

SPEECH PATHOLOGY

DYSPHAGIA: GERIATRICS AND PALLIATIVE CARE

Speakers:

Heather Flynn, MS, CCC-SLP and Meredith Piccirillo, MA, CCC-SLP

Speech-Language Pathology Department

The Department of Audiology and Speech Pathology is located at:

Inpatient Staff:

Jane Brown Basement

Main Number: x44101

Fax Number: x40114

Outpatient Staff:

115 Georgia Ave

Providence, RI

Main Number: 444-5485

Fax Number: 444-6212

Speech-Language Pathologists

Sandra Aguiar, MS CCC-SLP

Elizabeth Baccari MS,CCC-SLP (Clinical Coordinator Inpatient Speech Services)

Paul W Austin, MEd CCC-SLP/A

Anne Ferraro, MS CCC-SLP (C) (Clinical Coordinator Outpatient Speech Services)

Heather Flynn, MS CCC-SLP

Meredith Piccirillo, MA CCC-SLP

Carolyn Lubenow, MS CCC-SLP

Amy Muschiano, MS CCC-SLP

Raneh Saadi, MS CF-SLP

Maureen Durkin MS,CCC-SLP (per diem)

Catherine Ebert, MA CCC-SLP (per diem)

Courtney Horley, MS CCC-SLP

Alicia Lombardi, MS CCC-SLP

Bethany Lucas, MS CCC-SLP (per diem)

Meggan O'Connell, MS CCC-SLP

Susan M Wright, MEd CCC-SLP

Anne Quirk MS,CCC-SLP (per diem)

Speech-Language Pathologist

Nature of the Work

Working with the full range of human communication and its disorders, speech-language pathologists:

- ▣ Evaluate and diagnose speech, language, cognitive-communication and swallowing disorders.
- ▣ Treat speech, language, cognitive-communication and swallowing disorders in individuals of all ages, from infants to the elderly.

American Speech-Language Hearing Association (ASHA)

Speech-Language Pathology Services

Variety of adult and pediatric consultation services:

- Communication/Cognitive-Linguistic evaluation and treatment
- Augmentative & Alternate Communication evaluation and treatment
- Swallowing evaluation and treatment
 - ▣ Clinical (Bedside) Swallowing Evaluation
 - ▣ Modified Barium Swallow Study (MBS)
 - ▣ Fiberoptic Endoscopic Evaluation of Swallowing (FEES)
- Voice evaluation and treatment
 - ▣ Videostroboscopy
- Tracheostomy evaluation and treatment
 - ▣ Passy-Muir Valve candidacy

Who *may* need a speech/swallow evaluation?

- Patients with recurrent pneumonia of unknown etiology
- Patients who demonstrate clinical signs/symptoms of dysphagia while eating
- Patients who have an acute change in cognition, respiration, voice, communication and/ or swallowing function
- Patients determined to be at high risk for malnutrition, dehydration or weight loss

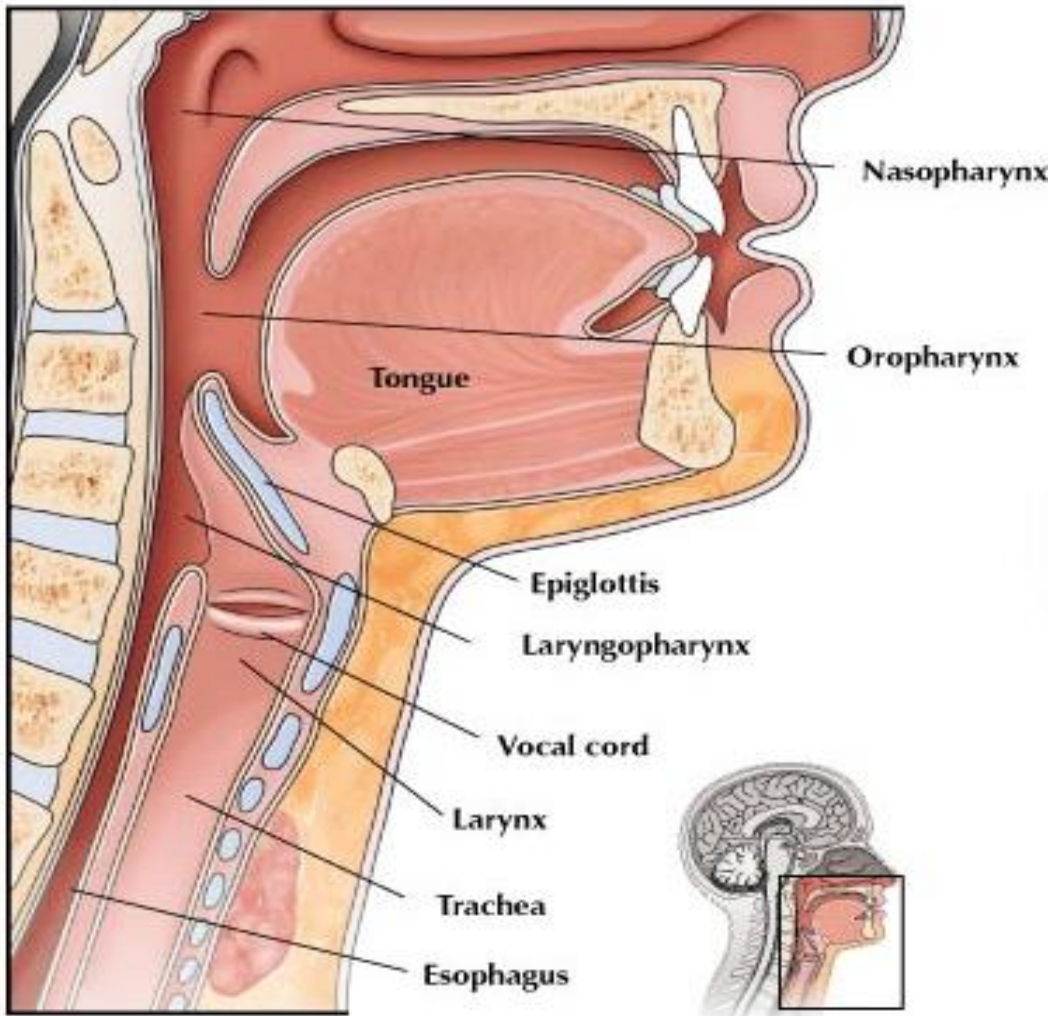
Speech-Language Pathology

Patient Populations

Adult populations in the acute care setting include, but are not limited to:

- ❑ Cerebral Vascular Accident (Stroke)
- ❑ Traumatic Brain Injury
- ❑ Spinal Cord Injury
- ❑ Muscular Dystrophy
- ❑ Myasthenia Gravis
- ❑ Guillain-Barre Syndrome
- ❑ Parkinson's Disease
- ❑ Amyotrophic Lateral Sclerosis
- ❑ Multiple Sclerosis
- ❑ Alzheimer's Disease
- ❑ Chronic Obstructive Pulmonary Disease
- ❑ Tracheostomy/Ventilator Dependent
- ❑ Head & Neck Cancer
- ❑ Cerebral Palsy
- ❑ Failure to Thrive
- ❑ Recent surgery, intubation, delirium, etc.

Swallowing Mechanism at Rest



Swallowing shares the same musculature needed for speech and voice production.



Oral Phase of Swallowing

- **Oral Phase**

During the oral phase, food is chewed and mixed with saliva to form a soft consistency called a bolus. The tongue then moves the bolus toward the back of the mouth.

Patients with impairment of the oral stage may experience difficulty creating a seal around a fork or spoon with their lips, chewing solid consistencies, forming chewed food into a bolus or moving the bolus to the back of the mouth.

Pharyngeal Phase of Swallowing

□ Pharyngeal Phase

During the pharyngeal phase, the vocal folds close to keep food and liquids from entering the airway. The larynx rises inside the neck and the epiglottis moves to cover it, providing even more airway protection.

If the pharyngeal phase is impaired, food or liquid can move into the throat before the automatic swallow is triggered, resulting in food or liquid touching the vocal folds or penetrating the vocal folds and moving into the lungs.

Common symptoms include, but are not limited to:

Coughing before, during, or shortly after, swallowing; choking sensation; shortness of breath; changes in vocal quality after swallowing; recurrent pneumonia, weight loss; etc.

Esophageal Phase of Swallowing

- **Esophageal Stage**

During the final stage, the esophageal stage, the bolus moves into the esophagus, the muscular tube that contracts to push the bolus into the stomach.

If the esophageal stage is affected, the patient might experience heartburn, vomiting, burping or abdominal pain.

Clinical Swallow Evaluation

This test is completed at bedside and typically precedes any instrumental evaluation of swallow function.

Procedure includes:

- ❑ Thorough chart review of patient's medical history and hospital course to date
- ❑ Interview of the patient and or appropriate caregivers regarding reported dysphagia
- ❑ Informal assessment of patient's cognition and communication status
- ❑ Oral motor examination
- ❑ PO trials
- ❑ Assessment and recommendations

Modified Barium vs. Barium Swallow Studies

- [Video: MBS \(Normal Swallowing\)](#)

Completed in radiology by a speech pathologist with the assistance of a radiologist for a more objective assessment of the patient's **oral and pharyngeal phase of swallowing, to rule out aspiration and assist with determining the safest, least restrictive diet for the patient.**

- [Video: MBS \(Aspiration\)](#)

- [Video: Barium Swallow](#)

Completed in radiology by a radiologist for more objective assessment of the **esophageal phase of the swallow to rule out any structural or functional abnormalities (eg strictures, dysmotility, reflux, etc).**

FEES studies

□ Video: FEES (Normal Swallowing)

- This test is performed at bedside by a speech pathologist with a flexible fiberoptic scope
- The patient is presented with a variety of po textures
- The structures and function of the velopharynx, pharynx and larynx are evaluated
- Determines the presence or absence of aspiration, timing of the swallow, efficiency of the swallow and usefulness of treatment strategies

□ Video: FEES (Aspiration)

Modified Diet: Consistencies & Textures

- Thickened liquids:
 - ▣ Pudding-thick
 - ▣ Honey-thick
 - ▣ Nectar-thick
 - ▣ Thin liquids
- Solid consistencies:
 - ▣ Regular
 - ▣ Regular-soft
 - ▣ Mechanical soft
 - ▣ Puree

CAUTION!

□ If a patient is on thickened liquids, they **CANNOT** have the following:

- Ice cream
- Italian ice/lemon ice
- Popsicles
- Jello
- Milkshakes
- Broth-based soups

These items may be substituted for patients on thickened liquids:

- Magic cup
- May add pudding or yogurt to dairy-based drinks (i.e. Ensure)
- May add thickener to soups, mixed consistencies (i.e. cereal), and thin liquids

Populations with severe and chronic dysphagia

Disorders of swallowing : Palliative Care; 2008; Swallowing disorders and palliative care, 2015

□ **Head and Neck Cancer:**

- May be direct consequence of the tumor or ongoing treatment
- After the immediate effects of the chemotherapy, radiotherapy and surgery subside, a chronic dysphagia may become apparent. QOL may be reduced
- Deficits: affecting airway protection and opening of esophagus
 - Mucositis
 - Edema
 - Xerostomia
 - Trismus
 - Fibrosis
- Patients with dysphagia following head and neck cancer may be able to utilize swallowing maneuvers that keep the bolus out of the airway (eg. supraglottic swallow)
- When weight loss and recurrent pneumonias become evident, it may be time to consider alternatives

Populations with severe and chronic dysphagia (continued)

Disorders of swallowing : Palliative Care; 2008; Swallowing disorders and palliative care, 2015

Progressive Neurologic Diseases

Presentation varies depending on the disease (e.g. ALS versus Parkinson's Disease)

□ **ALS**

- Approximately 30% of patients present with bulbar onset which initially affects speech, swallowing and voice.
- Deficits may include decreased tongue mobility, oropharyngeal muscle weakness and fatigue with eating
- Standard therapy emphasizes compensatory strategies such as postural changes and diet modification.

□ **Parkinson's Disease**

- The cardinal symptoms of akinesia, bradykinesia and rigidity are responsible for the dysphagia in Parkinson's disease.
- Excessive salivation and drooling may occur due to the inability to control oral secretions due to impaired swallow function.
- In the later course of the disease exercises are typically no longer effective and compensatory strategies and postural changes may provide some benefit

Populations with severe and chronic dysphagia (continued)

Disorders of swallowing : Palliative Care; 2008; Swallowing disorders and palliative care, 2015

Dementia

- ❑ Aspiration pneumonia has been reported to be the most common cause of mortality in various forms of dementia
- ❑ Patient's may present with oral holding of the bolus, decreased bolus formation, pocketing, spitting of food. Due to sensory impairments patient may have premature loss of bolus resulting in aspiration.
- ❑ Decreased consciousness and sedation predispose patients to aspiration of food and liquid.
- ❑ Treatment may include altering texture of food, offering finger foods, small portions, caregiver education and environmental modifications.

Populations with severe and chronic dysphagia (continued)

Disorders of swallowing : Palliative Care; 2008; Swallowing disorders and palliative care, 2015

Stroke

- ❑ Following acute stroke the incidence of dysphagia ranges from 40% for hemispheric strokes to 55% for mixed lesions. Anterior and subcortical strokes result in highest rates of dysphagia, while brainstem strokes typically cause severe cases of dysphagia.
- ❑ The decision for alternative means for nutrition depends on site of neurologic damage, age, recurrence of strokes, premorbid function, and previous medical history
- ❑ Treatment may include compensatory strategies, exercises, electromyographic biofeedback to help guide swallow exercises

Nutrition...

- When the patient is presenting with chronic/severe dysphagia despite treatment and modifications consider alternate means for nutrition.
 - ▣ Without enteral nutrition patient would be at risk for nutritional insufficiency, dehydration, malnutrition and aspiration pneumonia
 - ▣ If the decision needs to be made regarding enteral nutrition education needs to be provided to patient and family regarding QOL
 - ▣ Depending on patient status, consider a combination of enteral and/or oral nutrition



SLP Role with Palliative Patients

- ❑ Optimize patient's ability to eat or drink comfortably, with modifications as status declines
- ❑ Promote positive feeding interactions for family members or caregivers
- ❑ Support and educate family members regarding patient's declining ability to eat due to disease process
- ❑ Consult regarding strategies and tools for active participation in decision making, to maintain social closeness, and to assist in fulfillment of end-of-life goals

Things to consider...

- Other potential sources of aspiration (eg prandial, non-prandial, oral pathogens/overall oral health, recent episodes of emesis, etc)
- Question the patient regarding the nature of their swallowing complaint (eg how long, point to where you feel the problem).
- Not everyone who aspirates will cough and choke and not everyone who coughs and chokes aspirates.
- The same swallowing strategies or diet modifications do not work for everyone

Did you know...

- The loss of muscle mass directly affects small muscle groups involved in such functions as swallowing (Robbins et al., 2005)
- Swallowing problems affect up to 22% of individuals over age 55
- Illness causing extreme weakness may cause dysphagia in otherwise normal adults over 80 years of age
- The incidence of swallowing difficulty is approximately 44% in the geriatric population (Morris, 2006)
- 14% of all hospital patients have swallowing difficulty
- Aspiration pneumonia is the 5th leading cause of death in patients 65 years or older and the 3rd leading cause of death in patients 80 years or older

Questions??



Thank you!