Sickle Cell Disease and/or Asplenia with Fever or Acute Illness ED/Clinic Management Greater than 1 month old

K07002307 Jun/7/2002 M
SCA,TEST Visit
ER0000145/12 **HCN:** 22222222
Van den Hof, TEST / TEST, Maureen
Dec/8/2011

Patient:_____

☐Alert Record Reviewed ☐No Allergies Known

☐Allergies−Adverse Reactions−Cautions: _____

Age_____ Patient's Weight_____kg Date of Patient's Weight _____

DIAGNOSIS: _____

Items preceded by a **bullet** (•) are active orders. Items preceded by a **checkbox** ( ) are only actioned if checked (√)
Refer to APPHON website for the link to the CanHaem Consensus Statement on the care of patients with sickle cell disease in Canada (https://www.apphon−rohppa.com/en/guidelines/sickle−cell−guidelines)

LAB/INVESTIGATIONS

Within 30 minutes of arrival:

- Blood culture (ideally before giving antibiotics, but do not delay giving antibiotics beyond 60 minutes from time of arrival)
- CBCD, reticulocyte count, Na^+, K^+, BUN, creatinine, ALT, AST, bilirubin (total and direct), blood glucose

☐Blood gas, lactate if hemodynamically unstable
☐Urinalysis ☐Urine culture
☐Chest X−ray (AP and Lateral)
☐NPA (PCR) for: ☐Influenza/RSV ☐Extended viral panel (ID approval required)
☐COVID19 (if extended viral panel not available)
☐Throat swab for mycoplasma
☐Lumbar puncture
☐Other _____

MONITORING

- If unstable, place on continuous monitor. Otherwise, BP, HR, RR Temp and pulse oximetry every hour until stable, then every four hours
- Keep oxygen saturation above 94%. Apply oxygen and notify most responsible prescriber and respiratory therapist

DIET/FLUIDS

If acute chest syndrome is suspected:
☐NaCl 0.9% (3/4 x maintenance rate; maximum 150 mL/hour)_____mL/hour IV or oral equivalent
Otherwise:
☐NaCl 0.9% (1 1/2 x maintenance rate; maximum 150 mL/hour)_____mL/hour IV or oral equivalent

MEDICATIONS

Start Antibiotics within 60 minutes of arrival at hospital and call Pediatric Hematologist/Oncologist. NEVER delay empiric antibiotic administration. Do NOT wait for CBC results. If patient has had a confirmed anaphylactic reaction to cefTRIAXone, consult patient's pediatric hematologist/oncologist.

For all patients with fever and/or acute illness:

☐cefTRIAXone (100 mg/kg/dose, maximum 2000 mg/dose)_____mg IV/IM* q24h
** If unable to get IV access after 3 attempts or 45 minutes, use IM route for initial dose* (patients greater than 5 kg, the preferred diluent to use for reconstitution for IM injection is 1% lidocaine without epinephrine as per IWK DDG)

If suspected atypical pneumonia and greater than 5 years old (consult ID for children 5 years and under)

☐ADD clarithromycin (7.5 mg/kg/dose, maximum 500 mg/dose)_____mg/PO BID (in addition to cefTRIAXone)

Suspected meningitis:

- ADD vancomycin (in addition to cefTRIAXone)

☐Less than 12 years of age: vancomycin (15 mg/kg/dose, maximum 1000 mg/dose)_____mg IV q6h
☐12 years of age and older: vancomycin (15 mg/kg/dose, maximum 1000 mg/dose)_____mg IV q8h

DISPOSITION

☐Discharge Home with follow−up in 12 to 24 hours after discharge
Appointment date and time_____Location_____
☐Admit/Transfer to_____and refer to APPHON Inpatient Sickle Cell Order Set

DATE (yyyy/MON/dd)	Time (24hr/hh:mm)	Prescriber Signature	Printed Surname/Registration #
DATE (yyyy/MON/dd)	Time (24hr/hh:mm)	Verified By (Signature)	Printed Surname

Note: Page 2 Clinician Information

Algorithm for the Management of Children Greater than 1 month old or with Sickle Cell Disease and/or Asplenia with Fever or Acute Illness

Fever	
38° C tympanic/oral OR 37.8° C axillary or greater 1 hour apart or 38.3° C tympanic/ oral or greater	Temperature taken **at home** MUST be considered a true temperature

Immediate Assessment (ABCs)	
Source of infection: ?meningitis, AOM, osteomyelitis, etc.	Look for co−morbidities: splenic sequestration, aplastic crisis, etc.

Appropriate cultures + Labs

Administer antibiotics within 1 hour of arrival

Does patient have clinical signs of meningitis?

YES → Perform Lumbar Puncture if clinically appropriate, do not delay antibiotics
Antibiotics: cefTRIAXone (meningitic dosing) + Vancomycin

NO → cefTRIAXone (non−meningitic dosing)

If patient greater than 5 years with suspected atypical pneumonia, add clarithromycin

Discuss with on−call pediatric hematologist−oncologist

Does patient have hypoxia, or cough, shortness of breath, and/or chest pain

Consider Acute Chest Syndrome

Maintain oxygen saturation over 94%	Chest X−ray (AP + Lateral)	Avoid excessive hydration (75% maintenance IV Fluids

Usual organisms include: *Streptococcus pneumoniae, Haemophilus influenzae, Neisseria meningitis, Salmolella spp, and Escherichia coli*

Admission Criteria (list is not exclusive)

Patient Factors	Environmental	Clinical	Investigations
• Age less than 1 year • Prophylaxis indicated but patient not compliant • History of invasive pneumococcal infection • Patient on chronic transfusion therapy for stroke	• No reliable method of contact • Lives more than 45 minutes away from nearest ED • Unable to return in 12 to 24 hours for reassessment	• Temperature greater than 39.5° C • Dehydration • Abnormal vital signs • Toxic appearing • Signs of meningitis • Suspected **acute chest syndrome** • Any concerning features	• WCB greater than 30 x 10^9 /L • ANC less than 0.5 x 10^9 /L • Hgb less then 60 g/L • Plt less than 100 x 10^9 /L • Urinalysis positive for blood, nitrates, or leukocyte estrase • Infiltrates on chest Xray

- If patient has history of penicillin allergy (including anaphylaxis to penicillin), IV cefTRIAXone can still be used safely.
  - Due to the small risk of reaction, observe the patient
- If patient has history of cefTRIAXone allergy or reactions, consult with patient's hematologist/oncologist and/or refer to patient's chart if a pre−made plan is in place