After the Standard Drugs are Started: What Does a Heart Failure Physician Do that An Electrophysiologist Doesn’t, Can’t or Won’t?

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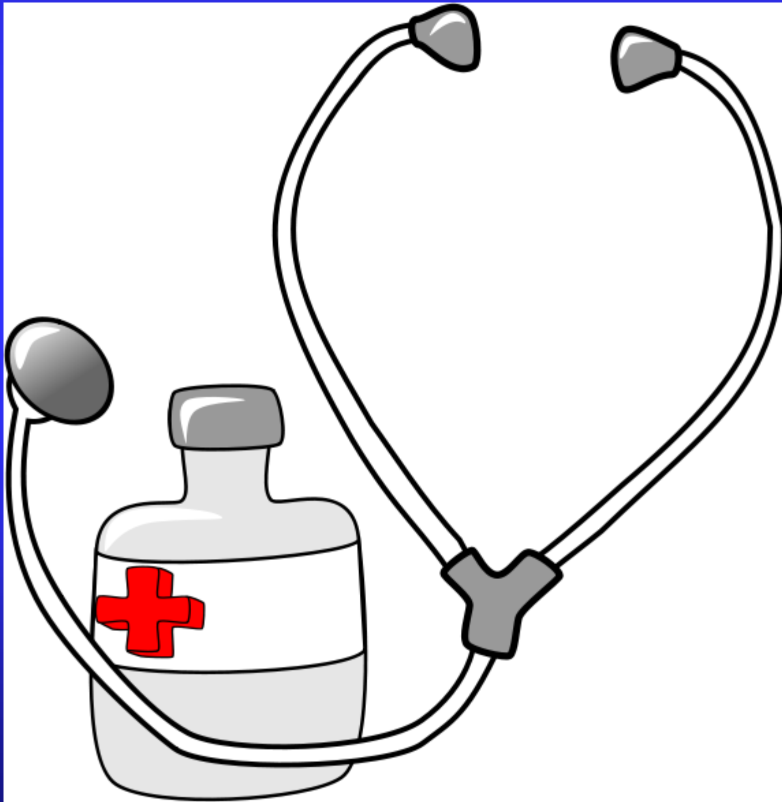
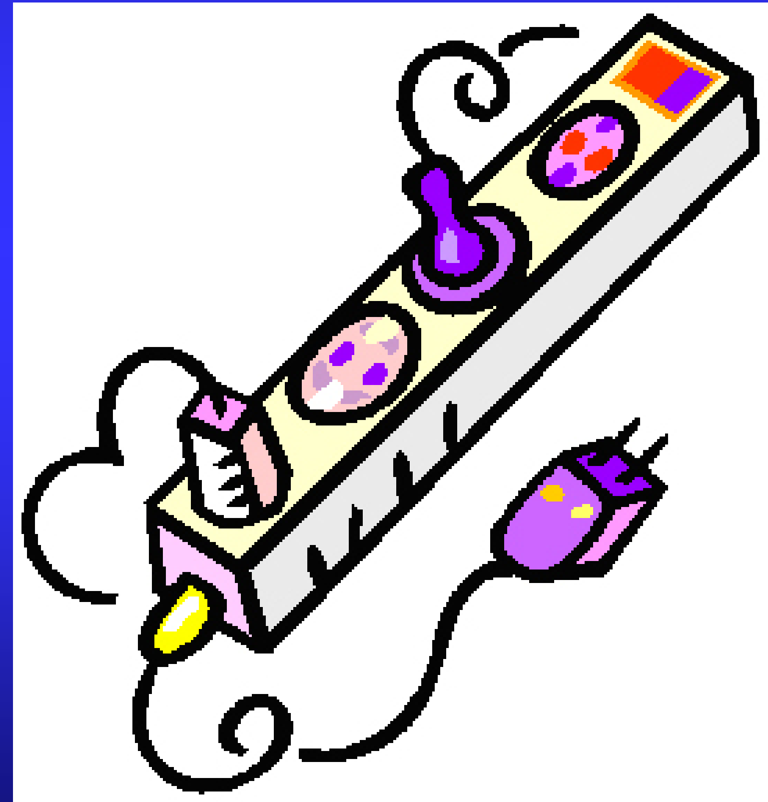
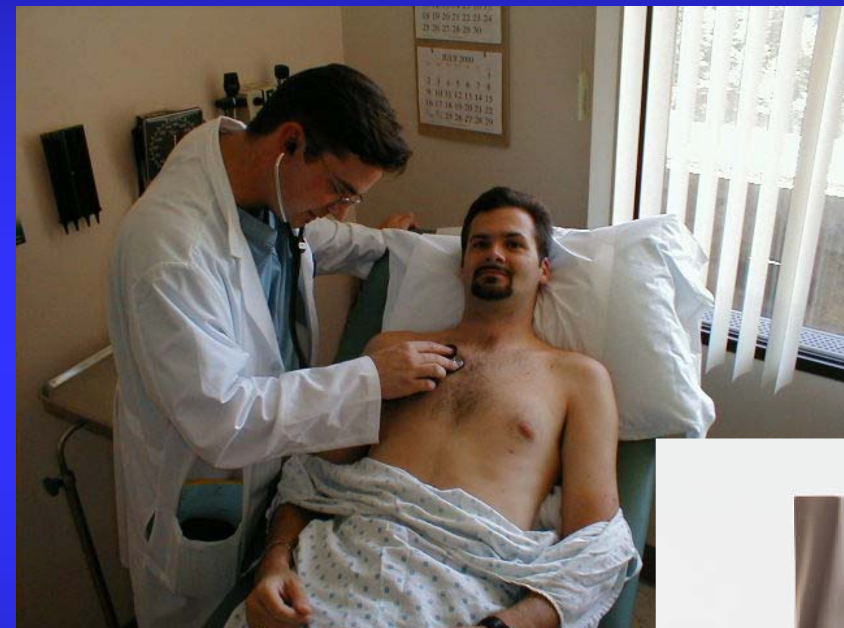
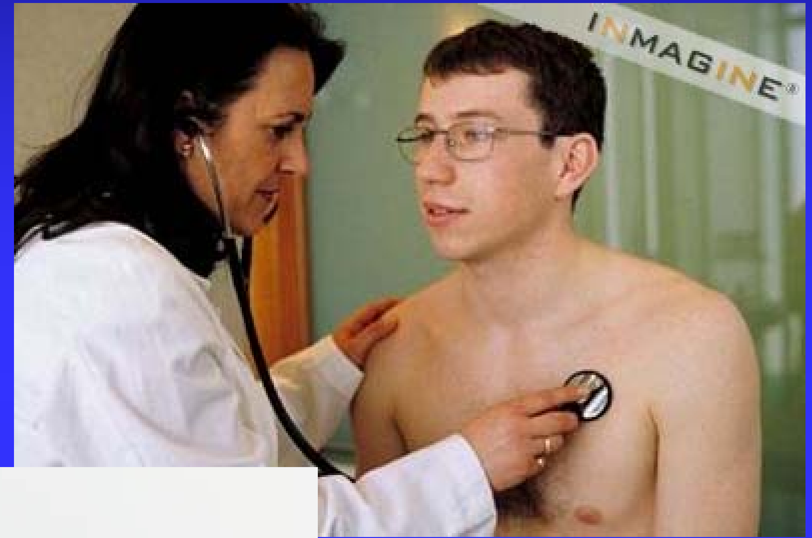
HF vs EP





Heart Failure Physicians Hard at Work





An Electrophysiologist at work

Therapies That Reduce Mortality in Heart Failure

ACEI or ARB

Beta-blocker

Aldosterone Antagonist

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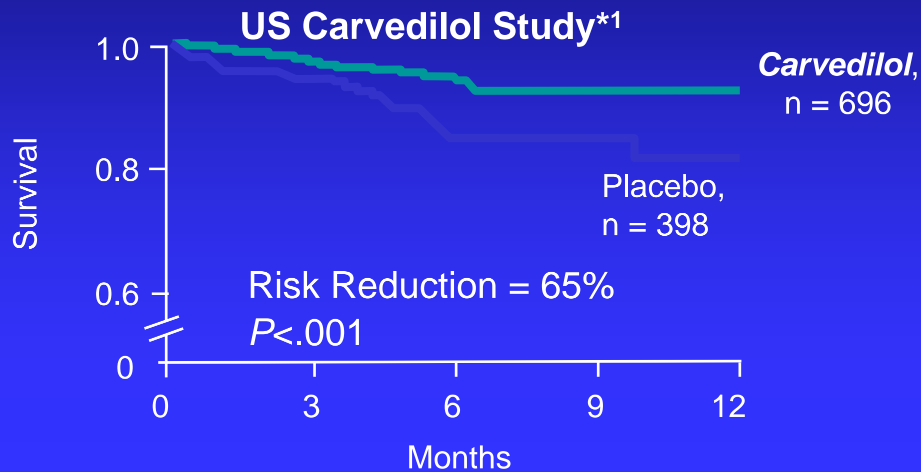
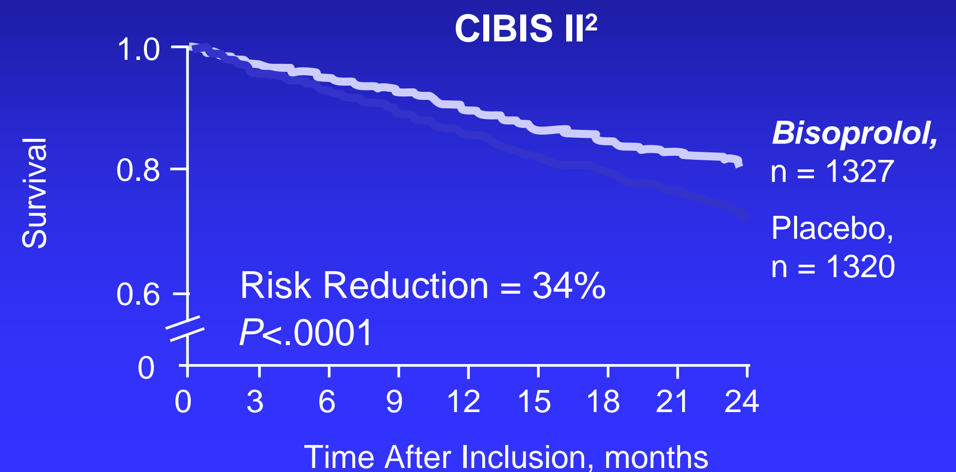
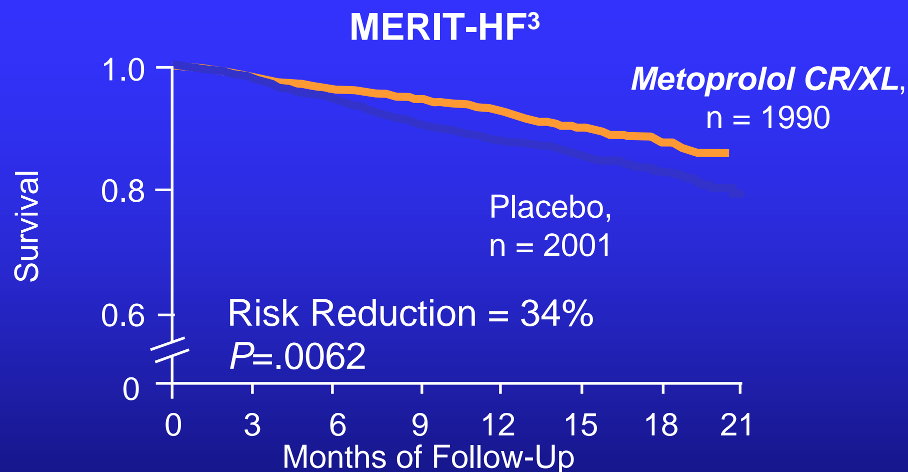
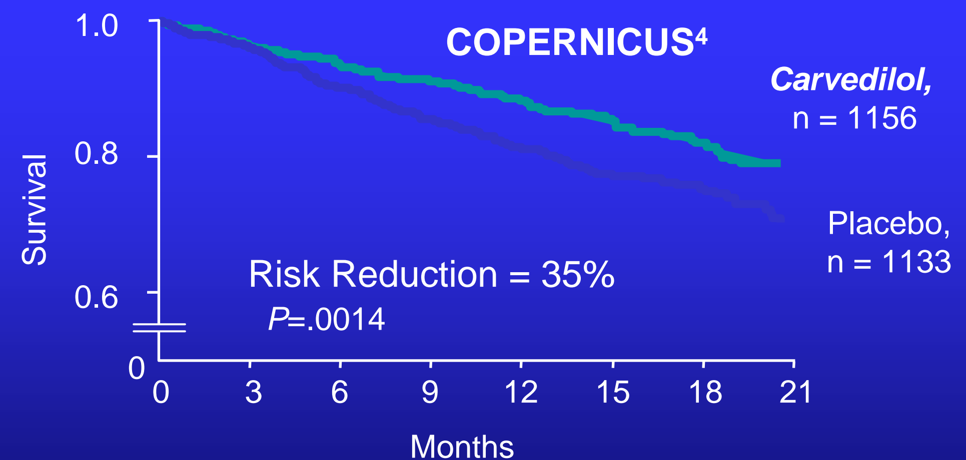
- We titrate beta blocker doses higher

Beta Blockers Save Lives



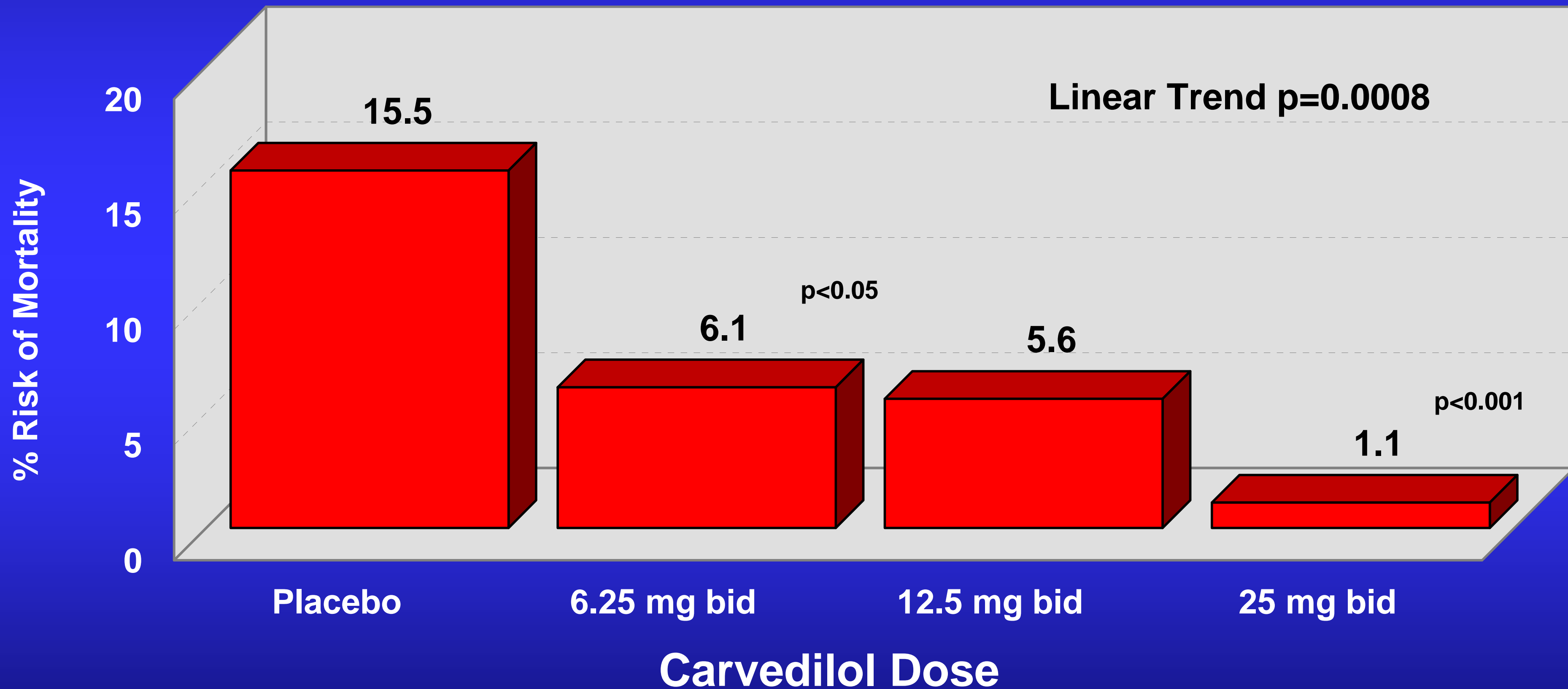






[1]Packer M, et al. *N Engl J Med.* 1996;334:1349-1355.
[2]CIBIS II Investigators and Committees. *Lancet.* 1999;353:9-13.
[3]MERIT-HF Study Group. *Lancet.* 1999;353:2001-2007.

Effect of Carvedilol Dose on Mortality in Patients with Heart Failure



Dose Response of Carvedilol in moderate heart failure patients on all cause mortality
Bristow Circulation 1996;94:2807

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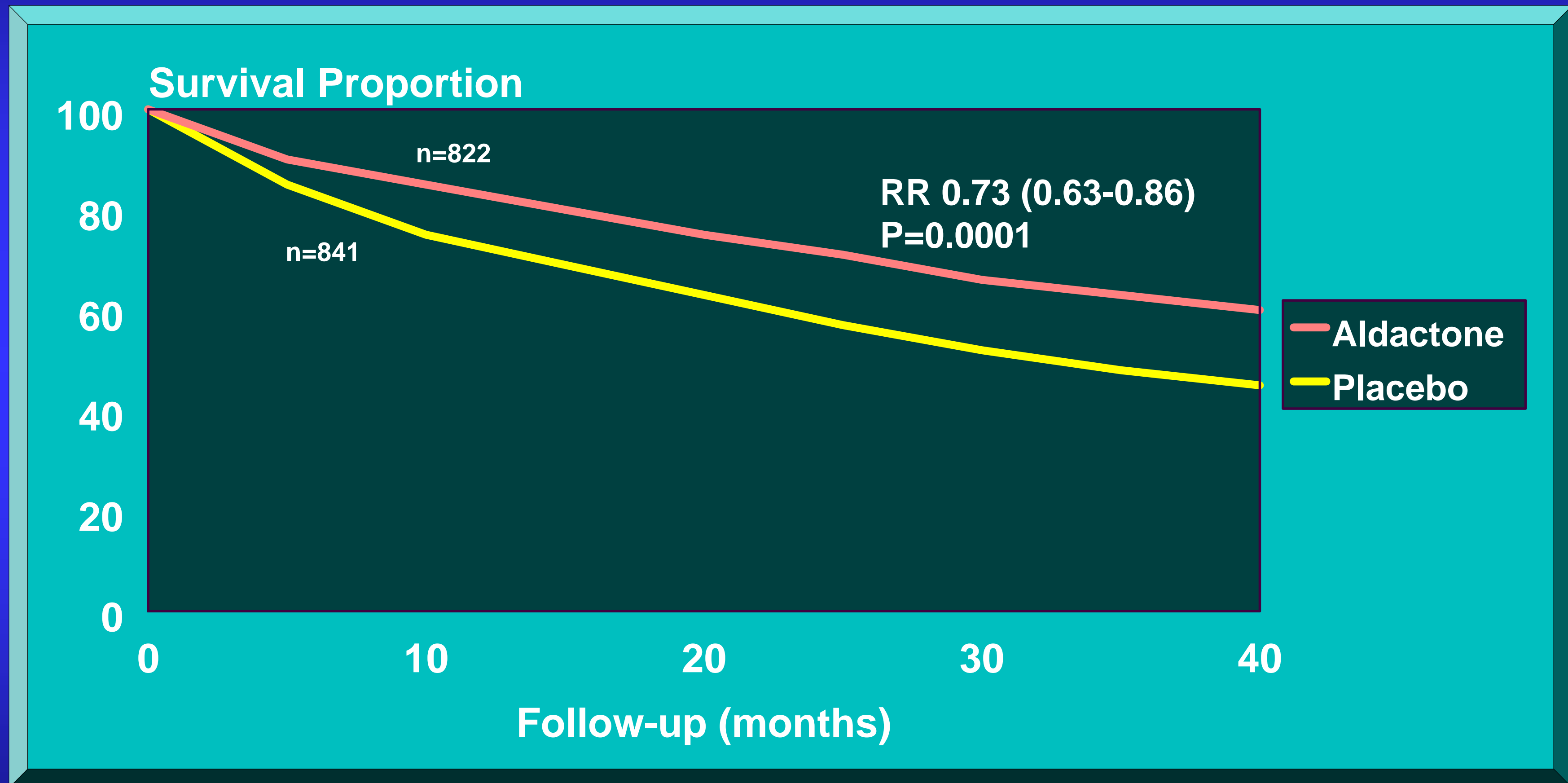
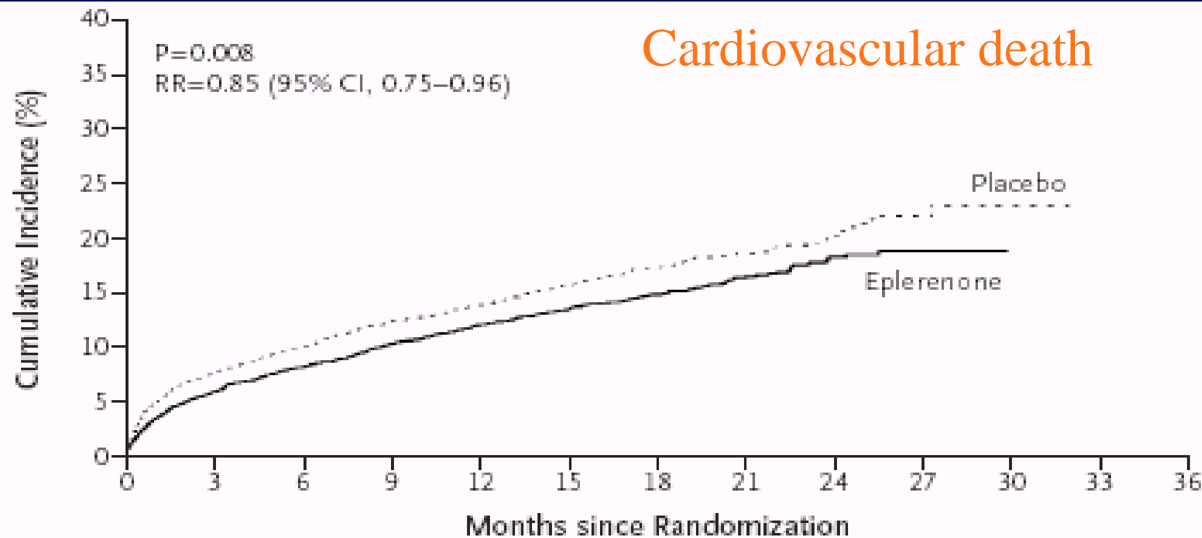
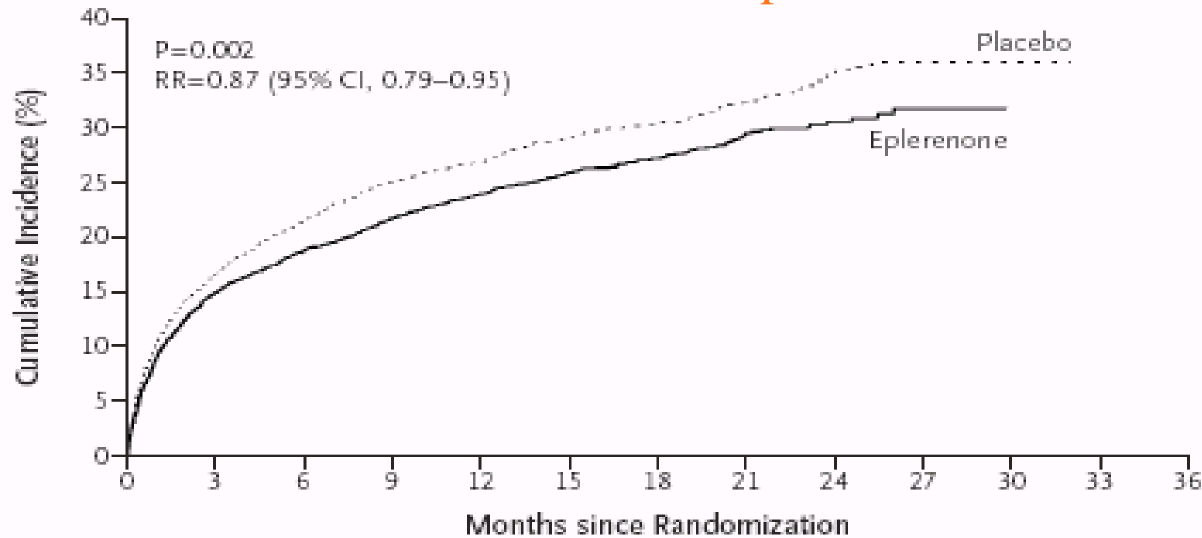
Aldosterone Blockade in Heart Failure

RALES: Randomized Aldactone Evaluation Study



1663 pts NYHA III and IV, ave age 65 and LVEF 0.25, on ACEI and loop diuretic
Randomized to Aldactone 25 mg PO qd vs Placebo
Pitt NEJM 1999;341:709-17





Eplerenone, a selective aldosterone blocker.

EPHESUS

Pitt et al. *NEJM* 2003;348;1309

IMPROVE-HF Registry: Changes in 7 Quality Measures over 24 months

Quality measure	Baseline (%)	24 mo (%)	Relative improvement (%)
ACE inhibitors or ARBs	79.7	84.4	8.3
Beta blockers	86.0	93.6	8.7
Aldosterone-receptor antagonists	34.7	59.9	72.9
Anticoagulation in patients with AF	68.4	68.6	0.3[b]
ICDs	38.7	67.6	74.7
CRT	50.0	78.0	55.8
Provision of heart-failure education	61.9	69.7	12.6

Yancy CW. Heart Failure Society of America 2009 Scientific Meeting; September 14, 2009; Boston, MA.

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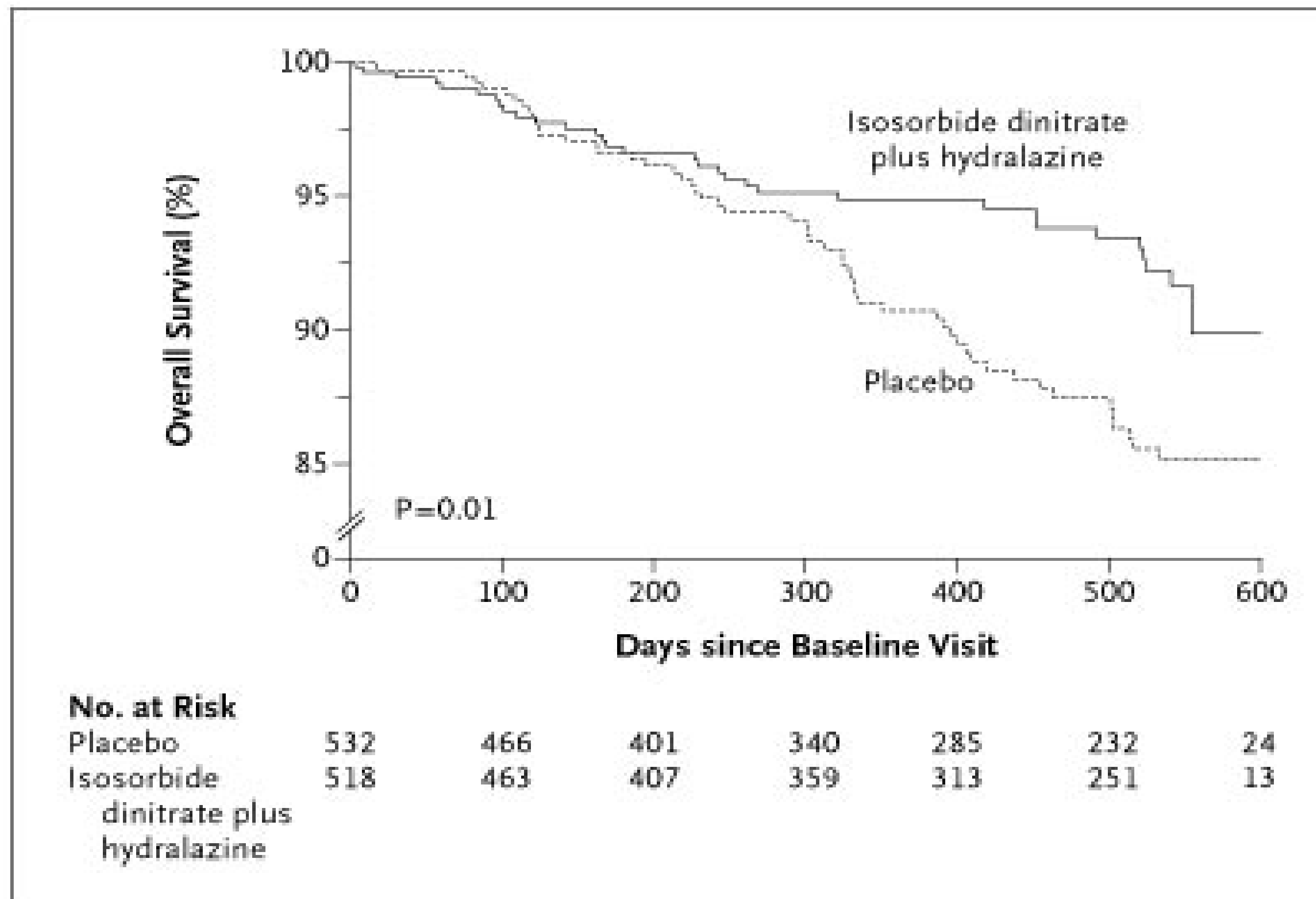
A HeFT

Kaplan-Meier Estimates of Overall Survival



Taylor, A. L. et al. N Engl J Med 2004;351:2049-2057

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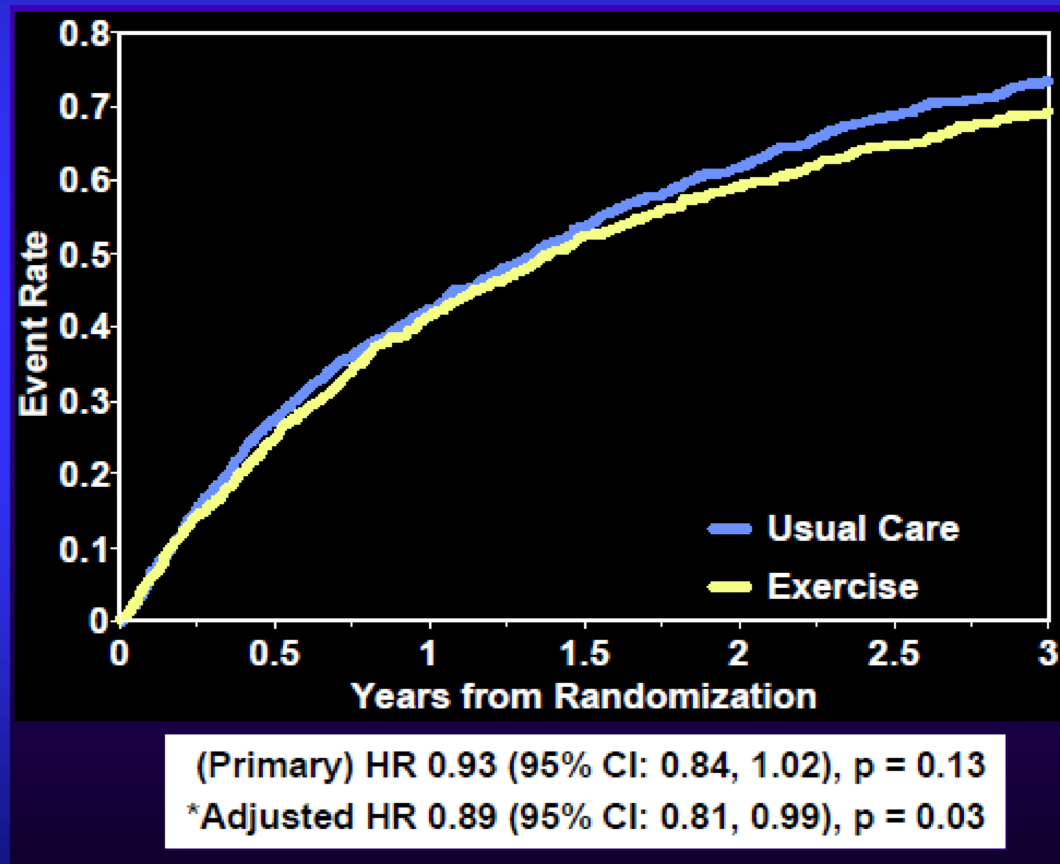
- We recommend that patients exercise

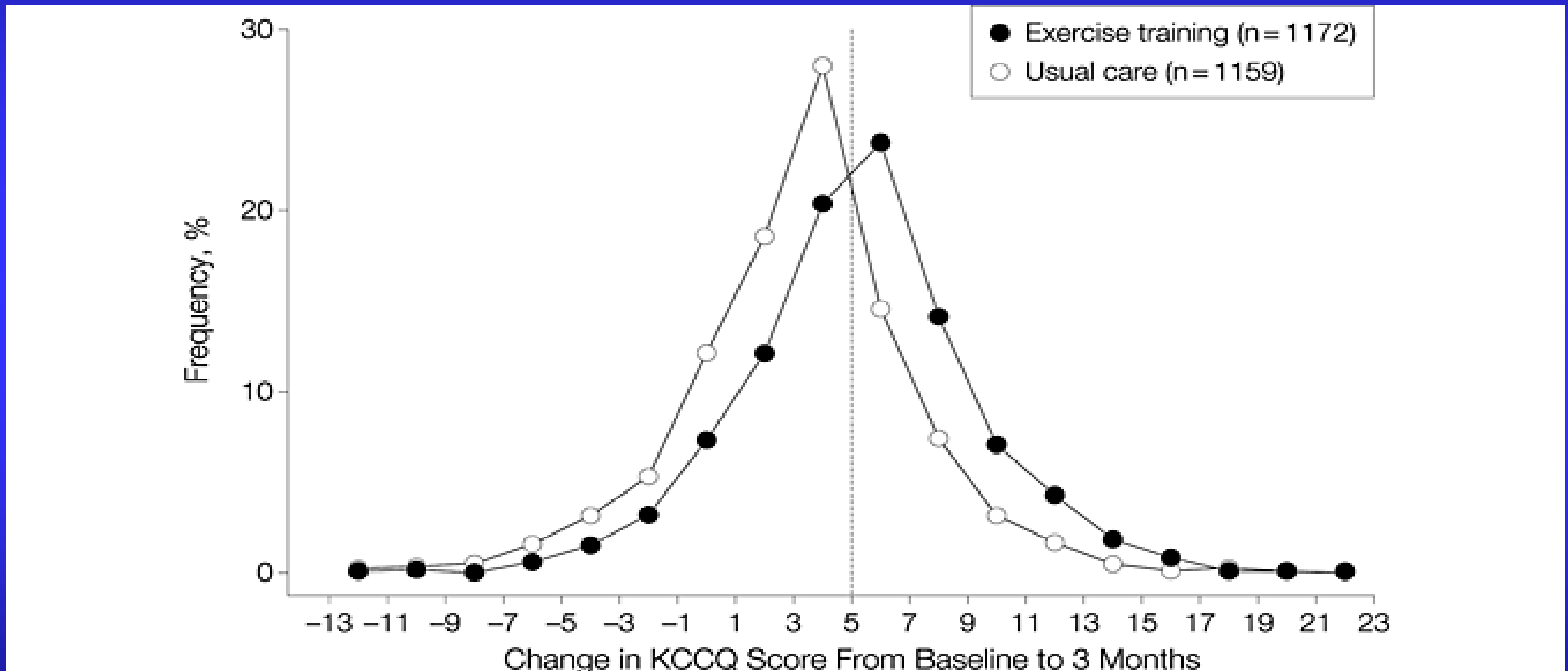
HF- ACTION: Time to All-Cause Mortality or All-Cause Hospitalization



O'Connor, C. M. et al. JAMA 2009;301:1439-1450

HF-ACTION:

Distribution of Predicted Change From Baseline to 3 Months in the KCCQ Overall Summary Score by Treatment Group



Flynn, K. E. et al. JAMA 2009;301:1451-1459.

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- We discuss, and rediscuss, sodium restriction and the need for self monitoring

Section 6: Nonpharmacologic Management and Health Care Maintenance in Patients With Chronic Heart Failure

Diet and Nutrition

- 6.1 **Dietary instruction regarding sodium** intake is recommended in all patients with HF. Patients with HF and diabetes, dyslipidemia, or severe obesity should be given specific dietary instructions.

- 6.2 **Dietary sodium restriction** (2–3 g daily) is recommended for patients with the clinical syndrome of HF and preserved or depressed LVEF.

Sodium facts

Nutrition Facts

Serving Size 5 oz
Servings Per Container 4

Amount Per Serving

Calories 90 Calories from Fat 30

	% Daily Value*
Total Fat 3g	5%
Saturated Fat 0g	0%
Cholesterol 0mg	0%
Sodium 440mg	19%
Total Carbohydrate 13g	4%
Dietary Fiber 3g	4%
Sugars 3g	
Protein 3g	

Vitamin A	80%	Vitamin C	60%
Calcium	4%	Iron	4%

* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or depending on your calorie needs:

Foods with 120–175 mg of sodium per serving

Bread (some types, 1 slice)	Olives (ripe, 5)
Chocolate covered peanut butter cups (2)	Sardines (1 large)
English muffin (1/2)	Peanut butter (regular, 2 tbsp.)
Ketchup and steak sauce (1 tsp.)	

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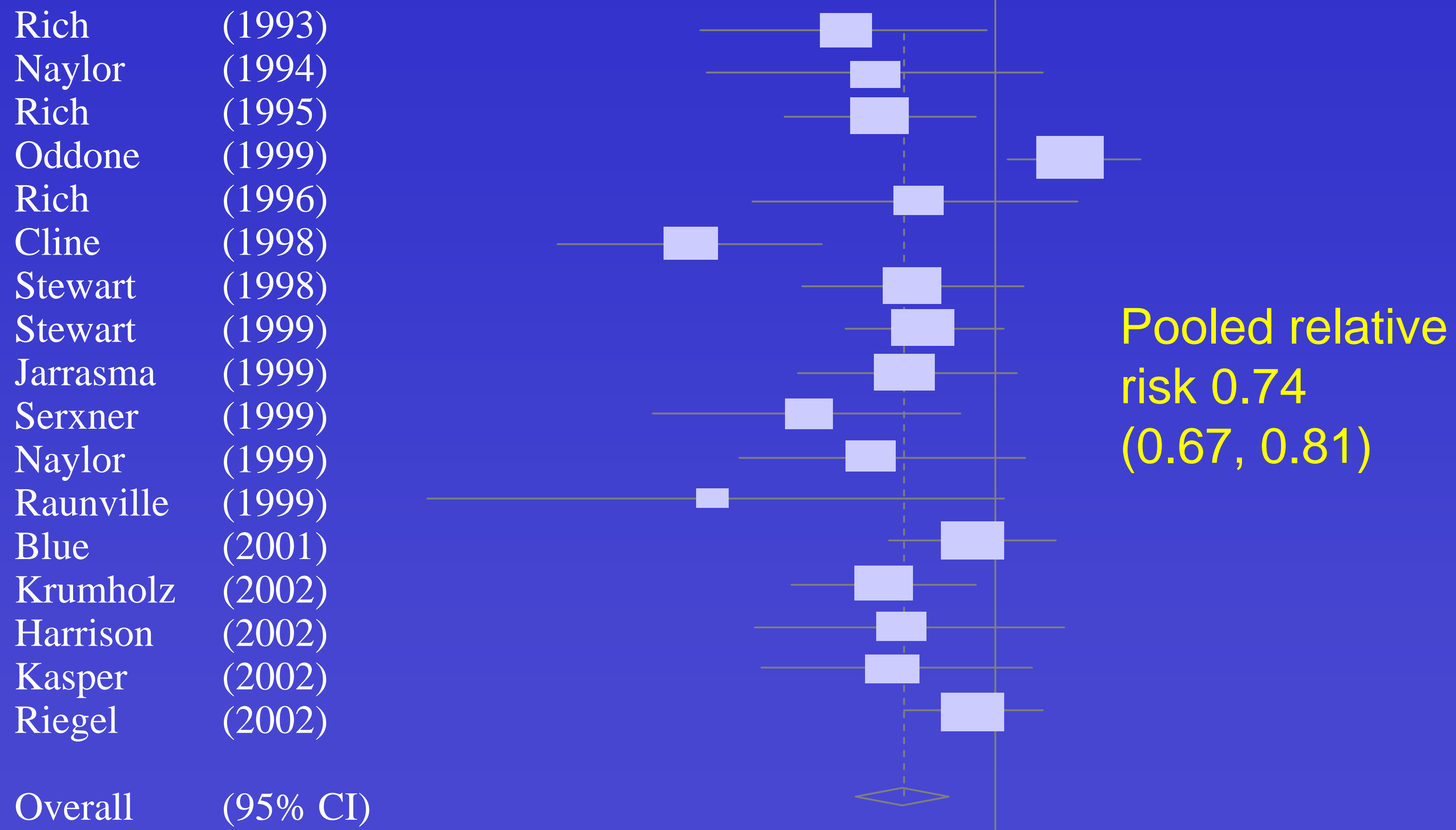
- We really and truly believe in multidisciplinary care

In the Absence of Disease Management:

- Care is focused on acute illnesses and stop-gap measures
- Care is driven by symptoms and lab results
- Care is physician-directed and thus dependent on time and memory
- The patient's role in his/her care is under-emphasized, under-valued and under-utilized

Meta-analysis of CHF Disease Management Programs



Phillips CO, et al. *JAMA*. 2004;291(11):1358-1367.

Section 8: Disease Management in Heart Failure

Education and Counseling

- 8.1 It is recommended that patients with HF and their family members or caregivers receive individualized education and counseling that emphasizes self-care. This education and counseling should be delivered by providers using a team approach in which nurses with expertise in HF management provide the majority of education and counseling, supplemented by physician input and, when available and needed, input from dietitians, pharmacists, and other health care providers.

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- We take the long view and refer for cardiac transplantation evaluation earlier

AGE DISTRIBUTION OF HEART TRANSPLANT RECIPIENTS BY ERA

ISHLT

2008

J Heart Lung Transplant 2008;27: 937-983

Last updated based on data as of December 2006

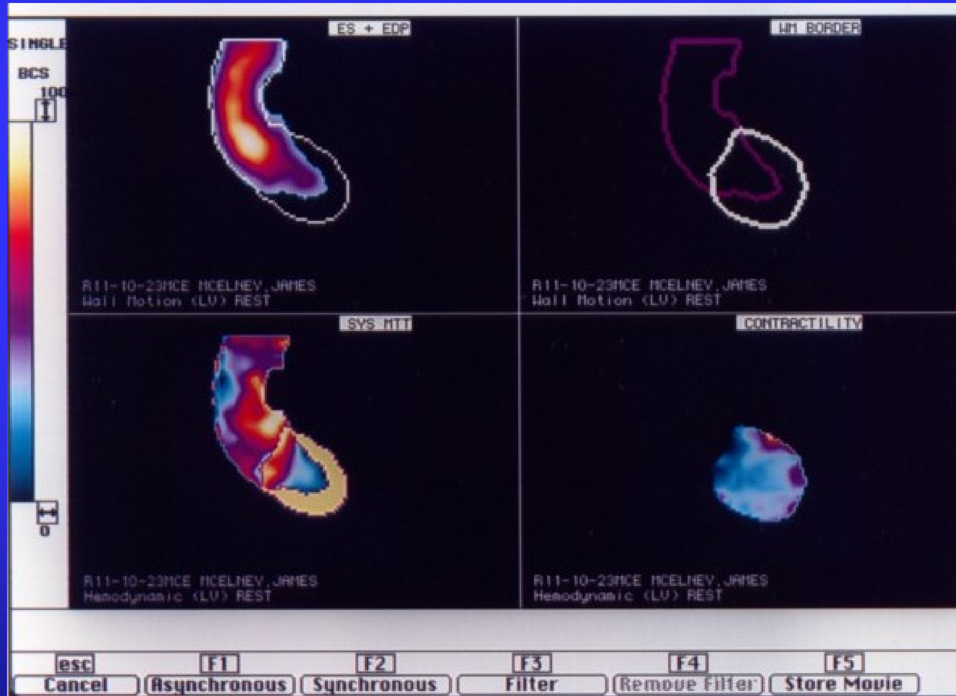
Medical Indications for Heart Transplantation

- Severe heart disease despite adequate medical therapy
  - Unacceptable quality of life due to disabling symptoms of congestive heart failure
  - Unacceptable risk of cardiac death despite limited symptoms of CHF
  - No other reasonable surgical options
- General eligibility – absence of any non-cardiac conditions that would limit life expectancy

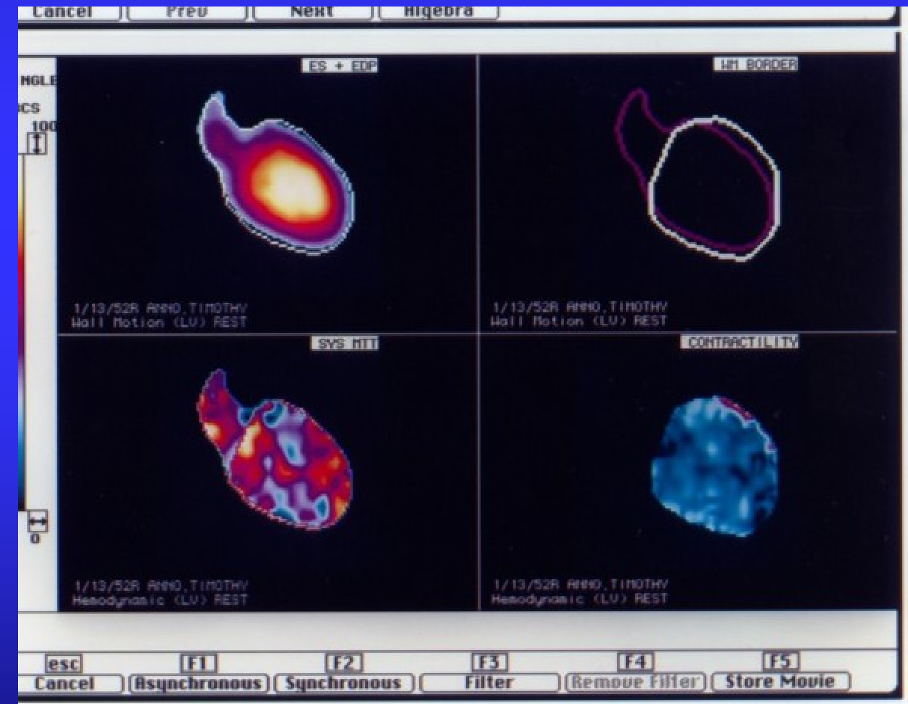
Mehra et al. *J Heart Lung Transplant.* 2006;25:1024-42.

Radionuclide Ventriculograms

LVEF 55%



LVEF 6%



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We view the EP doctors as low hanging fruit: you are our best source of referral!

Every patient with Heart Failure who is seeing an Electrophysiologist would benefit from multidisciplinary care.