STREP PHARYNGITIS

FLAME LECTURE: 35

PETERS 8.19.19

LEARNING OBJECTIVES

- Understand the importance of knowing about Strep Pharyngitis
- Understand viral versus bacterial pharyngitis
- Know how to diagnosis strep pharyngitis
- Know how to treat strep pharyngitis
- How to manage recurrent strep infections
- Prerequisites:
  - NONE

OVERVIEW

- 11 million diagnoses of pharyngitis annually in the US
- 15-30% of cases in children and 5-20% of cases in adults are due to Group A beta-hemolytic streptococcus (GABHS)
- Correctly diagnosing viral vs. bacterial pharyngitis is vital for appropriate use of antibiotic therapy, improving quality of care, and reducing unnecessary treatment

SIGNS & SYMPTOMS

Bacterial

- Sore throat - sudden onset
- Temp > 100.4F (38C)
- Tonsillar exudates
- Cervical adenopathy
- Nausea, vomiting
- Abdominal pain

Uncommon findings:

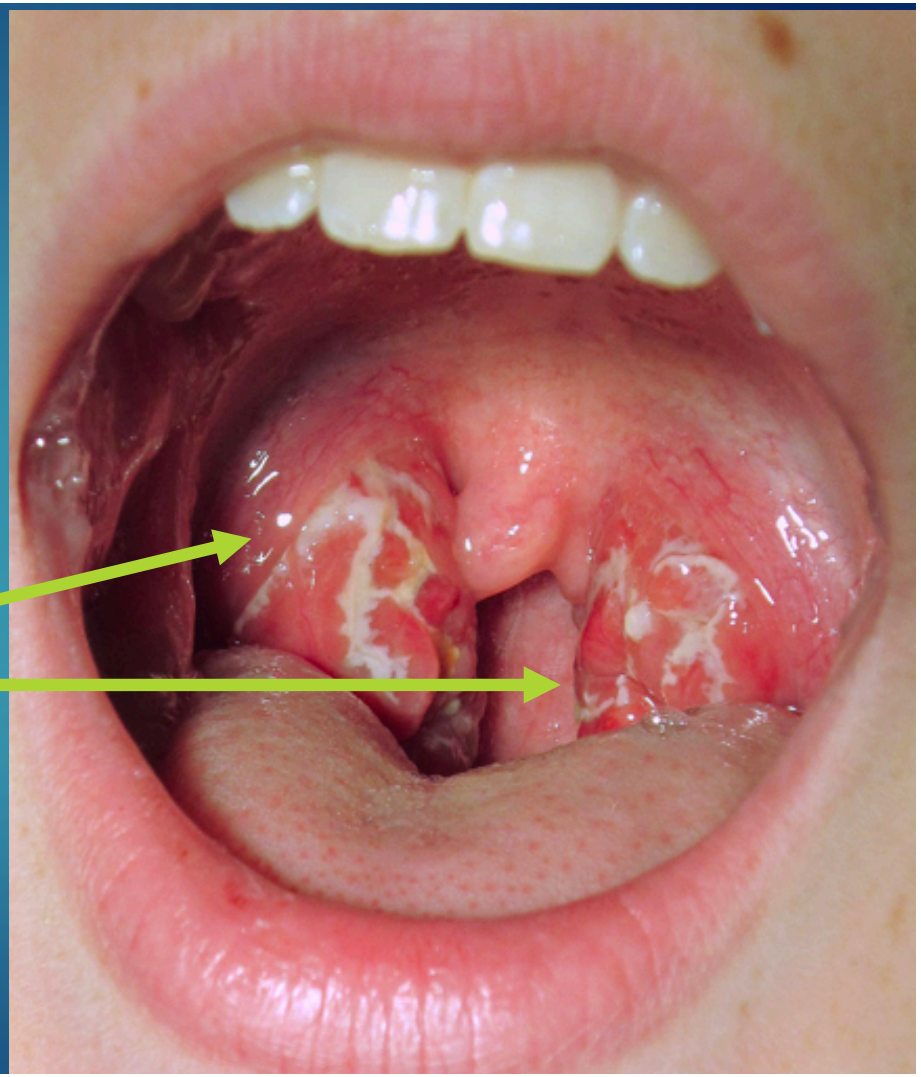
- Palatal petechiae
- Scarlatiniform rash

Viral

- Cough / Coryza
- Congestion
- Diarrhea
- Hoarseness
- Viral exanthem

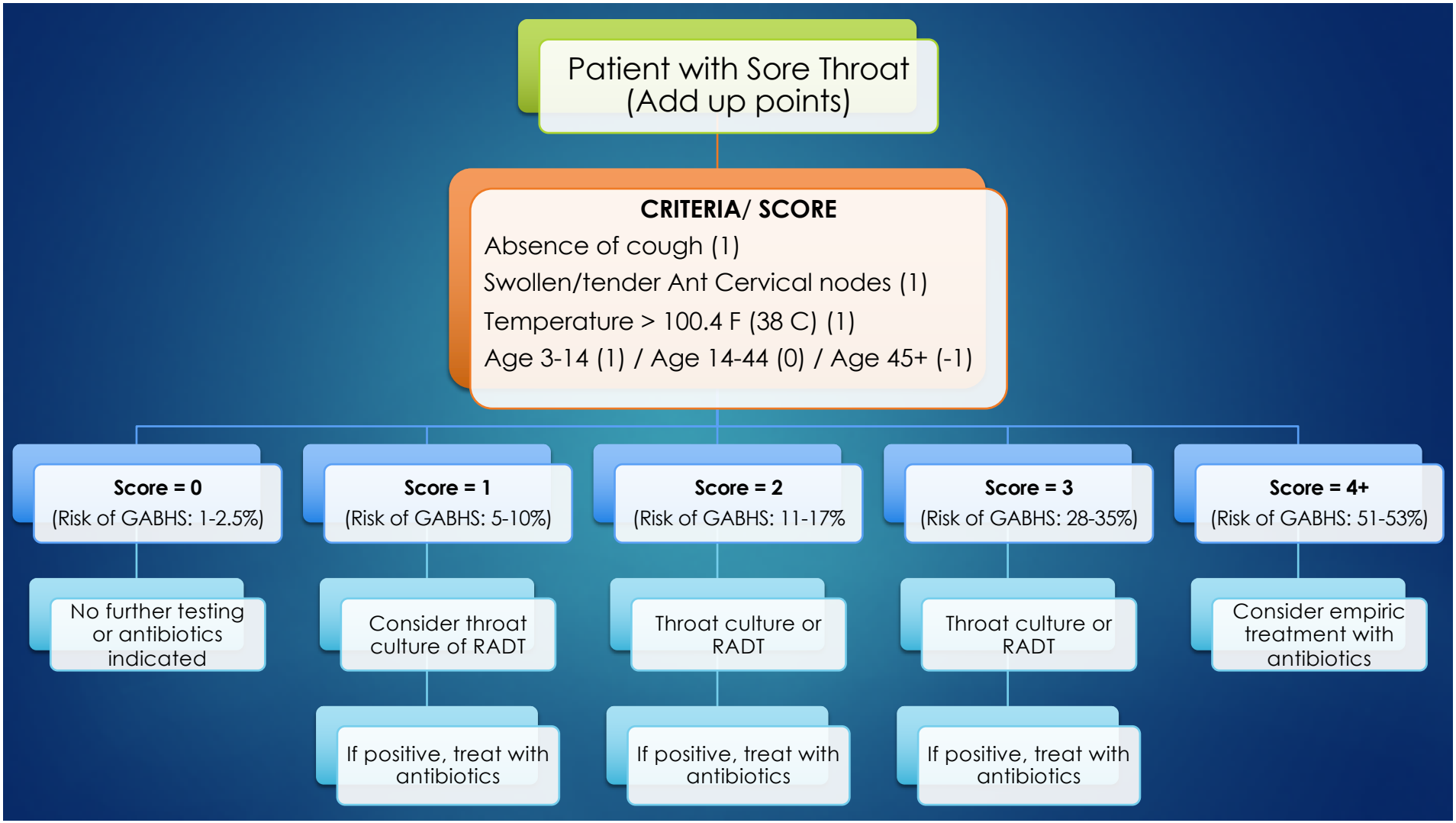
PHYSICAL EXAM

- Tonsillar exudates and hypertrophy seen in a patient with diagnosed streptococcal pharyngitis



DIAGNOSIS

- Centor scoring determines likelihood of bacterial illness and need for antibiotics
- Throat culture: 90-95% sensitive
- Rapid antigen detection testing (RADT): 90-99% sensitive
  - Negative results may require confirmatory throat culture depending on sensitivity of RADT kit used
- Antibody testing
  - Not routinely performed and not typically recommended
  - May be used to confirm previous infection in patient with suspected post-streptococcal glomerulonephritis or rheumatic fever


Patient with Sore Throat
(Add up points)
CRITERIA/ SCORE
Absence of cough (1)
Swollen/tender Ant Cervical nodes (1)
Temperature > 100.4 F (38 C) (1)
Age 3-14 (1) / Age 14-44 (0) / Age 45+ (-1)
Score = 0
(Risk of GABHS: 1-2.5%)
No further testing or antibiotics indicated
Score = 1
(Risk of GABHS: 5-10%)
Consider throat culture of RADT
If positive, treat with antibiotics
Score = 2
(Risk of GABHS: 11-17%
Throat culture or RADT
If positive, treat with antibiotics
Score = 3
(Risk of GABHS: 28-35%)
Throat culture or RADT
If positive, treat with antibiotics
Score = 4+
(Risk of GABHS: 51-53%)
Consider empiric treatment with antibiotics

TREATMENT

- GABHS is self limited and typically resolves within a few days, even without treatment
- Antibiotics only shorten symptom duration by approximately 16 hours
- Penicillin or amoxicillin are first line treatments
  - For those with a penicillin allergy, a 1st generation cephalosporin, clarithromycin, or azithromycin are also appropriate options
- Medications and dosages listed in the table on the next slide, and are all intended for a 10 day course
- Appropriate adjunctive treatment: analgesics or antipyretics
- Inappropriate adjunctive treatment: corticosteroids or aspirin in children

TREATMENT

Penicillin	Children: 250 mg BID/TID; adults: 500 mg BID x 10d
Amoxicillin	50 mg/kg/day daily or divided BID x 10d
Cephalexin	20 mg/kg/dose given BID (max 500 mg/dose) x 10d
Clarithromycin	7.5 mg/kg/dose given BID (max 250 mg/dose) x 10d
Azithromycin	12 mg/kg/day given once (max 500 mg/day) x 10d

RECURRENT STREP THROAT

- A patient may remain a carrier for GABHS for up to one year after treatment
- Testing for GABHS is still indicated if patient's presenting symptoms are consistent with infection in that it may be an infection with a different serotype
- Tonsillectomy is not recommended for recurrent infection, but can be considered if the patient has history of allergic reaction to multiple antibiotics, peritonsillar abscess, or high frequency of throat infection

RECURRENT STREP THROAT

- Repeat therapy with antibiotics is NOT typically recommended, but can be considered if the patient has a personal/family history of acute rheumatic fever or if the patient lives in a community with an acute outbreak of rheumatic fever, poststreptococcal glomerulonephritis, or invasive GABHS

Clindamycin	20-30 mg/kg/day divided TID (max 300 mg/dose)
Penicillin; Rifampin	Penicillin: 50 mg/kg/day divided QID; Rifampin: 20 mg/kg/day daily for last 4 days of treatment
Amoxicillin/Clavulanate	40 mg/kg/day divided TID (max 2 g Amoxicillin/day)
Penicillin G (IM); Rifampin (PO)	Penicillin: one time dose; Rifampin: 20 mg/kg/day divided BID for 4 days

REFERENCES

- Diagnosis and Treatment of Streptococcal Pharyngitis

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  Am Fam Physician. 2013 Sep 1;88(5):338-340

  https://www.aafp.org/afp/2013/0901/p338.html
- Common Questions About Streptococcal Pharyngitis

  Kalra, M., Higgins, K., Perez, E. *Am Fam Physician*. 2016 Jul 1;94(1):24-31.

  https://www.aafp.org/afp/2016/0701/p24.html