

5.6 Tube Feeding

Key Points

1. The use of feeding tubes has increased dramatically in the last decade.

Up to 15% of patients in some nursing homes may have feeding tubes in response to Minimum Data Set (MDS).

2. Feeding tubes cause significant distress to many patients.

Patients must be restrained to prevent them from pulling or dislodging tubes.

3. It is imperative that the physician examine the Goals of Care when considering a feeding tube.

Feeding tubes can contribute significantly to both quality and quantity of life in some patients. Tube feeding may be indicated if it would meet the goals of addressing hunger or anxiety over declining oral intake; improving overall functional status; and bridging to a time when patient may eat again. Tube feeding is probably not indicated if it does not accomplish the Goals of Care.

4. Tube placement and complications of enteral feeding can contribute to mortality. Adverse effects of enteral feeding may outweigh any benefits.

No published evidence suggests that tube feeding prevents aspiration; prevents consequences of malnutrition in patients with cancer, HIV/AIDS, or advanced dementia; prolongs survival of demented patients with dysphagia; prevents or promotes healing of pressure ulcers; increases resistance to infection in dementia; improves function, strength, or functional independence scores of frail elderly nursing home patients; or improves patient comfort.

5. Some families will persistently request feeding tubes despite these data. Try to support their informed decision even if it is not in concordance with medical recommendations.

6. Terminally ill patients on tube feeding may have increased need for symptom management, and their families, for emotional, spiritual, and social support.

Tube Feeding

The Palliative Response



Use of Feeding Tubes

- The use of feeding tubes has increased dramatically in the last decade
- In some nursing home units, up to 15% of patients may have a feeding tube in response to MDS
- Feeding tubes cause significant distress to many patients, who must be restrained to prevent pulling and dislodging of tubes

Role of Feeding Tubes

- Feeding tubes can contribute significantly to both quality and quantity of life for some patients
- It is imperative for the physician to examine the Goals of Care when considering tube feeding
- Tube feeding is probably not indicated if it does not accomplish the Goals of Care

Types of Feeding Tubes

- Nasogastric
 - Large bore hard tube*
 - Silicon flexible*
- Percutaneous endoscopic gastrostomy
- Open gastrostomy
- Jejunostomy

When Feeding Tubes Often Are Helpful

- Intubation and mechanical ventilation
- Mechanical obstruction in the oral pharyngeal region or esophagus
 - Tumor*
 - Radiation and/or chemotherapy effects*
- Neurological disease (such as CVA, ALS, or other degenerative disease) that affects swallowing

When Feeding Tubes Usually Are Not Helpful

- Decline in oral intake associated with progressive dementia
- Old age with declining ADL and ability to prepare food or feed self
- Nursing-home placement
- Weight loss and general debility secondary to overall declining health

Goals of Care

- Address hunger or anxiety over declining oral intake
- Improve overall functional status
- Provide bridge to time when patient may be able to eat again
- Implementation of preference stated in Advance Directive for health care

Goals of Care

Mr. Johnson

- Mr. Johnson has recently been diagnosed with an esophageal cancer and is having trouble swallowing because of the mass.

When radiation and chemotherapy induced inflammation, a PEG tube was placed as a bridge until he resumes oral intake after a few months of therapy.

Goals of Care

Mrs. Kirk

- Mrs. Kirk has experienced a severe stroke and is having trouble swallowing.

Mrs. Kirk, her family, and her doctor are following her Advance Directive for health care by placing a feeding tube for a six-week trial with the goal of relearning to swallow with speech therapy. However, she does not want permanent enteral feeding.

Goals of Care

Mr. Ascot

- Mr. Ascot has had Alzheimer's dementia for eight years.

Recently his functional status has declined: he is bed-confined, says only yes and no, is in restraints to prevent his pulling out IVs, and has declining oral intake and medications. He has "failed a swallowing test," and a PEG tube is recommended.

Consider Goals of Care

What are the Goals of Care?

- Prevent aspiration?
- Prevent consequences of malnutrition?
- Improve survival?
- Prevent or promote healing of pressure sores?
- Reduce risk of infections?
- Improve functional status?
- Improve patient comfort?

Consider Goals of Care

Prevent aspiration?

- No published evidence suggests that tube feeding prevents aspiration
- Patients still must swallow oral secretions
- The gastrostomy tube feeding with filling of the stomach can induce regurgitation and aspiration of the feeding tube contents
- No published data suggest that jejunostomy tube prevents aspiration

Consider Goals of Care

Prevent consequences of malnutrition?

- Published data have not supported the hypothesis that increased caloric intake in patients with cancer or AIDS/HIV reverses cachexia and improves survival
- Patients with advanced dementia still experience loss of lean body mass; adverse effects of enteral feedings may outweigh any benefit

Consider Goals of Care

Improve survival?

- Careful hand feeding is effective with many patients
- Dietary assistance with high caloric, easy-to-swallow foods can be helpful
- Tube placement and complications of enteral feeding can contribute to mortality
- No published data suggest that tube feeding prolongs survival in demented patients with dysphagia

Consider Goals of Care

Prevent or promote healing of pressure sores?

- There are no published data that tube feeding prevents or promotes healing of pressure ulcers
- Bedfast, incontinent patients with feeding tubes are more likely to be restrained and probably make more urine and stool; this combination of effects may induce or worsen problems with pressure ulcers

Consider Goals of Care

Reduce risk of infections?

- It has been postulated that improved nutritional status may be associated with increased resistance to infection; there are no published data to support this in dementia
- Infection and cellulitis with the PEG tube are reported in 3–8% of all patients

Consider Goals of Care

Improve functional status?

- Studies of frail nursing-home patients have found no improvement in function or strength with protein supplement
- Retrospective review in a nursing home found no improvement on functional independence scores of any patient during 18 months after PEG tube placement

Consider Goals of Care

Improve patient comfort?

- Patients with ALS still cough on their own secretions
- Patients are denied pleasure of food
- Patients experience discomfort from the tube and often require restraints
- Palliative-care patients rarely report hunger; when they do, small bites of food, fluid, or ice chips can usually assuage the hunger

Adverse Effects

- Aspiration 0–66.6%
- Tube occlusion 2–34.7%
- Tube leakage 13–20%
- Local infection 4.3–16%
- Approximately 2/3 of PEG tubes will need to be replaced

Conservative Management

- Stop nonessential medications
- Consider dexamethasone as appetite stimulant
- Improve dental and oral hygiene
- Position patient upright and out of bed if possible
- Assist with small, easy-to-swallow, and frequent small meals

Conservative Management

- Interventions such as these have been reported in small studies to result in a 4.5 kilogram weight gain in 50% of patients

Family Counseling

- Families experience data on tube feeding as counter-intuitive
- Some families persistently request tube feeding despite data due to cultural implication of declining oral intake

Family Counseling

After counseling about the limited benefits and the burdens of interal tube feeding, support informed decision regardless of concordance with medical recommendation.

Family Counseling

Terminally ill patients on tube feeding are eligible for hospice services; they may have increased needs for symptom management, and their families, for emotional, spiritual, and social support.

Tube Feeding

Selected Readings

Need for Physician Understanding and Leadership

Weissman, D. E. (ed). “Feeding Tubes at End of Life: The Lack of Physician Leadership.” *Journal of Palliative Medicine* 3 (2000): 1–3.

Appropriate Use of Nutrition and Hydration

McCann, R. M., W. J. Hall, and A. Groth-Juncker. “Comfort Care for Terminally Ill Patients: The Appropriate Use of Nutrition and Hydration.” *Journal of the American Medical Association* 272 (1994): 1263–1266.

Tube Feeding in Patients with Advanced Dementia

Finucane, T. E., C. Christmas, and K. Travis. “Tube Feeding in Patients with Advance Dementia: A Review of the Evidence.” *Journal of the American Medical Association* 199; 282: 1365–1370.

Meier, D. E., J. C. Alronheim, J. Morris, S. Baskin-Lyons, and R. S. Morrison. “High Short-Term Mortality in Hospitalized Patients with Advanced Dementia: Lack of Benefit of Tube Feeding.” *Archives of Internal Medicine* 161 (2002): 594–599.