

# Recurrent Aspiration Pneumonia

## Clinical Flag for Opioid Use Disorder

Recurrent aspiration pneumonia refers to multiple episodes of lung infection caused by repeated inhalation (aspiration) of foreign substances such as food, saliva, or stomach contents into the lungs. This condition is especially common in individuals with chronic swallowing difficulties, neurological disorders, or impaired consciousness. Research has shown that recurrent aspiration pneumonia in patients without classic risk factors (e.g., dysphagia, advanced neurologic disease) may be an under recognized indicator of opioid use disorder (OUD). While not diagnostic on its own, this pattern should prompt further evaluation.

### Mechanisms Linking Opioid Use to Aspiration Risk

- **CNS Depression and Sedation:** Opioids reduce consciousness and impair protective reflexes (gag, cough), increasing aspiration risk.
- **Gastrointestinal Dysmotility:** Slowed gastric emptying and reduced lower esophageal sphincter tone promote reflux and aspiration.
- **Cough Reflex Suppression:** Opioids blunt the cough reflex, limiting airway clearance and increasing infection risk.
- **Immune Suppression:** Opioids may impair macrophage and neutrophil function, weakening pulmonary defenses post-aspiration by reducing pulmonary defenses. Decrease TNF- $\alpha$ , IL-1, IL-6, and MIP-2 levels observed in bronchoalveolar fluid.

### Clinical Considerations



#### Thorough History

Evaluate for prescribed or illicit opioid use, swallowing disorders, alcohol use, and neurologic conditions.



#### Rule Out Other Causes

In the absence of clear aspiration risk factors, consider undisclosed opioid use.



#### Associated Signs

Look for respiratory depression, miosis (pinpoint pupils), or injection marks.



#### Hospitalized Patients

Those admitted for opioid overdose are at high risk for aspiration pneumonia, and should be monitored closely.