



Dysphagia in Acute Care Stroke Patients

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Incidence of Dysphagia

- Dysphagia is present in 42-67% of patients within the first 3 days of stroke onset
- The incidence of aspiration within the first 5 days ranges from: 19.5-42%
- Approximately 1/3 of patients with dysphagia develop pneumonia



Need for Screening Protocol

- “A stroke system should make certain that clinical pathways are used consistently to ensure the organized application of interventions to prevent or limit stroke progression or secondary complications.” (i.e. aspiration pneumonia)
 - From: A report by The American Stroke Association (ASA) titled: Recommendations for the Establishment of Stroke Systems of Care



JCAHO Requires...

- "... a screen for dysphagia should be performed on all ischemic/hemorrhagic stroke patients before being given food, fluids or medications by mouth."
 - JCAHO, 2006



Agency for Healthcare Research & Quality (AHRQ) Report

- Implementation of programs to screen acute stroke patients for dysphagia & to refer these patients for further evaluation/treatment resulted in dramatic reductions in aspiration pneumonia



Dysphagia Screening

- Prospective study over 2 years of 15 acute care hospitals on 2532 cases of patients admitted with acute ischemic stroke
- Dysphagia screens BEFORE oral intake: 61%
- After adjusting for stroke severity: sites WITH screening protocol had *significantly lower* pneumonia rates than sites with no formal protocol (2.4%-5.4%)
 - From: "Formal Dysphagia Screening Protocols Prevent Pneumonia" *Stroke Journal*, 2005.



Dysphagia Screening

- A formal dysphagia screen is associated with:
 - A higher adherence rate to dysphagia screens
 - A significantly decreased risk of pneumonia



Clinical Correlates Associated with Dysphagia

- What signs & symptoms do we need to look for that would put stroke patients in a “high risk” category?
- “The risk of developing aspiration pneumonia cannot be accurately predicted from any SINGLE clinical sign or symptom.”
 - AHRQ



Clinical Correlates Associated with Dysphagia

- In a review of 1800 articles, AHRQ found a pattern of symptoms associated with aspiration:
 - Dysphonia (weak, hoarse, breathy voice)
 - Dysarthria
 - Weak cough
 - Abnormal volitional swallow
 - Coughing with swallowing
 - Voice changes after swallowing



Aspiration Following Stroke

- An absent gag reflex has been suggested as predictive of aspiration in some studies, but refuted in others.
- 30-45% of “healthy” adults have an absent gag reflex



Aspiration Following Stroke

- Study of 47 patients following acute stroke
- “A gag reflex proved to be of limited prognostic value.”
- “On neurological exam, a diminished or absent gag reflex was equally prevalent in aspirating or non-aspirating patients.”
 - From: “Aspiration Following Stroke” *Neurology*, 1988



Dysphagia Screening

- A screening determines:
 - The likelihood of the presence of dysphagia
 - The need for a full swallowing assessment
 - Whether it is safe to feed the patient orally



Swallowing Evaluations

- Clinical Bedside Swallow Evaluation
- Modified Barium Swallow Exam
- Fiberoptic Endoscopic Evaluation of Swallowing (FEES)



Clinical Bedside Swallow Evaluation

- Advantages:
 - Done at patient's bedside
- Disadvantages:
 - Limited to overt s/s of dysphagia (ex. coughing or change in vocal quality)
 - Cannot assess the pharyngeal phase of swallow
 - Cannot rule out silent aspiration
 - Cannot assess aspiration of secretions
 - Cannot differentiate between "baseline" cough & cough due to aspiration



Modified Barium Swallow Exam

- Advantages:
 - Assesses the pharyngeal phase of swallow
 - Detects silent aspiration
- Disadvantages:
 - Limited # of trials due to radiation exposure
 - Patient needs to be transported & fatigue may compromise test results
 - Some patients cannot tolerate being out of bed
 - May not be able to position the patient adequately
 - Patient may refuse to drink the barium
 - Test not available on weekends



Fiberoptic Endoscopic Evaluation of Swallowing (FEES)

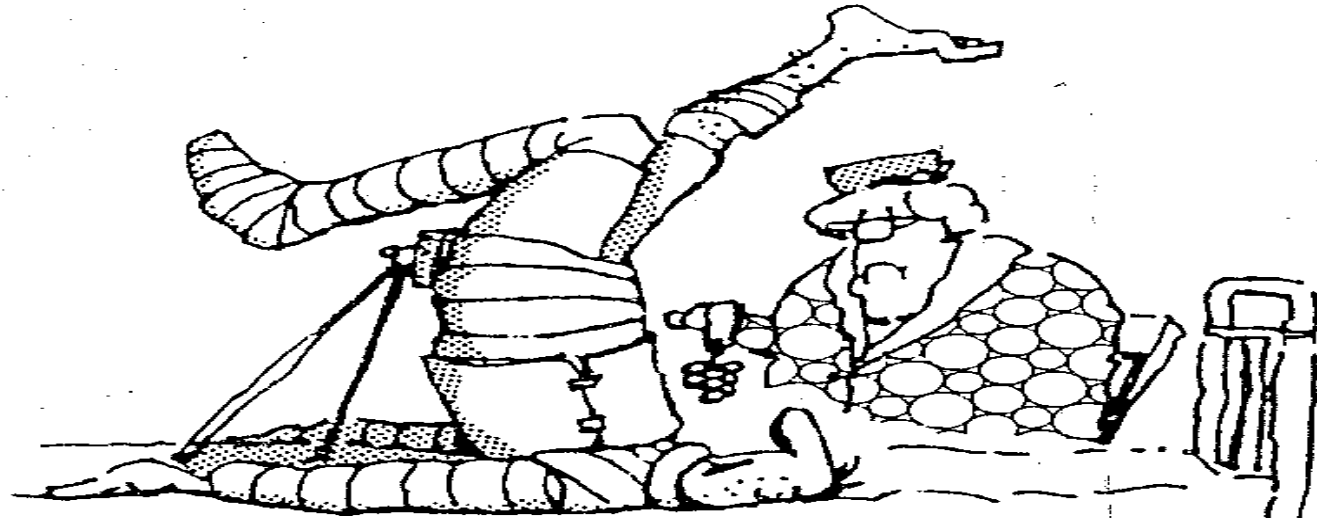
- Advantages:
 - Evaluation completed at bedside
 - Test available on weekends
 - Uses actual food/liquid for increased patient compliance
 - No radiation exposure; therefore an increased # of PO trials can be performed
 - Assesses the pharyngeal phase of the swallow
 - Detects silent aspiration & aspiration of secretions



Conclusion

- “ Current evidence suggests that implementation of a systematic program of diagnosis & treatment of dysphagia in an acute stroke management plan yields dramatic reductions in pneumonia rates.”
 - AHRQ

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"I can't keep anything down."