




SWALLOWING DISORDERS: USING A PATIENT CENTERED APPROACH IN ASSESSMENT AND TREATMENT

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OBJECTIVES

- Increase knowledge of assessment methods and importance of comprehensive dysphagia evaluation.
- Increase understanding of individualized treatment considerations.
- Increase knowledge of risks and benefits of modified diets and thickened liquids.


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ROLE OF SLP AND DYSPHAGIA


- Screen at-risk patients
- Complete clinical swallow assessments
- Refer for or perform instrumental assessment (MBS/FEES)
- Complete swallow therapy
- Educate the patient and caregivers
- Work with MD, NP, PA, nursing, CNAs, dietician, dietary aids and other relevant staff members to improve outcomes and carryover of skills
- Make appropriate physician referrals

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CLINICAL SWALLOW EVALUATION

- Thorough case history
- Predictors of aspiration pneumonia
 - Aspiration pneumonia will only develop within the context of a primary and serious illness



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PREDICTORS OF ASPIRATION PNEUMONIA

- Dependent for oral care
- Dependent for feeding
- Number of medications
- Smoking
- Multiple medical diagnoses (especially history of CVA or other neurological disease, COPD, CHF, or GI condition)
- Number of decayed teeth
- Suctioning
- Bedfast
- Feeding tube
- Case mix index (highly complex patient)
- Indicators of delirium
- Weight loss
- Swallowing problem (including history of reflux)

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CLINICAL SWALLOW EVALUATION

- Thorough case history
 - Predictors of aspiration pneumonia
- Oral mechanism examination
 - Cranial nerve examination
- Intake assessment of multiple consistencies
- Refer to instrumental assessment if appropriate
 - Clinical Swallow Evaluations cannot definitively indicate the presence or absence of dysphagia



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INSTRUMENTAL ASSESSMENT

Modified Barium Swallow Study (MBS)



Fiberoptic Endoscopic Evaluation of the Swallow (FEES)



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INSTRUMENTAL ASSESSMENT

Modified Barium Swallow Study (MBS)

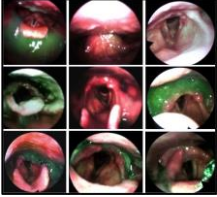
- Done in radiology
- Uses barium coated food/drink
- Limited in duration/radiation exposure
- Identifies deficits in the oral and pharyngeal stage
- Esophageal sweep can be performed
 - GI referral?
- Identifies aspiration
- Identifies the cause of aspiration based on the anatomy and physiology



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INSTRUMENTAL ASSESSMENT

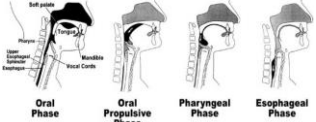
- **Fiberoptic Endoscopic Evaluation of the Swallow (FEES)**
 - Uses transnasal endoscope
 - Uses edible dye on foods/liquids for contrast
 - Not painful
 - 98% of patients say they would do the test again
 - Is portable
 - Bedridden, ICU, isolation, unable to leave facility
 - Can be in for an entire meal, if needed
 - Identifies pharyngeal stage deficits
 - ENT referral? GI referral?
 - Identifies aspiration
 - Identifies the cause of aspiration based on the anatomy and physiology



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INSTRUMENTAL ASSESSMENT: DECISION MAKING PROCESS


- Major clinical indications to proceed with a MBS:
 - Oral stage concerns
 - Esophageal stage concerns
 - Specific anatomical changes that could attribute to dysphagia



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INSTRUMENTAL ASSESSMENT: DECISION MAKING PROCESS


- Major clinical indications to proceed with a FEES:
 - Assess secretion management
 - Assess fatigue
 - Assess specific laryngeal or pharyngeal sensory or anatomical deficits
 - Dysphagia is concurrent with voice changes



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INSTRUMENTAL ASSESSMENT: WHY DOES IT MATTER

- Identifies aspiration
 - Drives diet recommendations
 - Silent aspiration?
 - Ensure the patient is not on an overly restrictive diet
- Identify effective compensatory strategies
- Identifies specific physiological impairments
 - Drives rehabilitative exercises



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TREATMENT

- Compensatory Strategies
- Exercises
- Diet Modifications

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TREATMENT: COMPENSATORY STRATEGIES AND EXERCISES

- Customized compensatory strategies based on instrumental assessment
- Customized oropharyngeal exercises based on instrumental assessment
 - Base of tongue retraction
 - Hyolaryngeal elevation and excursion
 - Vocal fold adduction
 - Pharyngeal propulsion

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TREATMENT: DIET MODIFICATIONS

IDDSI Food Pyramid:

- 7 REGULAR
- 6 SOFT & BITE-SIZED
- 5 MINCED & MOIST
- 4 PUREES
- 3 LIQUIDIZED
- 2 MILDLY THICK
- 1 SLIGHTLY THICK
- 0 THIN

Dysphagia Diets - Liquids:

- Nectar-like
- Honey-like
- Spoon-thick

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CONSIDERATIONS FOR DIET DOWNGRADE

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CONSIDERATIONS FOR DIET DOWNGRADE


Risks:

- Decreased quality of life
- Increased risk for malnutrition
 - Decreased palatability
- Increased risk for dehydration
 - Increased risk for hospitalization or medical complications
 - UTI
 - Electrolyte imbalance
- Increased risk of pneumonia if thickened liquids are aspirated



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CONSIDERATIONS FOR DIET DOWNGRADE



Benefits:

- Prevent aspiration
- Easier to control the food/liquids if there is difficulty coordinating mouth muscles
- May reduce uncomfortable coughing/sensation of foods/liquids going down "the wrong tube"

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POPULATIONS AT RISK FOR DYSPHAGIA

| Progressive Diseases | Acute Neurologic | Other |
|--|--|---|
| <ul style="list-style-type: none"> • Dementia • Parkinson's Disease • ALS • Multiple Sclerosis • Many more! | <ul style="list-style-type: none"> • CVA • TBI | <ul style="list-style-type: none"> • Cervical Spine Injury • Head and Neck Cancer |

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SPECIAL CONSIDERATIONS: DEMENTIA

Treatment will vary based on stage of dementia.

Late stages:

- Facilitative vs rehabilitative
- Caregiver training
- Patient and family wishes are honored

Artificial nutrition does NOT increase longevity in this population.



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PREDICTORS OF ASPIRATION PNEUMONIA: DEMENTIA

- Dependent for oral care
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- Number of medications
- Smoking
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- Number of decayed teeth
- Suctioning
- COPD
- Feeding tube
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SPECIAL CONSIDERATIONS: PROGRESSIVE DISEASES

- Needs will change over time.
- May benefit from maintenance program to maintain swallow safety and functioning.

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SPECIAL CONSIDERATIONS: ACUTE NEUROLOGIC

Increased risk of silent aspiration

Requires high intensity of oropharyngeal exercises for physiological change

NPO considerations

- Get PO intake as soon as safely possible
- Prevent pharyngeal muscle atrophy from disuse

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SPECIAL CONSIDERATIONS: HEAD AND NECK CANCER

Prehabilitation!

- Educate on what to expect in treatment
- Exercises to maintain functioning



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PILLARS OF ASPIRATION PNEUMONIA


- Compromised immune system**
 - Various underlying diseases and conditions, including aging
- Poor oral health**
 - Biofilm of bacteria in plaque
- Aspiration**
 - Identified per MBS/FEES

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ORAL CARES

Poor oral hygiene will cause dental plaque to form a dense bacterial biofilm.

If aspirated, the risk of developing pneumonia increases.



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TOOTHETTE VS TOOTHBRUSH

- Foam swabs and toothettes are not successful in removing plaques and biofilm.
- Toothbrush and toothpaste is most effective!




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ORAL CARES

- NPO
 - Are oral cares still necessary?

YES!

- For NPO patients, or pts who can't expectorate, suctioning toothbrushes are available.



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SIGNS TO REFER TO SPEECH THERAPY

- Difficulty chewing or pocketing food
- Coughing with PO intake
- Decreased PO intake
- Significant unwanted weight loss
- Trouble taking pills
- Wet/gurgly voice quality with meals

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