

# Artificial Nutrition at End-of-Life



Decisions regarding artificial nutrition can be challenging for practitioners, patients, and family of those decisionally incapable patients afflicted with progressive, potentially terminal illnesses. Artificial nutrition is the provision of liquid nutritional supplement through the enteral or parenteral route. The decision whether or not to provide artificial nutrition often evokes a powerful emotional response. Because surrogates and other loved ones agonize over the withholding and/or withdrawal of artificial nutrition healthcare providers need to be ready to discuss the most current data regarding efficacy, complications, and the ethical/legal issues.

## **The Data:**

- PEG/gastrostomy placement is associated with an in-hospital mortality of 15-25%, and a one year mortality of 60%.<sup>1</sup> Co-factors associated with increased risk of mortality include: advanced age, CNS pathology, cancer (except early stage head/neck cancer), disorientation and low albumin.<sup>2</sup>
- Aspiration occurs in up to 50% of patients being tube fed. Site of placement does not reduce risk.<sup>3</sup>
- Patients receiving artificial nutrition have an increased risk for diarrhea, gastrointestinal discomfort, and agitation. Agitation and confusion often lead to restraint placement with the intent of protecting the tube.<sup>3</sup> Despite protective efforts, tube may be dislodged, leading to further complications.
- For patients with advanced dementia, artificial nutrition has not proven effective in prolonging life, in preventing aspiration, or in improving nutritional status.<sup>3</sup>
- The patient's desire for artificial nutrition decreases as the degree of cognitive impairment increases.<sup>4,5</sup>
- Lack of artificial nutrition and hydration was not associated with discomfort in severe dementia patients.<sup>13</sup>
- A study of 421 randomly selected, competent nursing home residents in 49 nursing homes, found that only 1/3 would favor feeding tube placement if they were unable to eat because of permanent brain damage. 61% opposed tube feeding, and of those who initially favored tube placement, 25% changed their preference when learning that physical restraints might be needed in order to facilitate feeding tube use.<sup>6</sup>
- Dehydration is a natural part of the end stage of a terminal illness. Patients die as a result of their terminal disease, not "starvation". Dying patients typically do not experience hunger or thirst. If they do, good oral care and comfort feeding should be provided.

A common clinical scenario has been described as the *tube feeding death spiral*, by David Weissman, MD.<sup>7</sup>

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1. Hospital admission for complications secondary to brain failure or other predictable end organ failure due to primary illness (e.g. urosepsis in the setting of advanced dementia).
2. Inability to swallow documented and/or direct evidence of aspiration and/or weight loss associated with low or no by mouth intake.
3. Swallowing evaluation followed by a recommendation for non-oral feeding.
4. Feeding tube placed followed by increasing patient agitation, resulting in feeding tube dislodgement.
5. Re-insertion of feeding tube; restraints placed.
6. Aspiration pneumonia.
7. Intravenous antibiotics and pulse oximetry.
8. Repeat steps 4-6 two or more times.
9. Family conference.
10. Death.

### **Ethical/Legal Issues:**

- There is no medical, legal or ethical mandate to provide artificial nutrition to a dying patient when the burden/risk of feeding the patient outweighs the benefit.<sup>11</sup> Artificial nutrition is a medical treatment and therefore can be requested or refused by the patient.<sup>1,9</sup>
- Legal and ethical standards support “Right of Informed Refusal” to withhold or withdraw a medical intervention (informed refusal), including tube feeding.<sup>7,9</sup>
- North and South Carolina do not prejudice with unique restrictions the medical decision whether or not to place a feeding tube.<sup>7,9</sup>
- In the absence of an advance care directive, the surrogate’s decisions regarding initiation, withholding, or withdrawal of artificial nutrition should be based on the patient’s previous statements or on the surrogate’s knowledge of the patient. Otherwise, the surrogate’s decisions should be guided by considering the patient’s best interest.<sup>1,10</sup>

### **Recommendations:**<sup>16</sup>

- Practitioners should emphasize that artificial nutrition is not a basic intervention that can be administered by anyone, as food is. Artificial nutrition is a medical therapy administered for a medical indication with the use of technical procedures. If the risks outweigh the benefit, this intervention should not be offered.
- Prior to insertion of a feeding tube into a decisionally incapable patient, it is the Practitioner’s ethical duty to determine if the patient has executed an advance directive that includes a provisions regarding artificial nutrition. If no advance directives have been executed, the practitioner must discuss the benefits and burdens of long-term tube feeding with the surrogate.
- The practitioner should carefully explain the procedures necessary for the placement of a feeding tube for artificial nutrition and that subsequent administration artificial nutrition is associated with uncertain benefits and considerable risks and discomfort.
- When, after reviewing the benefits and burdens, there is not a clear answer regarding the medical appropriateness of artificial nutrition, a time-limited trial with clear, agreed upon

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parameters consisting of objective responses may prove helpful. Quality of life should also be considered as a parameter.

- The practitioner should be able to differentiate between “malnutrition” and “starvation” as well as discuss the physiological changes that occur when nutrition is withheld or withdrawn.

- The practitioner should relate decisions about artificial nutrition to achievable goals of care with appropriate documentation in the medical record.

- If the decision is made to initiate artificial nutrition the practitioner should regularly re-evaluate the patient to determine whether it is helping the patient achieve the established goals of care.

- Practitioners should assure patients and families that most, if not all, of the discomfort that occurs with progressive decline of the patient can be managed effectively.<sup>8,9</sup>

- Practitioners should acknowledge the potential for emotional response that discussions about withholding or withdrawing artificial nutrition may elicit in patients, family members, and members of the health care team.

- Consultation with hospice or palliative medicine specialists may be helpful in establishing goals of care as well as symptom management.

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[http://www.ncmedsoc.org/non\\_members/longterm\\_feedingtube\\_physician.pdf](http://www.ncmedsoc.org/non_members/longterm_feedingtube_physician.pdf)

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