

13th Annual
Cardiovascular Medicine in the
Cascades

Heart Institute of the Cascades

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DISCLOSURE STATEMENT:

**I have no conflicts of interest to
disclose.**

Tricks of the Trade in CHF

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Random “tricks” which I find important/helpful in everyday life...

#1 When CHF decompensates, try to figure out the reason for the decompensation

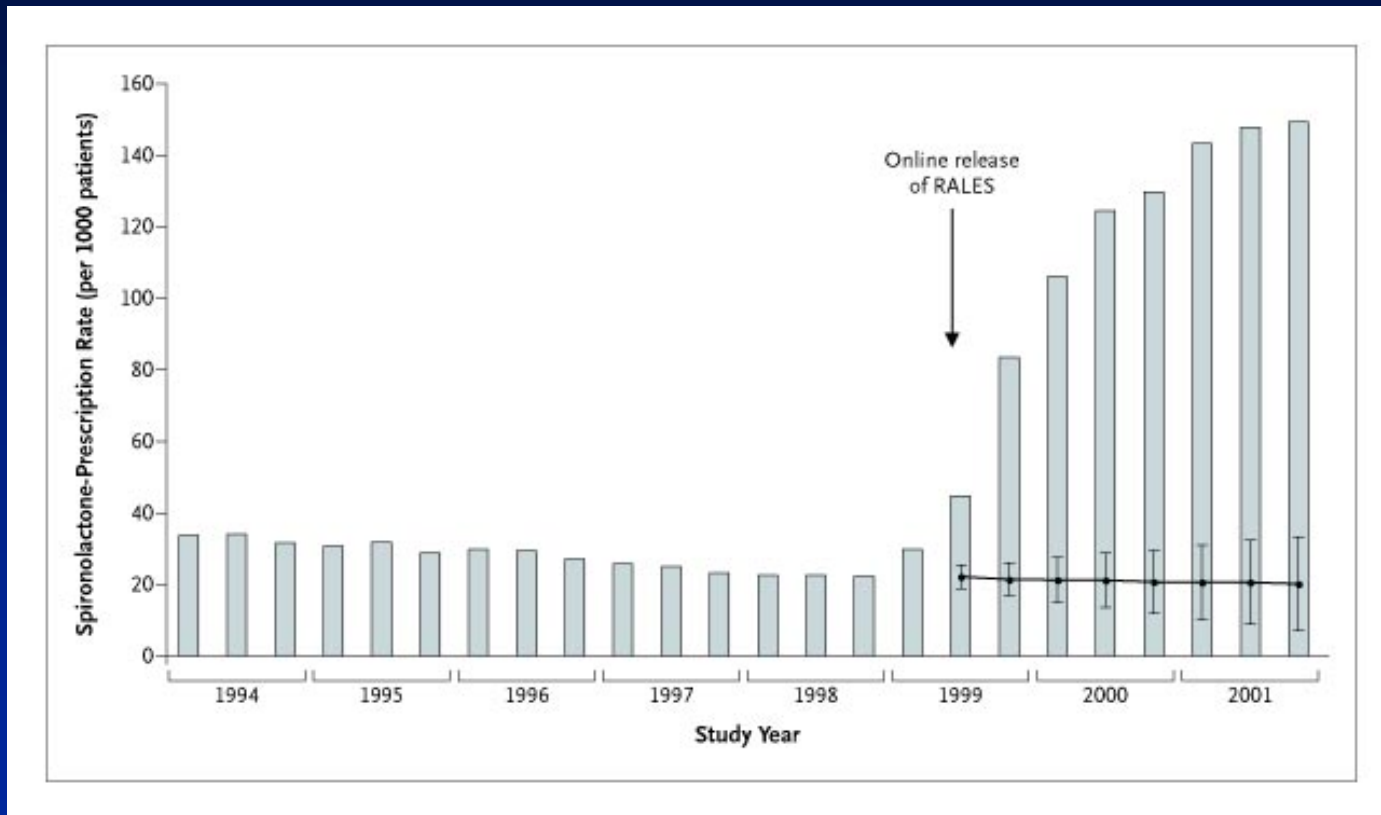
- Compliance? (Meds, diet)
- Intercurrent ischemic event?
- Arrhythmia?
- Natural history?
- Toxins – EtOH, NSAID’s?

#2 Be really, really careful using
aldosterone antagonists!

**Yes, they're approved and
recommended in the Guidelines**

But...

Rate of Prescriptions for Spironolactone among Patients Recently Hospitalized for Heart Failure Who Were Receiving ACE Inhibitors

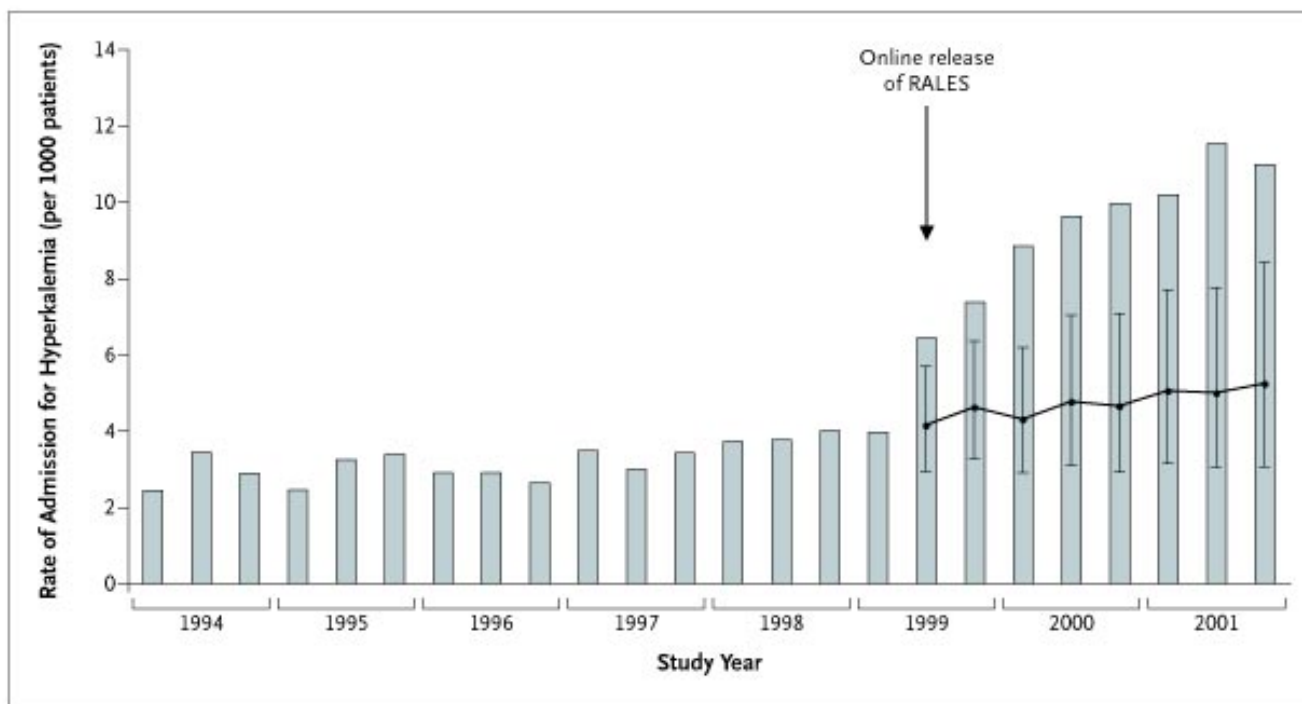


Juurlink, D. N. et al. N Engl J Med 2004;351:543-551



The NEW ENGLAND
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Rate of Hospital Admission for Hyperkalemia among Patients Recently Hospitalized for Heart Failure Who Were Receiving ACE Inhibitors

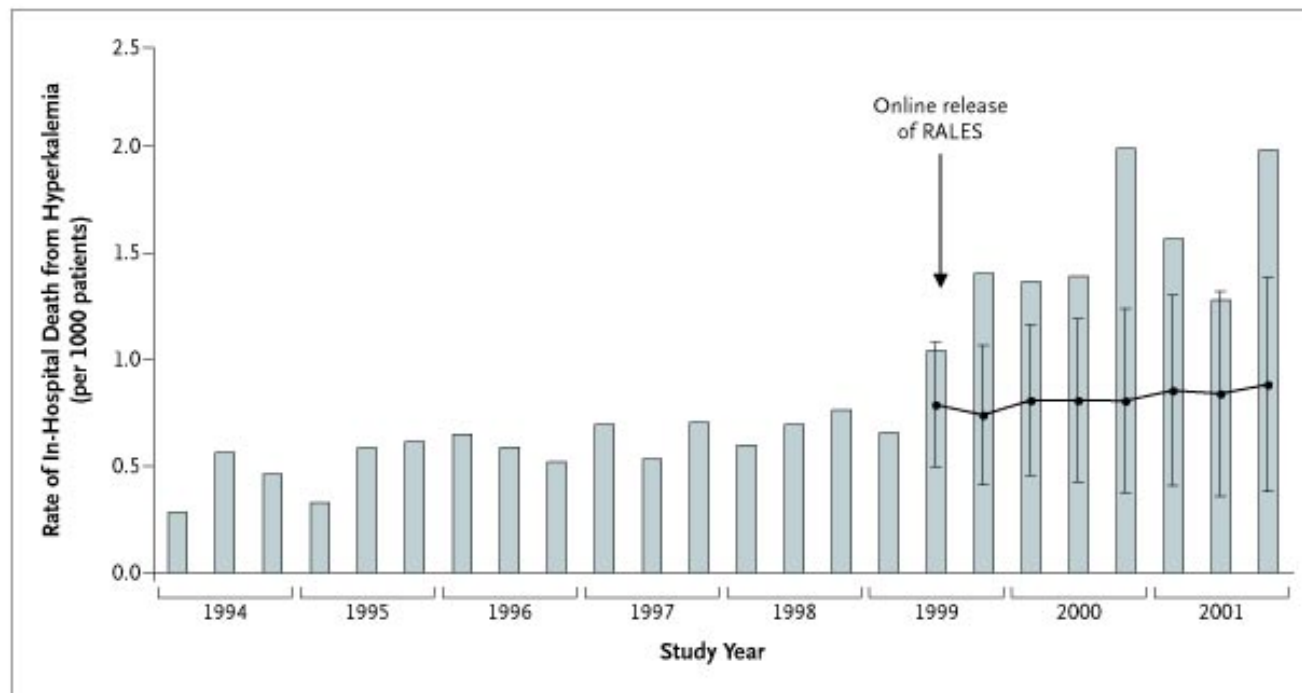


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Rate of In-Hospital Death Associated with Hyperkalemia among Patients Recently Hospitalized for Heart Failure Who Were Receiving ACE Inhibitors

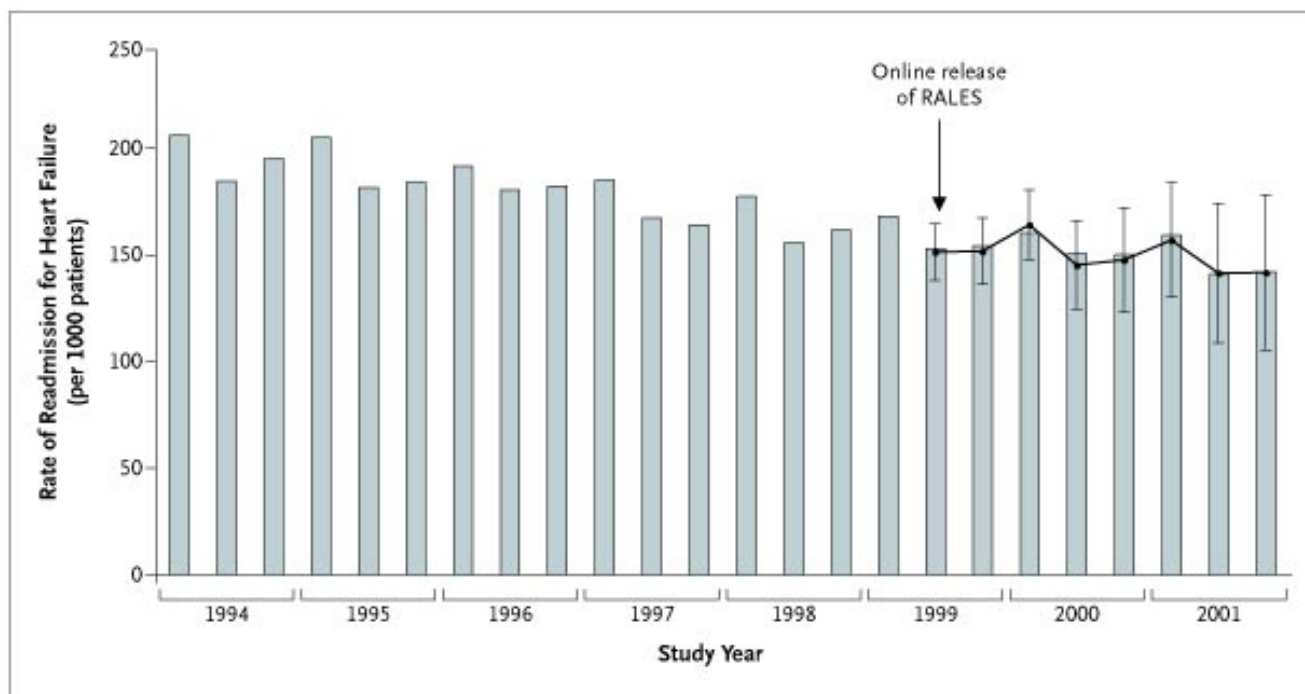


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Rate of Readmission for Heart Failure among Patients Recently Hospitalized for Heart Failure Who Were Receiving ACE Inhibitors



Juurlink, D. N. et al. N Engl J Med 2004;351:543-551



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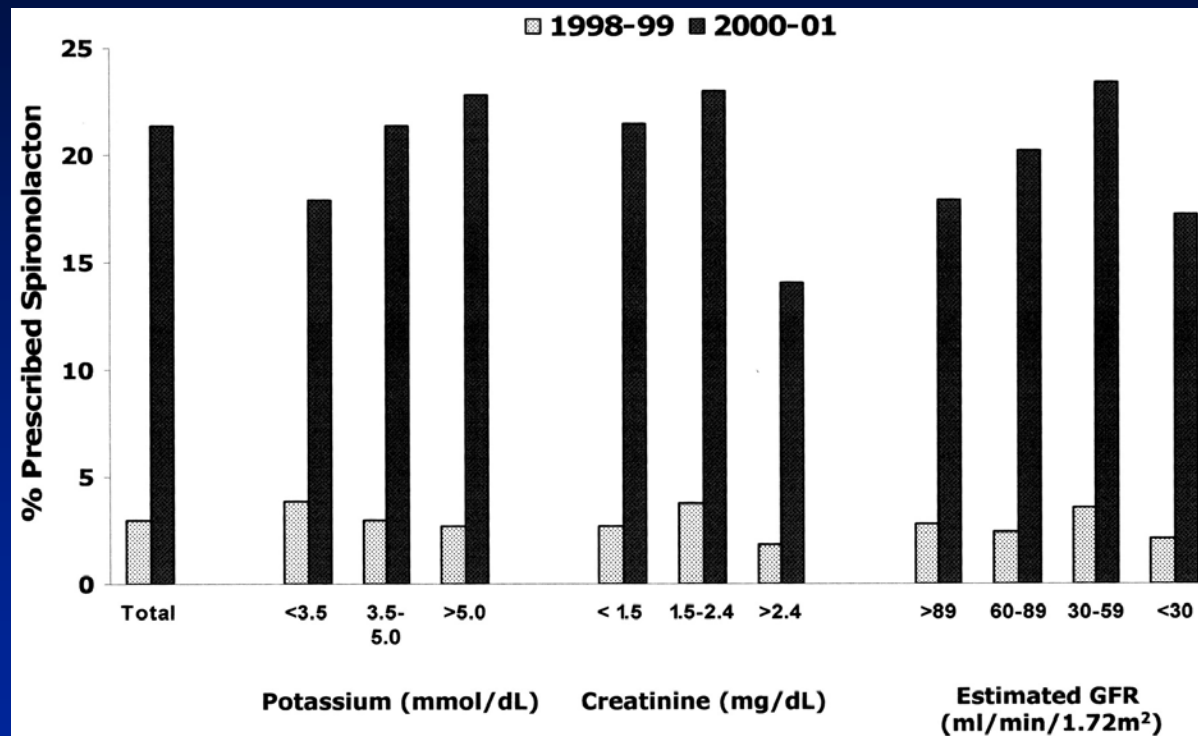
Several other studies*...

Demonstrated truly alarming lack of recommended followup of serum potassium and renal function after initiation of aldo antagonists in US healthcare systems.

Shah et al JACC 2005;46:845-9

Masoudi et al 2005;112:39-47

Changes in proportions of patients receiving prescription for spironolactone (after RALES) in all patients and patients stratified by serum potassium, creatinine, and estimated GFR



Masoudi, F. A. et al. *Circulation* 2005;112:39-47

Circulation



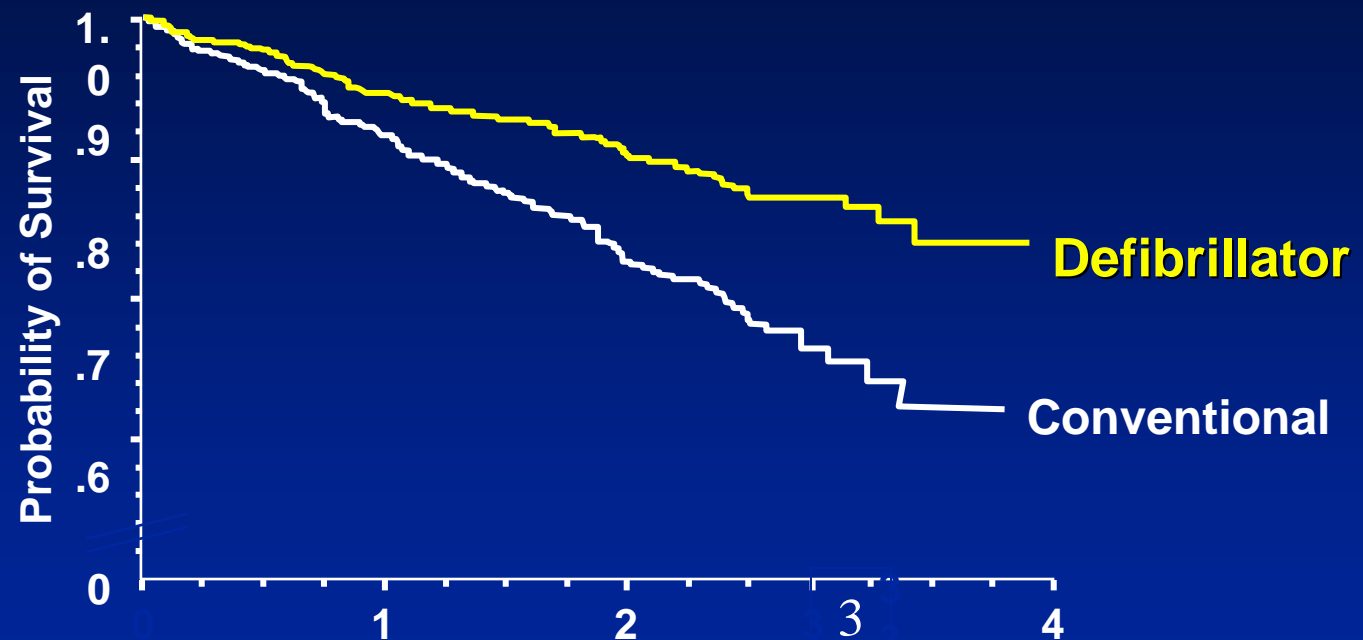
#3 Try to reserve ICD therapy for those with reasonable prognosis for one year survival who want to live on.

RATIONALE:

**ICD's are very expensive
They do nothing to alleviate the suffering
from heart failure Sx
Sudden death isn't a bad way to die
Survival curves don't diverge until
after one year**

The evidence base for the efficacy of ICD's is good...

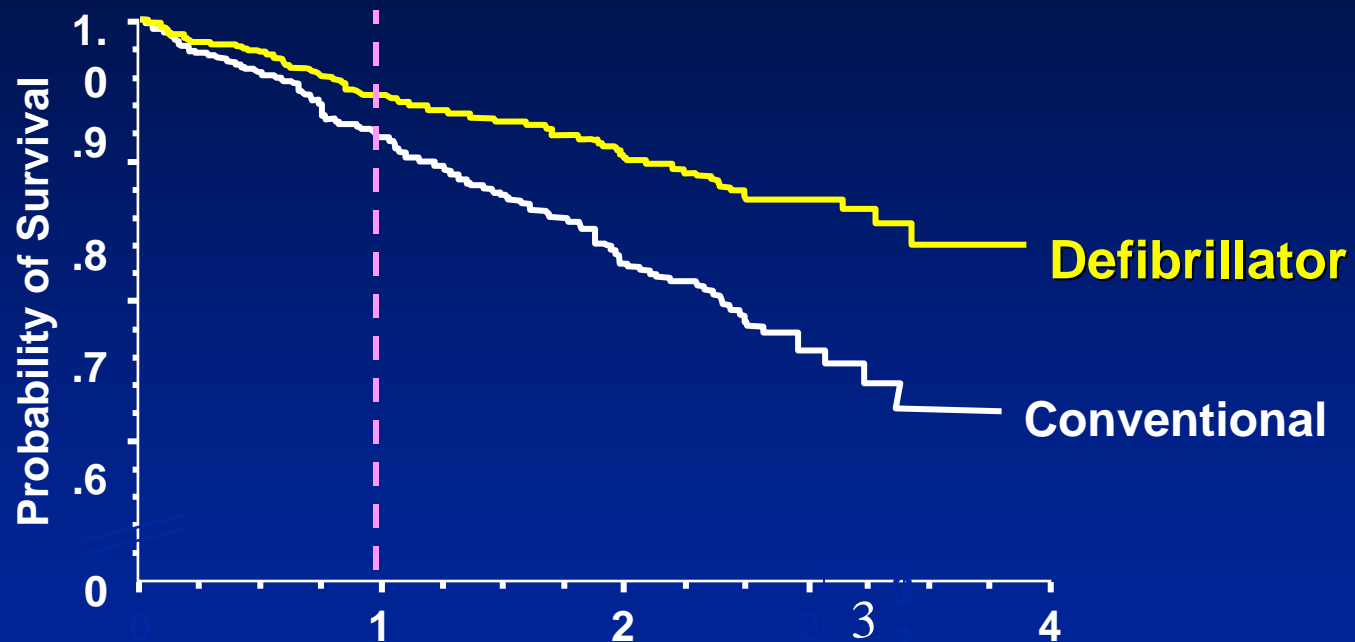
MADIT II: Effect of Prophylactic ICD in Ischemic LVD (LVEF $\leq 30\%$)



| Number at Risk | 0 | 1 | 2 | 3 | 4 |
|----------------|-----|-----------|-----------|-----------|---|
| Defibrillator | 742 | 503 (.91) | 274 (.84) | 110 (.78) | 9 |
| Conventional | 490 | 329 (.90) | 170 (.78) | 65 (.69) | 3 |

Moss AJ, et al. *N Engl J Med.* 2002;346:877-883.

MADIT II: Effect of Prophylactic ICD in Ischemic LVD (LVEF $\leq 30\%$)

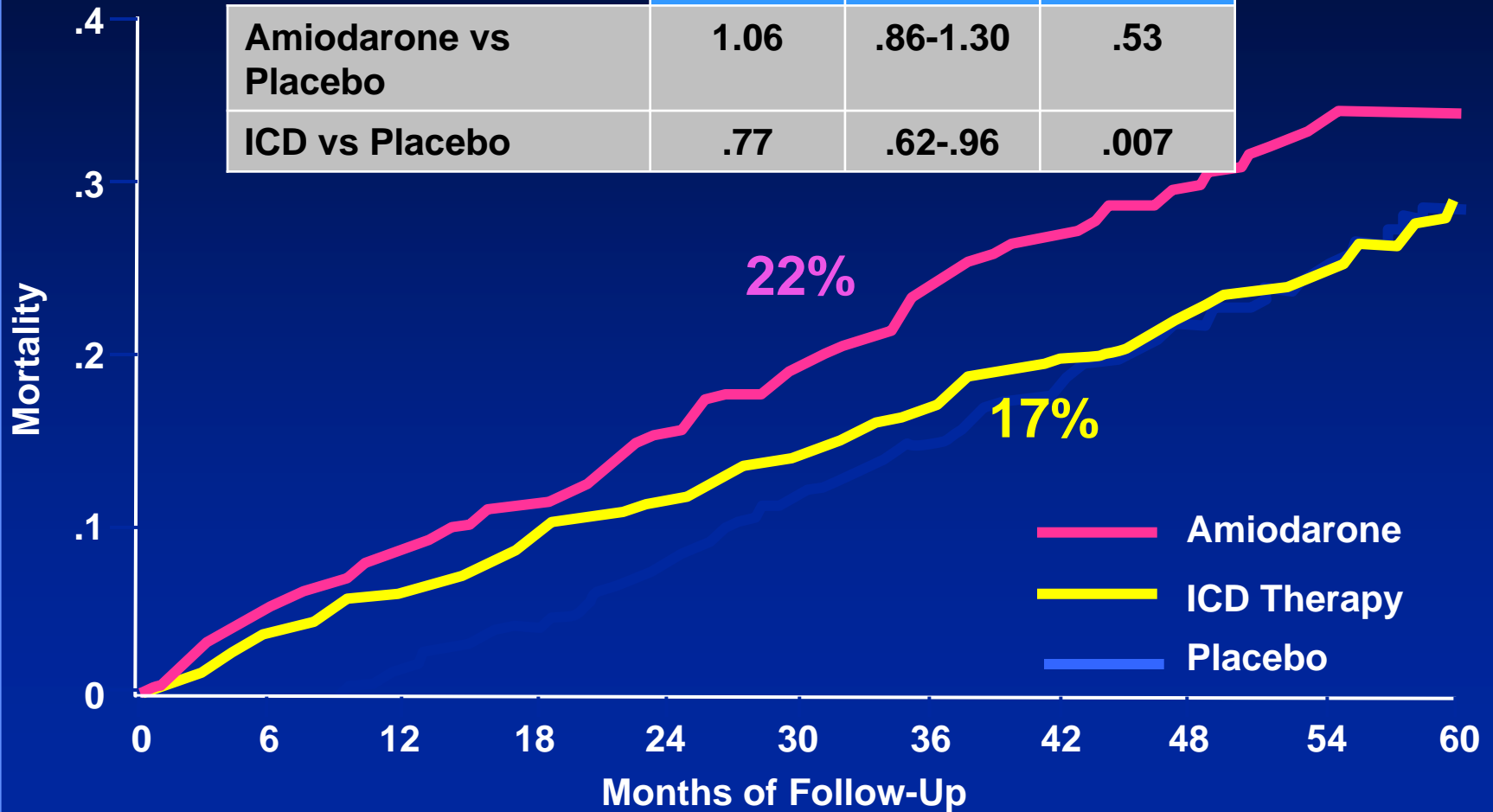


| | Number at Risk | 1 Year | 2 Years | 3 Years | 4 Years |
|---------------|----------------|-----------|-----------|-----------|---------|
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| Conventional | 490 | 329 (.90) | 170 (.78) | 65 (.69) | 3 |

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SCD-HeFT Trial: Mortality by Intention-to-Treat

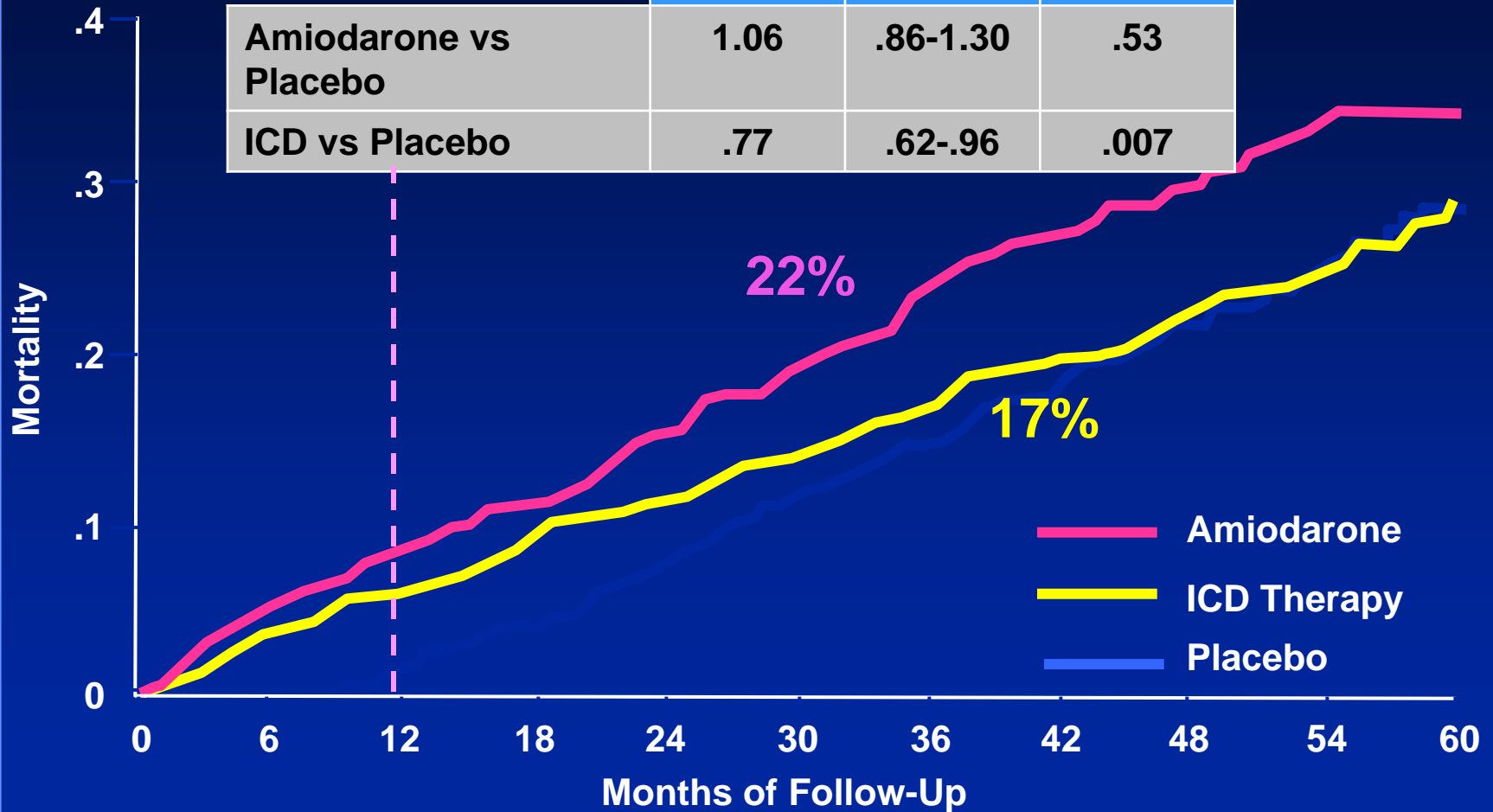
| | HR | 97.5% CI | P Value |
|-----------------------|------|----------|---------|
| Amiodarone vs Placebo | 1.06 | .86-1.30 | .53 |
| ICD vs Placebo | .77 | .62-.96 | .007 |



Bardy GH, et al. *N Engl J Med.* 2005;352:225-237.

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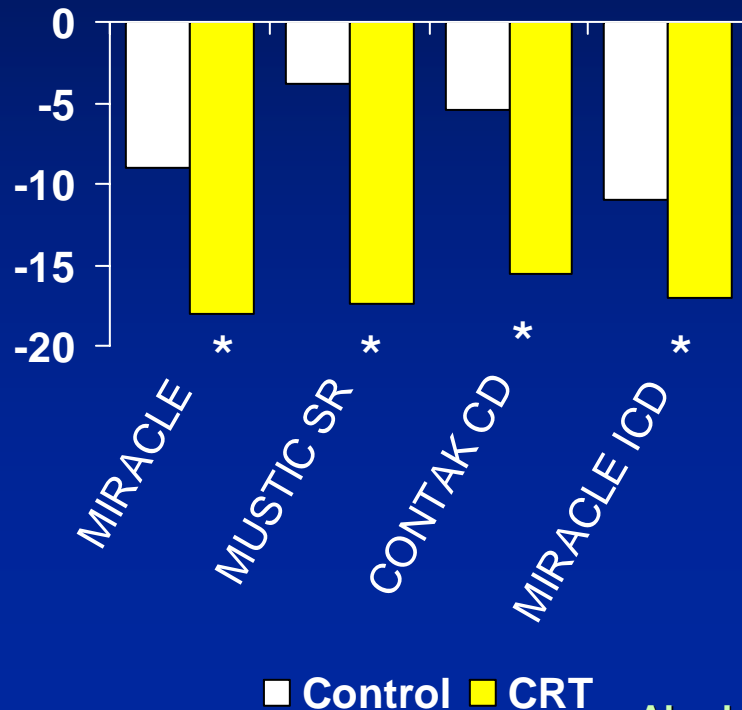
Bardy GH, et al. *N Engl J Med.* 2005;352:225-237.

#4 Consider CRT for improved QOL in appropriate patients who will live less than one year

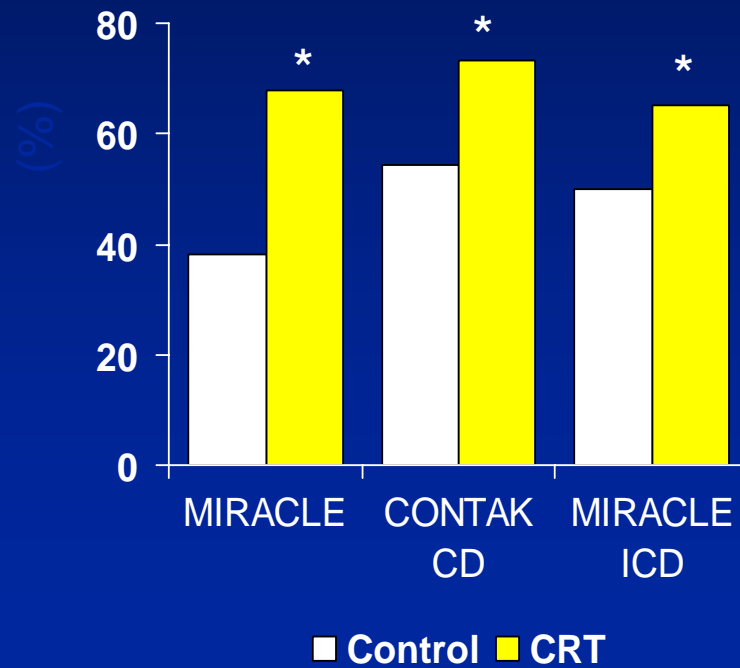
Again, the evidence base for the efficacy of CRT is solid.

CRT Improves Quality of Life and NYHA Functional Class

Average Change in Score (MLWHF)



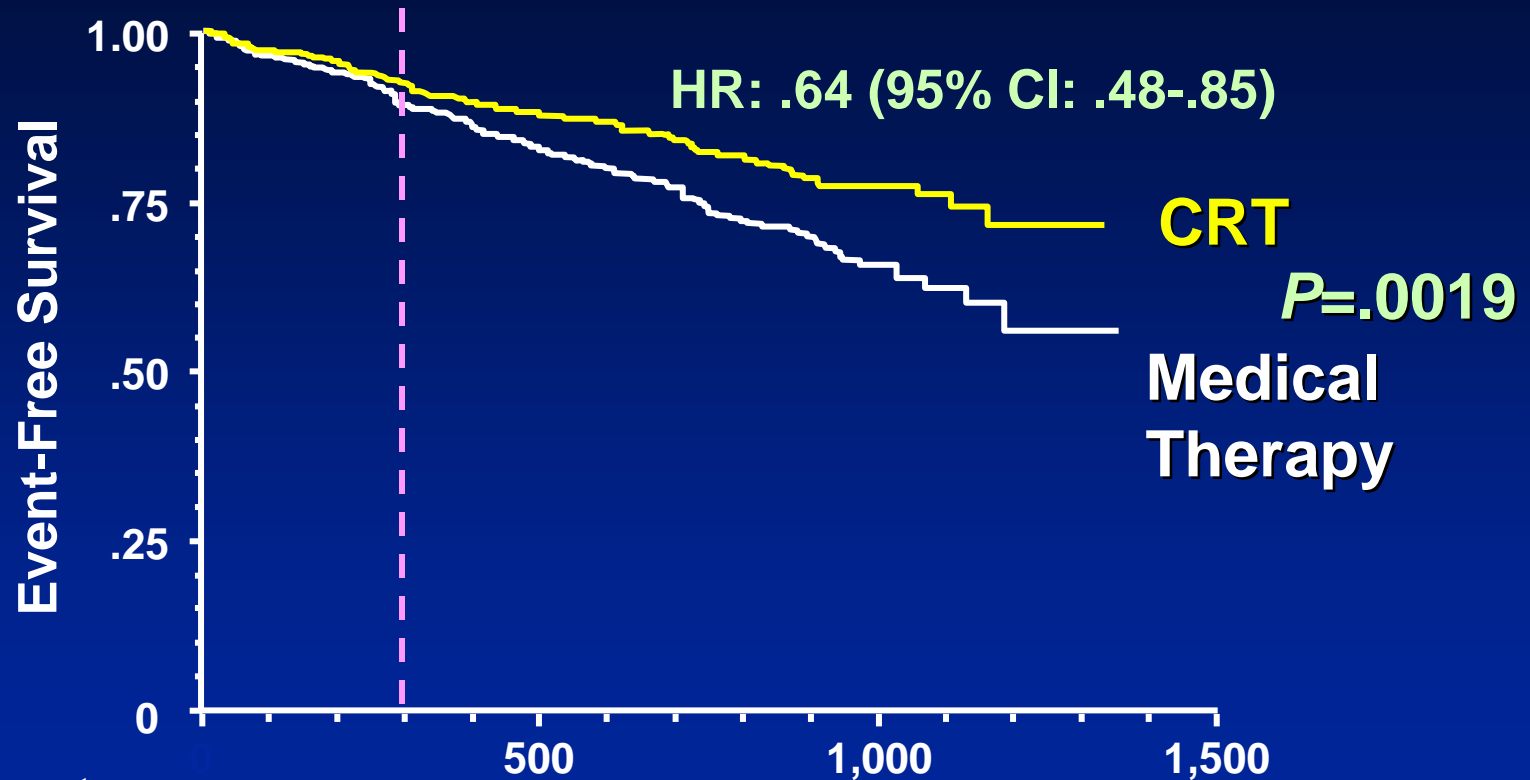
NYHA: Proportion Improving by 1 or More Class



Abraham et al. 2003.

**But...actual survival benefit
really seen only after one
year.**

CARE-HF: Effect of CRT Without an ICD on All-Cause Mortality



Number at

CRT

409

376

351

213

89

8

Medical

404

365

321

192

71

5

Therapy

Cleland JG, et al. *N Engl J Med.* 2005;352:1539-1549.