

# Discoveries of Distinction

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## Incidence and Risk Factors of Gastric-to-Pulmonary Aspiration in Patients Undergoing Elective Upper Gastrointestinal Endoscopy

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**G**astric-to-pulmonary aspiration is a recognized risk during upper gastrointestinal endoscopy. The risk of aspiration is suspected to be significant in this population due to manipulation of the oropharynx and underlying gastrointestinal pathologies, but a thorough assessment of this risk is lacking. The clinical impact of aspiration is very significant as it can cause acute hypoxemia, pneumonitis, pneumonia, acute respiratory distress syndrome, prolonged intubation, prolonged hospitalization, and even death. This study aimed to determine the incidence and risk factors associated with aspiration during elective upper gastrointestinal endoscopy.

The overall incidence of gastric-to-pulmonary aspiration during elective upper GI endoscopy was 4.6/10,000 cases (0.05%), which is 2 times greater than the risk of aspiration during non-GI endoscopy procedures under general endotracheal anesthesia (GETA) during the same

time period at the same institution (2.4/10,000; 0.02%). 35 of the 352 endoscopy notes (9.9%) commented on the presence of residual food in the stomach. Risk factors for aspiration found in this case-control analysis included gastric outlet obstruction, biliary tree pathology, outpatient antacid use, pancreatitis, and procedure durations longer than 30 minutes. Certified Registered Nurse Anesthetists should consider GETA in patients with these risk factors.

The high incidence of residual gastric food contents despite following the ASA guidelines for pre-procedural NPO status should prompt reconsideration of these guidelines in this specific patient population. ■

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