Withholding & Withdrawing Life Sustaining Treatment:
A Lifespan Approach

Kenneth Brummel-Smith, M.D.

Charlotte Edwards Maguire Professor,
Department of Geriatrics

FSU College of Medicine

Basic Concepts

- "Treatments" may be withheld or withdrawn at any time
  - Based on informed consent
- "Care" is never withheld
- "No one knows best, for we all know differently" (Maria Huxley)
  - Health care providers & families: no better than chance ability to predict patient desires
  - Desires change – age, situation, problem

Basic Ethical Principles

- Autonomy – the right to choose one's diagnostic tests & treatments
- Beneficence – our duty to do what benefits the patient
  - The patient perceives the benefit
- Nonmaleficence – the duty to not harm the patient
- Justice – the duty to do what is fair and equitable

Life-Sustaining Treatments

- Definition: direct connection between the Tx and the likely terminal outcome
- Examples:
  - Antibiotics in overwhelming infections
  - Discontinuing ventilator support
  - Dialysis for kidney failure
  - Surgery for acute GI bleeding
  - Artificial nutrition & hydration (ANH)
  - Pacemakers and implantable cardiac defibrillators
  - Cardiopulmonary resuscitation

Life Span Considerations

- Statistical probability of “success”
- Age – informed consent
- Prior stated wishes
- Lifestyle and justice
- Perception of disability
- Goals of care
- “Quality of life”

Lack of information!

Is There a Difference?

- Withholding treatments
  - Weigh benefits and burdens
  - Quality of life considerations
  - View of family
- Withdrawing treatments
  - Feels different
  - Apparent “direct” consequences of an action

Decision Making

- What is the goal of treatment?
- What is the likelihood of success (benefits)?
- What are the risks of treatment?
- What are the alternatives?
- What are their risks and benefits?
- What if we don't give any treatment and just give good, palliative care?

True informed consent

Antibiotic Treatment

- Relatively new (1940s)
- Ubiquitous (ABs even in our food!)
- Serious negative consequences
  - Resistance - MRSA/VRE
  - Organ damage (e.g., kidney, ears)
  - Often use when there is no evidence of benefit
- Expected versus unexpected infections

Antibiotic Treatment Cases

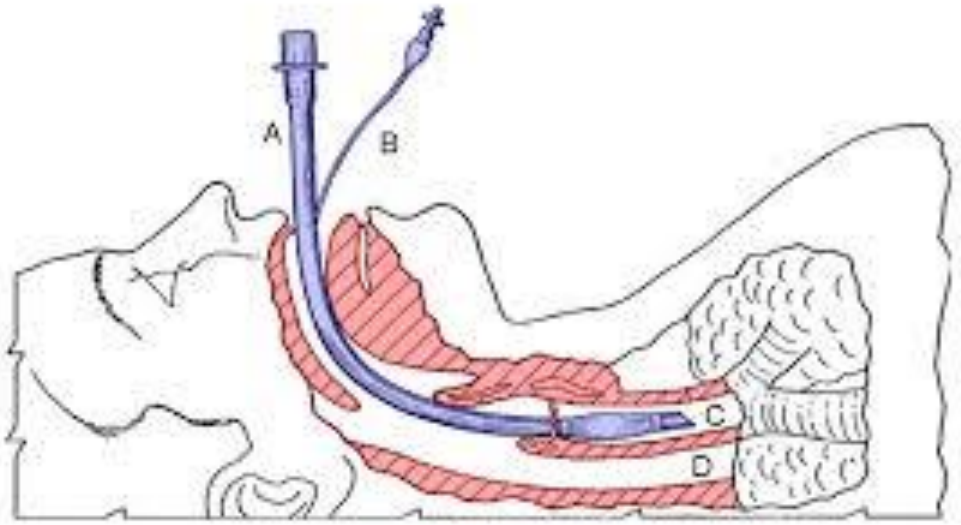
- Pneumonia in a 19 year old college student
  - Seriously ill
  - Immediately responsive
  - Treatment universally desired
- Pneumonia in an 86 year old with Alzheimer's disease
  - Expected complication
  - Limited symptoms

Decision Making

- What is the goal of treatment?
- What is the likelihood of success (benefits)?
- What are the risks of treatment?
- What are the alternatives?
- What are their risks and benefits?
- What if we don't give any treatment and just give good, supportive care?

Discontinuing a Ventilator

- Most are temporary (unexpected use)
  - Unable to talk
  - ICU
  - Discontinuation is the goal
- Long term/permanent ventilator (expected)
  - Neurologic injuries (spinal cord)
  - Degenerative diseases (ALS)
  - End-stage COPD


A
B
C
D

Ventilator Cases

- 17 year old motorcycle accident with head injury (unexpected)
  - Unpredictable outcome
  - May change mind later
- 67 year old with end-stage COPD (expected)
  - FEV1 < 500ml
  - Can decide to withhold
  - Established protocol for withdrawal (EPEC)

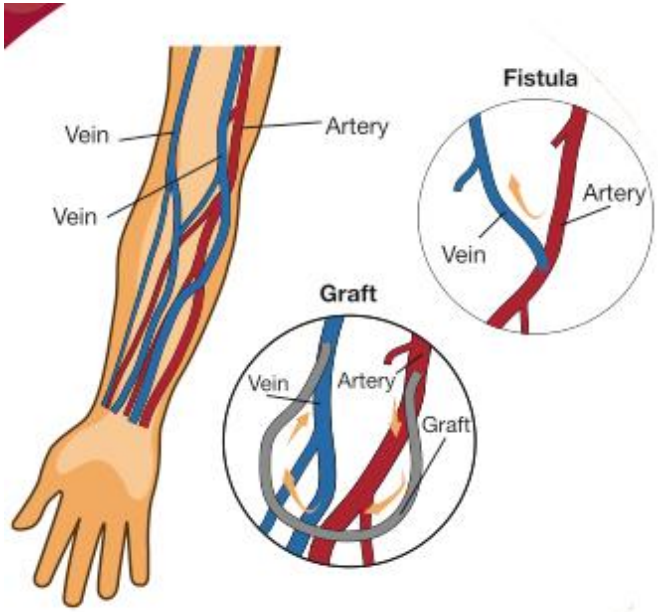
Decision Making

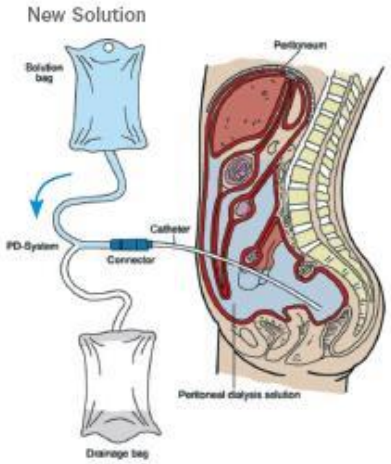
- What is the goal of treatment?
- What is the likelihood of success (benefits)?
- What are the risks of treatment?
- What are the alternatives?
- What are their risks and benefits?
- What if we don't give any treatment and just give good, supportive care?

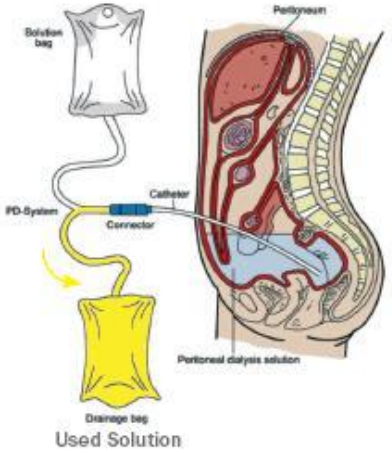
Dialysis

- Relatively new (1970s)
- Possible end stage of many diseases
- Stressful on patient and caregivers
- Patients commonly can freely engage in the decision-making process (unlike ventilators)
- Risk of financial factors pushing decisions
  - Longest term treatment
  - Most expensive over long run


21


Vein
Artery
Vein
Fistula
Artery
Vein
Graft
Vein
Artery
Graft


New Solution
Peritoneum
Solution bag
Catheter
PD-System
Connector
Peritoneal dialysis solution
Drainage bag


Peritoneum
Solution bag
Catheter
PD-System
Connector
Peritoneal dialysis solution
Drainage bag
Used Solution

Dialysis Cases

- 55 year old with unexpected acute kidney failure secondary to unexpected shock
  - Usually reversible
  - Short term
  - Transplant options
- 82 year old with end-stage diabetic kidney disease
  - Fewer options
  - Other co-morbid conditions
  - Likelihood of getting a transplant?

Decision Making

- What is the goal of treatment?
- What is the likelihood of success (benefits)?
- What are the risks of treatment?
- What are the alternatives?
- What are their risks and benefits?
- What if we don't give any treatment and just give good, supportive care?

Surgery for Acute GI Bleeding

- 85 year old with “angiodysplasia” (an abnormal collection of veins in the colon)
  - Age not a good predictor of surgical outcomes
  - Underlying health and functional status is key
- 85 year old with end-stage dementia
  - Quick terminal event
  - Methods for limiting impact of bleeding


Medscape
R
Source: Am J Gastroenterol © 2012 Blackwell Publishing

Decision Making

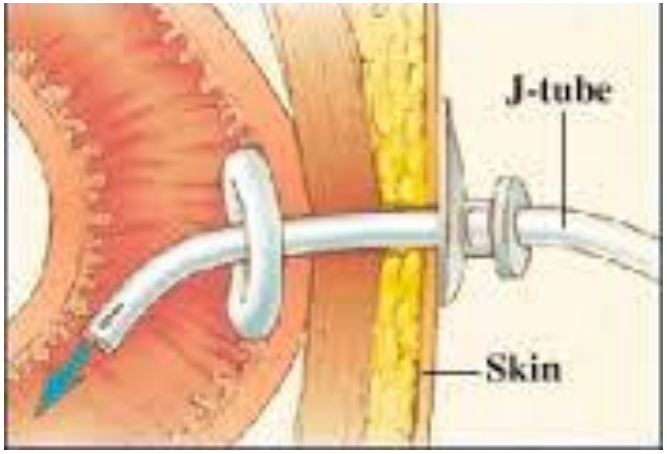
- What is the goal of treatment?
- What is the likelihood of success (benefits)?
- What are the risks of treatment?
- What are the alternatives?
- What are their risks and benefits?
- What if we don't give any treatment and just give good, supportive care?

Artificial Nutrition & Hydration

- Not “feeding” (i.e., a medical treatment)
- Growing body of evidence (in end-stage disease)
  - Does not extend life
  - Does not reduce aspiration
  - Increases some aspects of suffering
  - Medically risky – prone to complications

NG Tube

PEG Tube



J Tube

Prolong Life?

- 50%-68% 1 year mortality (Cowen)
  - dementia
  - stroke
  - CHF
- Survival same as hand fed (Mitchell)
- Improvement in nutritional measures does NOT affect survival! (Golden, Kaw, Mitchel)

Reduce Suffering?

- Complication rate 32% - 70% (Taylor)
- Those without hunger or thirst have increased pain when tube fed (McCann)
- Increased use of restraints
  - Up to 90% (Peck)
  - NOT significantly different with G tubes (Ciocon)

Decrease Aspiration?

- NG tube -
  - 67% aspirated
  - 43% developed pneumonia
  - 66% pulled out
- G tube
  - 44% aspirated
  - 56% developed pneumonia
  - 56% pulled out

(Ciocon)

Ordinary Care?

- Decreased human contact (Slovenka)
- Supreme Court ruling in Nancy Cruzan
- Religious stands
  - Catholic - burdens and benefits
  - Jewish - impediments to dying

Benefits of Dehydration

- Less cough
- Less urine production (incontinence)
- Decreased thirst
- Enhanced effect of morphine?
- Analgesic effect?
- Euphoria

Choosing Wisely Campaign

- “Don’t recommend percutaneous feeding tubes in patients with advanced dementia; instead offer oral assisted feeding.”
- Three societies:
  - American Geriatrics Society
  - American Academy of Hospice and Palliative Medicine
  - American Medical Directors Association

ANH Cases

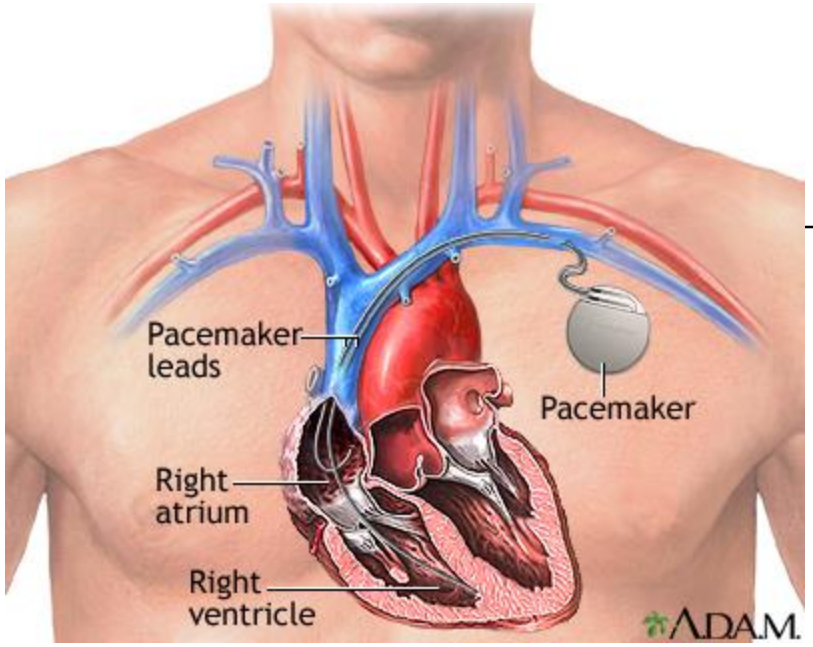
- 12 year old with end-stage Wilm's tumor
  - Possible effect of ANH on tumor growth
  - Issue of informed consent at this age
- 73 year old with acute stroke, otherwise healthy
  - Difficulty in predicting outcome
  - Prior wishes?
- 84 year old with end-stage dementia
  - Inability to swallow is always a complication with this condition
  - The final stage of disease

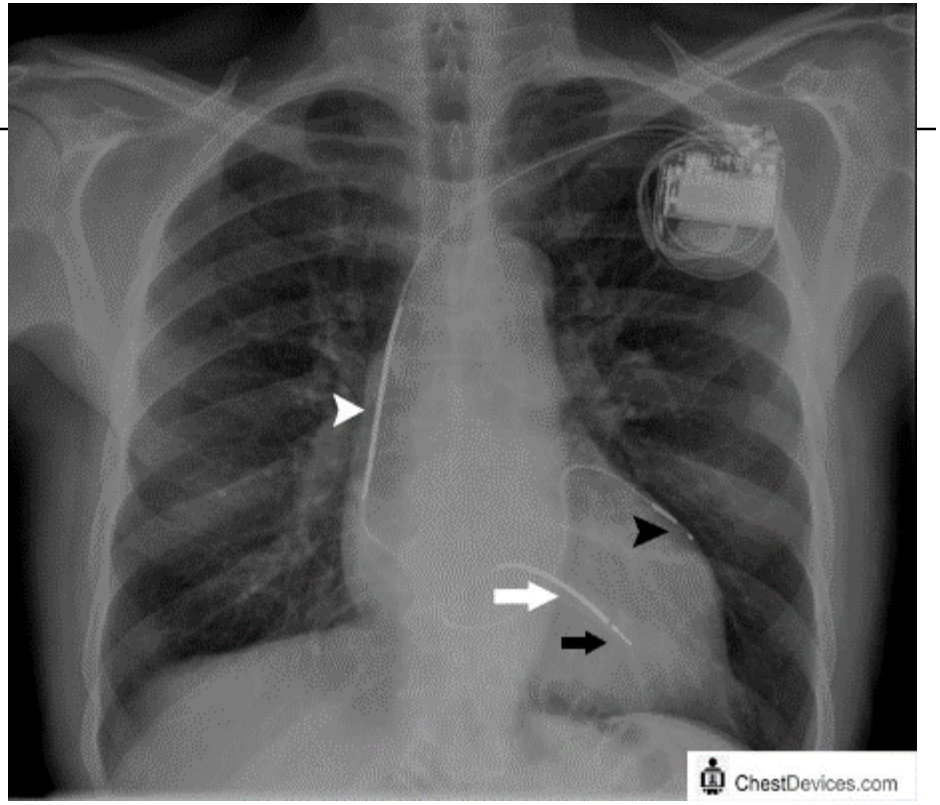
Decision Making

- What is the goal of treatment?
- What is the likelihood of success (benefits)?
- What are the risks of treatment?
- What are the alternatives?
- What are their risks and benefits?
- What if we don't give any treatment and just give good, supportive care?

Pacemakers and Implantable Cardiac Defibrillators

- Relatively new
- Potential for almost universal use
  - 250,000 out of hospital cardiac arrests annually
  - Justice implications
- ICD – if cardiac arrest is the final stage of life, how does one ever die?


Pacemaker leads
Pacemaker
Right atrium
Right ventricle
A.D.A.M.


ChestDevices.com


Medtronic

Pacemaker/ICD Cases

- 85 year old with dementia and bradycardia
  - How does one goal (treatment of arrhythmia) affect the other goal (management of dementia)?
- 64 year old former Vice President
  - Assumption of power

Decision Making

- What is the goal of treatment?
- What is the likelihood of success (benefits)?
- What are the risks of treatment?
- What are the alternatives?
- What are their risks and benefits?
- What if we don't give any treatment and just give good, supportive care?

Cardiopulmonary Resuscitation

- Prevent sudden, unexpected death
- Best outcomes:
  - Healthy patients (children)
  - Instituted immediately
  - Administered by trained personnel
  - Patient responds within 5 minutes of initiation
  - Cold water drowning
- “Success” defined as leaving the hospital

ACP Video

CPR in Hospitals

- 5% survival out of hospital
- 14% overall survival in hospitals
- 3% on general medical wards
- 0%-3% survival rates in NH
- 50% of survivors do not want CPR again
- 50% of survivors develop major depression or functional decline

DNR vs. Allow Natural Death (AND)

CPR Cases

- 45 year old auto accident victim, attended by EMT within 5 minutes
  - Direct organ damage probably best determines outcomes
  - Risks of unwanted outcomes with “success”
- 91 year old with multiple co-morbid conditions and intact cognition

Decision Making

- What is the goal of treatment?
- What is the likelihood of success (benefits)?
- What are the risks of treatment?
- What are the alternatives?
- What are their risks and benefits?
- What if we don't give any treatment and just give good, supportive care?

Summary

- Discuss the natural history of any condition
- Discuss the actual experience of treatment
- Involve your family
- Expect real informed consent

References

- Brummel-Smith K. A gastrostomy in every stomach? *J Am Board Fam Pract* 1998;11:242
- Ciocon JO, et al. Tube feedings in elderly patients *Arch Intern Med* 1988;148:429
- Finucane T, et al. Tube feedings in patients with advanced dementia: A review of the evidence. *JAMA* 1999;282:1365
- Gillick MR. Rethinking the role of tube feeding in patients with advanced dementia *N Eng J Med* 2000;342:206
- Golden A, et al. Long-term survival of elderly nursing home residents after PEG tubes for nutritional support *Nurs Home Med* 1997;5:383

More References

- Ghusn HF, et al. Continuity of DNR orders between hospital and nursing home settings *J Am Geriatr Soc* 1997;45:465
- Kane RS, et al. CPR policies in LTC facilities *J Am Geriatr Soc* 1997;45:154
- Ghusn HF, et al. Limiting treatment in NH: knowledge and attitudes of NH medical directors *J Am Geriatr Soc* 1995;43:1131
- Callahan CM, et al. Outcomes of PEG among older adults in a community setting, *J Am Geriatr Soc* 2000; 48:1048