Diagnostic Approach to Uninvestigated Dysphagia

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Financial Interest Disclosure
(over the past 24 months)
Dr. Louis Liu

<table>
<thead>
<tr>
<th>Commercial Interest</th>
<th>Relationship</th>
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<tr>
<td>Takeda Canada Inc.</td>
<td>Speaker, advisory board</td>
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<td>Actavis</td>
<td>Speaker, advisory board</td>
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<td>AbbVie</td>
<td>Speaker, advisory board</td>
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## CanMEDS Roles Covered

<table>
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<tr>
<th>Role</th>
<th>Description</th>
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<tr>
<td><strong>Medical Expert</strong></td>
<td>Medical Expert (as Medical Experts, physicians integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional values in their provision of high-quality and safe patient-centered care. Medical Expert is the central physician Role in the CanMEDS Framework and defines the physician’s clinical scope of practice.)</td>
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<tr>
<td><strong>Communicator</strong></td>
<td>Communicator (as Communicators, physicians form relationships with patients and their families that facilitate the gathering and sharing of essential information for effective health care.)</td>
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<tr>
<td><strong>Collaborator</strong></td>
<td>Collaborator (as Collaborators, physicians work effectively with other health care professionals to provide safe, high-quality, patient-centred care.)</td>
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<tr>
<td><strong>Leader</strong></td>
<td>Leader (as Leaders, physicians engage with others to contribute to a vision of a high-quality health care system and take responsibility for the delivery of excellent patient care through their activities as clinicians, administrators, scholars, or teachers.)</td>
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<td><strong>Health Advocate</strong></td>
<td>Health Advocate (as Health Advocates, physicians contribute their expertise and influence as they work with communities or patient populations to improve health. They work with those they serve to determine and understand needs, speak on behalf of others when required, and support the mobilization of resources to effect change.)</td>
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<tr>
<td><strong>Scholar</strong></td>
<td>Scholar (as Scholars, physicians demonstrate a lifelong commitment to excellence in practice through continuous learning and by teaching others, evaluating evidence, and contributing to scholarship.)</td>
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<tr>
<td><strong>Professional</strong></td>
<td>Professional (as Professionals, physicians are committed to the health and well-being of individual patients and society through ethical practice, high personal standards of behaviour, accountability to the profession and society, physician-led regulation, and maintenance of personal health.)</td>
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Learning Objectives

At the end of this session, participants should be able to:

• Describe an approach to investigate patients presented with un-investigated dysphagia

• Choose the appropriate tests to investigate esophageal dysphagia in a particular patient
  – UGI Ba study
  – Endoscopy
  – Esophageal Manometry
Canadian Association of Gastroenterology
Practice Guidelines: Evaluation of dysphagia

Alan W Cockeram MD FRCPC

Can J Gastroenterol Vol 12 No 6 September 1998

IT’S TIME TO UPDATE
Case

• 38 yr-old man complains of 1-year history of choking sensation at the sternal notch
  – Only happen with solids, 1-2x/week
  – Longest duration of symptom ~ 5-10 min, resolved spontaneously
  – If not, eventually needed to bring up the “bolus”

• No heartburn, no odynophagia, no weight loss, no clinical bleeding
Case

- PMHx: mild asthma on Ventolin puffers prn
- NKDA, no environmental allergies
- FHx: not contributory
- P/E - unremarkable

What would you do next?
1: Identify Oropharyngeal Dysphagia in Patients Presenting with Dysphagia

1.1: In patients presenting with dysphagia, we recommend using presenting symptoms and physical examination as the initial assessment to identify patients with oropharyngeal dysphagia.

*Strong recommendation, very low-quality evidence*

1.2: In patients presenting with dysphagia, we recommend prompt identification of those with oropharyngeal dysphagia because of the increased risk of aspiration.

*Strong recommendation, low-quality evidence.*
Dysphagia: oropharyngeal vs esophageal

- No study directly evaluating utility of symptoms in differentiating oropharyngeal vs esophageal dysphagia
- Symptoms occurring at the onset of swallow
  - Cough, wet voice etc
- Location of hold up
  - Retrosternal: almost always esophageal problems
  - Esophageal dysphagia can refer to throat and neck
- Important to identify patients with oropharyngeal dysphagia: risk of aspiration
II. Role of history and physical examination in the evaluation of esophageal dysphagia: Identify alarming symptoms for urgent investigation

2.1: In patients with esophageal dysphagia, we recommend history be used to help differentiate structural and motility disorders of the esophagus.  
*Strong recommendation, moderate quality evidence*

2.2: In patients with esophageal dysphagia, we recommend history and physical examination include assessment of other alarm features that require urgent investigations to ensure timely referral for appropriate management.  
*Strong recommendation, low-quality evidence.*
Dysphagia and other alarm symptoms

• Persistent dysphagia is an alarming symptom on its own

• Other associated alarm features to be considered
  – Weight loss
  – Bleeding/Anemia
  – Vomiting
  – Odynophagia
  – Age
Hx and P/E in identifying motility vs structural causes of dysphagia

**Motility**
- Intermittent or progressive
- Liquid & solid
- Associated medical history
  - CTD
  - NCCP

**Structural**
- Persistent & progressive
- Solid
- Associated medical history
  - GERD/HB
  - Other alarm features
Case: 38 yr old man with intermittent and persistent solid food dysphagia without other alarm features

Would you give this patient an empiric treatment trial of PPI?
3: Role of Empiric Treatment with PPI in Esophageal Dysphagia

3.1: In patients under 50 years old presenting with esophageal dysphagia and reflux symptoms, and no alarm features to suggest underlying malignancy, we recommend further testing be performed if dysphagia does not resolve completely after a 4-week trial of oral proton pump inhibitor (PPI) given twice daily.

*Strong recommendation, very low-quality evidence.*
Dysphagia in GERD ≠ Esophageal Cancer

• 17-28% GERD/esophagitis patients present with dysphagia
• In 2015, incident of dysphagia – 1.7% in man and 0.5% in woman (total 2200)
• Patients with dysphagia referred to EGD, cancer found in 0.9 – 8.1%
  – More common in male, age > 50 yr, with other alarm features
• No direct study on safety and efficacy of an empiric PPI trial first
  – 4 weeks delay is unlikely to impact cancer outcome
Case: 38 yr old man with intermittent and persistent solid food dysphagia without other alarm features

What test would you do first?
4. Role of barium contrast studies in the evaluation of esophageal dysphagia

Risk stratify urgency in selected patients depending on accessibility to endoscopy
UGI Barium Swallow

- Declining expertise to do a proper UGIB study
- Endoscopy more sensitive in detecting structural and mucosal disease
- Manometry more sensitive and specific in detecting motility disorder
4. Role of barium contrast studies in the evaluation of esophageal dysphagia

4.1: In patients with esophageal dysphagia, we recommend endoscopy over barium esophagram to improve the diagnosis of structural and mucosal esophageal disease.

**GRADE: Strong recommendation, very low-quality evidence.**

4.2: In some patients with esophageal dysphagia, we suggest a barium esophagram when there is limited local access to endoscopy to assess for significant structural lesions and facilitate timely referral to urgent endoscopy and specialist consultation.

**GRADE: Strong recommendation, very low-quality evidence.**

4.3: In patients with esophageal dysphagia, we recommend esophageal manometry over barium esophagram to improve the diagnosis of esophageal motility disorders.

**GRADE: Strong recommendation, very low-quality evidence.**
5. Role of endoscopy in the evaluation of esophageal dysphagia

5.1: In patients with persistent esophageal dysphagia, we recommend endoscopy as the initial test to maximize diagnostic yield.

*Strong recommendation, very low-quality evidence.*

5.2: In all patients undergoing endoscopy for esophageal dysphagia, unless there are clear features of erosive reflux esophagitis, we recommend esophageal biopsy be performed to detect mucosal pathology.

*Strong recommendation, low-quality evidence.*
5. Role of endoscopy in the evaluation of esophageal dysphagia

Biopsy even if it looks normal
6. Role of esophageal manometry in the evaluation of esophageal dysphagia

6.1: Esophageal manometry is the gold standard for diagnosing esophageal motility disorders.

*Strong recommendation, very low-quality evidence*

6.2: In patients with persistent esophageal dysphagia, after structural and inflammatory causes have been ruled out, we recommend esophageal manometry to evaluate esophageal motility disorders.

*Strong recommendation, very low-quality evidence*

6.3: In patients with dysphagia, we suggest high-resolution esophageal manometry over conventional esophageal manometry to improve diagnostic performance.

*Strong recommendation, very low-quality evidence*
Diagnostic Approach to Uninvestigated Dysphagia

Dysphagia

Oropharyngeal

Swallowing assessment by SLP

Esophageal

Other alarm symptoms or signs

Yes → Refer for Investigations

No → GERD symptoms

Yes → PPI Trial

Dysphagia not resolve

No → Investigations:
Endoscopy/Ba to assess structural and inflammatory lesions

Yes → Manage

No → Esophageal Manometry