

DETECTED PATHOGENS

Haemophilus influenzae	Detected - High	> 10⁶ copies/μL	Gram-negative organism; may be part of normal nasopharyngeal flora if obtained from nasal swab. See criteria for treatment below. For sputum samples, organism may be causative for pneumonia.
Streptococcus pneumoniae	Detected - Medium	10⁴-10⁶ copies/μL	Gram-positive organism; may be part of normal nasopharyngeal flora if obtained from nasal swab. See criteria for treatment below. For sputum samples, organism may be causative for pneumonia.
Human Respiratory Syncytial Virus A	Detected - Low	< 10⁴ copies/μL	Respiratory virus; likely causative pathogen for URTI. Supportive care warranted.

DETECTED RESISTANCE GENES

sul1	Detected	Confers resistance to TMP/SMX. Expressed only by gram-negative organisms.
tet(M)	Detected	Confers resistance to tetracyclines. Expressed primarily by gram-positive organisms. tetM has been found in Haemophilus spp and other rare gram-negative organisms.

URTIs are more commonly associated with viruses than with bacteria. Per IDSA, patients should only receive antibiotics if they meet one of the following criteria: 1) Symptoms lasting > 10 d without improvement, 2) Recurring fever, or 3) Severe/worsening symptoms.

PHARMD TREATMENT CONSIDERATIONS

Regimens based on organisms most likely to be pathogenic. Microbial load considered when available.

Medication	Dose/Duration	Renal Adjustment	Considerations
Amoxicillin/Clavulanic acid (Augmentin)	500/125 mg PO TID x 5-7 d OR 875/125 mg PO BID x 5-7 d	CrCl 10-30 mL/min: 250-500 mg amoxicillin component PO BID	Coverage for: Haemophilus influenzae, Streptococcus pneumoniae <ul style="list-style-type: none"> \$11-21 for 7 day course (coupon pricing) Avoid in PCN allergy
OR			
Azithromycin (Zithromax)	500 mg PO on Day 1, 250 mg PO on Day 2-5 OR 500 mg PO daily x 5 d	None	Coverage for: Haemophilus influenzae, Streptococcus pneumoniae* <ul style="list-style-type: none"> \$8-16 for 5 day course (coupon pricing) May increase risk for QTc interval prolongation
OR			
Cefdinir (Omnicef)	300 mg PO BID x 5-7 d	CrCl < 30 mL/min: 300 mg PO daily	Coverage for: Haemophilus influenzae, Streptococcus pneumoniae <ul style="list-style-type: none"> \$17-26 for 7 day course (coupon pricing) Safe to use in most PCN allergies (~5-10% general cross-reactivity), Avoid with hx of anaphylaxis to PCN
OR			
Levofloxacin (Levaquin)	500 mg PO daily x 5-7 d	CrCl 20-49 mL/min: 500 mg PO once, then 250 mg PO daily CrCl 10-19 mL/min: 500 mg PO once, then 250 mg PO every 48 hrs	Coverage for: Haemophilus influenzae, Streptococcus pneumoniae <ul style="list-style-type: none"> \$10-23 for 7 day course (coupon pricing) FQ class-wide warnings include: CNS toxicity, peripheral neuropathy, myasthenia gravis, aortic dissection, tendinopathy, QT interval prolongation, C.difficile colitis

* Displays variable activity vs pathogen

Additional Considerations

Duration of treatment with antibiotics is typically 5-10 d (ABRS in adults: 5-7 d, ABRS in children: 10 d, Pharyngitis: 10 d, Community-acquired pneumonia: 5-7 d). Consider longer durations in more severe disease, immunocompromised patients, or patients with significant comorbidities.

Supportive Care

Pharmacotherapy options that may be effective:

- Analgesics (NSAIDs, Acetaminophen)
- Antihistamine/ Nasal decongestant combinations
- Cromolyn sodium (inhaled or intranasal)
- Ipratropium bromide 0.06% (intranasal)

Vitamins/supplements/hygiene that may have minimal benefit:

- Vitamin D3 2000-10,000 IU/day
- Vitamin C 1000-2000 mg/day in 2 divided doses
- Zinc 30-90 mg/day in 1-2 divided doses (may have more benefit with higher dosing [> 75 mg/day])
- Probiotics containing multiple strains of lactobacillus and bifidobacterial (may have modest reduction in duration of illness and frequency of infections)
- Povidone-iodine 1% solution or antiseptic mouthwash gargle 2-3 x/day
- Saline nasal spray/irrigation or povidone-iodine spray 2-3 x/day

Reviewed by: John PharmD (PS12345)

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The following regimen(s) are based on generally accepted and peer-reviewed antimicrobial activity of specific agents against detected pathogens, resistance genes, and presumed diagnosis based on specimen source and resulting pathogens. Antimicrobial activity and efficacy of agents for treatment of detected pathogens is not guaranteed. Medication selection, dosages, durations, and considerations are in congruence with clinical practice guidelines (IDSA, CDC, AAP, etc), when guidance is available. Additional patient factors including but not limited to HPI, comorbidities, concomitant medications, etc. should be carefully evaluated in conjunction with listed treatment considerations. Clinical correlation and appropriate medical judgment is warranted prior to prescribing a course of treatment.



Have a question about a report?
Scan the QR code to chat with a
pharmacist or call 904-618-3554.

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