

ACC Symposium

September 28, 2011

Update for Primary Care Providers

Heart Failure: Evaluation and Management
in Patients with Reduced and Preserved
Ejection Fraction

Daniel J Levine, MD, FACC

Disclosures

- None

A Challenging task

- An apocryphal anecdote

Some facts

Incidence

- Data from the NHLBI-sponsored FHS7 indicate that:
 - HF incidence approaches 10 per 1000 population after 65 years of age.
 - Seventy-five percent of HF cases have antecedent hypertension.
 - At 40 years of age, the lifetime risk of developing HF for both men and women is 1 in 5. At 80 years of age, remaining lifetime risk for development of new HF remains at 20% for men and women, even in the face of a much shorter life expectancy.
 - At 40 years of age, the lifetime risk of HF occurring without antecedent MI is 1 in 9 for men and 1 in 6 for women.
 - The lifetime risk for people with BP 160/90 mm Hg is double that of those with BP 140/90 mm Hg.

Joint Commission/CMS

CHF Appropriate Care Composite Score:

- Includes: CHF1 - Discharge instructions, CHF2 - LVEF assessment, CHF3 - ACEI or ARB at discharge for LVSD, CHF4 - Adult smoking cessation advice/counseling

This indicator measures the "right care for each patient every time" for CHF patients. If each measure a patient is eligible for is not achieved, that case is scored as a failure even if only one measure is not accomplished.

Congestive Heart Failure

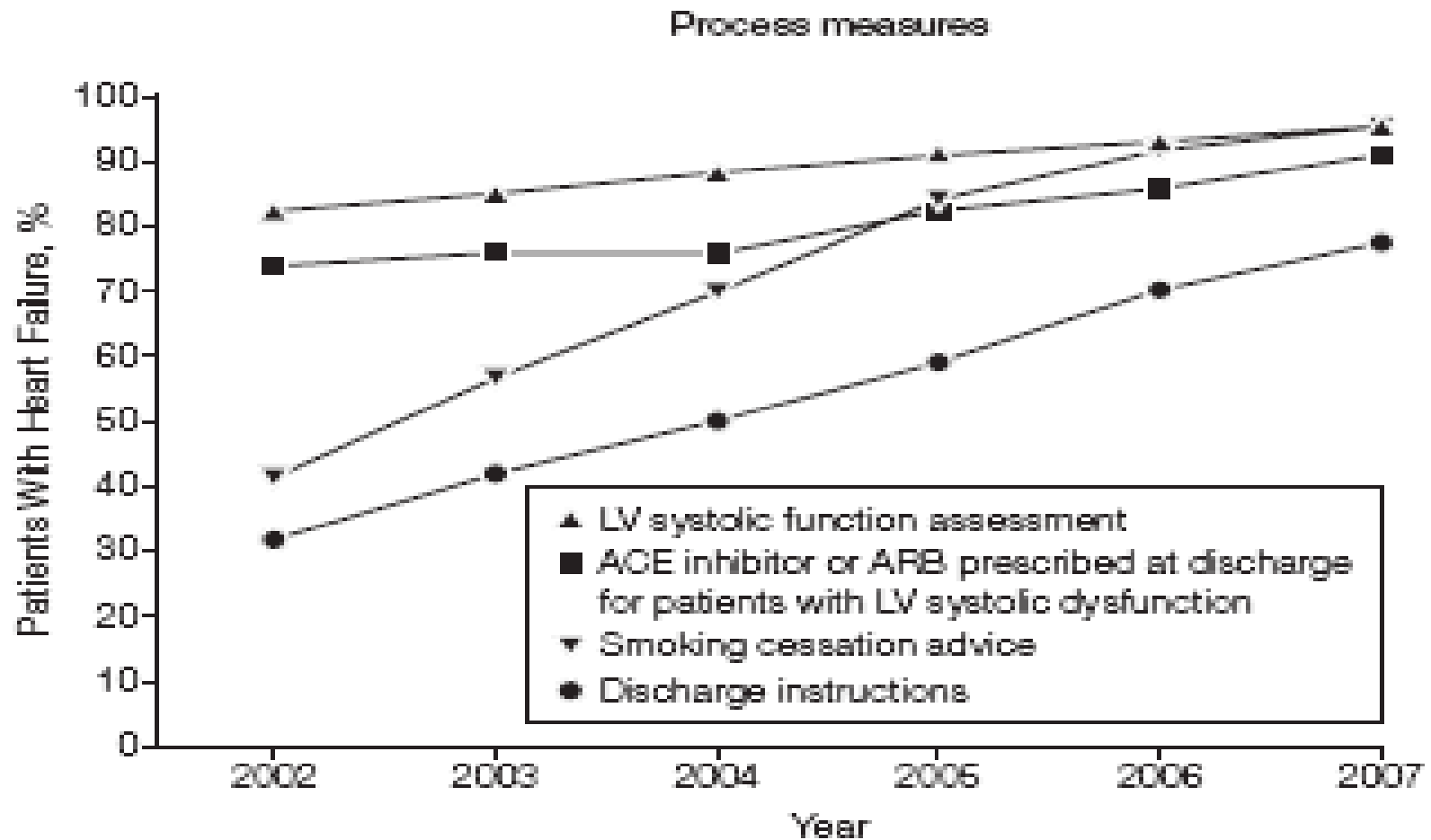
- CHF1: Discharge Instructions (all elements must be present):
 1. Activity level
 2. Diet
 3. Discharge medications
 4. Follow-up appointment
 5. Weight monitoring
 6. What to do if symptoms worsen

Value Based Purchasing measure

Congestive Heart Failure

- CHF-2: LVEF assessment
- CHF-3: ACEI or ARB at Discharge for LVSD
- CHF-4: Adult Smoking Cessation
Advice/Counseling

Quality Indicators

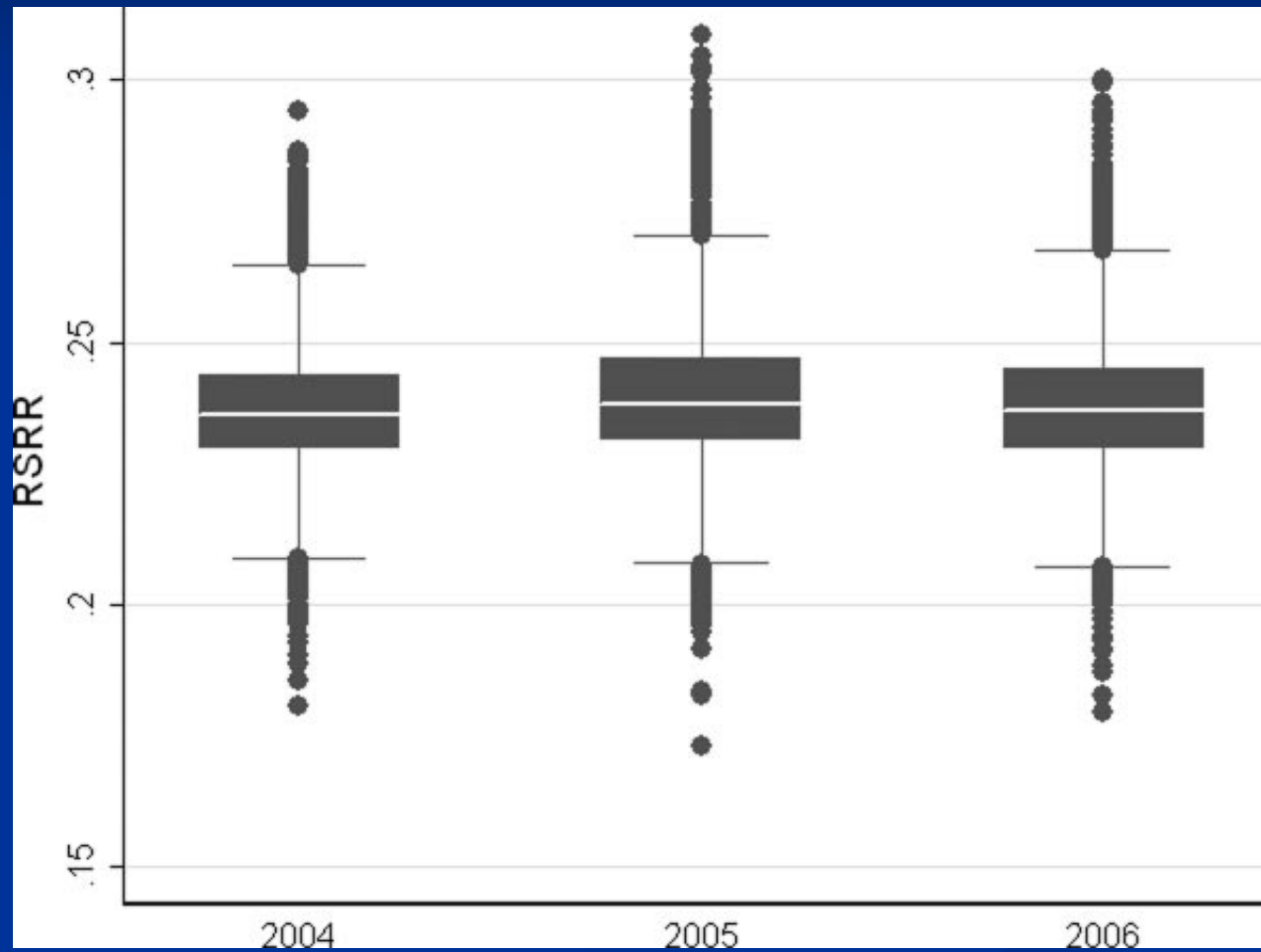


From Fonarow, *Jama* 8/19/2009 Vol 302. No 7

Composite Score

	Composite Score by Condition
	Heart Failure
US	93.3%
Connecticut	94.0%
Maine	95.9%
Massachusetts	94.5%
New Hampshire	96.2%
Rhode Island (state)	93.4%
Rhode Island Hospital	95%
Vermont	94.4%

Readmission Rates



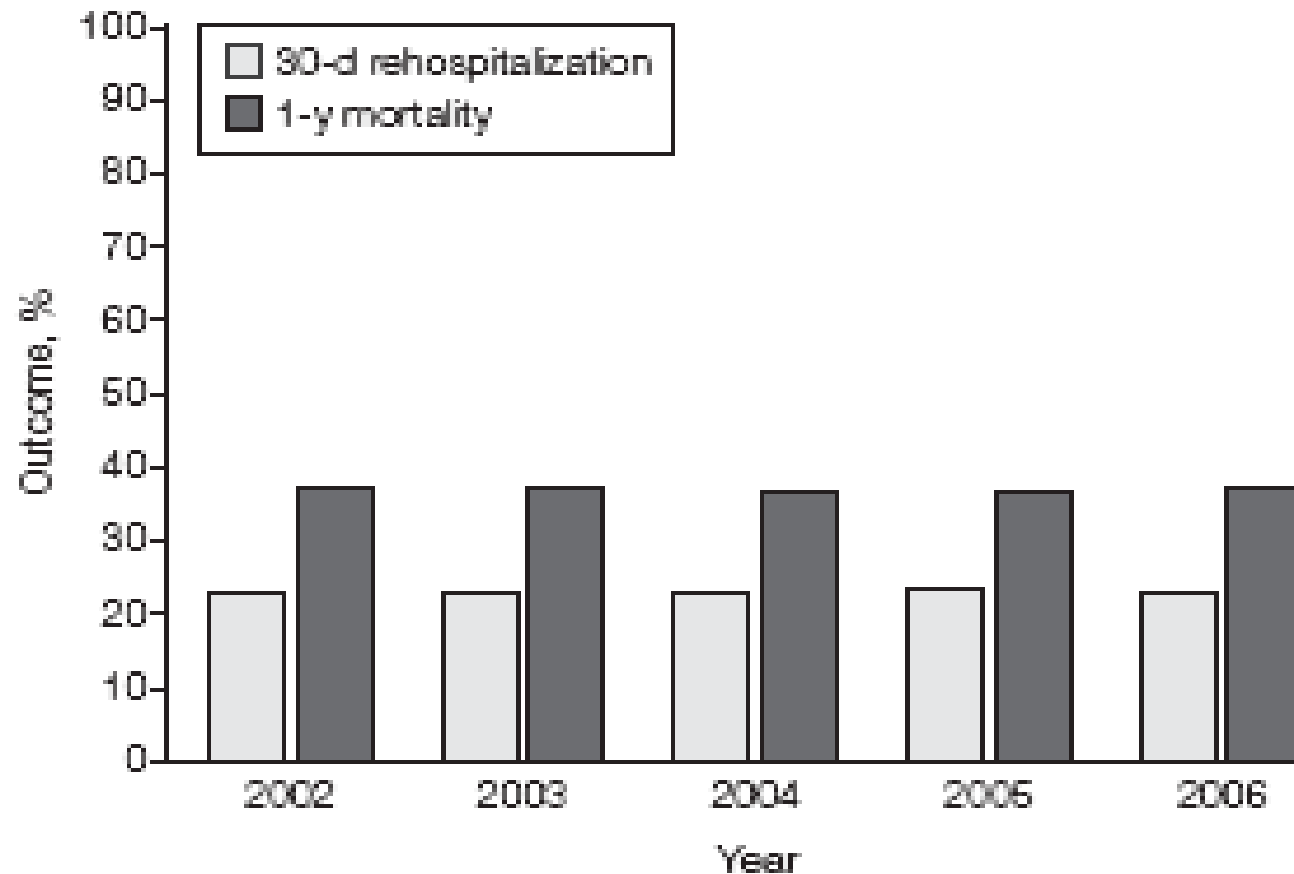
J Ross, MD, et al (*Circ Heart Fail.* 2010;3:97-103.)

30 Day Readmission Rates

- 2009 Data
- 30,000 patients
- 21% readmission rate
- 14% reduction in readmission rates and mortality when patients seen within 7 days of discharge

Improved Outcome?

Clinical outcomes



First heart failure

hospitalizations, No.

503 055

520 095

519 716

499 804

466 474

Are the Best really better?

- Mortality rates are slightly lower among the top ranked hospitals
 - 10.1% v 11.2 % (p<.01)

Source Krumholz et al, *Circulation on line 9/09: Cardiovascular Quality and Outcome*

CMS –Pay for performance CHF Readmissions CHF Mortality

July 2007-June 2010

CHF 30 day Mortality Rate

RIH 10.3% National rate 11.3%

CHF CMS 30 day re-admission rate

RIH rate 26% National rate : 24%



Factors Contributing to Readmission

- Pulmonary disease (15.3%)
- Ischemia (14.7%)
- Arrhythmia (13.5%)

Source; Fonarow et al: OPTIMIZE-HF: Arch Int Med 2008

Old News

- Prior admission for heart failure
- Prior Heart Failure
- Diabetes
- Creatinine greater than 2.4

Source: Krumholz et al; American Heart Journal, January 2000

Interventions known to improve survival in patients with heart failure

- ACE Inhibitor/ARB
- Hydralazine/ISDN
- Beta blockers
- Aldosterone antagonist

What Next?

Disease Management

- SPAN-CHF
 - Specialized Primary and Networked Care In Heart Failure
 - Randomized 1:1 to Nurse Intervention v Standard Care
 - Decreased Short Term rates of rehospitalization
 - However, over time, benefit was lost

Source; Kimmlesteil et al; *Circulation* September 14, 2004

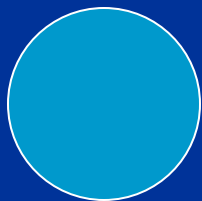
Disease Management

- SPAN-CHF II
- Evaluated incremental value of home telemonitoring
- 90 day decrease in hospitalization over above patients receiving standard care
- Decrease in heart failure hospitalization
- No difference in all cause hospitalizaiton

J Card Fail. 2011 Feb;17(2):151-7.

A Paradigm Shift?

**“An Ounce of
Prevention is Worth a
Pound of Cure”**



Source: Benjamin Franklin