<table>
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<th>Measure Title</th>
<th>MANAGEMENT OF VIRAL URI WITHOUT ANTIBIOTICS</th>
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<td>Disease State</td>
<td>Upper Respiratory Infections (URI)</td>
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<td>Indicator Category</td>
<td>1 Utilization</td>
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<td>Strength of Recommendation</td>
<td>A</td>
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<td>Quality of Evidence</td>
<td>Good II-2, III</td>
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**Clinical Rationale**

- Over 90% of upper respiratory infections (URIs) are caused by viruses, for which antibiotics are ineffective, yet up to 70% of patients with these conditions receive antibiotic prescriptions.[1-6]
- Researchers have determined that 40-91% of antibiotic prescriptions worldwide are inappropriate [7], and 20-50% of all outpatient prescriptions for antibiotics in the United States are thought to be unnecessary.[7-9]

**Reason for Indicated Intervention or Treatment**

- Antibiotics are ineffective treatments for URIs, and widespread inappropriate antibiotic utilization has led to increasing levels of antibiotic resistance in bacteria that were once highly susceptible to antimicrobials.[2, 6, 10-12]

**Evidence supporting Intervention or Treatment**

- Streptococcus pneumoniae causes about 7 million cases of otitis media, 500,000 cases of pneumonia, 3000 cases of meningitis, and 50,000 cases of bacteremia per year.[13] While Streptococcus pneumoniae was approximately 99% susceptible to penicillin about 15 years ago, recent reports indicate that up to 30% of all current cases in the United States are resistant to penicillin [12, 14, 15], and about 15% are resistant to 3 or more drugs.[12]
- Multiple observational studies indicate that rates of invasive infections with drug-resistant Streptococcus pneumoniae are related to recent antibiotic exposure.[16-19]
- Multiple studies indicate a causal relationship between antibiotic use and resistance of hospital organisms.[20, 21]

**Clinical Recommendations**

- The Centers for Disease Control and Prevention, American College of Physicians, American Society of Internal Medicine, American Academy of Family Physicians, American Academy of Pediatrics, and Infectious Diseases Society of America do not recommend antibiotic treatment for adults with nonspecific upper respiratory tract infections.[22-25]
- The World Health Organization (WHO) recommends educating the public and health care sectors on using antimicrobial drugs more wisely, in order to halt the spread of resistance.[7]
- The Centers for Disease Control and Prevention (CDC) recommends behavioral and educational interventions for modifying health care provider drug-prescribing practices, along with dissemination of guidelines for the prudent use of antimicrobial drugs.[22]

**Comparative Health Benchmark’s 2004 average plan rate across all existing clients was 88%.**
Baseline Data

Denominator
Members aged 2 year or older by the end of the reporting period, who were continuously enrolled from 30 days prior to 3 days after the index episode start date, and who were diagnosed with a viral upper respiratory infection.* (*Note: Unique episodes, not members, are counted.)

Denominator Exclusion
Members diagnosed as being immunocompromized or having lung disease at any time during the reporting period, or members with evidence of a co-morbid condition that would warrant prescription of antibiotics within 30 days prior to 3 days after the index date. Members without pharmacy benefits.

Numerator
Episodes for which members did not receive respiratory-related antibiotics within three days (0 to 3 days) after URI diagnosis.

Interpretation of Score
High score implies better performance.

Physician Attribution
Score all physicians the member saw between 0-3 days after the index diagnosis.

References

1 **Indicator Category** (Adapted from Health Plan Employer Data Information Set (HEDIS®) technical specifications and U.S. Preventive Services Task Force (USPSTF) Methodology)

**Effectiveness**

**Primary Prevention Measures:** Those that are applicable to individuals who are asymptomatic and are designed to prevent the onset of the targeted condition (e.g. immunizations);

**Secondary Prevention Measures:** Those that are applicable to asymptomatic patients who have risk factors or pre-clinical disease but in whom the condition has not become clinically apparent (e.g. pap smears, screening for elevated blood pressure);

**Tertiary Prevention Measures:** Those that are applicable to individuals who are diagnosed with a condition and are part of the treatment or management of patients with that condition (e.g. cholesterol reduction in patients with diabetes).

2 **Strength of Recommendation** (Based on U.S. Preventive Services Task Force (USPSTF), 3rd Edition Criteria)

**A** It is strongly recommended that clinicians provide the service to eligible patients. *There is good evidence that the service improves important health outcomes and that benefits substantially outweigh harms.*

**B** It is recommended that clinicians provide the service to eligible patients. *There is at least fair evidence that the service improves important health outcomes and that benefits outweigh harms.*

**C** There is no recommendation for or against the routine provision of this service. *There is fair evidence that the service can improve health outcomes but the balance of benefits and harms is too close to justify a general recommendation.*

**D** It is recommended that clinicians DO NOT routinely provide the service to eligible patients. *There is at least fair evidence that the service is ineffective or that harms outweigh benefits.*
I  
The evidence is insufficient to recommend for or against routinely providing the service.
Evidence that the service is effective is lacking, or poor quality, or conflicting, and the balance of
benefits and harms cannot be determined.

3 Quality of Evidence (Based on U.S. Preventive Services Task Force (USPSTF), 3rd Edition Criteria)

Good: Evidence includes consistent results from well-designed, well-conducted studies in
representative populations that directly assess effects on health outcomes.

Fair: Evidence is sufficient to determine effects on health outcomes, but the strength of the evidence
is limited by the number, quality, or consistency of individual studies, generalizability to routine
practice, or indirect nature of the evidence on health outcomes.

Poor: Evidence is insufficient to assess the effects on health outcomes because of limited number or
power of studies, important flaws in their design or conduct, gaps in the chain of evidence, or
lack of information on important health outcomes.

Quality of Evidence (Based on U.S. Preventive Services Task Force (USPSTF), 3rd Edition Criteria)

I: Evidence obtained from at least one properly randomized controlled trial.
II-1: Evidence obtained from well-designed controlled trials without randomization.
II-2: Evidence obtained from well-designed cohort or case-control analytic studies, preferably from
more than one center or research group.
II-3: Evidence obtained from multiple time series with or without the intervention. Dramatic results in
uncontrolled experiments (such as the results of the introduction of penicillin treatment in the
1940s) could also be regarded as this type of evidence.
III: Opinions of respected authorities, based on clinical experience descriptive studies and case
reports or reports of expert committees.