DYSPHAGIA EDUCATION

WHAT IS DYSPHAGIA?

• A difficulty with any stage of swallowing that causes risk for aspiration and/or inability to meet nutrition/hydration needs

• A Dysphagia Screening is done on ALL Code Stroke patients by Nurse.

• All Code Stroke patients are evaluated and treated by Speech-language Pathologists (SLPs)
DYSPHAGIA SCREENING TOOL FOR NURSING

DYSPHAGIA

- Dysphagia, or difficulty swallowing is a major stroke complication and a poor prognostic sign
- Patients usually have more difficulty swallowing liquids than solids
- About 1/3 of patients with dysphagia develop aspiration pneumonia – **A major cause of morbidity and mortality**
DYSPHAGIA – PROTECT THE AIRWAY

Fact

• Of Stroke patients that require mechanical ventilation, about 2/3 die in the hospital and most survivors are severely disabled

To Prevent Aspiration:

• Keep all Stroke patients NPO until a dysphagia screening has been performed
• Elevate the head of the bed 30°
• If patient vomits, place them immediately in the lateral decubitus position

NON-STROKE PATIENTS

• The nurse will identify potential stroke patients at risk for aspiration using the Dysphagia Screening Tool

• A physician’s order is not required to complete the dysphagia screening evaluation; however, the physician may order the evaluation if one has not been completed.
CODE STROKE PATIENTS

• All Code Stroke patients will remain NPO until the Dysphagia Screening Tool is completed

• If the patient FAILS the Dysphagia Screening Tool:
  • Keep the patient NPO
  • Notify the physician and obtain an order for a Speech Therapy Swallow Evaluation
  • Post a sign in the patient room denoting the patient is having difficulty swallowing

PURPOSE

• This screening tool is used to identify patients at risk for clinically significant aspiration who need referral for more definitive swallow evaluation

• Speech Therapy will perform the Swallow Evaluation
INCLUSION CRITERIA

- Patients presenting with:
  - Stroke, Transient Ischemic Attack, any rule out Stroke/TIA diagnosis, or history of stroke and concern for aspiration
  - Must be 18 years of age or older
  - Must be able to sit in an upright, 90 degree position

EXCLUSION CRITERIA
DO NOT PERFORM DYSPHAGIA SCREEN ON:

- Patients unable to maintain their own airway or secretions
- Patients who are unable to follow commands
- Patients unable to sit upright at 90 degree position
- Patients under the age of 18
- Patients with history of dysphagia, aspiration, or a brain stem stroke
- Always document the dysphagia screen, if unable to do then document that as well!
PROCEDURE

• To be competed prior to any oral intake
• Includes giving 3 ounces of water in three divided doses
• If there are any “Yes” responses during the evaluation, the process is STOPPED and the physician notified
• Keep the patient NPO

STEP I

1. If one of the following applies, then STOP. Patient should remain NPO.

• Present feeding status: □ NG or □ PEG
• Consciousness: □ Unresponsive or Decreased LOC
• Intubated: □ Yes
**STEP 2**

2. If none of the items in Step 1 apply, place patient in an upright, 90° sitting position prior to screen. Assess the following:

- **History of aspiration, dysphagia or brain stem stroke:** □ Yes
- **Controls secretions:** □ Drools □ Coughs □ Requires suctioning
- **Voice quality:** □ Sounds wet or gurgly
- **Speech:** □ Severely slurred

If any of the above are checked, STOP SCREEN. Patient MUST remain NPO, and notify physician. Otherwise, proceed to Step 3.

**STEP 3**

3. Give the patient 5 ml of water from a medicine cup:

- **Throat clearing?:** □ Yes □ No
- **Choking / Coughing?:** □ Yes □ No
- **Drooling?:** □ Yes □ No
- **Wet voice?:** □ Yes □ No
- **Holding water in mouth or no apparent swallow?:** □ Yes □ No

If any are Yes, STOP SCREEN. Keep NPO and notify physician. Otherwise, proceed to Step 4.
STEP 4

4. Allow patient to finish drinking water in multiple sips:

- Throat clearing?: □ Yes □ No
- Choking / Coughing?: □ Yes □ No
- Drooling?: □ Yes □ No
- Wet voice?: □ Yes □ No
- Holding water in mouth or no apparent swallow?: □ Yes □ No

- If any Yes, STOP SCREEN. Keep NPO and notify physician.

DOCUMENTATION

- Document the completion of the Dysphagia Screening evaluation indicating: PASSED or FAILED
- Communicate the results of the evaluation to the physician
- Remember, if the patient FAILED, post signage in room to prevent anyone from attempting to feed or give liquids to the patient!
DYSPHAGIA:
EDUCATION FROM SPEECH THERAPY

To increase patient swallow safety, SLPs recommend:

▪ A change in **diet textures**
▪ **Swallowing precautions**
▪ **Specific techniques** for eating, drinking and taking oral medications
▪ **Therapy** to improve swallow function
THE NORMAL SWALLOW

- Oral Stage
- Pharyngeal Stage
- Esophageal Stage

TERMINOLOGY

- **Silent Aspiration**
  - Patient does not cough when aspiration occurs

- **Pocketing**
  - Food sticks between the cheek and the teeth/gums after the swallow

- **Residue**
  - Some food or liquid remains in the mouth or the throat after the swallow
SIGNS AND SYMPTOMS OF DYSPHAGIA

**Oral**
- Poor labial seal on utensils/straw/cup
- Anterior leakage
- Poor bolus formation
- Poor mastication
- Pocketing
- Slow transport
- Swallow delay
- Holding / Spitting
- Overstuffing

**Pharyngeal**
- Coughing
- Throat clearing
- Wet, gurgly, harsh voice
- Choking
- Watery eyes
- Runny nose
- Sneezing
- Face reddening

**Pharyngeal**
- Gagging
- Nasal regurgitation
- Changes in breathing status, heart rate, respiratory rate
- Change in lung sounds
- Audible breathing

INDICATORS FOR ASPIRATION RISK

- TIA/CVA
- Dysarthria – Facial/lingual weakness & decreased speech intelligibility
- Decreased Alertness
- Recurrent bronchitis/PNA
- COPD/CHF
- Progressive degenerative diseases – PD, ALS, Dementia, MS
- Head/Neck Cancer

- TBI
- Laryngo-pharyngeal reflux (LPR)
- Postural complications
- Tracheostomies
EVALUATION TECHNIQUES

- Bedside swallow study/evaluation (BSS)
- Modified barium swallow study (MBSS)
- Fiber-optic endoscopic evaluation of swallowing (FEES)
- Blue dye evaluation when tracheostomy present

CLINICAL / BEDSIDE SWALLOW STUDY (BSS)

- Clinical/Subjective Study Completed by Speech-Language Pathologist (SLP) “at bedside”. Can do skilled meal assessments.
- Patient positioned in upright sitting position – 90 degrees is optimal
- Oral Mechanism Exam performed to establish appropriate anatomy/physiology of swallowing mechanism before po trials given
Different textures and consistencies of liquids and solids are given to the patient
- Observations are made about patient’s ability to chew and swallow safely
- Strategies trialed to improve safety/efficiency during po intake
- If aspiration is suspected by clinical signs & symptoms, a MBSS/FEES may be recommended for objective evaluation
- Necessary and least restrictive diet interventions recommended to avoid aspiration risk and achieve best efficiency.

CLINICAL / BEDSIDE SWALLOW STUDY (BSS)

MODIFIED BARIUM SWALLOW STUDY (MBSS)

- Patient’s oral and pharyngeal phase of swallowing is tested using fluoroscopy (x-ray) and various consistencies of barium while patient is sitting upright 90’ in a chair.
  - The Radiologist and Speech-Language Pathologist (SLP) observe for aspiration and determine presence of oro-pharyngeal dysphagia while patient eats/drinks various consistencies. SLP trials strategies to decrease risk for aspiration and maximize intake efficiency.
  - SLP determines necessary and least restrictive diet interventions, strategies needed, and makes recommendations for skilled SLP services when appropriate.
MODIFIED BARIUM SWALLOW

FIBER-OPTIC ENDOSCOPIC EVALUATION OF SWALLOW (FEES)

▪ PATIENT’S ORAL AND PHARYNGEAL PHASE OF SWALLOWING IS TESTED USING FIBER-OPTIC ENDOSCOPE TO VIEW LARYNX WHILE PATIENT EATS/DRINKS A VARIETY OF NORMAL FOOD CONSISTENCIES. PT IS SITTING UPRIGHT 90’ OR IN MODIFIED POSITION NEEDED TO AVOID ASPIRATION. FOODS/LIQUIDS ARE COLORED WITH GREEN FOOD COLORING.

▪ THE SPEECH-LANGUAGE PATHOLOGIST (SLP) OBSERVE FOR ASPIRATION AND DETERMINE PRESENCE OF ORO-PHARYNGEAL DYSPHAGIA WHILE PATIENT EATS/DRINKS VARIOUS CONSISTENCIES. SLP TRIALS STRATEGIES TO DECREASE RISK FOR ASPIRATION AND MAXIMIZE INTAKE EFFICIENCY.

▪ SLP DETERMINES NECESSARY AND LEAST RESTRICTIVE DIET INTERVENTIONS, STRATEGIES NEEDED, AND MAKES RECOMMENDATIONS FOR SKILLED SLP SERVICES WHEN APPROPRIATE.
ASPIRATION

What is Aspiration?

Aspiration occurs when food or liquid enters the airway below the level of the vocal folds (cords) and may enter the lungs.

SIGNS AND SYMPTOMS OF ASPIRATION

- Coughing or Throat Clearing during meal or immediately after meal
- Wet, gurgly, harsh voice
- Feeling of Choking or that food is stuck
- Watery eyes
- Runny nose
- Sneezing
- Face reddening
- Gagging
- Nasal regurgitation
- Difficulty Breathing during meal or immediately after meal
- Change in lung sounds
- Audible breathing
SILENT ASPIRATION

• Aspiration occurring while patient is asymptomatic with no audible/visible clinical signs/symptoms present

• Aspiration is directly viewed on MBSS/FEES but the patient shows no outward signs of difficulty ie No coughing, throat clearing

• 50% of all aspiration is silent (Logemann 1998)

• Signs/Symptoms can be delayed and subtle ie x1 gentle cough/throat clear seconds after po trials, wet vocal quality, increased work of breath/rate with no cough/throat clear.

• Necessary to use objective clinical data to determine risk for aspiration

ASPIRATION PRECAUTIONS

• To decrease risk of aspiration and choking

• Use of compensatory strategies/modifications established by SLP
  • Modified Diet/Liquid Consistencies/Interventions
  • Alertness - Awake & actively participating with eating/drinking
  • Positioning – Sitting upright – 90 degrees is optimal
  • Modifications for feeding: Slow rate, Verbal/Tactile cueing
  • Assuring swallow occurs and mouth empty before adding more
  • Good oral care after po intake to ensure mouth empty
DIET / LIQUID OPTIONS
DYSPHAGIA INTERVENTIONS

**Liquids**
- Honey-thick consistency
  (plastic spoon will stand upright but still runs like a liquid – Similar to maple syrup)
- Nectar-thick consistency
  (plastic spoon will fall slowly to side of cup – Similar to buttermilk or tomato juice)
- Thin / Regular Liquids

**Solids**
- Puree Diet
- Mechanical soft Diet includes either:
  - Chopped meats
  - Ground – moist meats
- Regular Diet

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**DIET / LIQUID FLUID CONSISTENCIES**

Fluid consistencies

- **Thin**
  - Runs quickly through the prongs of the fork with little or no coating e.g. water, tea

- **Nectar**
  - Quickly sinks through the prongs e.g. tomato juice

- **Honey**
  - Coats fork and slowly sinks through the prongs e.g. yogurt, honey

- **Pudding**
  - Remains on the fork and holds together well e.g. mayonnaise
THIN WATER PROTOCOL
WHEN DYSPHAGIA DIAGNOSED AND THICKENED LIQUIDS ARE RECOMMENDED WITH MEALS & MEDS

• Patient allowed Thin water, given alone, after good oral care
  • Patient allowed thin water, after ensuring mouth is clean of debri/bacteria, when only drinking and no solid food or medicines being given
  • Strategies - Must follow strategies provided by SLP for safety modifications: positioning, alertness, cup v/s straw v/s spoon, dysphagia techniques: chin tuck, extra swallow, throat clear/re-swallow, etc.
  • Not all patients are appropriate and should only use thickened liquids recommended
• Safety/strategies are established by SLP during evaluation including individual patient history and acute/chronic respiratory status

THIN WATER PROTOCOL CONTINUED

• Protocol developed at Frazier Rehabilitation Hospital in Kentucky in 1984.
• “…aspiration [of oropharyngeal organisms] is believed to be the most important [route] for both nosocomial and community-acquired pneumonia” (CDC, 1997) periodontal disease
• Some patients who aspirate do not get pneumonia. Those that do may also be aspirating secretions that contain bacteria.
  • A dirty mouth can be a major contributing factor to aspiration pneumonia.
  • If someone aspirates water, that may not be enough by itself to cause pneumonia. If someone aspirates oral bacteria along with the water then the situation can change. Shay K., Clinical Infectious Diseases, 34:1215–1223 (2002)
STRATEGIES – POSITIONING FOR FEEDING / ASSISTING PATIENTS TO EAT

- Patient should be fully upright at or near 90 degrees.
- If in bed, the head of the bed should be fully elevated after the patient is properly positioned.

Check with SLP for specific instructions such as:

- **NO STRAWS**
  - Straws make it easy to take a larger sip than is intended, which can reach the back of the throat faster than when a cup is used
- **Liquids by Spoon Only**
- **1:1 Feeding**
• **Double or Extra Swallow**
  
  The patient swallows an extra time before taking the next bite/sip
  
  This technique helps clear any food and liquid residue which may remain in the throat

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• **Alternate Liquids and Solids**
  
  • Cue the patient to take a bite
  
  • When it has been completely swallowed, next have them take a sip and so on
  
  • This technique clears food residues that may be left in the mouth or throat
  
  “Wash it Down”
• Effortful Swallow
  • The patient should “swallow hard” as if swallowing a pill or something dry
  • This technique is helpful for people who have weakened swallow muscles

• Chin Tuck
  • The patient tucks chin close to chest before the swallow and keeps chin down until finished swallowing
  • This technique reduces chance of aspiration for some patients, however it does not help all patients

  *Should be used ONLY if recommended by the SLP*
STRATEGIES – POSITIONING
SWALLOW TECHNIQUES

• Swallow, Cough, Swallow
  • May help to prevent food or liquids from going “down the wrong pipe” (trachea)

SPEECH THERAPY IN MEDITECH

• HOW/WHERE to find SLP RECOMMENDATIONS including:
  Swallowing Strategies/Techniques/Positioning

EMR - CARE ACTIVITY – NAME – REHAB:
  Fiberoptic Endoscopic FEES
  Speech Modified Barium Swallow
  Bedside Swallowing Evaluation
SPEECH THERAPY IN MEDITECH

SUMMARY

- If you have **ANY** concerns regarding the swallowing safety of any patient, always discuss those concerns with the **Nurse** caring for that patient.
- If a full swallow evaluation is needed, an order will be obtained from the **Physician**.
- An **SLP** will evaluate the patient and provide recommendations and treatment.
PLEASE ANSWER THE FOLLOWING QUESTIONS

1. Are SLP evaluations including recommendations / strategies / techniques available for review in the documentation system?

2. Should a plastic spoon stand upright, without falling, in Nectar-thick consistencies?

3. Should a patient be repositioned, in order to be upright 90 degrees before giving meds, meals, drinks?

4. Do signs/symptoms of aspiration include changes in vocal quality, breathing status, and throat clearing?

5. Are all signs/symptoms of aspiration audible at bedside?

6. Is the nurse required to have an order to perform a Dysphagia Screen Tool evaluation?

7. If there are any “Yes” responses during the dysphagia screening, does the nurse continue the evaluation without notifying the physician?

8. Does the patient with acute stroke symptoms have to remain NPO until the Dysphagia Screen is completed?

THANK YOU FOR COMPLETING THIS MODULE