydration
- These patients typically have higher resting Hgb
- Management:
 - Fluids: PO vs D5 1/2 NS at maintenance rate vs NS bolus if hypotensive
 - Opioid
 - Acetaminophen
 - Avoid NSAIDs or O2 (unless hypoxic)
- Rule out: osteomyelitis, avascular necrosis, gallstones, septic arthritis, acute chest syndrome
- Cardiopulmonary Symptoms → Evaluate for **Acute Chest Syndrome**
 - Leading cause of death
 - Diagnosis: Infiltrate on XR chest plus...
 - Hypoxia
 - Fever
 - Chest pain
 - Respiratory signs/symptoms
 - Management: antibiotics, fluid resuscitation as needed, exchange transfusion, hematology consult, consider ICU admission

Anemic Crisis

- Presents with less pain
- Patients may have pulmonary HTN, leg ulcers, increased risk of sudden death
- Obtain a hemoglobin, reticulocyte count, perform rectal exam

Causes:

- Transient Red Cell Aplasia
 - Low reticulocyte count
 - Management: isolation and call hematologist
- Splenic Sequestration
 - Typically seen pediatric patients
 - Large spleen, LUQ pain, rapid drop in hemoglobin, high reticulocyte count
 - Management: transfusion, volume resuscitation
- Hemolytic Crisis
 - Elevated LDH, elevated reticulocyte count, elevated LFTs/bilirubin

Special Circumstances

- Hyphema, priapism, CVA (even in peds), gallstones, osteomyelitis, sepsis/fever