2018 | Dynamic Practice Guidelines for Emergency General Surgery

Committee on Acute Care Surgery, Canadian Association of General Surgeons

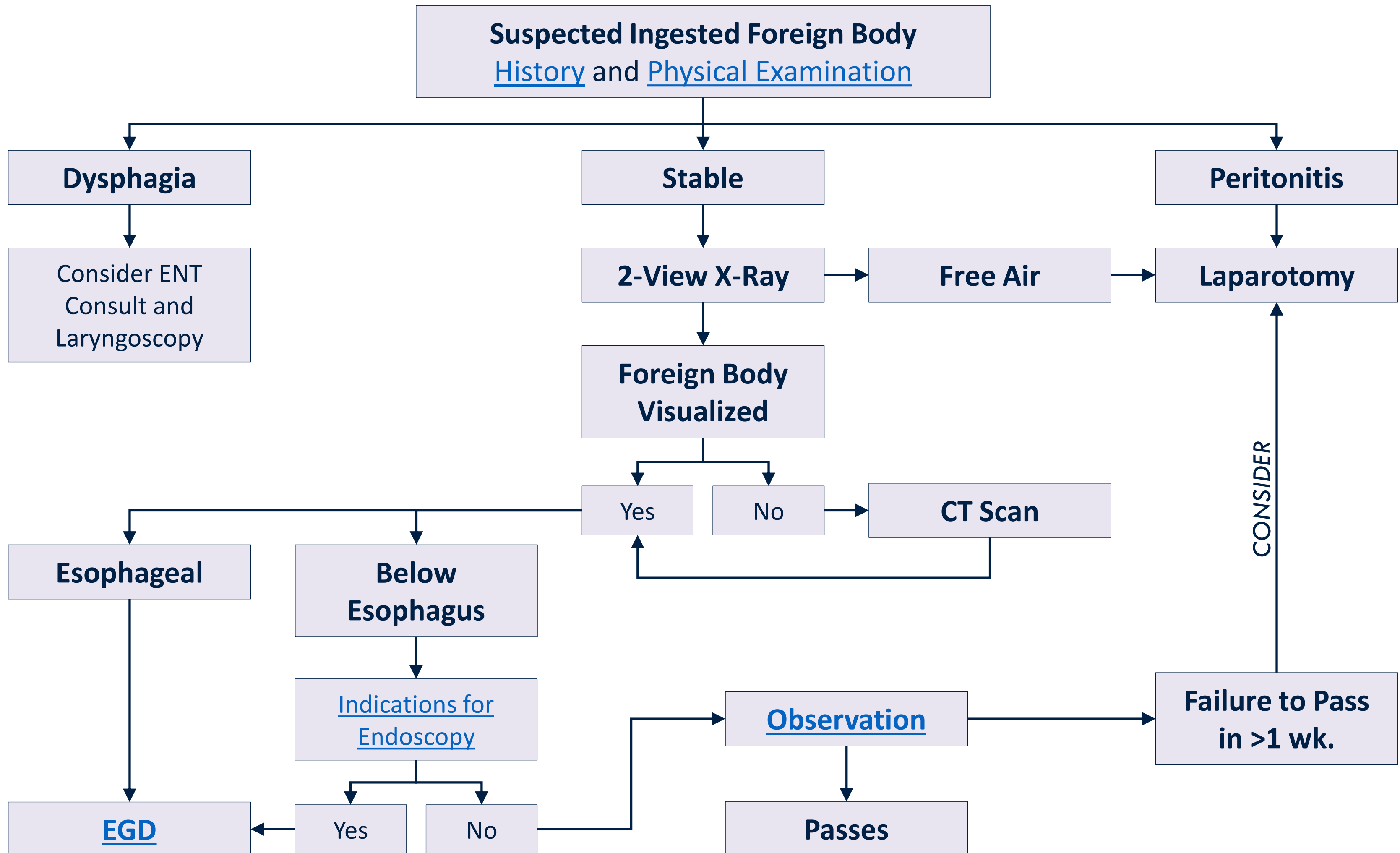
14 UPPER GI FOREIGN BODIES

Dynamic Practice Guidelines for Emergency General Surgery

Michael McCall MD PhD
Committee on Acute Care Surgery, Canadian Association of General Surgeons

Clinical Practice Guideline

UPPER GI FOREIGN BODIES



UPPER GI FOREIGN BODIES

Return to CPG

BACKGROUND

- Most commonly swallowed: Fish bones, other bones and dentures
- Consider pathology as a cause for impaction including: Strictures, cancer rings and achalasia.

- Passed naturally in 80%
- Up to 20% may require endoscopic removal while <1% require surgery

- Characterization is important in order to predict site of impaction and need for intervention
  - Material, contents
  - Size (especially > 6cm)
  - Surface (sharp vs smooth)

Ginsburg, 1995 Gastrointest Endosc
Ambe, Weber, Schauer, et al, 2012 Dtsch Arztebl Int

UPPER GI FOREIGN BODIES

Return to CPG

BACKGROUND

Other foreign bodies to consider: Bezoars

- Phytobezoars
  - Composed of plant material/cellulose
  - Can be enzymatically degraded by: cellulase, papain
- Trichobezoar – hair
- Lactobezoar – inspissated milk
- Pharmacobezoar – drugs/pills
- Diospyrobezoar – unripened persimmons

Ambe, Weber, Schauer, et al, 2012 Dtsch Arztebl Int

Return to CPG

HISTORY OF PRESENTING ILLNESS

- Symptoms in children may be subtle – hypersalivation, refusal to eat, and failure to thrive
- Non-impaired adults often describe a history of ingestion and specific area of discomfort, although description of location is often not accurate
- Other symptoms include dysphagia, odynophagia, dysphonia, retrosternal chest pain, and wheezing.
- Once objects reach the stomach, symptoms are unlikely unless complications

Pfau &Hancock. *Sleisenger and Fordtran's Gastrointestinal and Liver Disease*. 2016; 27: 426-438

UPPER GI FOREIGN BODIES

Return to CPG

PHYSICAL EXAMINATION

- Helps to identify complications that may have occurred
- Assess airway, breathing, and risk of aspiration prior to removal of foreign body

SPECIFIC EXAMINATIONS

- Neck and chest examination – crepitus, erythema, and swelling suggest a proximal perforation
- Lung examination – detection of aspiration or wheezing
- Abdominal examination – evaluate for signs of perforation and obstruction
  - **Signs of peritonitis** - abdominal pain, rebound, guarding, tachycardia, hypotension, and fever

Pfau &Hancock. *Sleisenger and Fordtran's Gastrointestinal and Liver Disease*. 2016; 27: 426-438

UPPER GI FOREIGN BODIES

Return to CPG

INDICATIONS FOR UPPER ENDOSCOPY

EMERGENT

- Esophageal occlusion
- Sharp/pointed objects (perforation risk)
- Batteries – alakaline/mercury can lead to necrosis, fistulas

Urgent

- Magnets – may attract across luminal wall leading to perforation, obstruction, fistula
- >6 cm long foreign body

Elective

- Failure to pass (> 7 days) especially if remains pre-pyloric

Ginsburg, 1995 Gastrointest Endosc
Ambe, Weber, Schauer, et al, 2012 Dtsch Arztebl Int

UPPER GI FOREIGN BODIES

Return to CPG

NON-INTERVENTIONAL MANAGEMENT

- Most FBs pass through the GI tract without difficulty
  - Especially if < 6cm and < 2.5cm wide and passed pylorus
- Most pass within 4-6 days – have patients monitor stools
- Consider outpatient weekly x-rays
- Consider managing “body packers” (drugs) as inpatients
  - Signs of rupture should prompt laparotomy after medical stabilization
- Consider surgery in those with bowel obstruction or persistence in distal duodenum >1 week

Smith and Wong, 2007 Gastrointest Endosc Clin N Am