

Diagnosis

- Most respiratory tract infections are caused by viruses, not bacteria, and do not require antibiotic therapy.¹⁻³
- Common infectious syndromes caused by respiratory viruses include:
 - Common cold³
 - Uncomplicated sinus infections with symptoms present for <2 weeks⁴⁻⁵
 - Acute bronchitis (approximately 90% caused by viruses)⁶
 - Exacerbations of chronic obstructive pulmonary disease (approximately 50% caused by viruses)⁷⁻⁸
- Common respiratory viruses that affect long-term care residents include influenza, SARs-CoV-2, rhinovirus, parainfluenza, human metapneumovirus, and respiratory syncytial virus (RSV)³

Signs and Symptoms of Viral Respiratory Infections

Respiratory virus infections typically present with several of the following symptoms:

- Fever⁹
 - Criteria for fever in older adults: any temperature >100°F, repeated temperatures >99°F or >2°F above resident's baseline
- Headache¹
- Nasal congestion¹
- Shortness of breath¹
- Cough (dry or productive)¹
- Wheezing¹

In addition to the above, the following may indicate COVID-19* infection in the long-term care population:¹⁰⁻¹³

- Temperature ≥ 99.0°F
- Loss of taste or smell
- Diarrhea
- Acute mental status change

*COVID-19, caused by SARS-CoV-2, is a rapidly evolving situation. The information included here reflects the current state of understanding as of May 5, 2021. For ongoing updates, see <https://www.cdc.gov/coronavirus/2019-ncov/index.html>

Workup for Suspected Viral Respiratory Tract Infection

- Test for influenza (particularly during peak influenza season October–March) and SARS-CoV-2 or can send a respiratory virus panel if available^{11,14-17}.
- For individuals with severe illness or clinical deterioration, consider:
 - CBC to evaluate for leukocytosis (high white blood cell count suggests bacterial pneumonia)¹⁸
 - Pulse oximetry^{19,20}
 - Chest x ray^{21,22}
 - Viruses can involve the lower respiratory tract and lead to changes on chest x ray
 - Most often the findings are bilateral interstitial changes or ground-glass opacities
 - Bacterial pneumonia is more commonly associated with lobar consolidations

Treatment for Viral Respiratory Tract Infections

- Supportive care: cough suppressants, fluids, supplemental oxygen, nebulizer treatments, chest physical therapy, encourage smoking cessation.¹
- If a resident is diagnosed with influenza, start antiviral treatment and screen other residents for symptoms of influenza-like illness.²³
- If consistent with goals of care, transfer the resident to an acute-care facility if the resident appears clinically unstable (e.g., unable to maintain O₂ saturation, hypotension, tachycardia)²⁰

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