Tube Feed Or Not TubeFeed?

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Categories: Gastrointestinal Diseases and Nutrition; Non-Pain Symptoms and Syndromes

Background: Tube feeding is frequently used in chronically ill and dying patients. The evidence for much of this use is weak at best. The Fast Fact reviews data on the use of tube feeding in advanced illness.

For prevention of aspiration pneumonia

- Numerous observational studies have demonstrated a high incidence of aspiration pneumonia in those who have been tube fed. Reduction in the chance of pneumonia has been suggested for non-bed-ridden post-stroke patients in one prospective, non-randomized study. For bedridden post-stroke patients, no reduction was observed.
- Three retrospective cohort studies comparing patients with and without tube feeding demonstrated no advantage to tube feeding for this purpose.
- Swallowing studies, such as videofluoroscopy, lack both sensitivity and specificity in predicting who will develop aspiration pneumonia. Croghan's (1994) study of 22 patients undergoing videofluoroscopy demonstrated a sensitivity of 65% and specificity of 67% in predicting who would develop aspiration pneumonia within one year. In this study no reduction in the incidence of pneumonia was demonstrated in those tube fed.
- Swallowing studies may be helpful in providing guidance regarding swallowing techniques and optimal food consistencies for populations amenable to instruction. See Fast Fact #128 for discussion of the role of swallowing studies.

For life prolongation via caloric support

- Data is strongest for patients with reversible illness in a catabolic state (such as acute sepsis).
- Data is weakest in advanced cancer. No improvement in survival has been found (see exceptions noted below).
- Individual patients may have weight stabilization or gain with tube feeding. However, when cohorts of patients have been studied in non-randomized retrospective or prospective studies, no survival advantage

between tube fed and hand fed cohorts has been demonstrated.

- Tube feeding may be life-prolonging in select circumstances:
    - Patients with good functional status and proximal GI obstruction due to cancer
    - Patients receiving chemotherapy/XRT involving the proximal GI tract.
    - Selected HIV patients
    - Patients with Amyotrophic Lateral Sclerosis

For enhancing quality of life

- Where true hunger and thirst exist, quality of life may be enhanced (such as in very proximal GI obstruction).
- Most actively dying patients (see Fast Fact #3) do not experience hunger or thirst. Although dry mouth is a common problem, there is no relation to hydration status and the symptom of dry mouth – see Fast Fact #133 .
- A recent literature review using palliative care and enteral nutrition as search terms found no studies demonstrating improved quality of life through tube feeding (results were limited to a few observational studies).
- Tube feeding may adversely affect quality of life if patients are denied the pleasure of eating.

Summary

Although commonly used, current data does not provide much support for the use of artificial enteral nutrition in advanced dementia, or in patients on a dying trajectory from a chronic illness. A recommendation to use, or not use, tube feeding should be made only after first establishing the overall Goals of Care (see Fast Fact #16). Recommendations for how to discuss the issue tubefeeding with patients/families can be found in Fast Fact #84 .

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Swallow Studies, TubeFeeding, And The Death Spiral

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Categories: Other Neurologic Illnesses; Neurologic Disorders – Dementia; Gastrointestinal Diseases and Nutrition; Non-Pain Symptoms and Syndromes

Introduction: The reflex by families and doctors to provide nutrition for the patient who cannot swallow is overwhelming. It is now common practice for such patients to undergo a swallowing evaluation and if there is significant impairment to move forward with feeding tube placement (either nasogastric or gastrostomy) – seeFast Fact #128 . Data suggest that in-hospital mortality for hospitalizations in which a feeding tube is places is 15-25%, and one year mortality after feeding tube placement is 60%. Predictors of early mortality include: advanced age, CNS pathology (stroke, dementia), cancer (except early stage head/neck cancer), disorientation, and low serum albumin.

The Tube Feeding Death Spiral The clinical scenario, *the tube feeding death spiral* , typically goes like this:

1. Hospital admission for complication of “brain failure” or other predictable end organ failure due to primary illnesses (e.g. urosepsis in setting of advanced dementia).
2. Inability to swallow and/or direct evidence of aspiration and/or weight loss with little oral intake.
3. Swallowing evaluation followed by a recommendation for non-oral feeding either due to aspiration or inadequate intake.
4. Feeding tube placed leading to increasing “agitation” leading to patient-removal or dislodgement of

feeding tube.

5. Re-insertion of feeding tube; hand and/or chest restraints placed.
6. Aspiration pneumonia.
7. Intravenous antibiotics and pulse oximetry.
8. Repeat 4 – 6 one or more times.
9. Family conference.
10. Death.

Note: at my institution, the finding of a dying patient with a feeding tube, restraints, and pulse oximetry is known as Weissman's triad.

Suggestions

- Recognize that the inability to maintain nutrition through the oral route, in the setting of a chronic life-limiting illness and declining function, is usually a marker of the dying process. Discuss this with families as a means to a larger discussion of overall end of life goals.
- Ensure that your colleagues are aware of the key data and recommendations on tube feedings (seeFast Fact #10).
- Ensure there is true informed consent prior to feeding tube insertion—families must be given alternatives (e.g. hand feeding, comfort measures) along with discussion of goals and prognosis.
- Assist families by providing information and a clear recommendation for or against the use of a feeding tube. Families who decide against feeding tubeplacement can be expected to second guess their decision and will need continued team support.
- If a feeding tube is placed establish clear goals (e.g. improved function) and establish a timeline for re-evaluation to determine if goals are being met (typically 2-4 weeks).

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