

PALLIATIVE CARE IN HEART FAILURE

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Disclosure

- The speaker has nothing to disclose.
- Exhibits coordinated through the Henry Jackson Foundation.
- Refreshments provided through the Henry Jackson Foundation.

Heart Failure

- What % of Medicare pts have heart failure?
 - 10%
- What % of Health care expenditures do the above pts account for?
 - 33%
- What % of pts die within one year of heart failure admission?
 - 33%
- Average life expectancy for HF Pts?
 - 6 years

Mortality in Heart Failure: Trials

- US Carvedilol HF Study Group (B-blockers) :
 - 95% on ACEi, 53% NYHA II, 44% NYHA III
 - Placebo: 7.8% at 6 months
 - Coreg: 3.2% at 6 months
- GISSI-HF: 7000 pts, NYHA II-IV, excellent Rx
 - Placebo: 29% mortality at 3.9 years
 - Fish oil: 27% mortality at 3.9 years
- AF-CHF: 1370 pts, 37 months f/u, AF, EF < 35%
 - Control and Rx: 32 and 33% death from any cause
 - Control and Rx: 25% and 27% death from CV cause

Mortality in Heart Failure

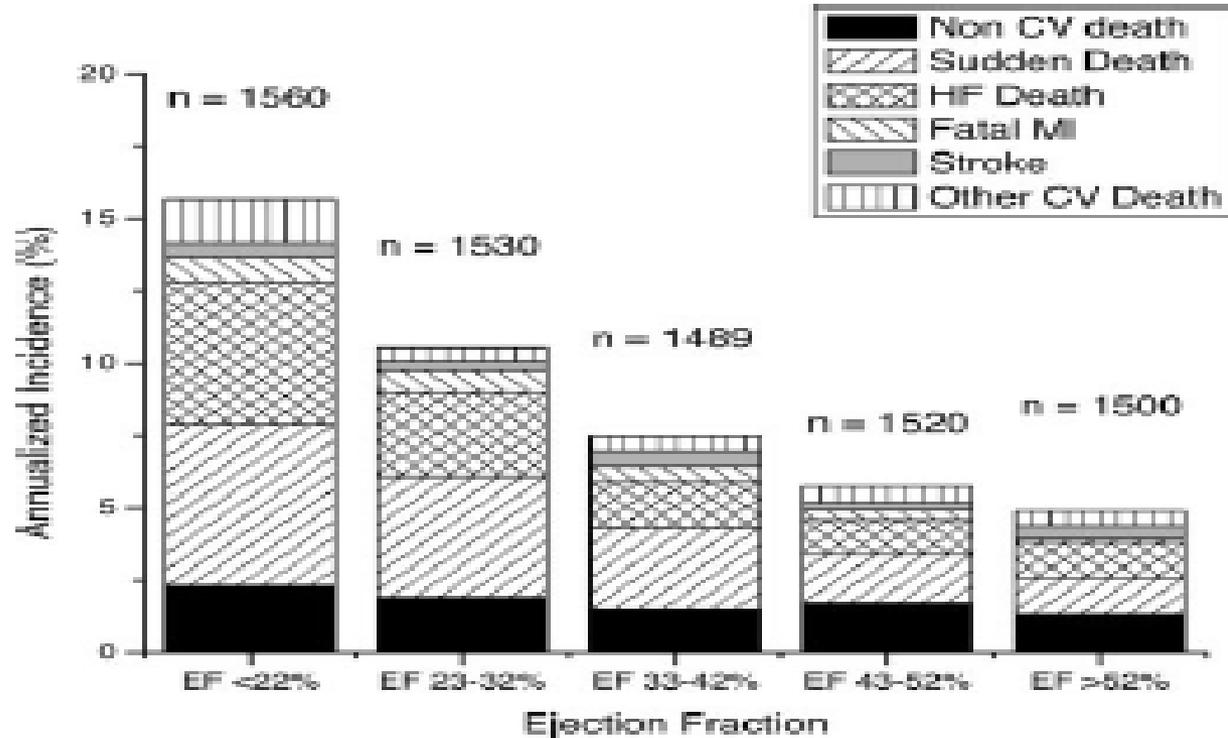


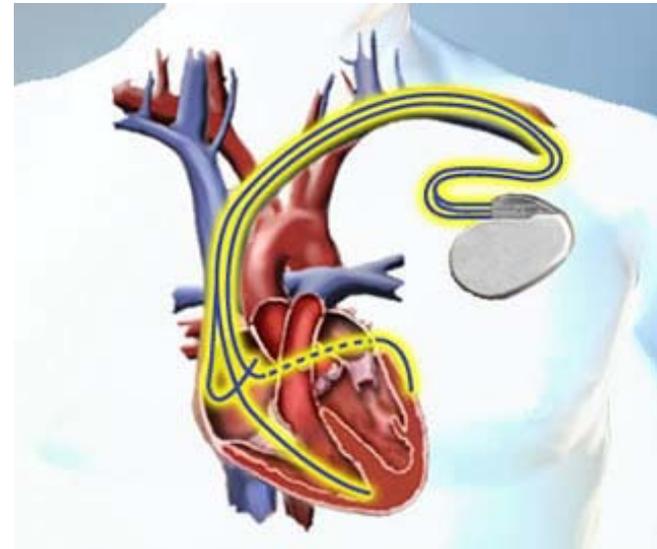
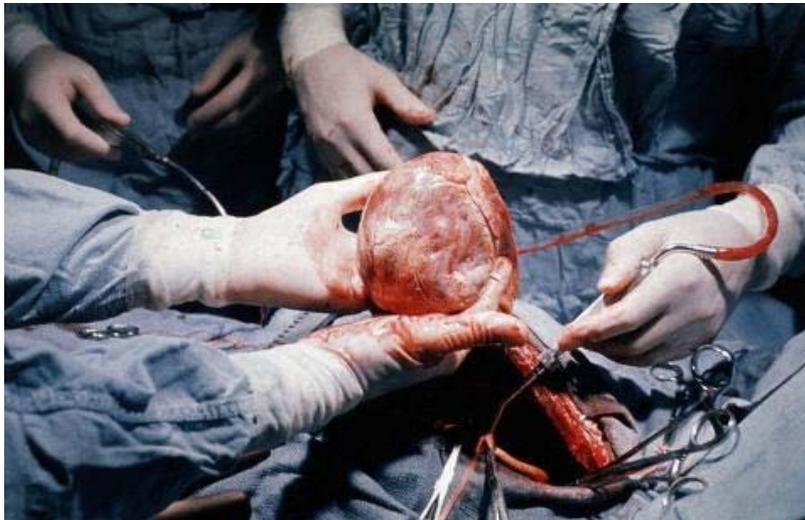
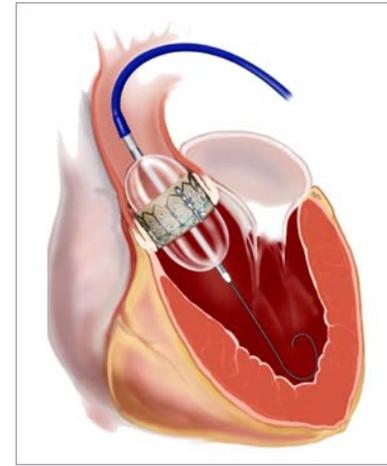
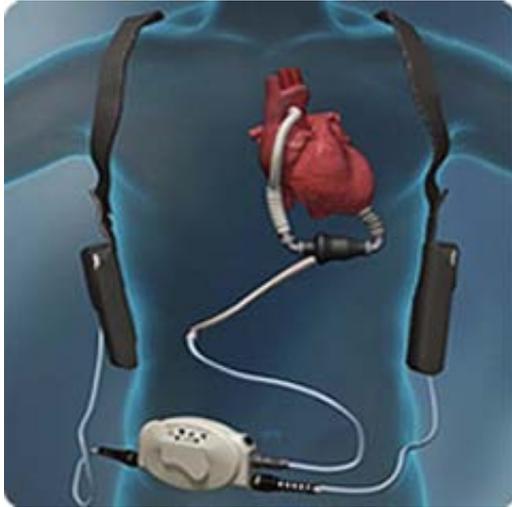
Figure 2. Annualized incidence of death, with components of death by LVEF. CV indicates cardiovascular; HF, heart failure; and EF, ejection fraction.

All cause mortality-- increase 39% for every 10% decrease in EF < 45%

Mortality in Heart Failure

- 2001-2005: of 2.5 million Medicare pts hospitalized with HF
 - 25% readmitted within one month
 - 26% died at 6 months
 - **37% died at one year**

So many tools available....



- When should we consider Heart Failure patients for palliative care vs. continued care vs. advanced, high tech intervention?
- How can we optimize palliation?
- Specific issues related to heart failure at end-of-life

Heart Failure: Pre-palliation

- R/o reversible treatable causes exacerbating factors:
 - High Na diet
 - **DEPRESSION**
 - Ischemia
 - Meds (non-compliance OR bad meds)
 - Not on maximal EBM therapies

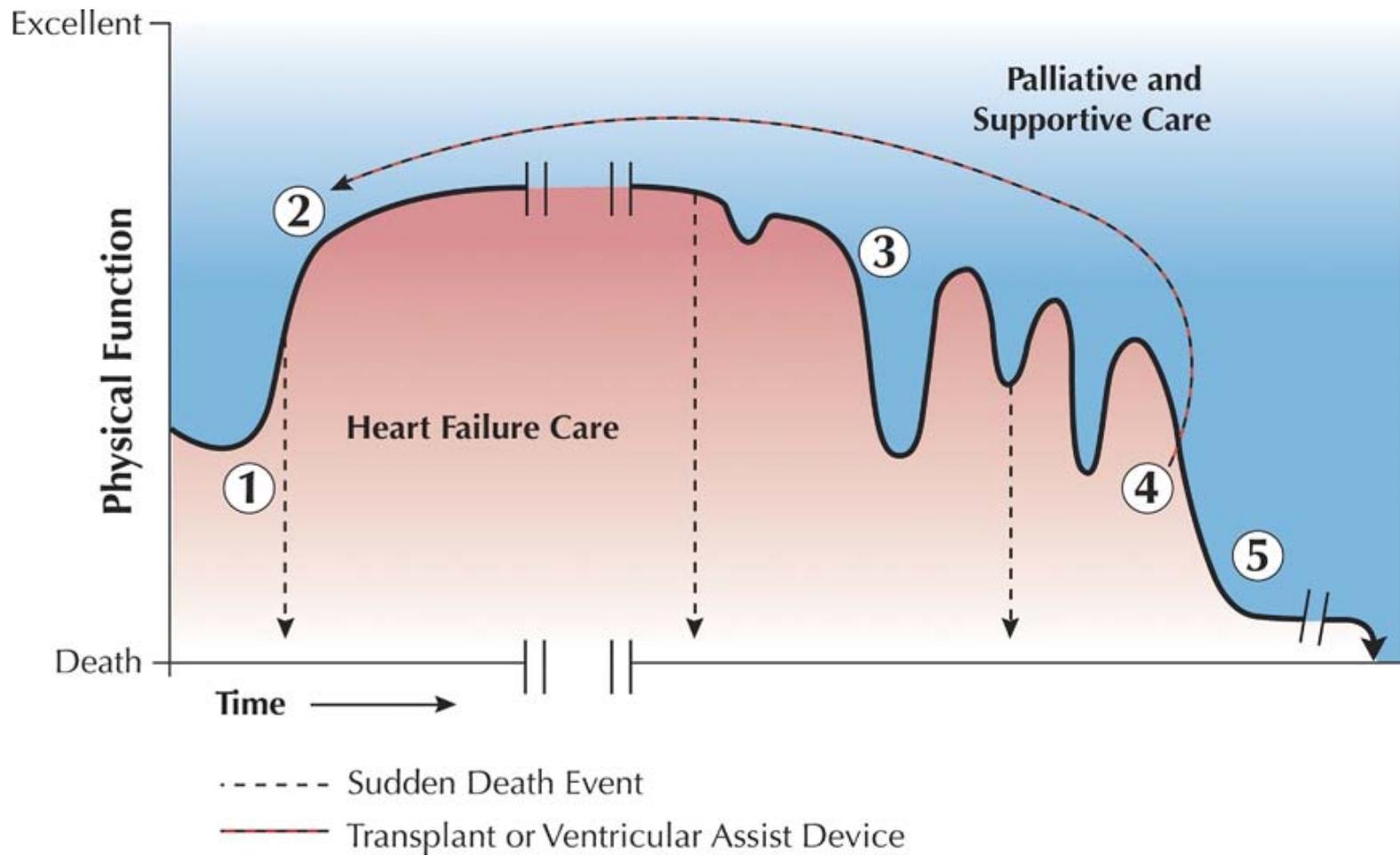
Repeat HF hospitalizations: INCREASED MORTALITY

Table 1 Rate and Cause of Hospitalizations in Relation to 1-Year Mortality in Patients With HF

	After Any HF Hospitalization	After the Initial HF Hospitalization	After the Second HF Hospitalization
% of patients hospitalized for any reason	30% in 2-3 months (13) 27% in 3 months (8) 38% in 6 months (14) 67% (3)	69% (4)	60% (4)
% of patients hospitalized for HF	22% in 2 yrs (15)	16% (EF <40%) (6) 14% (EF >50%) (6) 22% (4) 30%* (5)	36% (4)
% of patients hospitalized for cardiovascular reasons	43% (3) 42% (16)	44% (4) 50%* (5)	57% (4)
% of hospitalized patients with HF as the primary cause	—	32% (4)	60% (4)
% of hospitalized patients with cardiovascular diseases as the primary cause	64% (3)	49% (4)	95% (4)
Mortality	37% (3) 31% (14) 42% (16) 29% (EF ≥50%) (17) 32% (EF <50%) (17)	26% (EF <40%) (6) 22% (EF >50%) (6) 34% (4) 33% (18)	44% (4)

Note: all data are for annual rates unless otherwise indicated. *Estimated from Figure 2 in Lee et al. (5).

EF = ejection fraction; HF = heart failure.



End Stage HF sx's = cancer pts: 75% of hf pts with pain last 6 months

What is Palliative Care?

- From the Latin “palliare” (to cloak)
- "an approach that improves **the quality of life of patients and their families** facing the problems associated with **life-threatening illness**, through the prevention and relief of suffering by means of **early identification** and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual."

WHO Statement.

<http://www.who.int/cancer/palliative/definition/en/>

“Full court press” → palliative care → Hospice care

Continuum of Care

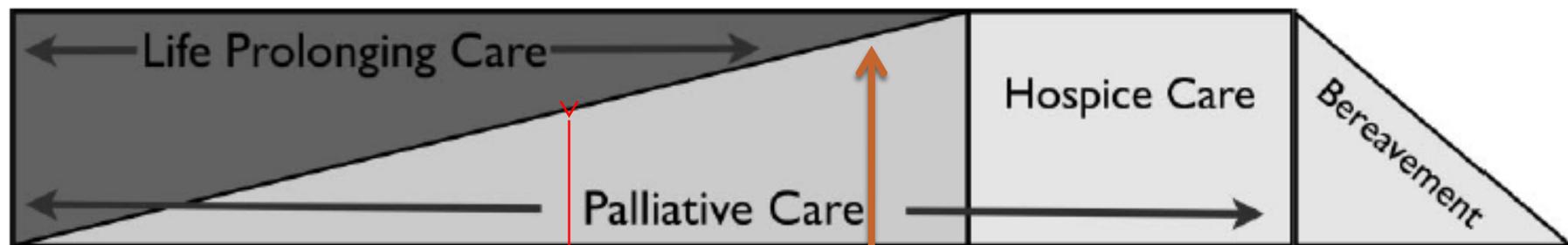


Figure 1. Palliative care integrative model. Palliative care is initiated when patients are diagnosed with any serious or advanced chronic illness. As illness progresses, the ratio of palliative care to life-prolonging care gradually increases. Ultimately, life-prolonging care is discontinued according to patient's wishes or when the harm of treatment outweighs its benefit. At this point, the transition to hospice care is made. After death, palliative care services continue and help family members with bereavement.

When do you start to consider Palliative care?

When do you consider Destination Therapy?

“Prognostic Paralysis”

- “Prognostic Paralysis”
 - Difficulty of prognosticating in CHF a barrier to initiating or effective end-of-life discussions

My pt last week

- 82 yo with HTN, h/o nephrectomy, CKD stage 3, Afib, CAD s/p stents, (non-obstructive cath in 2008) pulmonary fibrosis, sick sinus syndrome, t2 dm
- 3 HF admissions past 8 months. Ef 55%/ S/p admission → SNF
- Needed assistance in bathroom
- C/o fatigue, significant DOE with ADL's.
- Doesn't know what meds he is on; what he is eating.
- 127/64 65 bmi 33 In scooter
- Legs wrapped in gauze due to intermittent weeping edema
- BUN/Cr = 24/1.4, Na 141
- **“I want to live until I am 100”.**
- **ESCAPE Trial: Pts changed their mind with respect to trading survival for QOL**

Guideline Statements: HFSA

- End of life and prognosis should be discussed
- Pts and families educated
- HF is potentially “life-limiting”, and that meds, devices can prolong life
- Collaborate with specialists, PCMs
- Do it early

Guideline statements: HFSA

- EOL should be considered in pts:
 - Advanced, persistent HF with sx's at rest
 - Despite attempts at optimization of pharmacological and device therapy AND
 - HF hospitalization
 - Chronic poor quality of life with minim or no ability to ADL's
 - Need for continuous IV inotropic support
 - Text – “CKD and hypotension may limit application of effective therapy”; frailty, comorbid conditions

Guideline Statements: HFSA

- Individualize care, continue NH Blockade
- Discuss new, life-prolonging interventions
- Discuss resuscitation strategies

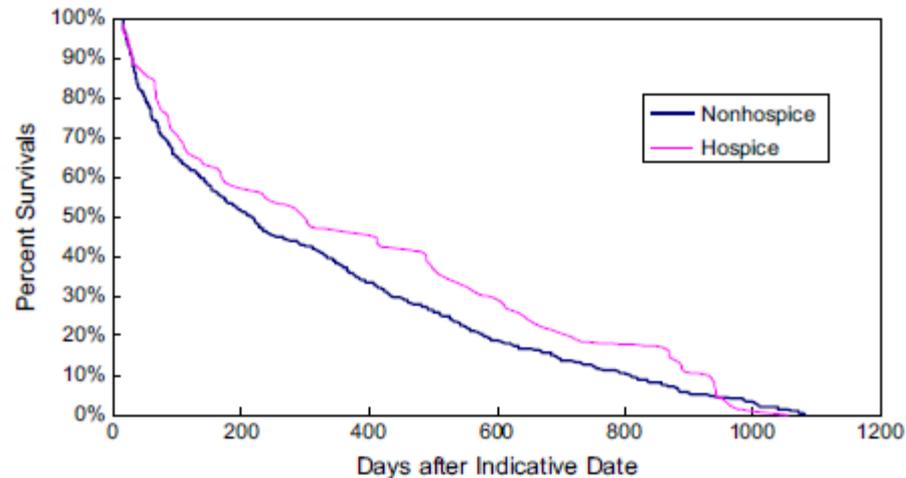
- No Data on prognostication

Medicare Guidelines

- Heart Disease
 - CHF Symptoms at rest (NYHA Class IV)
 - Must be optimally treated with diuretics and after-load reduction
 - The following help predict increased mortality:
 - Symptomatic arrhythmias (supraventricular or ventricular), prior cardiac arrest, unexplained syncope, cardiogenic stroke, HIV disease
 - $EF \leq 20\%$ is helpful but not required for this category

Is Palliative Care Good for our patients?

- Retrospective review of a sample of 4493 Medicare pts:
 - Hospice pts (83): 402 days
 - Non-hospice (457): 321 days ($p = 0.05$)



- 72 yo retired E-8 USMC
- Severe aortic stenosis and Ischemic CM, EF – 25%, AFIB
- CAD s/p CABG 2003
- H/o XRT for non-Hodgkin's lymphoma
- COPD; Myelodysplastic syndrome
- 3 admissions past 3 months
- NYHA IV, fatigued, Hypotensive limiting med titration

- Too high risk for re-do AVR; AS not bad enough for PARTNER trial
- No symptomatic improvement with cardioversion

- Offered BiV –AICD (\$45,000).... No improvement.

- Do you refer him for LVAD?
- Do you refer him for Hospice?

The patients who need palliative care.....

- Chronic pump dysfunction, elderly person not ready for hospice with multiple heart failure admissions
- Younger, sicker pt in which we have to decide when to be offered invasive therapies (LVAD, CABG) or pursue palliative therapy

Risk stratification of Hospitalized Patients

- **ADHERE Registry** – predicts in hospital mortality
 - SBP < 115 mmHg
 - Scr > 2.75 mg/dl
 - BUN > 43

- **Heart Failure Risk Scoring System**

Risk stratification in HF: Ambulatory Patients

- **Heart Failure Survival Score**
 - Used for transplant evaluations
- **Seattle Heart Failure model**
 - Helpful to show the change in prognosis based on therapies
- **MPI**
 - Multidisciplinary
 - Takes 20 minutes to complete in study settings

Prognostication in Heart failure

- All models have significant limitations
- No one model is always referred to in literature
- Must use Clinical Judgment
- Referral criteria to Palliative Care Center in UK
 - Stage C or D heart failure (symptomatic heart failure)
 - Declining functional status (NYHA Class III/IV)
 - You're thinking, "I wouldn't be surprised if she died in the next year"
 - Loss of appetite, weight loss, physical wasting
 - 2 or more hospitalizations for heart failure exacerbations in past year
 - Patient is refusing medical/surgical treatments

Palliative Care for Cardiologists

- “The Pathophysiologic basis of HF sx’s...argues for the use of treatments that block or modify the NH and cytokine abnormalities of HF to PALLIATE symptoms”

(J Am Coll Cardiol 2009;54:386-96)

- Continue neurohormonal blockade
 - ACEi, Beta-blockers, diuretics, NTG if necessary
- Consider de-escalate therapy to maintain function
- AICD (automatic implanted cardiac defibrillator)?

What to do with the AICD?

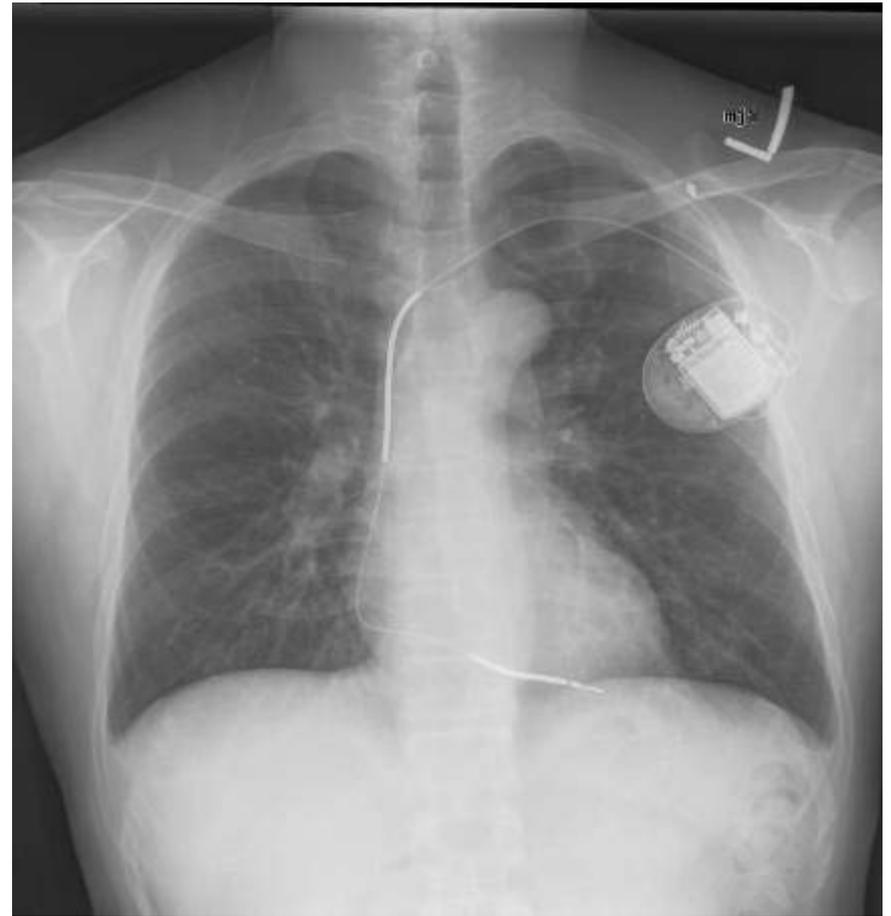
- Must distinguish the AICD function from a Pacemaker from a Bi-ventricular pacemaker
- **AICD Fx:** Defibrillate the pt by delivering energy
- **Pacemaker fx:** replaces the wiring of the heart, and on which some people are dependant
- **Biventricular Pacemaker:** Can provide significant symptomatic relief

What to do with the AICD?

- Only ¼ next of kin reported that a physician discussed deactivation of AICD
- Only 10% of hospices have a policy about deactivation of AICD
- 42% of pts had AICD's deactivated
- 46% of physicians thought it was illegal or unsure if illegal to deactivate AICD
- ACC/AHA GUIDELINES:
 - “Patients with refractory end-stage HF and implantable defibrillators should receive information about the option to inactivate defibrillation.”

Identification of Device

- Ask pts and family members if they have a device
- On physical exam, check the chest wall for the presence of a pacemaker, and if present, confirm if this is an AICD or “just a pacemaker”



Discussion points for the AICD

- Firing of the AICD may be painful and may not guarantee return to normal function
- Turning off the AICD will NOT cause death
- Turning off the AICD is NOT painful
- Turning off the AICD will NOT make a pt's death more painful
 - The ONLY role of the AICD is to defibrillate dysrhythmias.

When to deactivate the AICD?

- THE DISCUSSION SHOULD OCCUR PRIOR TO IMPLANTATION OF A DEVICE
- SHOULD ALSO OCCUR ON ADMISSION TO HOSPICE
- Is it a requirement for entrance into hospice?
- Do you wait until they are imminent?
 - A pt of mine, wife called to say he was fairly somnolent
 - we were going to have the reps go out the next morning to deactivate the device
 - pt died that night, underwent a shock 10 minutes before dying

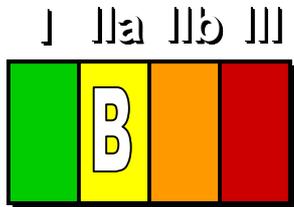
How to deactivate an AICD emergently

- Put a magnet over the AICD
 - Prevents the AICD from sensing the dysrhythmia
 - If it doesn't recognized the dysrhythmia, won't shock it
- May need to tape the magnet over the AICD
 - Once the magnet is removed, the AICD will sense the dysrhythmia, and can shock the pt

Palliative Care for Cardiologists

- Use of continuous IV Inotropic meds
 - ACC/AHA Guidelines: Class IIB
 - Increased risk of proarrhythmia, SCD, sepsis from lines
 - May provide symptomatic relief for prolonged periods of time
- “Candle burns brighter before extinguishing” –
 - Dr. Brian Jaski, Transplant Cardiologist, Sharp Memorial Hospital

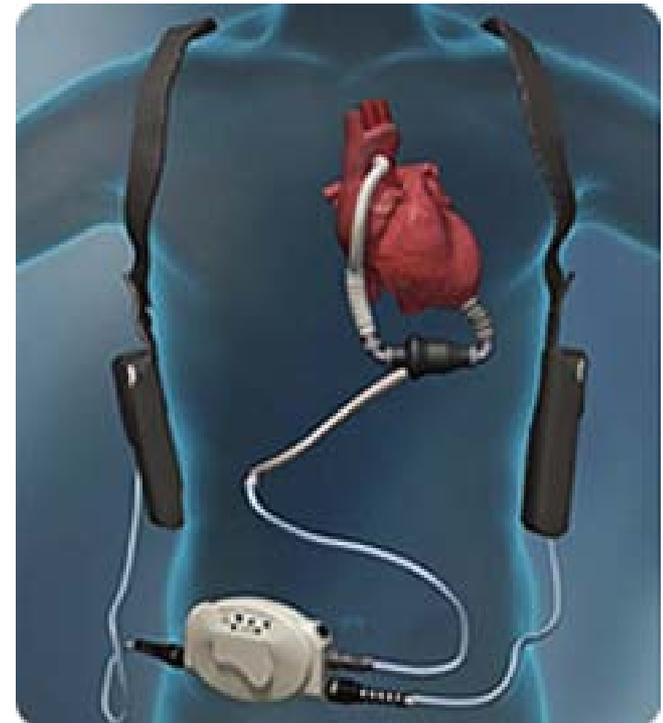
Patients With Refractory End-Stage Heart Failure (Stage D)



Consideration of an left ventricular assist device as permanent or “destination” therapy is reasonable in highly selected patients with refractory end-stage HF and an estimated 1-year mortality over 50% with medical therapy.

LVADs?

- REMATCH: Destination Rx, LVAD vs Medical RX
 - 1 year survival: 52% vs. 25% (medical rx)
 - 2 year survival: 25% vs. 8% (medical rx)
- Heartmate II vs Heartmate XVE
 - Mortality at 2 years: 33% vs 27%
 - Stroke at 2 years: 11% vs 12%



Palliative Therapy?

- Palliative therapy needs to be a viable tool for HF patients
- Discuss it early
- Pay attention to this as health care reform moves forward

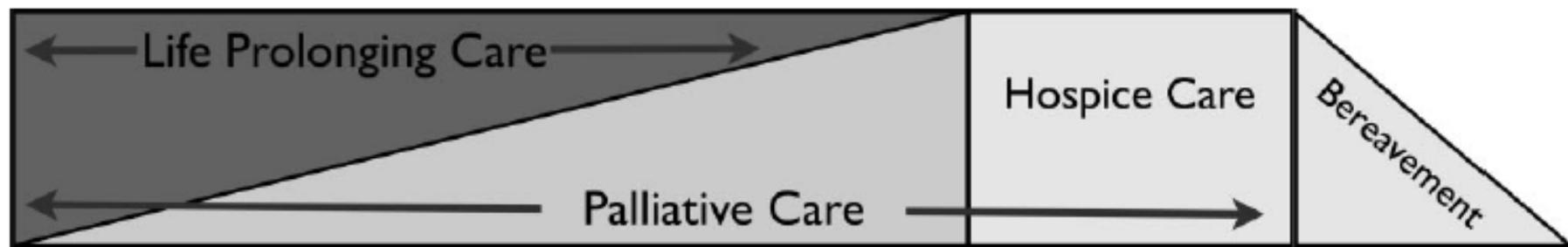


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Questions?