SAMPLE LAB

Name: Sample patient
DOB: 1/1/1980 (45 years)
Gender: Male
Facility: Sample Facility
Provider: Sample Provider
Allergies/Notes: Sulfa

Panel: Respiratory

Sample ID: 4321
Collection Date: 2/5/2025
Reported Date: 2/6/2025

DETECTED PATHOGENS

Haemophilus influenzae	**Detected - Medium**	**10^4-10^6 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 - High**	**> 10^6 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**	**< 10^4 copies/µL**	*Respiratory virus; likely causative pathogen for URTI. Supportive care warranted.*

DETECTED RESISTANCE GENES

dfrA/A5/Sul1/Sul2	**Detected - Low**	*Confers resistance to TMP/SMX. Expressed only by gram-negative organisms.*
tet(M)	**Detected - High**	*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** • $11-21 for 7 day course † • Avoid in PCN allergy
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** • $17-26 for 7 day course † • Safe to use in most PCN allergies (~5-10% general cross-reactivity), avoid with hx of anaphylaxis to PCN
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*** • $8-16 for 5 day course † • May increase risk for QTc interval prolongation
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** • $10-23 for 7 day course † • 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
† Based on available online coupons

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) Date: 2/6/2025