

# Revisiting the Use of Percutaneous Endoscopic Gastrostomy Tubes in Patients with Advanced Dementia

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Mr. Smith is an 85-year-old nursing home patient who has suffered from dementia for the past eight years. He has been bed bound and uncommunicative for the last six months. He was admitted with aspiration pneumonia three times in the past year. Over the last few months he has lost weight due to poor dietary intake and has developed a decubitus ulcer. Mr. Smith's family inquires about the advantages and disadvantages of the placement of a percutaneous endoscopic gastrostomy (PEG) tube to help improve his weight loss.

**Keywords:** dementia, percutaneous endoscopic gastrostomy tubes

## Introduction

Dementia is recognized as a progressive, irreversible, and terminal disease. Patients with severe dementia have a significantly decreased life expectancy. Difficulties with swallowing or lack of interest in eating frequently are part of the natural course of the disease. Despite consensus among geriatricians, ethicists, and neurologists that there is a lack of efficacy of PEG tubes in prolonging or improving the quality of life for patients with end stage dementia, gastrostomy tubes are a common therapeutic intervention for this population.

## Discussion

Feeding tubes are often initiated in patients with severe dementia prematurely or inappropriately. They are found in more than 35% of nursing home patients with advanced dementia even though they have not been proven to decrease mortality or reduce the risk of aspiration pneumonia.<sup>1</sup> Additionally, there is no evidence to indicate that artificial nutrition decreases infection, pressure ulcers, or improves quality of life.<sup>2-5</sup>

Prior to considering percutaneous endoscopic gastrostomy (PEG) tube placement, patients should be evaluated for reversible conditions that could cause weight loss or anorexia by assessing for infection, constipation, depression, or other conditions. Loss of appetite is a common symptom in patients with advanced dementia.<sup>6</sup>

Patients with advanced dementia also typically develop some degree of dysphagia and this was previously thought to be an appropriate indication for PEG placement.<sup>7</sup> However, over time small studies have shown that PEG placement does not improve the risk of aspiration pneumonia in patients with advanced dementia over oral feeding.<sup>8-11</sup> Adjusting the consistency of food and liquids can reduce the risk of aspiration and discomfort.<sup>2</sup> Additionally, assistance with feeding by soliciting the help of a family member, caregiver, or nursing aide can improve oral intake. The oral gratification from food is thought to benefit the patient's quality of life despite perhaps a lower total caloric intake.

Patients with advanced dementia often refuse to eat and drink, which is a natural part of the dying process of this disease. Our best evidence has indicated this lack of appetite is not similar to the normal hunger and thirst experienced by healthy patients.<sup>2,6</sup> Studies have shown that there is no increased weight gain in demented patients after PEG placement and no improvement in their physical function.<sup>8,10</sup> Counseling the patient's family about this end of life symptom may help alleviate

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their anxiety and provide reassurance such that they do not feel the need to pursue PEG tube placement.

A common misconception among these patients' families is that a feeding tube would help to preserve and prolong life. However, there have been no studies to date that show this. Some studies have demonstrated that 20%–30% of patients with advanced dementia die within a month of PEG placement and 50%–60% die within a year.<sup>3,4,8, 10–13</sup> There can be considerable adverse effects on the patient from tube feedings. These include increased oral and pulmonary secretions leading to choking, ascites, pulmonary edema, GI discomfort, and diarrhea.<sup>14,15</sup> PEG placement also leads to an increase in the patient's likelihood of needing to be physically restrained.<sup>16</sup>

## Conclusion

Weight loss and loss of appetite are common and even expected in the patient with advanced stage dementia. Percutaneous endoscopic gastrostomy tubes have been used to address these symptoms contrary to best evidence over the past 10 years, which suggests that there is a lack of benefit and decrease in quality of life. Despite these negative studies, we have seen continued use of PEG tubes in this population. Patients and families should be counseled about other options of feeding in the patient with advanced dementia before pursuit of PEG placement.

## Disclosure

The authors report no conflicts of interest.

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