

# PALLIATIVE PEARLS

BY ENCLARA PHARMACIA

## Dysphagia and Thickened Liquids

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### FREQUENTLY ASKED QUESTION:

*“I have a patient experiencing dysphagia and using a thickening agent for dietary liquids. Can I use the thickener with oral liquid medications too?”*

### Dysphagia

Dysphagia is a condition in which disruption of the swallowing process interferes with a patient’s ability to eat. It can result in aspiration pneumonia, malnutrition, dehydration, weight loss, and airway obstruction.<sup>1</sup>

#### Signs and symptoms of oral or pharyngeal dysphagia include:<sup>1</sup>

- Coughing or choking with swallowing
- Difficulty initiating swallowing
- Food sticking in the throat
- Sialorrhea
- Unexplained weight loss
- Change in dietary habits
- Recurrent pneumonia
- Change in voice or speech (wet voice)

#### Signs and symptoms of esophageal dysphagia include:<sup>1</sup>

- Sensation of food sticking in the chest or throat
- Change in dietary habits
- Recurrent pneumonia
- Symptoms of gastroesophageal reflux disease (GERD), including heartburn, belching, sour regurgitation, and water brash

### Difficulty Swallowing in Hospice/Palliative Care

Dysphagia occurs frequently in advanced diseases as well as in the general debility that develops as patients near the end of life. Medications are also an important source of precipitating or worsening dysphagia. Some of the more commonly encountered sources of dysphagia in hospice and palliative care include:

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### Conditions:<sup>2,3</sup>

- Neurodegenerative disorders - ALS, Parkinson's disease, dementia
- Other neurological disorders - Stroke, myopathies, multiple sclerosis
- Cancer- Head and neck, esophageal, brain and CNS
- Other - Chronic illness, general deconditioning, frailty

### Medications:<sup>2</sup>

- Antipsychotics - Extrapyramidal motor disturbances, delayed swallow initiation
- Anticonvulsants - CNS dysfunction, drowsiness and motor incoordination
- Antihistamines and antidepressants - Decrease in oral lubrication
- Chemotherapy - Mucositis
- Bisphosphonates, NSAIDs and potassium chloride - Local irritation of the esophagus
- Others – GI motility alteration, increased reflux

## Dysphagia Management

Maintaining safe and effective oral feeding and drinking for as long as possible should be a primary goal of managing dysphagia at end of life. Goals should be individualized to focus on improvement of swallowing function, maximizing residual swallowing ability, and/or maintaining some oral intake for pleasure. Strategies to achieve these goals include:<sup>4</sup>

- Shared decision making on nutrition and hydration at the end of life
- Therapeutic interventions including swallowing strategies, postural modifications, increased sensory awareness, swallowing exercise
- Secretion management and airway clearance
- Medical/surgical interventions including tracheostomy tubes
- Alterations in food and liquid texture and consistency to prevent aspiration

## Thickened Dietary Liquids

Healthy people can effectively direct liquids past their airway and into the esophagus. Individuals with dysphagia, however, find swallowing liquids difficult to control. Thickened liquids are liquids that have an ingredient added to them to make it easier for those with dysphagia to swallow.<sup>3</sup>

Thin liquids can be thickened to resemble nectar, honey, or pudding consistencies. Unfortunately, few dietary fluids are viscous enough to offer protection from aspiration. Typically, liquids are thickened with a powder form of modified cornstarch (Thick-It<sup>®</sup> Original, Thick-It<sup>®</sup> 2 Concentrated, Thick & Easy<sup>®</sup>), but sometimes these substances are unstable in fluids and can become too thick over time and lose their appeal. Xanthan gum or cellulose gel-based thickeners (Thick-It<sup>®</sup> Clear Advantage<sup>™</sup>, Resource<sup>®</sup> ThickenUp<sup>®</sup> Clear, SimplyThick<sup>®</sup> EasyMix<sup>™</sup>, Thick & Easy<sup>®</sup> Clear) are more stable and have a greater

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likeability factor. Thickened liquids release the fluid in the gastrointestinal tract and do not alter the body's absorption rate of fluids. However, adherence to recommended thickened liquids may lead to reduced fluid intake because of **early satiety** and an increased risk of **dehydration** as well as discomfort from **dry mouth**.<sup>4</sup>

### Thickened Liquid Medication

Dysphagia also affects the ability to safely swallow solid medications. Alternative administration includes:

- Alternative route (dispersible tablets on the tongue, sublingual, transdermal, buccal, intranasal, parenteral, rectal)
- Discontinuation of medication
- Changing to oral liquid formulation

The consistency of some oral liquid medications may not be safe for patients with dysphagia. However, using a thickening agent may affect the medication's absorption (bioavailability).<sup>5,6</sup> There have been some trials that review the effect of thickeners on medication bioavailability.<sup>5,6,7,8</sup> A study evaluating the release and dissolution of crushed amlodipine, atenolol, carbamazepine and warfarin tablets dissolved in water and mixed with a commercial thickening agent found that thickened fluids have the potential to retard drug dissolution.<sup>5</sup> Few dysphagia and medication administration resources exist – the ones that do lack drug-specific guidance and cannot be extrapolated to all patient populations.<sup>9,10,11</sup> Based upon the limited research available and without national industry standards, it is best to utilize a non-oral administration route and avoid thickening liquid medications.<sup>3</sup>

**For additional information on this topic, please review these references:**

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