

# Antibiotic Decision Making

## Measures

### Track 3: Acute Streptococcal Pharyngitis

#### Directions:

Pull 10 or more charts of patients:

- 1) Seen by your practice more than 5 days ago, and;
- 2) Diagnosed with Acute Streptococcal Pharyngitis (strep throat), and;
- 3) Treated with an antibiotic
- 4) Exclude patients with a previous diagnosis of strep in the last 3 months

Answer the questions based on actual chart documentation.

Aim	Data Collection Question	Measure	Goal
100% of patients diagnosed with acute streptococcal pharyngitis, will have been seen by a clinician for an office visit	<p>1. Was the patient seen by a clinician for an office visit that resulted in the diagnosis of acute streptococcal pharyngitis (strep throat)?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No, the patient was not seen in the office</p>	<p><b>Name:</b> Patient diagnosed with acute streptococcal pharyngitis seen for office visit by clinician</p> <p><b>Definition:</b> Percentage of patients who were seen by a clinician for an office visit and resulted in a diagnosis of acute streptococcal pharyngitis</p> <p><b>Source:</b> Question #1</p> <p><b>Numerator:</b> Yes selected in Question #1</p> <p><b>Denominator:</b> Total Number of Charts</p> <p><b>KCA:</b> Diagnose Infection Accurately</p>	100%

# Antibiotic Decision Making

Aim	Data Collection Question	Measure	Goal
N/A	<p>2. Were one or more of the following signs or symptoms listed below present upon the history and/or examination?</p> <p><input type="radio"/> Yes      <input type="radio"/> No</p> <ul style="list-style-type: none"> <li>• conjunctivitis</li> <li>• coryza</li> <li>• cough</li> <li>• diarrhea</li> <li>• hoarseness</li> <li>• mouth ulcers</li> <li>• maculopapular rash</li> </ul> <p><b>Note:</b> These symptoms are more consistent with a viral infection, which does not warrant testing or treatment.</p> <p><b>Note:</b> Acute streptococcal pharyngitis should typically not be diagnosed in patients under 36 months of age. It is acceptable to test the patient under 36 months of age if there is a household contact with confirmed group A streptococcal pharyngitis.</p>	<b>Not Measured</b>	N/A
0% of patients presenting with ONLY viral symptoms will be diagnosed with strep pharyngitis and/or prescribed an antibiotic	<p>3. Were one or more of the following symptoms, signs, or features were present upon the examination?</p> <p><input type="radio"/> Yes      <input type="radio"/> No</p> <ul style="list-style-type: none"> <li>• tonsillopharyngeal erythema</li> <li>• patchy tonsillopharyngeal exudates</li> <li>• palatal petechiae</li> <li>• sudden onset of sore throat and fever</li> <li>• tender anterior cervical adenopathy</li> <li>• scarlatiniform rash</li> <li>• swollen red uvula</li> </ul>	<p><b>Name:</b> Patients with ONLY viral symptoms who were inappropriately given a diagnosis of strep pharyngitis and/or prescribed an antibiotic</p> <p><b>Definition:</b> Percent of patients with ONLY viral symptoms that were prescribed an antibiotic</p> <p><b>Source:</b> Questions #2 &amp; 3</p> <p><b>Numerator:</b> Yes selected in Question #2 <u>And</u> No selected in Question #3</p> <p><b>Denominator:</b> Total Number of Charts</p> <p><b>KCA:</b> Diagnose Infection Accurately</p>	0%

# Antibiotic Decision Making

Aim	Data Collection Question	Measure	Goal
100% of patients diagnosed with acute streptococcal pharyngitis will have a rapid detection test or throat culture ordered to confirm the diagnosis	<p>4. Was a rapid detection test or throat culture ordered to confirm the diagnosis?</p> <p><input type="radio"/> Yes    <input type="radio"/> No</p> <p>If Yes, <i>Continue</i>            If No, <i>Skip to Question #5</i></p>	<p><b>Name:</b> Testing ordered to confirm diagnosis</p> <p><b>Definition:</b> Percent of patients whose diagnosis was confirmed by rapid detection test or throat culture ordered</p> <p><b>Source:</b> Question #4</p> <p><b>Numerator:</b> Yes selected in Question #4</p> <p><b>Denominator:</b> Total Number of Charts</p> <p><b>KCA: Diagnose Infection Accurately</b></p>	100%
100% of patients prescribed antibiotics were appropriately diagnosed with acute streptococcal pharyngitis (strep throat) consistent with overt GAS symptoms present and a positive rapid detection test or throat culture	<p>4a. If yes, to Question #4 (test performed), what were the results?</p> <p><input type="radio"/> Positive    <input type="radio"/> Negative</p>	<p><b>Name:</b> Appropriate diagnosis of acute streptococcal pharyngitis (strep throat)</p> <p><b>Definition:</b> Percentage of patients who were appropriately diagnosed with acute streptococcal pharyngitis based on overt GAS symptoms present and a positive rapid detection test or throat culture</p> <p><b>Source:</b> Questions # 3, 4 &amp; 4a</p> <p><b>Numerator:</b> Yes selected in Question #3 AND Positive test selected in Question #4a</p> <p><b>Denominator:</b> Total Number of Charts with Yes selected in Question #4</p> <p><b>KCA: Diagnose Infection Accurately</b></p>	100%

# Antibiotic Decision Making

Aim	Data Collection Question	Measure	Goal
<p>100% of patients diagnosed with acute streptococcal pharyngitis (strep throat) consistent with overt GAS symptoms present and a positive rapid detection test or throat culture will be prescribed an antibiotic or not prescribed an antibiotic if tests results were negative</p>	<p>5. Did you prescribe an antibiotic?</p> <p><input type="radio"/> Yes    <input type="radio"/> No</p> <p> If No, <b>STOP</b> you have completed your review for this patient.</p>	<p><b>Name:</b> Appropriate prescribing of antibiotics based on positive test results &amp; symptoms</p> <p><b>Definition:</b> Percentage of patients who had overt GAS symptoms, positive test results and were appropriately prescribed an antibiotic</p> <p><b>Source:</b> Questions # 3, 4a &amp; 5</p> <p><b>Numerator:</b> Yes selected in Question #3 AND Positive test selected in Question #4a <u>AND</u> Yes selected in Question #5 OR Negative selected in Question #4a AND No selected in Question #5</p> <p><b>Denominator:</b> Total Number of Charts with Yes selected in Question #4</p> <p><b>KCA: Treat Infection Effectively</b></p>	100%
<p>100% of patients diagnosed with acute streptococcal pharyngitis will be appropriately treated with penicillin or amoxicillin unless previous severe or non-severe reaction</p>	<p>6. Was the patient treated with penicillin or amoxicillin (including injected penicillin) with consideration given to <a href="#">antibiotic resistance?</a></p> <p><input type="radio"/> Yes  <input type="radio"/> No  <input type="radio"/> N/A, previous <a href="#">severe allergic reaction</a>  <input type="radio"/> N/A, previous <a href="#">non-severe allergic reaction</a></p> <p>If Yes, <i>Skip to Question #9</i>    If No, or N/A, previous severe allergic reaction, <i>Skip to Question #8</i>    If N/A, previous non-severe allergic reaction, <i>Continue with Question #7</i></p>	<p><b>Name:</b> Appropriate use of penicillin or amoxicillin</p> <p><b>Definition:</b> Percent of patients appropriately treated with penicillin or amoxicillin if no previous severe or non-severe allergic reaction.</p> <p><b>Source:</b> Question # 6</p> <p><b>Numerator:</b> Yes selected in #6</p> <p><b>Denominator:</b> Total Number of Charts <u>Minus</u> N/A, previous severe allergic reaction AND N/A, previous non-severe allergic reaction selected in Question #6</p> <p><b>KCA: Treat Infection Effectively</b></p>	100%

# Antibiotic Decision Making

Aim	Data Collection Question	Measure	Goal
100% of patients who had a previous non-severe allergic reaction to penicillin or amoxicillin will be appropriately treated with 2 <sup>nd</sup> line antibiotics	<p>7. If N/A, previous non-severe allergic reaction to penicillin or amoxicillin selected in Question #6, was the patient treated with narrow-spectrum<sup>1</sup> cephalosporins<sup>2</sup> cefadroxil or cephalexin?</p> <p><input type="radio"/> Yes      <input type="radio"/> No</p> <p>If Yes, <b>Skip to Question #9</b>    If No, <b>Continue</b></p> <p><sup>1</sup> Preferred agents for penicillin-allergic individuals should be considered first</p> <p><sup>2</sup> Some penicillin-allergic persons (1-2%) are also allergic to cephalosporins, and these agents should not be used in patients with immediate (anaphylactic-type) hypersensitivity to penicillin</p>	<p><b>Name:</b> Appropriate use of narrow-spectrum antibiotics</p> <p><b>Definition:</b> Percent of patients who had previous non-severe allergic reaction to penicillin or amoxicillin that were appropriately prescribed narrow-spectrum antibiotics</p> <p><b>Source:</b> Questions #6 &amp; 7</p> <p><b>Numerator:</b> Yes selected in Question #7</p> <p><b>Denominator:</b> Total Number of Charts with N/A, previous non-severe allergic reaction selected in Question #6</p> <p><b>KCA: Treat Infection Effectively</b></p>	100%
100% of patients who had a previous severe allergic reaction to penicillin or amoxicillin will be appropriately treated with antibiotics judiciously	<p>8. If No, or N/A, previous severe allergic reaction selected in Question #6, what antibiotic did you prescribe?</p> <p>a) <input type="radio"/> Azithromycin or other macrolide    b) <input type="radio"/> Clindamycin    c) <input type="radio"/> Cefdinir or cephalosporin    d) <input type="radio"/> Amoxicillin/clavulanate    e) <input type="radio"/> Levofloxacin    f) <input type="radio"/> Tetracycline    g) <input type="radio"/> Trimethoprim-sulfamethoxazole</p>	<p><b>Name:</b> Judicious use of antibiotics</p> <p><b>Definition:</b> Percent of patients who had previous severe allergic reaction to penicillin or amoxicillin that were appropriately prescribed 2<sup>nd</sup> line antibiotics</p> <p><b>Source:</b> Questions #6 &amp; 8</p> <p><b>Numerator:</b> N/A, previous severe allergic reaction selected in Question #6 <b>AND</b> a, OR b, selected in Question #8</p> <p><b>NOTE</b> If No is selected in Question #6 <b>And</b> if any option is selected in Question #8, it is incorrect.</p> <p><b>Denominator:</b> Total Number of Charts with No OR N/A, previous severe allergic reaction selected in Question #6</p> <p><b>KCA: Treat Infection Effectively</b></p>	100%

# Antibiotic Decision Making

Aim	Data Collection Question	Measure	Goal				
100% of patients prescribed antibiotics will have documentation in the medical record that risks of antibiotic therapy was discussed with the patient/family	<p>9. Did any provider discuss and document the following risks of antibiotic therapy with the patient/family?</p> <p><input type="radio"/> Yes      <input type="radio"/> No</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;"><b>Should always be discussed</b></td><td style="width: 50%; padding: 5px;"><b>Should be discussed if patient/family has concerns</b></td></tr> <tr> <td style="padding: 5px;"> <ul style="list-style-type: none"> <li>• Side effects</li> <li>• Allergic reaction</li> <li>• Reasons an antibiotic is or is not prescribed</li> </ul> </td><td style="padding: 5px;"> <ul style="list-style-type: none"> <li>• <a href="#">Antibiotic resistance</a></li> </ul> </td></tr> </table>	<b>Should always be discussed</b>	<b>Should be discussed if patient/family has concerns</b>	<ul style="list-style-type: none"> <li>• Side effects</li> <li>• Allergic reaction</li> <li>• Reasons an antibiotic is or is not prescribed</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Antibiotic resistance</a></li> </ul>	<p><b>Name:</b> Risks of antibiotic therapy discussed with patient/family</p> <p><b>Definition:</b> Percent of patients prescribed antibiotics with documentation that risks of antibiotic therapy were discussed with the patient/family</p> <p><b>Source:</b> Question #9</p> <p><b>Numerator:</b> Yes selected in Question #9</p> <p><b>Denominator:</b> Total Number of Charts</p> <p><b>KCA:</b> Provide Guidance and Education</p>	100%
<b>Should always be discussed</b>	<b>Should be discussed if patient/family has concerns</b>						
<ul style="list-style-type: none"> <li>• Side effects</li> <li>• Allergic reaction</li> <li>• Reasons an antibiotic is or is not prescribed</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Antibiotic resistance</a></li> </ul>						

# Antibiotic Decision Making

## Appendix

### Non-severe and Severe Allergic Reactions

- **Non-severe** symptoms include hives or pruritic (itchy) rashes.
- **Severe** symptoms include anaphylaxis, angioedema, throat tightening, wheezing plus shock, airway compromise, or cardiovascular collapse. Cardiac collapse requires intervention (eg epinephrine, corticosteroids, vasopressors).

**Note:** Side effects such as vomiting, abdominal pain, and diarrhea are *non-allergic*.

### Antibiotic Resistance

Antibiotic resistance refers to bacteria that have become resistance to the antibiotics designed to kill them. The overuse and/or inappropriate use of antibiotics can result in the drugs' ability to treat the infection.