Dysphagia and Aspiration Risk in Acute Stroke Patients

“A hard pill to swallow”
A “hard pill to swallow”

- One of the most common and earliest problems to emerge after a stroke is dysphagia.

- As many as 50% of stroke patients have dysphagia and 30–40% aspirate on MBSS.

- Silent Aspiration – risk

- Endotracheal tube – protects against large volume aspiration, but not smaller aspiration.
Swallowing Mechanism

✓ Oral Phase – Preparatory & Transit
✓ Pharyngeal Phase
✓ Esophagaeal Phase

*Multiple complex and coordinated* interactions of normal swallowing!
Swallowing Mechanism
Dysphagia Screening Tools

• Swallowing screening should be a minimally invasive procedure that provides quick determination of:

* Likelihood that dysphagia exists
* Need for further assessment
* Whether patient is safe to feed orally
* Whether patient requires referral for nutritional / hydrational support
Dysphagia Screening Tools

The majority are narrow and focus on overt signs of aspiration.

- **Acute Stroke Dysphagia Screen**
- **Modified Massey**

- Use of objective cough measures (EPRT, VA, EPPF) as indicator of aspiration risk.

**Every institution must decide which is best**
Wadley Regional Medical Center
Acute Stroke Dysphagia Screen

Modified Massey Bedside Swallowing Screen

Follow the steps below to complete the dysphagia screen.

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>COMMENTS</th>
</tr>
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<tbody>
<tr>
<td>1.  Patient is alert (can follow simple commands)</td>
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<tr>
<td>2. Does patient exhibit slurred or garbled speech?</td>
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<td>3. Does patient exhibit trouble speaking or understanding words?</td>
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<td>4. Does patient exhibit drooling?</td>
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<td></td>
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<tr>
<td>5. Does patient have a wet-sounding voice?</td>
<td>If YES, STOP</td>
<td>If YES, STOP, make patient NPO and request Speech Consult</td>
</tr>
<tr>
<td>6. Give patient a teaspoon of water – do any of the following happen: Patient coughs Patient’s voice sounds gurgly Water dribbles out of the patient’s mouth</td>
<td>If YES, STOP</td>
<td>If YES, STOP, make patient NPO and request Speech Consult</td>
</tr>
<tr>
<td>7. Give patient 60 mL of water by cup – NO STRAWS (only if teaspoon of water was tolerated) – do any of the following happen: Patient coughs Patient’s voice sounds gurgly Water dribbles out of the patient’s mouth</td>
<td>If YES, STOP</td>
<td>If YES, STOP, make patient NPO and request Speech Consult</td>
</tr>
</tbody>
</table>

If the answers are all “NO” to Questions 2-7, start the patient on a mechanical soft diet.

If only Questions 2, 3, and/or 4 is checked as “YES”, start the patient on a Pureed diet with supervision until assessed by the Speech-Language Pathologist.

Completed by: ____________________________

Date: _________ Time: _________

Silent Aspiration

Among patients that aspirate, 30–50% do it silently.

- Definition of ‘silent’
- “Hidden” Signs and Symptoms
- Individual tolerance of aspiration (co-morbidities)

Pay Attention To The ENTIRE Clinical Picture!
FORMAL ASSESSMENT OF SWALLOW

- Bedside Assessment
- Modified Barium Swallow / Video-Esophagram
- Fiber optic Endoscopic Evaluation of Swallowing (FEES)
CASE STUDY REVIEWS

MBSS / VFSS *Note oral / pharyngeal dysfunction per case:
It takes a VILLAGE

Facilitate a ‘win’

- Assess alertness
- Position to at least 45 degrees (90 degrees best)
- Pre and Post lung status checks
- Prepare oral cavity (importance of saliva)
- Follow screening guidelines
- Importance of re-assessments
The bottom line...

A comprehensive multidisciplinary program to assess dysphagia in stroke patients can reduce the risk of pneumonia.
References


Smith Hammond CA, Goldstein LB. Cough and aspiration of food and liquids due to oral-pharyngeal dysphagia.


ASHA. Org – information for the public/speech, language and swallowing/swallowing