

History

- When did the sore throat begin?(sudden suggests Strep)
- Have you been exposed to others with sore throat or URI type sx ?(for children ask about others at day care or school with Strep throat, mono)
- Do you have fever? How high recorded?
- Are you experiencing cough, rhinorrhea, congestion, post-nasal drip, muscle aches, headache, ear aches, excessive fatigue?
- Have you noted any rash, swelling of lymph nodes or facial pain?
- Do you have a history of seasonal allergies or reflux?
- Have you noted any abdominal pain or diarrhea?
- Sexual hx may be appropriate especially if recent new sex partner, hx of oral sex or complaints of vaginal or penile discharge that coincides with onset of sore throat
- Have you had your tonsils out? If not how many throat infections have you had in the last year? You may want to ask about snoring-especially with young children as this may suggest chronic tonsillar hypertrophy.
- Possible red flag symptoms - dysphonia, drooling, trouble swallowing secretions or trouble breathing?

D/Dx: strep/viral pharyngitis, tonsillitis, mono, post-nasal drip, sinusitis, URI, chronic allergic rhinitis, pharyngeal gonorrhea or chlamydia, primary HIV, severe nocturnal reflux, stomatitis involving the posterior pharynx, Reflux.

RED FLAGS: epiglottitis, peritonsillar abscess, retropharyngeal abscess

Physical Exam: (*Pay close attention to*)

- Vitals – esp. Temp.
- Halitosis
- Audible stridor, tripodding and grey pseudomembrane covering the pharynx and toxic appearance. consider epiglottitis
- Examine oropharynx for exudates, oral ulcers, cobble-stoning, tonsillar enlargement and erythema; deviation of the uvula and gross asymmetry of the tonsils suggest peritonsillar abscess
- Check nares along with TMs and palpate the facial sinuses for tenderness
- Fine, sand paper rash of the trunk suggests scarletina or Scarlet Fever.
- Tender, enlarged tonsillar lymph nodes suggest strep, grossly enlarged posterior neck nodes consider mono, systemic enlarged nodes consider mono and/or primary HIV.
- Palpate abdomen for splenic enlargement with suspected mono

Diagnostic Exams

- Group A Beta-hemolytic strep (GAS): rapid strep antigen test (RSAT) is 80-90% specific and 90-100% sensitive. Useful for establishing diagnosis but neg. test does not r/o GAS.
- Throat Culture for GAS: proper collection of specimen is key (swab tonsils, tonsillar fossa and posterior pharynx to increase recovery of the organism). When appropriately performed expect 90% specificity and 95-90% sensitivity. Up to 5 % of adults are carriers and thus will test positive.
- Serology: Antistreptolysin (ASO) titers will show a 4x increase and rapid rise during acute infection. This form of testing is recommended when the diagnosis of rheumatic fever is being considered but not relevant to acute, uncomplicated GAS infection.
- Epstein Barr Virus (EBV or Mono): CBC with Diff should be ordered for evidence of lymphocytosis, atypical lymphocytes, neutropenia, and thrombocytopenia and Heterophile antibody test (Monospot) should be performed
- Epiglottitis: *Haemophilus influenzae* type b (Hib) and Strep are most common causes, blood culture 90% sensitive for identifying the offending organism and safest to obtain, x-ray only after the airway has been secured will reveal an enlarged epiglottis. **Secure airway, especially in children, before conducting physical exam or testing as respiratory failure is a real and expected outcome!** (Consider Hib in foreign born and adults with waning Hib vaccine protection)
- Other exams: based on sx and PE exam perform additional tests, cultures or examinations

Patient Education

- Explain dz process and duration of sx based on diagnosis. Reinforce **completing** antibiotic therapy in GAS and other bacterial infections.
- Remove from contact sports when splenomegaly accompanies Mono.
- Immediate hospitalization with epiglottitis
- Symptomatic relief: warm NaCl gargles, lozenges, cool liquids and OTC pain relievers and preparations for relief for common cold sx as required
- Patients positive for GAS should be on antibiotic for at least 24 hours before returning to school or work to minimize exposing others.
- For recurrent tonsillitis in children and young adults consider referral for tonsillectomy, especially when sx of sleep apnea are present.
- Change of toothbrush – esp with Strep throat.

Treatment Options

- GAS: Amoxil or oral penicillin, 1st generation cephalosporin, erythromycin or Azithromycin is recommended alternative for PCN allergic patient.
- Epiglottitis: erythromycin or penicillin

Follow up

Uncomplicated GAS requires no follow up unless the sx do not resolve within the first 72 hours. EBV with splenomegaly should be followed until spleen is no longer palpable or normal on ultrasound (4-6 Weeks). Epiglottitis and space occupying masses of the retropharyngeal space require specialized care until resolution. Peritonsillar abscess should be followed until resolution.

ICD-9 Codes

- 034.0 Streptococcal sore throat
- 462 Acute pharyngitis
- 465.0 Acute laryngopharyngitis
- 464.30 Acute epiglottitis, without mention of obstruction
- 075 Infectious mononucleosis

Clinical Pearl

Some clinicians use the Centor Criteria for determining when to test/treat GAS. The Centor Criteria are:

- Tonsillar exudates
- Tender cervical lymphadenopathy
- Fever by history
- Absence of cough

If 3 of 4 of the criteria are met, the positive predictive value is 40-60% whereas, if there is an absence of 3-4 of the criteria the negative predictive value is 80%. Despite this 50% of individuals are over-treated using this criteria. The current wisdom is to use rapid point of care testing for GAS.

Patti Pagels, P.A.
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