A MULTICULTURAL APPROACH TO DECREASING UNNECESSARY ANTIBIOTIC PRESCRIBING FOR PHARYNGITIS

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THE THREAT!
ANTIBIOTIC RESISTANCE ALL OVER OUR GLOBE.

- **US** Two million people are infected each year with microbes we cannot eradicate and 23,000 die.
- **Europe** 25,000 fatalities
- **India** 164,833 newborn deaths
A Major cause of the rise in Antibiotic resistant bacteria is the unnecessary and over prescribing of Antibiotics.
ANTIBIOTIC PRESCRIBING RATES VS ACTUAL EXISTANCE OF GROUP A STREPTOCOCCI PHARYNGITIS (GAS)

**Epidemiology**

<table>
<thead>
<tr>
<th></th>
<th>Adult</th>
<th>Child</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GAS</strong></td>
<td>85</td>
<td>30</td>
</tr>
<tr>
<td><strong>NON-GAS</strong></td>
<td>15</td>
<td>70</td>
</tr>
</tbody>
</table>

**Prescribing Rates for Non-Gas Pharyngitis**

- 65% Nurse Practitioners
- 54% Physicians
ANTIBIOTIC STEWARDSHIP

• Accountability
• Responsibility
• Prescribing based on clinical exam, laboratory data, & in accordance with evidence based guidelines
BARRIERS TO ANTIBIOTIC STEWARDSHIP

- Clinician-patient communication
- Knowledge gap re guidelines
- Perceived pressure to prescribe
- Failure to ascertain the ideas, concerns and actual expectations of patients
- Practice setting/school-work factors
<table>
<thead>
<tr>
<th>Country</th>
<th>Rapid Antigen Test/Throat Culture</th>
<th>Clinical scoring</th>
<th>When to treat</th>
</tr>
</thead>
<tbody>
<tr>
<td>US (IDSA) 2012</td>
<td>Yes for bacteria like presentation, no back up culture on adults</td>
<td>No</td>
<td>+ RADT</td>
</tr>
<tr>
<td>US (ICSI) 2013</td>
<td>Yes with back-up culture</td>
<td>No</td>
<td>+RADT/culture</td>
</tr>
<tr>
<td>Scotland (SIGN) 2010</td>
<td>No</td>
<td>Yes, not reliable</td>
<td>Severe cases</td>
</tr>
<tr>
<td>UK (NICE) 2008</td>
<td>No</td>
<td>Yes</td>
<td>Severe cases</td>
</tr>
</tbody>
</table>
ALGORITHM FOR PHARYNGITIS (IDSA)

Obvious viral presentation (hoarseness, dry cough, coryza)

Suspected bacterial infection (exudates, fever, rash, swollen tonsils/nodes)

No RADT or throat culture
No antibiotics

Negative RADT

Positive RADT: Rx penicillin/amoxicillin or alternative if allergic

Age 3-15 years: Do back up throat culture

Adults: No back up throat culture, No antibiotic

Consider alternate microorganism (N. gonorrhea, Group G strep, chlamydia, Mono)

No RADT or throat culture
No antibiotics
VIDEO

https://www.youtube.com/watch?v=bBYZuRC6CQI