

Feeding Tubes in Advanced Dementia and Ischemic Stroke

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Editor's Note: This is a written summary of a CHA webinar entitled "Medically Administered Nutrition and Hydration: Is It Ethically Required with Dementia and Stroke Patients?" delivered by Dr. Sheehan on November 3, 2015.

In the Catholic tradition, when oral feeding and hydration are not possible, decisions to institute medically assisted nutrition and hydration (MANH) have a presumption in favor of such treatment. This presumption of use, however, depends on the clinical context and the judgement of the person being treated as to benefits and burdens of the treatment.

Although a presumption of treatment exists, considerations of efficacy, safety, discomfort, and other burdens must be considered. Frequently, decisions about MANH are made regarding persons with advanced dementia or individuals who have suffered an ischemic stroke. (An ischemic stroke is a stroke caused by a loss of blood flow to the brain, usually because of a clot in an artery supplying the brain or an artery in the brain.) Attention to the clinical situation in both categories can be of assistance in making decisions about MANH.

In this article, the focus is on feeding tube use rather than intravenous assisted nutrition and hydration. This latter type of therapy is invasive, expensive, and can be lifesaving in certain situations but its use requires sophisticated medical monitoring and careful

attention to potential complications. Feeding tubes, whether nasogastric feeding tubes or PEG tubes (percutaneous endoscopic gastrostomy), are far more common. There is a growing consensus against the use of feeding tubes in advanced dementia because of a lack of efficacy in sustaining life in the face of an inexorably fatal illness. The situation with ischemic stroke is more complicated with feeding tube decisions depending on the age of the patient, previous functional status, amount of brain tissue injured by the stroke, and the patient's previously expressed wishes.

Treatment decisions depend on the risks and benefits of the treatment, technical aspects and efficacy, patient outcomes and ethical aspects surrounding the treatment. Nasogastric tubes are usually indicated for a short period of feeding, about six weeks, with complications arising from irritation of the nose, back of the throat, and esophagus occurring with longer term use. Many people, however, do have nasogastric tubes in place for a prolonged period of time. PEG tubes are more common and are placed with the assistance of an endoscope that is directed

through the mouth into the stomach and a tube is inserted through the abdominal wall into the stomach. Both types of tubes usually supply prepared formulas that can be given as a prolonged drip feeding or as a bolus feeding several times a day. There is a need to monitor fluid and electrolyte status and other metabolic parameters. Many patients, particularly with nasogastric tubes, need to be restrained to avoid deliberate or inadvertent removal of the tube. These types of tubes can move and may need to be repositioned, a procedure that usually involves a hospital trip for verification that the tube is in the stomach and has not migrated into the trachea or the lungs. PEG tube placement carries risks related to the surgical procedure, local irritation, and infection. Both types of tube feedings can be complicated by diarrhea. Even though most of the time, tube placement is relatively safe and complications can be managed, the possibility of complications – rarely, even death with PEG tubes -- is real. The need for ongoing restraints may be particularly distressing.

Directive #58 of the *Ethical and Religious Directives for Catholic Health Care Services* directly addresses the use of MANH and feeding tube use.

In principle, there is an obligation to provide patients with food and water, including medically assisted nutrition and hydration for those who cannot take food orally. This obligation extends to patients in chronic and presumably irreversible conditions (e.g. “the persistent vegetative state”) who can reasonably be expected to live indefinitely if given such care. Medically assisted nutrition and hydration become morally optional when they cannot reasonably be expected to prolong life or when there would “be excessively burdensome for

the patient or [would] cause significant physical discomfort, for example resulting from complications in the use of the means employed.” For instance, as a patient draws close to inevitable death from an underlying progressive and fatal condition, certain measures to provide nutrition and hydration may become excessively burdensome and therefore not obligatory in light of their very limited ability to prolong life or provide comfort.¹

There is a growing consensus that advanced dementia is a condition where the placement of a feeding tube is not morally required. In a 2009 article in the *New England Journal of Medicine*, the authors documented that swallowing difficulties, aspiration, pneumonia, and multiple other problems are common in patients with advanced dementia. Studying a group of these over eighteen months, greater than 85% had difficulties with eating and the subsequent six month mortality was near 50%.² Although feeding tubes have been advocated to prolong life, limit aspiration pneumonia, improve function and maintain comfort, studies do not document these assertions. In a 2014 position statement on feeding tubes in advanced dementia, the American Geriatric Society, making recommendations based on the latest literature, presented this position statement:

Feeding tubes are not recommended for older adults with advanced dementia. Careful hand feeding should be offered; for persons with advanced dementia, hand feeding is at least as good as tube feeding for the outcomes of death, aspiration pneumonia, functional status, and comfort. Tube feeding is associated

with agitation, greater use of physical and chemical restraints, greater healthcare use due to tube-related complications, and development of new pressure ulcers.³

With regard to ERD # 58, it seems clear that we should exercise great care before embarking on the placement of an NG tube, and even more so with the more invasive PEG tube. A program of careful hand feeding is more humane and appears to be just as effective. The moral nature of the use of feeding tubes in ischemic stroke is not as clear cut. Ischemic stroke has a variety of different outcomes. A small stroke in a relatively young and previously healthy person likely will have a good outcome, even if the location of the stroke necessitates at least a period of tube feeding until swallowing function is recovered. On the other hand, an older person who has had multiple health problems and who has a large stroke is likely to do poorly with or without a feeding tube. There are multiple clinical possibilities in between these two scenarios. The prognosis for survival after an acute ischemic stroke depends on the severity of the stroke, with severity measured either by the location of the stroke in an area that controls vital functions or by the sheer amount of brain affected.⁴ In younger persons, the cause of an ischemic stroke is often different than in older persons and has a usually better prognosis.⁵

There is a lack of clear knowledge relating to the long term recovery of swallowing function in persons with ischemic stroke. This complicates decision making. One recent study notes

Up to 70% of acute stroke patients demonstrate dysphagia. Approximately half of these patients recover sufficient swallowing ability to meet their caloric needs, while the other half will have long-term

swallowing dysfunction. Surgical feeding tubes can provide nutritional support in patients with severe dysphagia, but the decision of if and when to place a feeding tube poses a substantial challenge because of an inability to predict long term recovery accurately.⁶

Factors that would recommend use of a feeding tube, either nasogastric tube or PEG, are those associated with improved survival: younger age, limited infarct, fewer clinical deficits. The burdens increase and the benefits become more questionable with tube placement in those who are older, had large strokes with massive clinical deficits, or had poor functional status prior to the stroke. Tube feeding is advisable in younger patients with a good prognosis but there is a need for more caution in older patients, especially those with previous difficulties.

In all these decisions, attention to the patient's perception of benefits and burdens is important. If the patient is unable to participate in decision making and did not give clear advance directives, the surrogate decision maker should make every attempt to see the situation from the patient's perspective. Clearly, there are many grey areas that require individual assessment, careful decision making, and prudent attention to patient wishes. However, in the case of an old person who has been previously healthy but has had a massive stroke, I do not believe there is an obligation to start tube feeding as the burdens are real and benefits at best unclear.

In summary, patients with feeding disorders and advanced dementia are dying regardless of feeding tube placement. Tube placement is associated with risks and few benefits. Health care facilities should not require or recommend tube placement in these cases and, instead, have programs for hand feeding and

education of family and staff as to prognosis. The situation in ischemic stroke is less clear cut and requires assessment on a case by case basis, considering the cause of the stroke, clinical deficits and size of stroke, patient's age and previous health, and patient wishes.

¹ United States Conference of Catholic Bishops. *Ethical and Religious Directives for Catholic Health Care Services*, Fifth Edition. 2009. P. 41.

² Mitchell SL, Teno JM, Kiely DK et al. "The Clinical Course of Advanced Dementia." *New England Journal of Medicine* 2009; 361:1529-1538.

³ American Geriatrics Society. American Geriatrics Society Feeding Tubes in Advanced Dementia Position Statement. *Journal of the American Geriatrics Society* 2014; 62:1590-1593.

⁴ Edwardson MA, Dromerick AW. "Ischemic Stroke Prognosis in Adults." 2015. Up to Date. www.uptodate.com.

⁵ Varona J. Long-term Prognosis of Ischemic Stroke in Young Adults. *Stroke Research and Treatment* 2011. Article ID 879817. doi:4061/2011/879817

⁶ Willis AW, Williams L, Mullen MT. Feeding Tube Placement in Stroke Patients. *Neurology* 2014; 83:870-871.