Speech Pathology

Mike Thomason, MS CCC-SLP
Lori A. Nelson, MS CCC-SLP

Outline

- Description of our discipline, what we do and do not do. When/how to consult.
- Instrumental assessments
- Speech consult? GI consult?
- Considerations for discharge
- Final discussion, Q&A

Roles of Speech Pathologist at UNMH

Primary role: assess pts at risk for oropharyngeal dysphagia/aspiration through swallowing evaluation.

Goal: develop dysphagia rehab/treatment plan, make safest/most appropriate diet recs, other consults, prognosis for maintaining adequate oral intake, etc.

What else do we evaluate/treat?

- Cognitive/language evaluation to assess cognitive-linguistic skills, determine need for therapy, and make appropriate D/C recommendations
- Speech and voice evaluation for motor speech and voice disorders and determine need for therapy
- Speech valve assessment for pts with tracheostomy
- Education for pt and family re: swallowing, speech, voice, language, cognitive impairments
- “Ongoing” evaluation while in acute care setting. We don’t do consistent, intensive therapy (time/staffing, nature of acute care)

Swallowing

- Eating Videos
  - iCloud
  - iCloud

How do we evaluate?

Clinical bedside swallowing evaluation (most common as first step)

Modified barium swallow studies (MBSS). This is also known as Videofluoroscopic swallow study (VFSS).

Flexible Endoscopic Evaluation of Swallowing (FEES).

Overall goals: Decrease risk for aspiration and its complications, determine most efficient diet to maximize caloric intake. Swallow Safety and efficiency.

Instrumental Swallow Studies

Modified Barium Swallow Studies (MBSS)

- Performed in conjunction w/ radiology (fluoroscopy)
- The “gold standard” of dysphagia evaluation
- What is it? Why perform them?
  - Define anatomy/physiology of swallow function, severity, and provide insight into the etiologies of oropharyngeal dysphagia
  - Used to develop dysphagia tx plan, recommend safest diet
  - Silent aspiration, chronic dysphagia (unexplained recurrent PNAs?)
  - Provide useful information for GOC, alternative nutrition, etc.
  - Benefits and limitations
  - “Normal” vs “not normal”
  - Our scope of practice "ends where the esophagus begins" (GI manages)
- Instrumental exam should be representative of true ability rather than alertness/acute confusion affecting swallow

Esophagram

Esophagram is also known as Barium Swallow (A GI fluoroscopic study of the esophagus)

Focuses on the propulsion of liquid through the esophagus and into the stomach

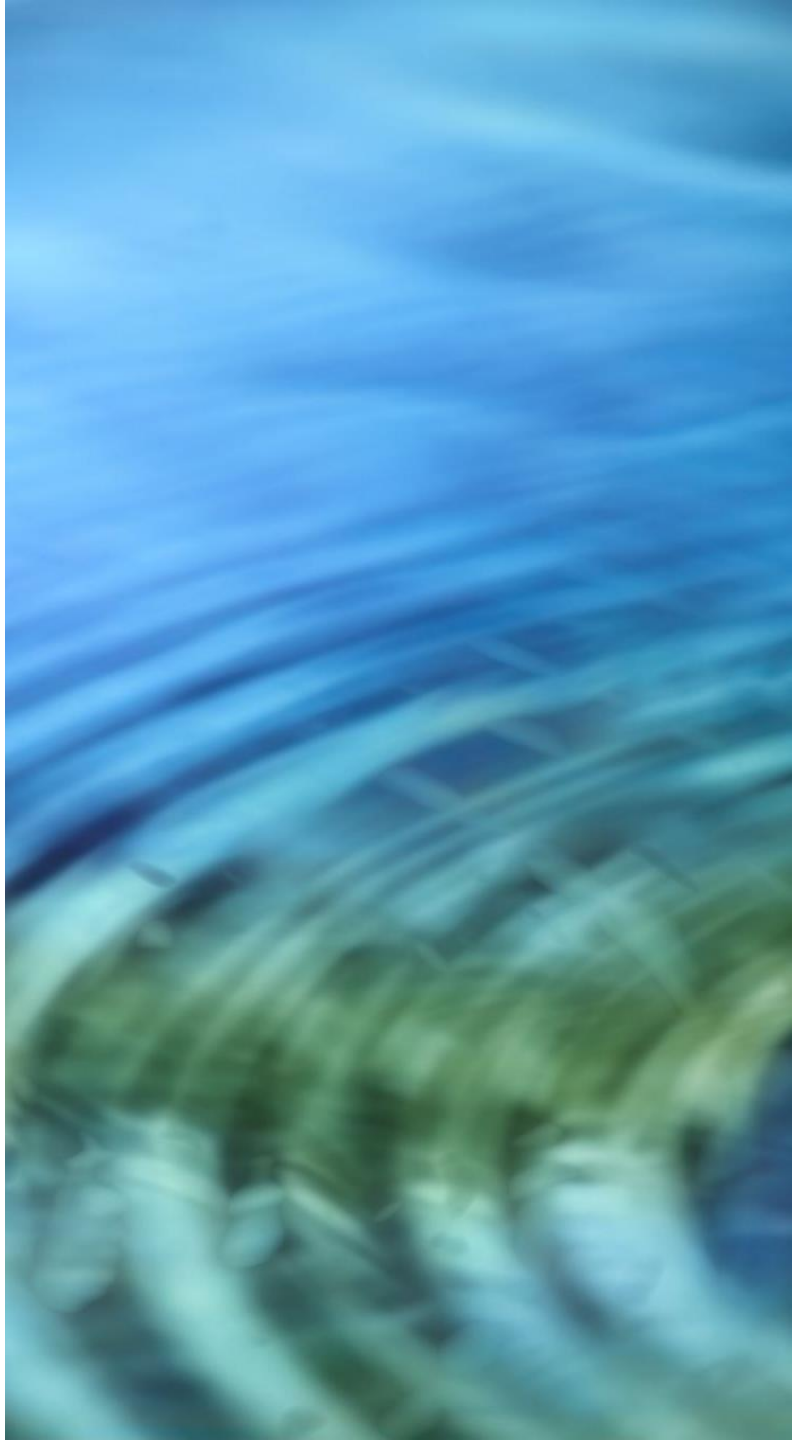
Frequently confused with MBSS

Esophageal dysphagia

- Esophageal dysmotility
- Achalasia
- Strictures
- Sym

Medical team or GI may recommend

To order>Power orders>search>FL esophagus



Example

Dysmotility: https://youtu.be/1-I3lDjGvcs

Flexible Endoscopic Evaluation of Swallowing (FEES)

- Also can perform fiberoptic endoscopic evaluation of swallowing (FEES) which (can) assess vocal cord dysfunction and dysphagia
  - Why do FEES vs MBSS?
  - Benefits and limitations.

Example FEES

- https://www.nature.com/gimo/contents/pt1/images/gimo28-V6.mp4
- https://www.nature.com/gimo/contents/pt1/images/gimo28-V4a.mp4

Severity of Swallow

- Many factors contribute to the determination of the severity of a swallow. A guideline commonly used:

Table 1. Dysphagia outcome and severity scale—final revision

Full per-oral nutrition (P.O): Normal diet
Level 7: Normal in all situations
Normal diet
No strategies or extra time needed
Level 6: Within functional limits/modified independence
Normal diet, functional swallow
Patient may have mild oral or pharyngeal delay, retention or trace epiglottal undercoating but independently and spontaneously compensates/clears
May need extra time for meal
Have no aspiration or penetration across consistencies
Full P.O: Modified diet and/or independence
Level 5: Mild dysphagia: Distant supervision, may need one diet consistency restricted
May exhibit one or more of the following
Aspiration of thin liquids only but with strong reflexive cough to clear completely
Airway penetration midway to cords with one or more consistency or to cords with one consistency but clears spontaneously
Retention in pharynx that is cleared spontaneously
Mild oral dysphagia with reduced mastication and/or oral retention that is cleared spontaneously
Level 4: Mild–moderate dysphagia: Intermittent supervision/cueing, one or two consistencies restricted
May exhibit one or more of the following
Retention in pharynx cleared with cue
Retention in the oral cavity that is cleared with cue
Aspiration with one consistency, with weak or no reflexive cough
Or airway penetration to the level of the vocal cords with cough with two consistencies
Or airway penetration to the level of the vocal cords without cought with one consistency
Level 3: Moderate dysphagia: Total assist, supervision, or strategies, two or more diet consistencies restricted
May exhibit one or more of the following
Moderate retention in pharynx, cleared with cue
Moderate retention in oral cavity, cleared with cue
Airway penetration to the level of the vocal cords without cough with two or more consistencies
Or aspiration with two consistencies, with weak or no reflexive cough
Or aspiration with one consistency, no cough and airway penetration to cords with one, no cough
Nonoral nutrition necessary
Level 2: Moderately severe dysphagia: Maximum assistance or use of strategies with partial P.O. only (tolerates at least one consistency safely with total use of strategies)
May exhibit one or more of the following
Severe retention in pharynx, unable to clear or needs multiple cues
Severe oral stage bolus loss or retention, unable to clear or needs multiple cues
Aspiration with two or more consistencies, no reflexive cough, weak volitional cough
Or aspiration with one or more consistency, no cough and airway penetration to cords with one or more consistency, no cough
Level 1: Severe dysphagia: NPO: Unable to tolerate any P.O. safely
May exhibit one or more of the following
Severe retention in pharynx, unable to clear
Severe oral stage bolus loss or retention, unable to clear
Silent aspiration with two or more consistencies, nonfunctional volitional cough
Or unable to achieve swallow

Diet Recommendations

- Upon completion of our evaluation, we will recommend the safest diet for the patient.
  - May include:
    - Puree
    - Thickened Liquids
  - Why the difference?
    - Safest swallow / easier to swallow
  - How to order

How to Order a Diet

Powerchart walkthrough

When should Speech be involved?

Does my pt need a Speech consult? If concerned oropharyngeal dysphagia/aspiration, can always consult Speech (clinical judgement), but may also consider performing nursing bedside swallow screen (RNBSS) first/if unsure.

Fail the RNBSS? Consult Speech. We will likely perform bedside evaluation and determine need for further instrumental evaluation and decide which type of instrumental evaluation is warranted.

Nursing Bedside Swallow Screen Form

Dysphagia Screening is required prior to any food, fluids, or medications on all patients with Ischemic Stroke, Transient Ischemic Attack, Subarachnoid Hemorrhage and Intracerebral Hemorrhage per stroke protocol.

This screen should also be performed on any other patient suspected of being at risk for aspiration.

Prescreen Assessment

	Yes	No	Comment
History of aspiration?			
Drowsy or obtunded?			
Difficulty following commands?			
Difficulty managing secretions?			
Dysarthria?			
Tracheostomy?			
Currently intubated			
Speech eval this admission			
Complete facial paralysis			

To review procedure, right click below and select reference text then follow link.

○ Bedside Swallow Screen Procedure

Any YES indicates a fail; stop screen, ensure patient remains NPO and obtain order for speech evaluation.

Can re-screen if patient fails the prescreen assesment but demonstrates improvement on prescreen assessment criteria during the shift.

Do not re-screen if the patient has failed the 3 Ounce Water Swallow Test OR if patient has already been seen by Speech Pathology.

Pre-assessment result ○ Fail ○ Continue

Administer 3 oz Water Swallow Test:

To patient: "Please drink all of this water without stopping."

FAIL: Patient exhibits coughing, choking, wet voice or unable to drink 3 oz of water without stopping.

Bedside Swallow Screen Procedure Result ○ Pass ○ Fail

Ensure patient is NPO, including medications, and obtain order for speech evaluation.

Reminder: Verify performed time is accurate.

When to Consult Speech Outpatient vs. Inpatient

- Difference?
  - Acuity level
  - Host considerations
  - Quality of life considerations
  - When to refer to SLP?

How to find our notes

- Clinical notes→
- text rendition documents→
- speech therapy forms→
- notes by date

Speech Valves

- One-way valve that allows airflow through the vocal folds during phonation. It's NOT A CAP!
- There are different types of speech valves
  - Passy-Muir Valve or PMV is most used at UNMH
  - Ideal for tracheostomies to be 'downsized' to a smaller diameter/cuffless (typically 6CFS)
- What isn't a speech valve?
  - A Cap (consult pulmonary diagnostics for capping trials)
  - An HME (Heat Moisture Exchange)
- Please place a new order that says "**speech valve**" somewhere on the order!
  - We must have in order to place a speech valve

Benefits of Speech Valve

- Enhances weaning of the tracheostomy (‘middle step’ before capping)
- Improves patient well-being, communication
- Can improve swallow function
- Normalizes passage of air through the larynx and mouth
- Increases glottic closure (bear down, airway protection, etc.)
- Restores sense of smell and taste, increasing appetite and nutritional intake
- Use of the valve for speech strengthens the vocal cords for swallowing

How to contact Speech and place orders

- Use Tigerconnect to contact (divided into floors/therapists). Search “speech” and find the therapist for that floor.
- Ordering Speech Pathology consults
  - Clinical bedside swallow evaluation (first step)
    - Power orders→search ‘speech’→select **Speech Path UH Eval+Treat**
  - For instrumental exams (modified barium swallow studies and/or laryngoscopy/FEES, etc.)
    - Power orders→search ‘FL swallow’→ you will see order for “FL swallow + speech + scout”
    - For other studies (besides MBSS) just place another Speech eval and under ‘detail values’ select option you want (e.g., FEES, speech valve, laryngoscopy, etc.).

Questions?