

NUTRITION, HUNGER, AND HYDRATION AT THE END OF LIFE

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FINANCIAL DISCLOSURES

- None



But happily accepting offers

LEARNING OBJECTIVES

- Review natural course of hunger/thirst at end of life (EOL)
 - EOL = days to weeks
- Artificial Nutrition and Hydration (ANH) at EOL and ethical framework around this
- Understand the types, risks, benefits, burdens, and complications of ANH
- Review recommendations of leading care organizations about ANH
- Provide supportive alternatives for patients and families





COMMON QUESTIONS / CONCERNS AT EOL

- My loved one is starving to death / dying of thirst!
- How are we going to feed / hydrate my loved one?
- Are we killing my loved one by not feeding / hydrating?

- NUTRITION & HYDRATION AT EOL IS EMOTIONAL AND COMPLEX
- Cultural and religious importance
 - Mark traditions and milestones
 - Food/drink = expression of love
- What do families/loved ones really fear?
 - Anticipatory grief
 - Helplessness
 - Fear of suffering from hunger/thirst
 - Fear of being complicit in death



HUNGER AND THIRST TOWARDS END OF LIFE

- Loss of hunger and thirst considered part of the dying process
 - Blood flow prioritized to heart and brain, less flow to gut
 - Gut slows down
 - Little to no absorption of nutrients
 - Lower metabolic demands overall
- Eating or drinking at EOL can be uncomfortable
 - Feeling uncomfortably full
 - Nausea and vomiting
 - Coughing and aspiration
 - Congestion and edema





EXPECTATIONS OF FAMILY / CAREGIVERS WITH ANH

- When loved one is no longer eating or can't swallow, ANH is part of the process
 - There are no alternatives
- Awareness of only procedural risks of tube placement
 - For most, placement is reasonably safe
- Ambiguity about the patient's prognosis
- Expectation that ANH will improve
 - Comfort
 - Risk of pneumonia
 - Longevity
 - Wound healing



WHAT DO WE CONSIDER ARTIFICIAL NUTRITION AND HYDRATION (ANH)

Yes

- Tube in alimentary tract
 - PEG (percutaneous endoscopic gastrostomy) tube
 - NG (nasogastric) tube / Dobhoff tube
- Needle into vein or under skin
 - Hypodermoclysis
 - PPN (peripheral parenteral nutrition) or TPN (total parenteral nutrition)

No

- Assisted oral feeding
 - Spooning
 - Syringing

ETHICAL FRAMEWORK

- Autonomy
 - Patients have the right to refuse or forgo medical treatments, including ANH, even if it means hastening death
- Beneficence
 - ANH should be provided only when it offers a benefit to the patient and does not cause more harm than good
- Non-maleficence
 - Healthcare providers have a duty to avoid causing harm to patients, and ANH can sometimes pose risks, such as increased discomfort or infection
- Justice
 - Decisions about ANH should be made fairly and without discrimination, considering the patient's unique circumstances and preference



DO FEEDING TUBES...



Decrease mortality?



Prevent aspiration pneumonia?



Prevent malnutrition and improve functional status?



Prevent pressure sores or improve patient comfort?



MORTALITY BENEFIT?

- No published studies suggest ANH prolongs survival in dementia patients with dysphagia
- Mortality rates high following PEG placement in older adults with significant neurologic burden
 - 30-day 20%-40%
 - 6-month 50%

PREVENT ASPIRATION PNEUMONIA?

- No randomized controlled trial
- No data showing decreased risk of aspiration pneumonia
 - Data implies risk is actually **increased**
- Can still aspirate oral secretions
 - Decreased gag reflex & loss of pharyngeal control
- Not shown to reduce the risk of regurgitation of gastric contents
 - Reduced esophageal motility and gastric emptying



PREVENT MALNUTRITION?

- No significant improvement of nutritional parameters, e.g. serum albumin in end stage dementia
- EOL is a catabolic state
 - Cannot outfeed a catabolic state

PREVENT PRESSURE ULCERS? IMPROVE COMFORT?

- Compared to patients without PEG tubes, those with PEG tubes were:
 - 2.27 times **more likely** to develop pressure ulcer
 - 0.70 times less likely to experience healing of an existing pressure ulcer
- Feeding becomes passive → more time sedentary
- Tube becomes distracting/painful → increased rate of use of restraints → more time sedentary
- Tube feeds may lead to increase in BM and urination
 - may lead to skin breakdown
- Extra volume can cause edema, congestion in lungs → pain and coughing
 - uncomfortable for patient and distressing for family/caregivers

PROFESSIONAL SOCIETY RECOMMENDATIONS



“...feeding tubes are not recommended for older adults with advanced dementia. Careful hand feeding should be offered because hand feeding has been shown to be as good as tube feeding for the outcomes of death, aspiration pneumonia, functional status, and comfort”



“The Association asserts that research evidence supports no medical benefit from feeding tubes in advance dementia and that feeding tubes may actually cause harm in the advanced stages of Alzheimer's.”



“...ANH, whether delivered parenterally or through the gastrointestinal tract via a tube (including nasogastric tubes), is a medical intervention. Like other medical interventions, it should be evaluated by weighing its benefits and burdens in light of the patient's clinical circumstances and goals of care... Near the end of life, some widely assumed benefits of ANH, such as alleviation of thirst, may be achieved by less invasive measures including good mouth care or providing ice chips.

WHO CAN BENEFIT FROM ANH?

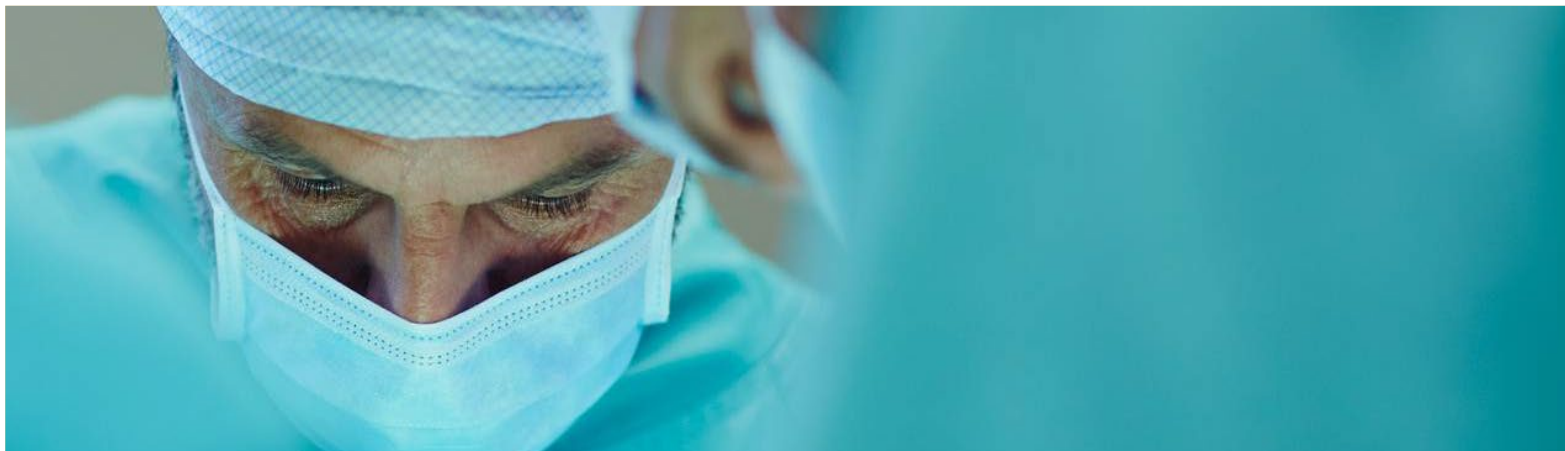
- In general, not someone at EOL
- Acute illness with difficulty swallowing or inability to meet nutritional needs.
 - Stroke with no or low neurological deficit
 - Head/neck disease or trauma
 - Acute sepsis
- Some chronic illnesses also benefit
 - ALS
 - Cancer with good prognosis



GENERAL RECOMMENDATIONS: COMFORT FEEDING

- Food/drink should be provided if/when patient requests
 - Hand feeding if necessary
 - Provide favorite foods/drinks
 - Upright positioning to reduce choking
 - Stop when patient is satiated (usually won't be very much)
 - Make it a source of pleasure and comfort, not sustenance
- In absence of communication, symptoms noted by family/caretakers usually from dry mouth
 - Mouth care – lip balm, small sips, ice chips, liquid swabs





TIME-LIMITED TRIALS

- May be considered when burden and benefit of treatment are uncertain
- Delineate end points clearly
- Ceasing ineffective or burdensome treatment may be preferable to no offering at all
- Fears of withdrawal should not prohibit time-limited trials



THANK YOU!