

Evidence-Based Practice in LTC

The Facts about Dysphagia & Swallowing Studies

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About This Series: Over the years, certain practices have become common in nursing home care nationwide. Consultants, management, and surveyors offer multiple opinions and conflicting advice that may confuse staff and practitioners. Various sources (for example, CMS' QIO Project; see the January 2003 issue of *Caring*) are advising nursing home staff to refer to "best practices." Yet only some of these practices reflect reliable evidence. Other habitual approaches are problematic and should change. Often, "best practices" is erroneously interpreted to mean that there is a single best treatment, when in reality there may be "better" and "worse" practices. This series will review common practices in nursing homes, comparing habitual to desired approaches, and may recommend important changes.

This month's column addresses the issue of dysphagia and swallowing studies.

Common Practice

In the past, patients with possible swallowing problems were usually managed conservatively, with trials of various food consistencies. However, in the past five years, nursing home staff have been increasingly pressured to incorporate policies that mandate inclusion of speech therapist conclusions and recommendations about whether a patient can eat or what food consistency they need. Staff at some facilities have become so misinformed or confused about liability that they will not allow anyone-- including physicians--to change a diet without consulting a speech therapist.

Effective speech therapists recognize that their evaluations and conclusions must be considered in the context of the entire patient. But others may focus on swallowing and overlook or fail to understand the broader context. They may feel compelled to recommend the "least risky" diet.

Moreover, the modified barium swallow is being pushed as the equivalent of cardiac catheterization--a gold standard--rather than as merely a tool to investigate one aspect of a symptom with many causes and potential treatments. The evaluation of other important causes of coughing and swallowing disturbances (for example, medication side effects and gastroesophageal reflux disease) has been almost entirely abandoned. In some cases, facility staff have been led to believe that they have violated the standard of care if they don't follow a speech therapist's advice and the patient subsequently has an episode of aspiration pneumonia.

Many competent physicians express concerns about what they feel is inappropriate pressure to order tests and interventions that are unwarranted or even problematic in their patients.

The Evidence

Swallowing is a dynamic event that may vary from day to day. Results from a single swallowing study may have little to do with average daily oral function. There are no documented, foolproof ways to prevent aspiration or to predict with certainty who will aspirate. Tube feeding may not materially reduce the risk of aspiration and is associated with its own complications. Many people have swallowing abnormalities, but only a few of those abnormalities require an intervention. There is evidence that altered-consistency diets increase the risk of subsequent hydration and nutrition deficits (see study summaries, below).

Other than having some benefit in new stroke patients with neurogenic dysphagia, the evidence for benefits of speech therapy is very limited. Very few people need, or benefit from, downgraded diets. There is almost no evidence to support the value of intervening routinely in this way in patients with advanced dementia and dysphagia. Some individuals with oral motor apraxia do fine with liquids, regardless of aspiration risk.

Conclusions

The habitual practice in nursing homes of routinely performing swallowing studies and strictly limiting oral intake or downgrading diets in individuals is not evidence-based and has created a number of problems. It is inappropriately promoted as a "standard of care," despite evidence to the contrary. It has created unnecessary legal liabilities for nursing home practitioners throughout the United States.

Coughing and swallowing difficulties may have various causes (including dyspepsia and adverse drug reactions). Swallowing abnormalities do not necessarily imply problems that require a single path of treatment. In the geriatric patient, risks are relative, not absolute. "Subclinical" aspiration is not different from other "subclinical" conditions; if it's not causing signs and symptoms (i.e., "subclinical"), then it may not warrant treatment. Trying to address one problem (aspiration risk) may create other problems (increased risk of dehydration and nutrition deficits).

The interdisciplinary team, guided by the physician, should determine optimal treatment after weighing all relevant considerations. No one discipline should be permitted to dictate care, especially when their expertise covers only a small part of the whole patient. Nursing home owners and administrators should not force their staff to follow recommendations that are not clinically relevant because of their misunderstanding of care standards and legal risks.

While it is desirable to inform patients and families of aspiration risks, simple documentation of such discussions should suffice. It is not desirable, nor should it be considered necessary, to force them to sign waivers or to pressure them to accept recommendations. Since PEG tubes carry risks and have not been shown to improve survival or quality of life, patients and families should not be cornered into abandoning oral intake for this problematic alternative. Aspiration may occur despite altering diet consistency or despite simple precautions such as elevating the head of the bed of an individual who is being tube fed. Aspiration or aspiration pneumonia should not in itself imply fault.

Dysphagia: The Evidence

Chouinard J. Dysphagia in Alzheimer disease: a review. *J Nutr Health Aging* 2000;4:214-217.

This article considers the management of swallowing problems in patients with Alzheimer's disease (AD). Most often, a thorough history and bedside assessment can help identify appropriate interventions. Many AD patients have pneumonia. But mobility, nutritional status, and host immune response--not just dysphagia and aspiration--also influence the risk of pneumonia. The author concludes that "prevention of pneumonia through appropriate management of dysphagia is not supported by empirical evidence." Furthermore, the author suggests, the value of videofluoroscopy in managing the dysphagia of AD, of enteral feeding in patients with advanced AD, and of dysphagia management in preventing weight loss associated with advanced AD, have not been established.

Feinberg MJ, Knebl J, Tully J. Prandial aspiration and pneumonia in an elderly population followed over 3 years. *Dysphagia* 1996;11:104-109.

This study prospectively determines pneumonia frequency and correlates it with prandial liquid aspiration and feeding status in frail elderly nursing home residents. The results indicate that there is not a simple and obvious relation between prandial liquid aspiration and pneumonia. Artificial feeding does not seem to be a satisfactory solution for preventing pneumonia in elderly prandial aspirators.

Dharmarajan TS, Unnikrishnan D, Pitchumoni CS. Percutaneous endoscopic gastrostomy and outcome in dementia. *Am J Gastroenterol* 2001;96:2556-2563.

The use of percutaneous endoscopic gastrostomy for the administration of food and medications in patients with dementia has been increasing, note the authors, adding that "many studies have failed to demonstrate the positive outcome expected of this feeding modality for the indications that required tube placement." Thus, the concept of feeding through gastrostomy tubes has become the subject of much discussion and controversy. The authors reviewed the literature with regard to outcome in older patients with dementia and percutaneous endoscopic gastrostomy with respect to nutritional parameters, quality of life, and survival. They conclude that much of the data do not suggest that outcomes in dementia are favorably improved after percutaneous gastrostomy.

Diagnosis and Treatment of Swallowing Disorders (Dysphagia) in Acute-Care Stroke Patients. Summary, Evidence Report/Technology Assessment: Number 8, March 1999. Agency for Health Care Policy and Research, Rockville, MD; www.ahrq.gov/clinic/epts/sums/dysphsum.htm.

Excerpt: Research on swallowing problems in the elderly highlights the potential for preventing pneumonia in acute stroke patients. The limitations of available evidence do not allow one to determine the extent to which invasive procedures like videofluoroscopy or fiberoptic endoscopy reduce pneumonia rates more than full bedside examinations. The evidence is inconclusive about how the frequency of swallowing therapy sessions affects patient outcomes. The only controlled trial that compared a soft diet (some solids) to a traditional pureed diet (liquids only) found that a soft diet resulted in lower pneumonia rates among stroke patients with a history of aspiration pneumonia...[T]here is a great need for more extensive and better designed research in the area of dysphagia, particularly a well-designed trial comparing dysphagia management programs using different diagnostic modalities.

Groher ME, McKaig TN. Dysphagia and dietary levels in skilled nursing facilities. *J Am Geriatr Soc* 1995 May;43:528-532.

This study aimed to determine the appropriateness of dietary levels of residents with suspected feeding and/or swallowing disorders. Thirty-one percent of the residents in two facilities were prescribed a mechanically altered diet. Ninety-one percent were at dietary levels below that which they could tolerate safely; four percent were at dietary levels higher than they could tolerate; five percent were considered to be at the appropriate diet level. The authors conclude that "many nursing home residents may be inappropriately placed or maintained on mechanically altered diets. Regular reevaluation of their dietary level is necessary because most may be able to eat safely at higher levels."

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