

Preventing Aspiration in Older Adults with Dysphagia

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WHY: Aspiration (the misdirection of oropharyngeal secretions or gastric contents into the larynx and lower respiratory tract) is common in older adults with dysphagia and can lead to aspiration pneumonia. In fact, the risk of pneumonia is three times higher in patients with dysphagia (Hebert et al., 2016). Other harmful sequelae of dysphagia include malnutrition and dehydration (Wilmskoetter et al., 2017). Dysphagia is a significant predictor of worse clinical outcomes in hospitalized patients with dementia (Paranji et al., 2017).

TARGET POPULATION: Dysphagia is common in persons with neurologic diseases such as stroke, Parkinson's disease, and dementia. The older adult with one of these conditions is at even greater risk for aspiration because the dysphagia is superimposed on the slowed swallowing rate associated with normal aging. Conditions that suppress the cough reflex (such as sedation) further increase the risk for aspiration.

BEST PRACTICES: ASSESSMENT AND PREVENTION ASSESSMENT

A multidisciplinary approach to identify dysphagic patients is important (Aoki et al., 2016). While dysphagia screening by nurses does not replace assessment by other health professionals, it enhances the provision of care to at-risk patients by allowing for early recognition and intervention (Hines et al., 2016; Palli et al., 2017). Assessment may begin at the bedside, using a variety of tools. Most swallow screens use varying volumes of water to assess the ability to swallow (Smithard, 2016). For more specific swallowing assessments, fiberoptic endoscopy of swallowing (FEES) or videofluoroscopy (VFS) may be used (Gallegos et al., 2017).

BEST PRACTICES: PREVENTION

The primary methods used to prevent aspiration during oral intake in dysphagic stroke patients include texture modification of food/liquids and positional swallowing maneuvers, such as chin-tuck or head rotation (Smithard, 2016). Thickened liquids are easier for many patients to control intra-orally, thus preventing premature spillage into the pharynx (Murray et al., 2013). The positional swallowing maneuver prescribed for dysphagic patients varies with the type of swallowing disorder.

Clinical Symptoms of Aspiration:

- Sudden appearance of respiratory symptoms (such as severe coughing and cyanosis) associated with eating, drinking, or regurgitation of gastric contents.
- A voice change (such as hoarseness or a gurgling noise) after swallowing.
- Pocketing of food on one side of the mouth.
- Small-volume aspirations that produce no overt symptoms are common and are often not discovered until the condition progresses to aspiration pneumonia.

Aspiration Pneumonia:

- Older persons with pneumonia often complain of significantly fewer symptoms than their younger counterparts; for this reason, aspiration pneumonia is under-diagnosed in this group.
- Delirium may be the only manifestation of pneumonia in elderly persons.
- An elevated respiratory rate is often an early clue to pneumonia in older adults.
- Other symptoms to observe for include fever, chills, pleuritic chest pain, and crackles.
- Observation for aspiration pneumonia should be ongoing in high-risk persons.

PREVENTION OF ASPIRATION DURING HAND FEEDING:

The following actions may be of some benefit during hand feeding:

- Provide a 30-minute rest period prior to feeding time; a rested person will likely have less difficulty swallowing.
- Sit the person upright in a chair; if confined to bed, elevate the backrest to a 90-degree angle.
- Implement postural changes that improve swallowing. For example, a chin-down posture is helpful for patients with a tongue base swallowing disorder (Aslam & Vaesi, 2013).
- Adjust rate of feeding and size of bites to the person's tolerance; avoid rushed or forced feeding.
- Alternate solid and liquid boluses.
- Vary placement of food in the person's mouth according to the type of deficit. For example, food may be placed on the right side of the mouth if left facial weakness is present.

- Determine the food viscosity that is best tolerated by the individual. Ideally, a trained dysphagia clinician (such as a speech therapist) is available to assist with this assessment. Be aware that thickened liquids are commonly used to promote safer bolus transit and better airway protection (Joyce et al., 2015). However, they may not be appropriate for all patients. Some patients may find thickened liquids unpalatable and thus drink insufficient fluids (Murray et al., 2013)
- Monitor and record the amount of fluids consumed. Encourage fluid intake by offering fluids between meals, as well as during meals.
- Minimize the use of sedatives and hypnotics since these agents may impair the cough reflex and swallowing.

PREVENTION OF ASPIRATION DURING TUBE FEEDING:

Tube feeding is not necessary for all patients who aspirate. However, in the early weeks of acute stroke, nasogastric (NG) feedings are appropriate for patients with severe dysphagia (Moran & O'Mahony, 2015). Percutaneous gastrostomy (PEG) feedings are generally reserved for stroke patients who have persisting dysphagia at two to three weeks after the stroke (Moran & O'Mahony, 2015). Fortunately, the removal of a feeding tube may be possible for some stroke patients due to spontaneous and/or treatment induced recovery (Wilmskoetter et al., 2017).

For patients with tube feedings, the following considerations are important:

- Keep the bed's backrest elevated to at least 30° during continuous feedings. Keep the bed's backrest elevated to at least 30° during intermittent feedings and for at least an hour afterward.
- When the tube-fed person is able to communicate, ask if any of the following signs of gastrointestinal intolerance are present: nausea, feeling of fullness, abdominal pain, or cramping. These signs are indicative of slowed gastric emptying that may, in turn, increase the probability for regurgitation and aspiration of gastric contents.
- Monitor tube location every 4 hours or per institutional policy (Boullata et al., 2017). A feeding tube inadvertently displaced into the esophagus greatly increases risk for aspiration.
- Observe for signs of intolerance to feedings, such as abdominal distention and large gastric residual volumes (Boullata et al., 2017). These observations are especially important for patients unable to communicate their discomfort.
- Percutaneous gastrostomy offers no significant protection against aspiration pneumonia; in fact, it is the commonest cause of death in PEG fed patients (Onur et al., 2013). However, a PEG tube is more comfortable for patients than is a NG tube. Also, nutritional intake is likely to be higher in patients with PEG tubes than in those with NG tubes, since the latter type of tubes have more mechanical problems.

PREVENTION OF ASPIRATION PNEUMONIA BY ORAL CARE:

The oral cavity may constitute a reservoir of pathogenic organisms that could conceivably be aspirated and lead to aspiration pneumonia (Maeda & Akagi, 2014). Good dental hygiene is important to minimize risk for aspiration pneumonia for several reasons:

- Missing teeth and poorly fitted dentures predispose to aspiration by interfering with chewing and swallowing.
- Infected teeth and poor oral hygiene predispose to pneumonia following the aspiration of contaminated oral secretions.
- Suggestions for mouth care are as follow (Sarin et al., 2008):
 - Use a soft or electric toothbrush with fluoride toothpaste to clean all surfaces of the teeth and gums twice a day.
 - For edentulous patients, gently brush the gums with a soft pediatric toothbrush.
 - Use an electric suction apparatus, if necessary, during mouth care to prevent aspiration of the oral content.

MORE ON THE TOPIC:

Best practice information on care of older adults: <https://consultgeri.org>.

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