Health Benchmarks®
Clinical Quality Indicator Specification 2008

Client	HEALTH BENCHMARKS, INC. STANDARD ALGORITHM *Implemented for Blue Cross Blue Shield of Texas*
Measure Title	APPROPRIATE TREATMENT FOR CHILDREN WITH UPPER RESPIRATORY INFECTION
Disease State	Upper respiratory infections
Indicator Classification	Disease Management
Strength of Recommendation	B
Organizations Providing Recommendation	American Academy of Family Physicians American Academy of Pediatrics American College of Physicians American Society of Internal Medicine Centers for Disease Control and Prevention Infectious Diseases Society of America
Clinical Intent	To ensure that children diagnosed with nonspecific upper respiratory infections are not being inappropriately treated with antibiotics.
Physician Specialties *(suggested)*	Allergy-Immunology, Emergency Medicine, Family Practice, Geriatric Medicine, Internal Medicine, Pediatrics, Urgent Care

Background

Disease Burden

- The vast majority of upper respiratory infections (URIs) are caused by viruses, for which antibiotics are ineffective, yet almost 65% of patients with these conditions receive antibiotic prescriptions.[1, 2]

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.[3, 4]
- Most patients do not require antibiotic treatment as the symptoms will often resolve naturally within 1-2 weeks.[5]
- Physicians who have practiced for a short time or physicians with high patient volume are more likely to prescribe antibiotics for respiratory tract infections without proper diagnosis of the condition.[4]
- Despite attempts to reduce inappropriate antibiotic use for URI, the rate of prescriptions still remains inadequately high.[6]

Evidence Supporting Intervention or Treatment

- A recent study of 5 health plans discovered that for 119,128 cases of URI/bronchitis in children 3 months 18 months of age, physicians prescribed antibiotics 31% of the time. Individual plan rates varied from

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2%-75%.[7]

- Another recent study of 2,270 cases of acute respiratory infections in the acute care setting also found that 31% of patients were given antibiotic treatement for URI's.[8]

Clinical Recommendations

- The American Academy of Family Physicians through development with the Alliance Working for Antibiotic Resistance Education (AWARE) Project also advises against prescription of antibiotics for unspecified URIs.[9]

Source

Adapted from Healthcare Effectiveness Data and Information Set (HEDIS®) 2008 Technical Specification for Physician Measurement:

- HBI has incorporated HCPCS codes for injectable antibiotics into the denominator exclusion and the numerator.

Denominator

Denominator Definition

Continuously enrolled members ages 3 months to 18 years old who were diagnosed with *only* a URI in an outpatient or emergency room setting during the 1 year period beginning 6 months prior to the start of the measurement year.

Denominator Codes

Diagnosis of URI in an outpatient or emergency department setting.

Acute nasopharyngitis:
ICD-9 diagnosis code(s): 460.xx
URI:
ICD-9 diagnosis code(s): 465.xx
Outpatient or ED setting:
CPT-4 code(s): 99201-99205, 99211-99215, 99217-99220, 99241-99245, 99281-99285, 99381-99385, 99391-99395, 99401-99404, 99411, 99412, 99420, 99429, 99499
UB revenue code(s): 045x, 051x, 0520-0523, 0526-0529, 077x, 0981, 0982, 0983

Denominator Exclusion

Denominator Exclusion Definition

Members who filled a prescription or received an injection for an antibiotic in the 1-30 days prior to the index date or members who had a competing diagnosis 0-3 days after the index date.

Denominator Exclusion Codes

Prescription for an antibiotic.

Competing diagnosis 0-3 days after the index date (inclusive of the index date).

Intestinal infections:
ICD-9 diagnosis code(s): 001.xx-009.xx

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Pertussis:
ICD-9 diagnosis code(s): 033.x
Bacterial infection unspecified:
ICD-9 diagnosis code(s): 041.9x
Lyme disease and other arthropod-borne diseases:
ICD-9 diagnosis code(s): 088.xx
Otitis media:
ICD-9 diagnosis code(s): 382.xx
Acute sinusitis:
ICD-9 diagnosis code(s): 461.x
Acute pharyngitis:
ICD-9 diagnosis code(s): 034.0, 462
Acute tonsillitis:
ICD-9 diagnosis code(s): 463
Chronic sinusitis:
ICD-9 diagnosis code(s): 473.x
Infections of the pharynx, larynx, tonsils, adenoids:
ICD-9 diagnosis code(s): 464.1x-464.3x, 474.xx, 478.21, 478.22, 478.23, 478.24, 478.29, 478.71, 478.79, 478.9
Prostatitis:
ICD-9 diagnosis code(s): 601.x
Cellulitis, mastoiditis, other bone infections:
ICD-9 diagnosis code(s): 383.xx, 681.xx, 682.x, 730.xx,
Acute lymphadenitis:
ICD-9 diagnosis code(s): 683
Impetigo:
ICD-9 diagnosis code(s): 684
Skin staph infections:
ICD-9 diagnosis code(s): 686.xx
Pneumonia:
ICD-9 diagnosis code(s): 481.xx- 486.xx
Gonococcal infections and venereal diseases:
ICD-9 diagnosis code(s): 098.xx, 099.xx,V01.6, V02.7, V02.8
Syphilis:
ICD-9 diagnosis code(s): 090.xx-097.xx
Chlamydia:
ICD-9 diagnosis code(s): 078.88, 079.88, 079.98
Inflammatory diseases (female reproductive organs):
ICD-9 diagnosis code(s): 614.x, 615.x, 616.xx
Infections of the kidney:
ICD-9 diagnosis code(s): 590.xx
Cystitis or UTI:
ICD-9 diagnosis code(s): 595.xx, 599.0

Injected antibiotic.

HCPCS code(s): J0120, J0200, J0290, J0295, J0456, J0530, J0540, J0550, J0560, J0570, J0580, J0690, J0692, J0694, J0696, J0697, J0698, J0710, J0713, J0715,

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J0744, J1580, J1590, J1850, J1890, J1956, J2010, J2185, J2280, J2510, J2540, J2543, J2700, J3260, J3320, J3370

Numerator

Numerator Definition	Members who did NOT fill a prescription for an antibiotic or receive an injected antibiotic 0-3 days after the index date. *Note: This definition allows the measure to be reported as an inverted rate to facilitate a meaningful score interpretation across measures that are scored on the same scale.*
Numerator Codes	Antibiotic prescription. Injected antibiotics. HCPCS code(s): J0120, J0200, J0290, J0295, J0456, J0530, J0540, J0550, J0560, J0570, J0580, J0690, J0692, J0694, J0696, J0697, J0698, J0710, J0713, J0715, J0744, J1580, J1590, J1850, J1890, J1956, J2010, J2185, J2280, J2510, J2540, J2543, J2700, J3260, J3320, J3370

Physician Attribution

Physician Attribution Description	**If client data contains prescribing provider:** If member filled a prescription for an antibiotic, score the prescribing provider. If the member received an injected antibiotic , score the administering provider. If the member did not fill an antibiotic prescription or receive an injected antibiotic, score all physicians who saw the member 0-3 days after the index date. **If client data does not contain prescribing provider:** Score all physicians who saw the member 0-3 days after the index date.

References

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