HEDIS® Quick Reference

Respiratory Conditions and Antibiotic Stewardship

Texas Children's® Health Plan

This toolkit covers the following measures:

- Avoidance of Antibiotics Treatment for Acute Bronchitis/Bronchiolitis
- Antibiotic Utilization for Respiratory Conditions
- Appropriate Testing for Pharyngitis
- Appropriate Treatment for Upper Respiratory Infection

Who is eligible?

Measure	Eligible Population
Avoidance of Antibiotics Treatment for Acute Bronchitis/Bronchiolitis (AAB)	Members 3 months of age and older with a diagnosis of acute bronchitis/ bronchiolitis that did not result in an antibiotic dispensing event.
Antibiotic Utilization for Respiratory Conditions (AXR)	Members 3 months of age and older with a diagnosis of a respiratory condition that resulted in an antibiotic dispensing event.
Appropriate Testing for Pharyngitis (CWP)	Members who were 3 years or older, diagnosed with pharyngitis that resulted in an antibiotic dispensing event.
Appropriate Treatment for Upper Respiratory Infection (URI)	Members 3 months of age and older with a diagnosis of upper respiratory infection (URI) that did not result in an antibiotic dispensing event.

Why it matters?

Respiratory conditions such as acute bronchitis/bronchiolitis, pharyngitis or sore throat, and upper respiratory infections or common cold are caused by viral or bacterial infections that do not require antibiotic treatment. Too often antibiotics are prescribed inappropriately. Proper testing and treatment of these respiratory conditions prevents the spread of sickness, while reducing unnecessary use of antibiotics.[1]

Antibiotics are powerful tools to treat bacterial infections. However, incorrect use can lead to problems such as antibiotic resistance.[2] The misuse of antibiotics can have adverse clinical outcomes such as Clostridioides difficile infections and has public health implications including encouragement of antibiotic resistance (when antibiotics can no longer cure bacterial infections).[3] Antibiotic resistance is a major health concern in the United States, with 2.8 million antibiotic-resistant infections and 35,000 deaths occurring annually.[4]

Measurement Description:

- The intake period captures eligible episodes of treatment and is a 12-month window that begins on July 1 of the year prior to the measurement year and ends on June 30 of the measurement year.
- The episode date refers to the date of service for any outpatient, telephone or ED visit, e-visit or virtual check-in during the intake period with a diagnosis of acute bronchitis/bronchiolitis, pharyngitis, upper respiratory or respiratory conditions.
- AAB and URI measures are reported as inverted rates. A higher rate indicates appropriate treatment for bronchitis/bronchiolitis or URI (i.e., the percentage of episodes that were not prescribed an antibiotic).
- A higher CWP rate indicates completion of the appropriate testing required to merit antibiotic treatment for pharyngitis.
- AXR is a measure designed to capture the frequency of antibiotic utilization for respiratory conditions. Organizations should use this information for internal evaluation only.

Measurement Description (continued)

Measure	Description
Avoidance of Antibiotics Treatment for Acute Bronchitis/Bronchiolitis (AAB)	Assesses the percentage of episodes for members 3 months of age and older with a diagnosis of acute bronchitis/bronchiolitis that did not result in an antibiotic dispensing event.
Antibiotic Utilization for Respiratory Conditions (AXR)	Assess the percentage of episodes for members 3 months of age and older with a diagnosis of a respiratory condition that resulted in an antibiotic dispensing event.
Appropriate Testing for Pharyngitis (CWP)	Assess the percentage of episodes for members 3 years of age and older with a diagnosis of pharyngitis, dispensed an antibiotic, and received a group A streptococcus test for the episode.
Appropriate Treatment for Upper Respiratory Infection (URI)	Assesses the percentage of episodes for members 3 months of age and older with a diagnosis of upper respiratory infection (URI) that did not result in an antibiotic dispensing event.

Best Practices:

Member Education

- Educate members on infection prevention by washing hands frequently, disinfecting toys and surfaces, and keeping distance from others until symptoms have improved.
- Educate members on the difference between bacterial and viral infections. Explain that antibiotics are not effective to treat respiratory viral infections.
- If antibiotics are prescribed, educate members on the importance of finishing the entire course of the antibiotic as prescribed, even if symptoms start to improve.
- Educate members and caregivers on making appropriate decisions about where and when to seek medical care, including when to recognize a true medical emergency that requires immediate care at an emergency department and where to seek non-emergency care after hours.
- Encourage members to maintain ongoing communication and relationships with their PCP to promote consistent and coordinated health care.

Enhancing Care

- Perform a rapid strep test and/or a throat culture to confirm diagnosis before prescribing antibiotics.
- Consider providing virtual visits, extended hours, or same-day appointments and testing to avoid potentially preventable emergency department visits (PPVs).
- If patient has frequent episodes of respiratory conditions, consider an ENT consult.
- Provide instructions on symptom relief without antibiotics (e.g. extra fluids, rest, nasal spray for congestion, use throat spray/lozenges for sore throat, over-the-counter medications, etc.).
- Document and code accurately if antibiotics are prescribed for another condition. The only way to get credit for any of these measure is to submit the appropriate codes.
- Utilize CDC resources for strategies on effective antibiotic best practices, such as, the Symptom Relief Prescription Pad and the Be Antibiotics Aware Partner Toolkit.

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Claim codes

Measure	Adherence Quick Reference							
Avoidance of Antibiotics Treatment for Acute Bronchitis/Bronchiolitis (AAB)	Outpatient Event	+	Acute Bronchitis Diagnosis	=	NO	Antibiotic Filled		
Antibiotic Utilization for Respiratory Conditions (AXR)*	Outpatient Event	+	Respiratory Condition Diagnosis	+		Antibiotic Filled		
Appropriate Testing for Pharyngitis (CWP)	Outpatient Event	+	Pharyngitis Diagnosis	+		Antibiotic Filled	=	Group A Strep Test Required
Appropriate Treatment for Upper Respiratory Infection (URI)	Outpatient Event	+	URI Diagnosis	=	NO	Antibiotic Filled		

*The measure Antibiotic Utilization for Respiratory Conditions (AXR) is only meant to capture the frequency of antibiotic utilization for respiratory conditions and not used for adherence rates. Organizations should use this information for internal evaluation only.

Outpatient, ED, Telehealth Event/Episode

CPT
98966, 98967, 98968, 98970, 98971, 98972, 98980, 98981, 99202, 99203, 99204, 99205, 99211, 99212, 99213, 99214, 99215, 99241, 99242, 99243, 99244, 99245, 99281, 99282, 99283, 99284, 99285, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, 99381, 99382, 99383, 99384, 99385, 99386, 99387, 99391, 99392, 99393, 99394, 99395, 99396, 99397, 99401, 99402, 99403, 99404, 99411, 99412, 99421, 99422, 99423, 99429, 99441, 99442, 99443, 99455, 99456, 99457, 99458, 99483

OR

UBREV
0450, 0451, 0452, 0456, 0459, 0510, 0511, 0513, 0514, 0515, 0516, 0517, 0519, 0520, 0521, 0522, 0523, 0526, 0527, 0528, 0529, 0981, 0982, 0983

OR

HCPCS
G0071, G0402, G0438, G0439, G0463, G2010, G2012, G2250, G2251, G2252, T1015

Pharyngitis Diagnosis

ICD10
J02.0, J02.8, J02.9, J03.00, J03.01, J03.80, J03.81, J03.90, J03.91

Group A Strep Tests

CPT
87070, 87071, 87081, 87430, 87650, 87651, 87652, 87880

OR

LOINC
101300-2, 11268-0, 17656-0, 17898-8, 18481-2, 31971-5, 49610-9, 5036-9, 60489-2, 626-2, 6557-3, 6558-1, 6559-9, 68954-7, 78012-2

Acute Bronchitis Diagnosis

ICD10
J20.0, J20.1, J20.2, J20.3, J20.4, J20.5, J20.6, J20.7, J20.8, J20.9, J21.0, J21.1, J21.8, J21.9

URI Diagnosis

ICD10
J00, J06.0, J06.9

Antibiotic Medications

Description	Prescription
Aminoglycoside	Amikacin, Gentamicin, Streptomycin, Tobramycin
Aminopenicillins	Amoxicillin, Ampicillin
Beta-lactamase inhibitors	Amoxicillin-clavulanate, Ampicillin-sulbactam, Piperacillin-tazobactam
First generation cephalosporins	Cefadroxil, Cefazolin, Cephalexin
Folate antagonist	Trimethoprim
Fourth-generation cephalosporins	Cefepime
Lincomycin derivatives	Clindamycin, Lincomycin
Macrolides	Azithromycin, Clarithromycin, Erythromycin
Penicillin (other than amoxicillin/ clavulanate)	Ampicillin, Ampicillin-sulbactam, Amoxicillin, Dicloxacillin, Nafcillin, Oxacillin, Penicillin G benzathine, Penicillin G benzathine-procaine, Penicillin G potassium, Penicillin G sodium, Penicillin V potassium, Penicillin G procaine, Piperacillin-tazobactam
Quinolones	Ciprofloxacin, Levofloxacin, Moxifloxacin, Ofloxacin, Gemifloxacin
Rifamycin derivatives	Rifampin
Second generation cephalosporins	Cefaclor, Cefprozil, Cefuroxime
Sulfonamides	Sulfadiazine, Sulfamethoxazole-trimethoprim
Tetracyclines	Doxycycline, Minocycline, Tetracycline
Third generation cephalosporins	Cefdinir, Cefixime, Cefotaxime, Cefpodoxime, Ceftazidime, Ceftriaxone
Urinary anti-infectives	Fosfomycin, Nitrofurantoin, Nitrofurantoin macrocrystals-monohydrate, Trimethoprim
Miscellaneous antibiotics	Aztreonam, Chloramphenicol, Dalfopristin-quinupristin , Daptomycin, Fosfomycin, Linezolid, Metronidazole, Nitrofurantoin, Nitrofurantoin macrocrystals-monohydrate, Rifampin, Telavancin, Trimethoprim, Vancomycin

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Respiratory Conditions Diagnosis

*The measure Antibiotic Utilization for Respiratory Conditions (AXR) is only meant to capture the frequency of antibiotic utilization for respiratory conditions and not used for adherence rates. Organizations should use this information for internal evaluation only.

**This includes the Pharyngitis Diagnosis, Acute Bronchitis Diagnosis, and URI Diagnosis codes above in addition to the following Respiratory Conditions Diagnosis codes.

Diagnosis	ICD-10
Otitis Media	A38.0, H65.00, H65.01, H65.02, H65.03, H65.04, H65.05, H65.06, H65.07, H65.111, H65.112, H65.113, H65.114, H65.115, H65.116, H65.117, H65.119, H65.191, H65.192, H65.193, H65.194, H65.195, H65.196, H65.197, H65.199, H65.20, H65.21, H65.22, H65.23, H65.90, H65.91, H65.92, H65.93, H66.001, H66.002, H66.003, H66.004, H66.005, H66.006, H66.007, H66.009, H66.011, H66.012, H66.013, H66.014, H66.015, H66.016, H66.017, H66.019, H66.10, H66.11, H66.12, H66.13, H66.20, H66.21, H66.22, H66.23, H66.3X1, H66.3X2, H66.3X3, H66.3X9, H66.40, H66.41, H66.42, H66.43, H66.90, H66.91, H66.92, H66.93, H67.1, H67.2, H67.3, H67.9
Eustachian Disorders	H69.80, H69.81, H69.82, H69.83, H69.90, H69.91, H69.92, H69.93
Mastoiditis	H70.001, H70.002, H70.003, H70.009, H70.011, H70.012, H70.013, H70.019, H70.091, H70.092, H70.093, H70.099, H70.811, H70.812, H70.813, H70.819, H70.891, H70.892, H70.893, H70.899, H70.90, H70.91, H70.92, H70.93, H75.00, H75.01, H75.02, H75.03, H75.80, H75.81, H75.82, H75.83
Otalgia	H92.01, H92.02, H92.03, H92.09
Sinusitis	J01.00, J01.01, J01.10, J01.11, J01.20, J01.21, J01.30, J01.31, J01.40, J01.41, J01.80, J01.81, J01.90, J01.91
Tonsillitis	J03.00, J03.01, J03.80, J03.81, J03.90, J03.91
Laryngitis	J04.0, J04.10, J04.11, J04.2, J04.30, J04.31, J05.0, J05.10, J05.11, J06.0
Rhinitis	J30.0, J30.1, J30.2, J30.5, J30.81, J30.89, J30.9, J31.0
Viral Infections	B34.0, B34.1, B34.2, B34.3, B34.4, B34.8, B34.9, B97.21, B97.29, B97.4, B97.81, U07.1, Z11.59, Z20.822, Z20.828
Influenza Related Conditions	J09.X1, J09.X2, J09.X3, J09.X9, J10.00, J10.01, J10.08, J10.1, J10.2, J10.81, J10.82, J10.83, J10.89, J11.00, J11.08, J11.1, J11.2, J11.81, J11.82, J11.83, J11.89
Pneumonia Related Conditions	A48.1, B01.2, B05.2, B06.81, J12.0, J12.1, J12.2, J12.3, J12.81, J12.82, J12.89, J12.9, J13, J14, J15.0, J15.1, J15.20, J15.211, J15.212, J15.29, J15.3, J15.4, J15.5, J15.6, J15.61, J15.69, J15.7, J15.8, J15.9, J16.0, J16.8, J17, J18.0, J18.1, J18.2, J18.8, J18.9
Chronic Conditions	J31.0, J31.1, J31.2, J32.0, J32.1, J32.2, J32.3, J32.4, J32.8, J32.9, J34.89, J34.9, J35.01, J35.02, J35.03, J35.1, J35.2, J35.3, J35.8, J35.9, J36, J37.0, J37.1, J39.0, J39.1, J39.2
Asthma	J45.20, J45.21, J45.22, J45.30, J45.31, J45.32, J45.40, J45.41, J45.42, J45.50, J45.51, J45.52, J45.901, J45.902, J45.909, J45.990, J45.991, J45.998
Respiratory Symptoms	R04.0, R04.2, R05, R05.1, R05.2, R05.3, R05.4, R05.8, R05.9, R06.00, R06.02, R06.03, R06.09, R06.1, R06.2, R06.82, R06.89, R07.0, R07.81, R09.02, R09.1, R09.81, R09.82, R09.89, R49.0, R50.9
Other/Unspecified	A31.0, A54.5, B08.5, J06.9, J40, J98.01, J98.8, J98.9, T86.818, Z11.1, Z87.09

Additional Resources:

- Avoidance of Antibiotics Treatment for Acute Bronchitis/Bronchiolitis (AAB)
- Antibiotic Utilization for Respiratory Conditions (AXR)
- Appropriate Testing for Pharyngitis (CWP)
- Appropriate Treatment for Upper Respiratory Infection (URI)

[1] "Sore Throat Basics." CDC, 1 Jan. 2024, www.cdc.gov/sore-throat/about/.
[2] "Antibiotic Utilization for Respiratory Conditions (AXR)." NCQA, 1 Sept. 2024, www.ncqa.org/hedis/measures/antibiotic-utilization/.
[3] "Appropriate Treatment for Upper Respiratory Infection (URI)." NCQA, 1 Sept. 2024, www.ncqa.org/hedis/measures/appropriate-treatment-for-upper-respiratory-infection/.
[4] "2019 Antibiotic Resistance Threats Report." CDC, 16 Jul. 2024, www.cdc.gov/antimicrobial-resistance/data-research/threats/.