heart.org/getwiththeguidelines

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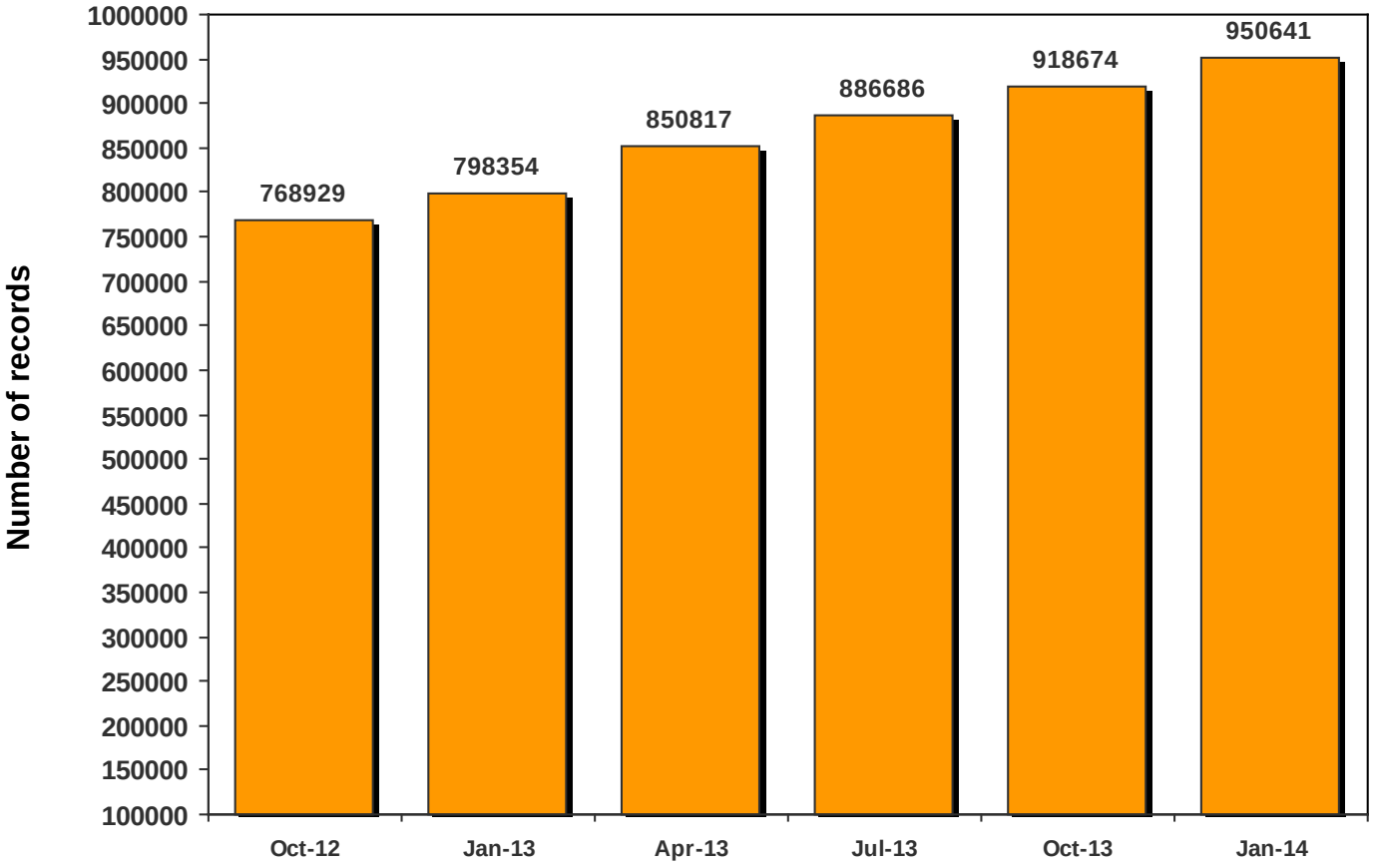
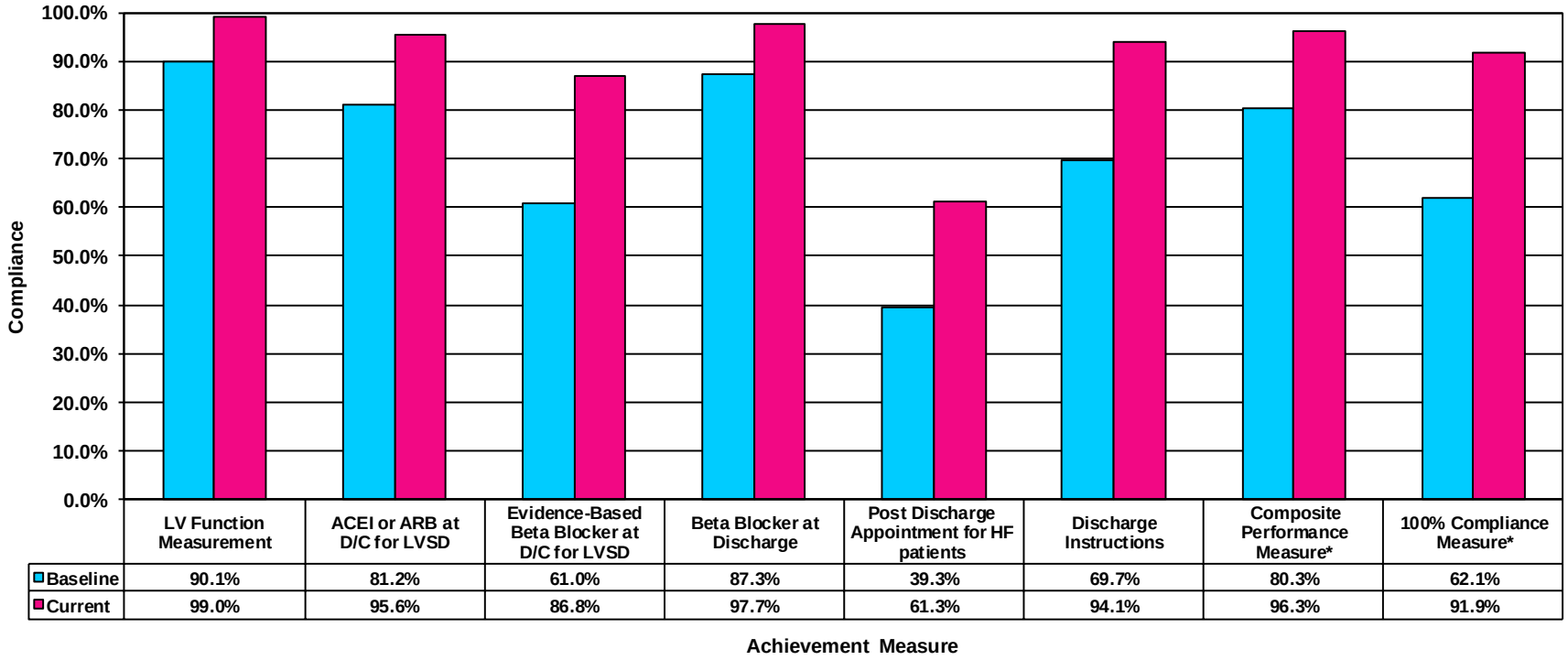
GWTG-HF: Data Submission



January 2014

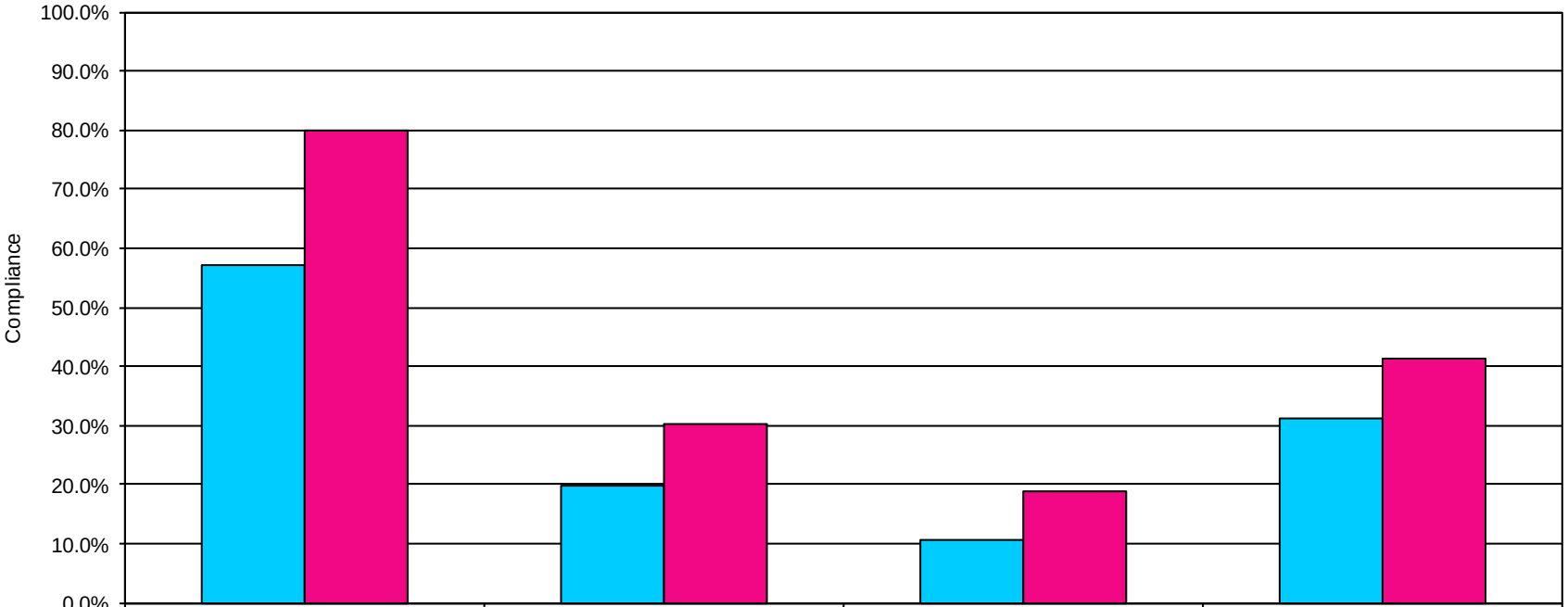
GWTG-HF: Achievement Measures



	LV Function Measurement	ACEI or ARB at D/C for LVSD	Evidence-Based Beta Blocker at D/C for LVSD	Beta Blocker at Discharge	Post Discharge Appointment for HF patients	Discharge Instructions	Composite Performance Measure*	100% Compliance Measure*
Baseline	90.1%	81.2%	61.0%	87.3%	39.3%	69.7%	80.3%	62.1%
Current	99.0%	95.6%	86.8%	97.7%	61.3%	94.1%	96.3%	91.9%

* Modified to include Beta Blocker at Discharge and Discharge Instructions rather than Evidence-Based Beta Blocker at D/C and Post Discharge Appointment
Baseline = Admissions Jan2005 – Dec2005
Current = Overall

GWTG-HF: Quality Measures (1)

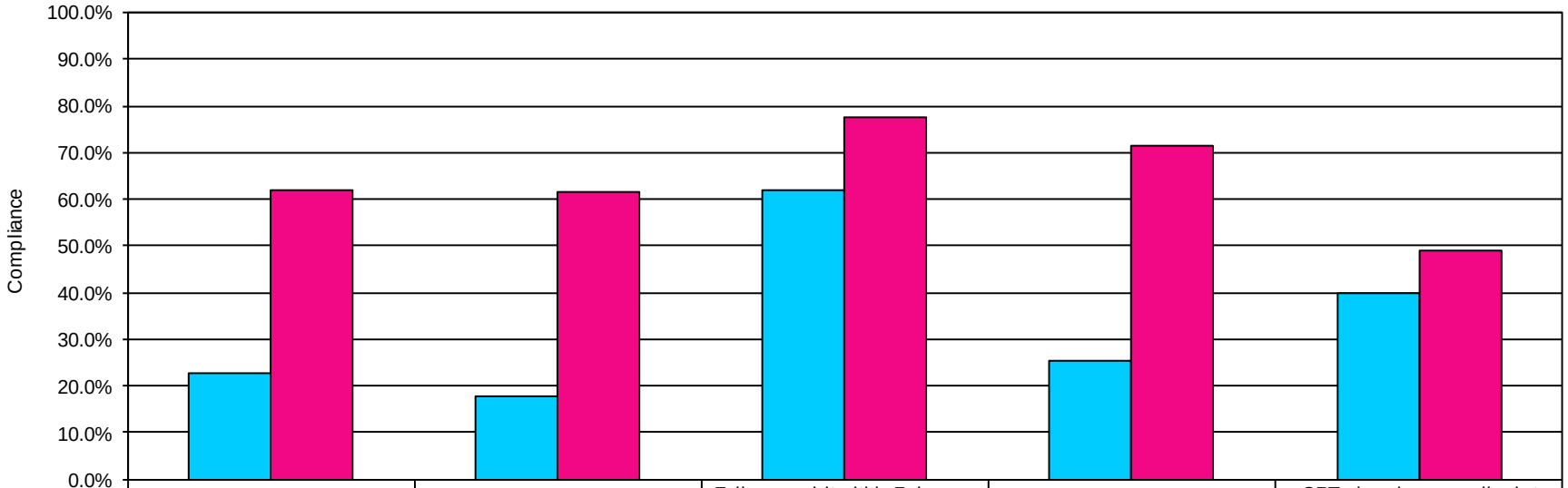


	Warfarin at d/c	Aldosterone antagonist at d/c for LVSD	Hydralazine/Isosorbide at d/c for AA	ICD Counseling or ICD placed or prescribed at D/C
Baseline	57.3%	19.9%	10.8%	31.3%
Current	80.1%	30.1%	18.9%	41.4%

Quality Measure

Baseline = Admissions Jan2005 – Dec2005
Current = Overall

GWTG-HF: Quality Measures (2)

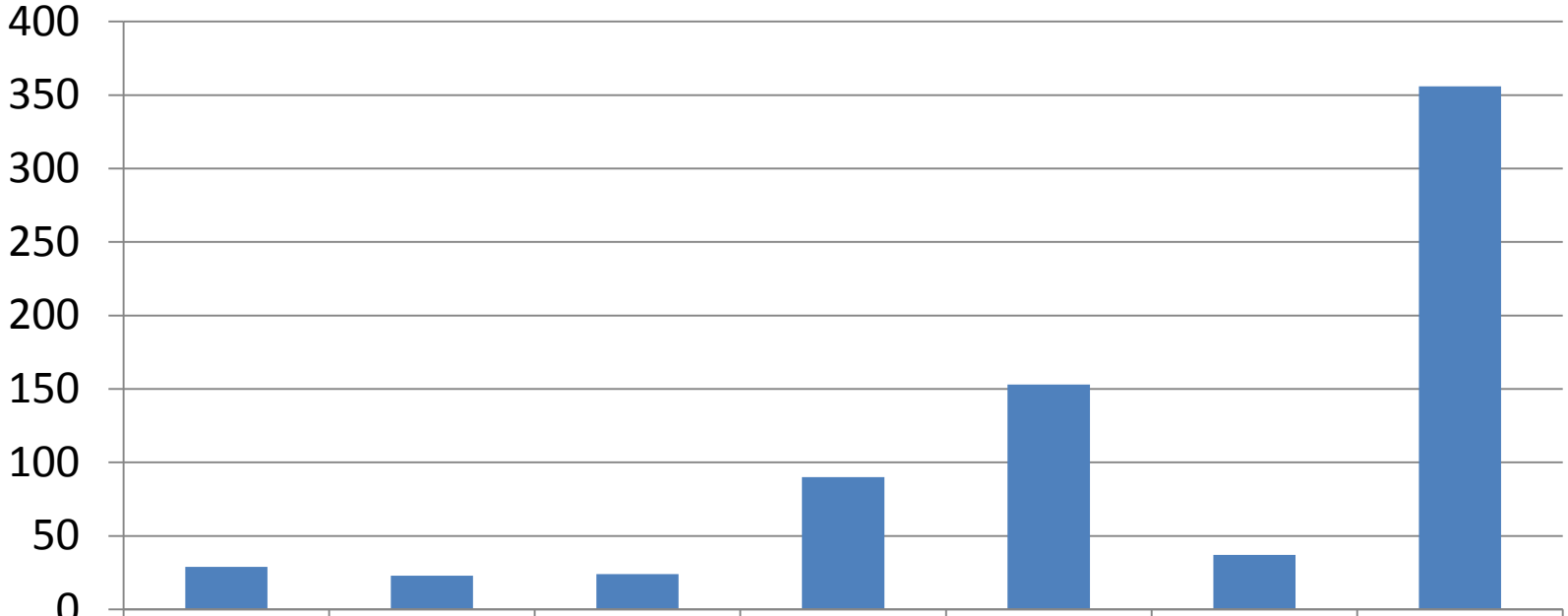


	Pnemococcal Vaccine	Influenza Vaccine	Follow-up visit within 7 days or less	DVT Management	CRT placed or prescribed at discharge
Baseline	22.9%	17.7%	61.9%	25.4%	39.9%
Current	61.9%	61.6%	77.6%	71.6%	49.1%

Quality Measure

Baseline = Admissions Jan2009 – Dec2009
Current = Overall

Active Heart Failure Achievement Awards 03.04.14



	Bronze	Silver	Silver Plus	Gold	Gold Plus	Target HF	Total
Awards	29	23	24	90	153	37	356

Data source: Microsoft Dynamics as of 03.18.2013

Quality Research Programs

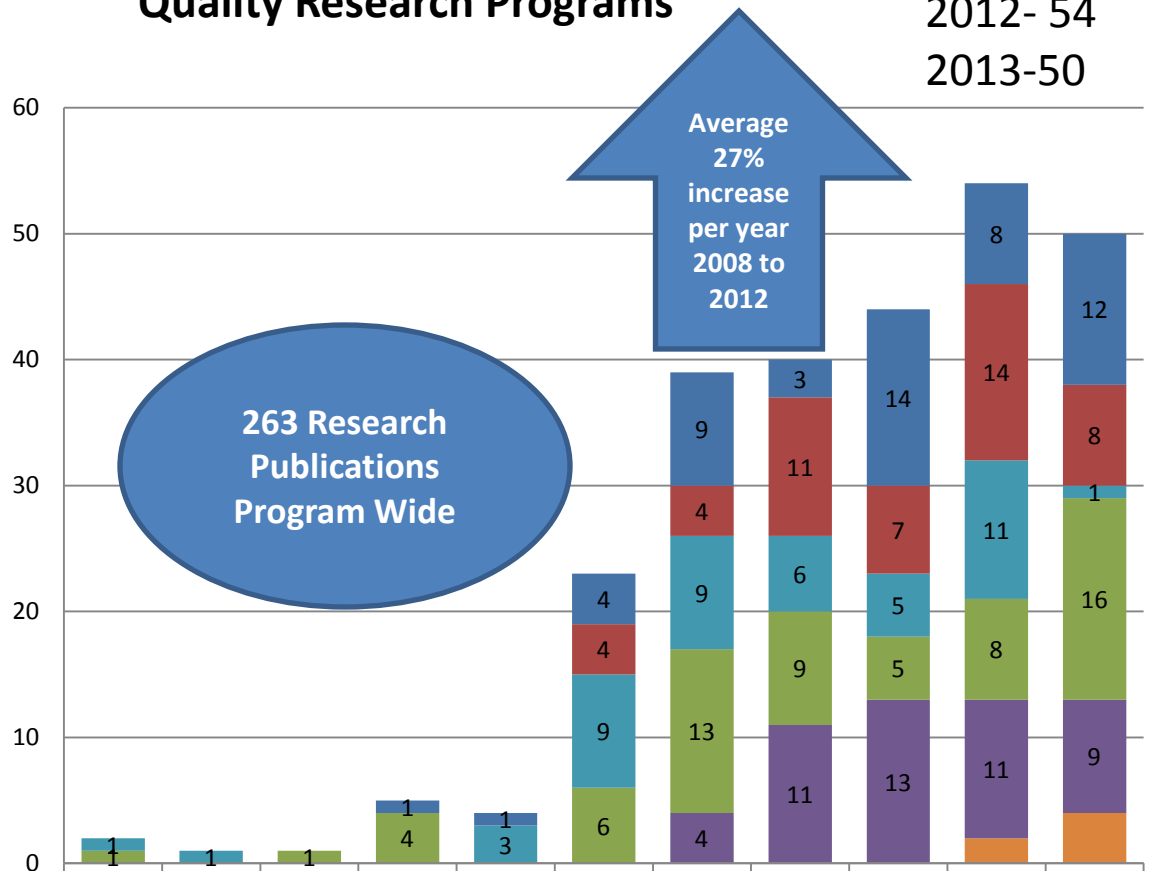
2012- 54
2013-50

Years through 2013

Total Pubs by Program :
*GWTG HF: 52
*GWTG Stroke: 49
*GWTG CAD: 46
*GWTG Resuscitation: 63
*Action-Registry GWTG: 48
*Mission: Lifeline: 6
*TGA: new program

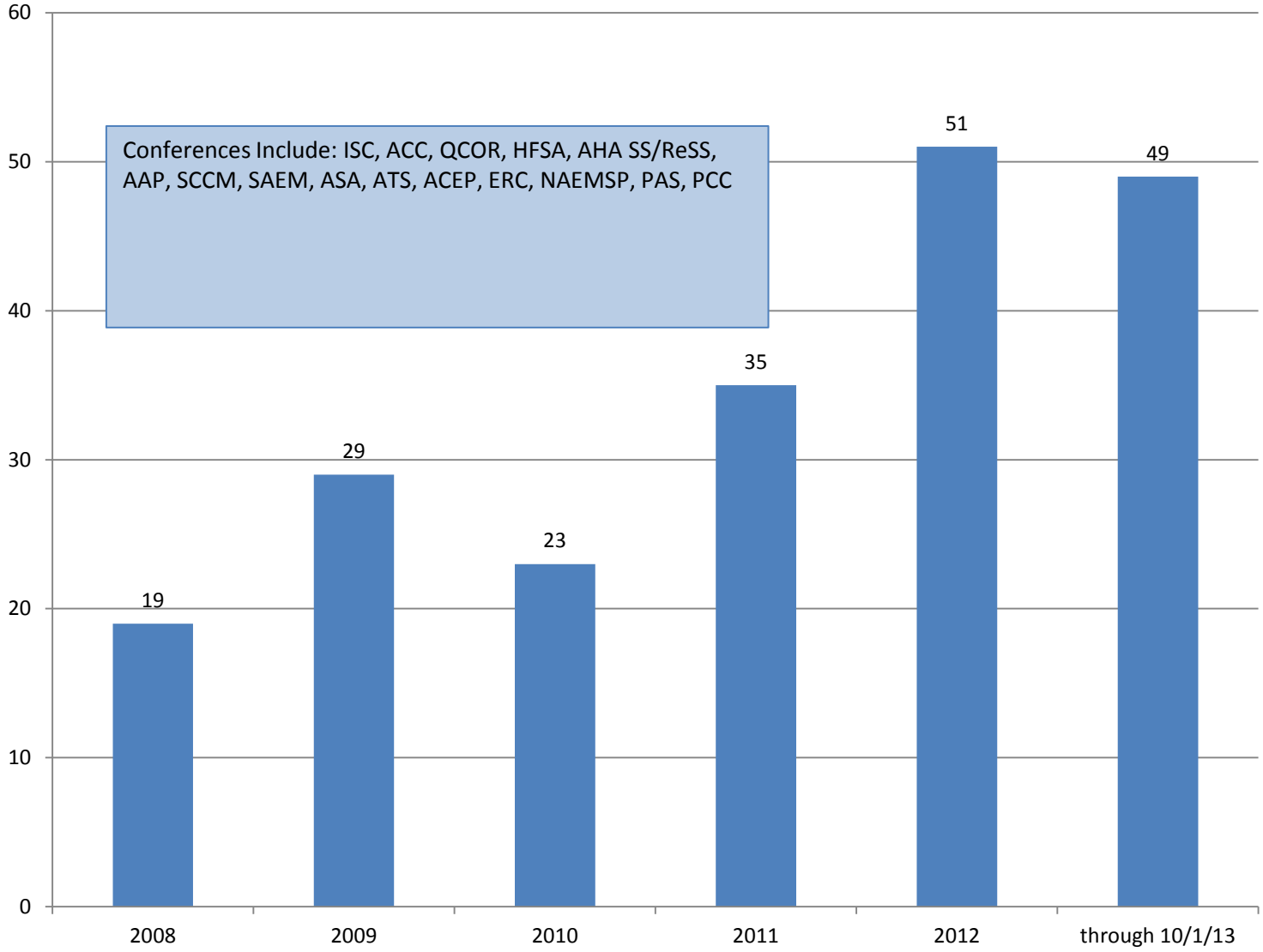
Note: "Due to the transition over to ACTION Registry-GWTG, GWTG - CAD closed effective December 31, 2009 with final data entry completed on March 31, 2010"

*Pubs for more than module are counted in both module
*Pubs counted in year they went online or print



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
GWTG Heart Failure				1	1	4	9	3	14	8	12
GWTG Stroke						4	4	11	7	14	8
GWTG CAD	1	1			3	9	9	6	5	11	1
GWTG Resuscitation	1		1	4		6	13	9	5	8	16
ACTION-GWTG							4	11	13	11	9
Mission: Lifeline										2	4
The Guideline Advantage											0

Abstracts to Conference
All Quality Research Programs



Most Comprehensive Measure Set Available

Achievement Measures

- ACEI/ARBs at Discharge
- Evidence-Based Specific Beta Blockers
- Measure LV Function
- Post-Discharge Appointment for Heart Failure Patients

Quality Measures

- Aldosterone Antagonist at Discharge
- Anticoagulation for Atrial Fibrillation and Atrial Flutter
- Hydralazine Nitrate at Discharge
- DVT Prophylaxis
- CRT-D or CRT-P Placed or Prescribed at Discharge
- ICD Counseling Provided or Prescribed or Placed at Discharge
- Influenza Vaccination During Flu Season
- Pneumococcal Vaccination
- Follow-Up Visit Scheduled Within 7 Days or Less

Reporting Measures

- Blood Pressure Control at Discharge
- Beta Blocker at Discharge
- Beta Blocker Medication at Discharge
- Lipid-Lowering Medications at Discharge
- Omega-3 Fatty Acid Supplement Use at Discharge
- Diabetes Treatment
- Diabetes Teaching
- Smoking Cessation
- Discharge Instructions
- ICD Placed or Prescribed at Discharge
- Advanced Care Plan
- QRS Duration Documented
- Heart Failure Disease Management Program Referral
- Follow-Up Visit or Contact Within 48 Hours of Discharge Scheduled

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Most Comprehensive Measure Set Available

Reporting Measures *(Continued)*

- Follow Up Visit or Contact Within 72 Hours of Discharge Scheduled
- 60 Minutes of Heart Failure Education
- Referral to AHA Heart Failure Interactive Workbook
- Referral to HF Disease Management, 60 Minutes Patient Education, Or HF Interactive Workbook
- Heart Failure Activity Level
- Heart Failure Diet
- Heart Failure Follow-Up
- Heart Failure Weight
- Heart Failure Symptoms Worsen
- Length of Stay
- Care Transition Record Transmitted
- Advance Directive Executed
- Discharge Disposition

Descriptive Measures

- Age
- Diagnosis
- Gender
- Race
- HF Composite Measure
- HF Defect-Free Measure
- JC/CMS HF Defect Free Measure
- Target: HF Defect Free Measure

Mortality & Readmission Measures

- In-Hospital Mortality
- Risk Adjusted Mortality Ratio

- Readmission Frequency & Rate
- 30, 60 & 90 Day Readmissions & Rate
    - *Not equivalent to the CMS 30-Day Risk-Standardized Readmission Measure. It is not risk-adjusted, does not represent all cause readmission, and does not capture readmissions from other hospitals.*

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30 Day Follow-up form

- Captures patient data in the 30 day period after hospitalization. It standardizes the collection of post discharge data, allowing hospitals to track patient outcomes and identify risks such as medication non-compliance. The form is available for GWTG-Stroke & HF. There is no additional cost for customer use. It captures key clinical indicators and patient outcomes, including:
  - Mortality
  - Re-hospitalization (all cause)
  - Follow-up visits
  - Medication Adherence
  - Rehabilitation
  - Patient Education

30 Day Follow-Up Reports

- The following Heart Failure reports are available to hospitals who use the 30 Day Follow-Up Form for individual hospital performance as well as regional and national comparison:
  - 30 Day ACE/ARBs
  - 30 Day Aldosterone Antagonist
  - 30 Day Beta-Blocker for LVSD
  - 30 Day Hydralazine Nitrate for LVSD
  - 30 Day Lipid Lowering Medication
  - 30 Day Diabetic Tx
  - 30 Day Re-hospitalization (unlike unadjusted readmissions – could capture all hospitalizations)
  - 30 Day Mortality Post Discharge
  - 30 Day Mortality

Patient Grid - Track Patients Over Time

POWERED BY OUTCOME™

Patients | Do

Current Study: Heart Failure **Current User:** Sheree Murphy **Site:** TEST Sheree Murphy Site **Site ID:** 43694

30 Day Patient Followup Codi

Search By Patient ID

Patients Per Page 10

[+] Show Advanced Search | Search

Displaying patients 1-10 of 448.

Enter New Patient

Track patient outcomes with 30 Day Follow-up Form

Patient	Patient Management Tool	HF 30 Day Patient Follow-up Form
890ut	10/02/2013 *Next Admission*	**Create**
098765	08/13/2013 *Next Admission*	**CRF Incomplete**
24453012	**09/29/2012** **04/15/2013** *Next Admission*	**Create** **Create**
24451459	**09/26/2012** *Next Admission*	**Create**
24447906	**09/26/2012** *Next Admission*	**Create**
24451673	**09/22/2012** *Next Admission*	**Create**

Track multiple patient admissions over time

Detailed Patient Record

Tracks critical aspects of HF care throughout the hospitalization

Switch Studies | Contact Us | Log

Patients | Download | Reports | Data Upload | My Account | Home

TEST Sheree Murphy Site **Site ID:** 43694

anagement Tool **Patient ID:** 24451459 **Created:** 04/08/2013 12:02:16 GMT-04:00 **Last Updated:** 11/25/2013 10:51:54

Legend: Clear Selection | Open Calendar

[-]Errors

Admission | In-Hospital | Discharge | Optional Fields | Admin/Joint Commission | Historic | Measures

Arrival and Admission Information

Internal Tracking ID: 46267484

Physician/Provider NPI:

Arrival Date/Time: MM/DD/YYYY HH24:MI 09 / 19 / 2013 21 : 33 (MM DD YYYY HH MI)

Admit Date 09 / 19 / 2012 (MM DD YYYY)

Transferred in (from another ED)? Yes No

Point of Origin for Admission or Visit: 1 Non-Health Care Facility Point of Origin

Demographic Data

Date of Birth: 01 / 25 / 1936

Detailed Errors and Warnings to ensure data Quality

Errors and Warnings

The following **errors** will prevent saving the form as complete:

Hospital Arrival Date and Time:
Hospital Arrival date is after Admission date.
EDY006

Medical History (Select All that Apply):
The Medical History field is blank. Please select the options that apply or choose "None of the Above".
EDY015

known history of HF prior to this admission:
Please enter a value for known history of HF prior to this admission.
EDY153

Cardiac Diagnosis:
"Cardiac Diagnosis" is required. Please select one of the options provided.
EJA021

Heart Rate:
Please enter Heart Rate

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POWERED BY OUTCOME™

Patients | Download | Reports

Current Study: Heart Failure **Current User:** Sheree Murphy **Site:** TEST Sheree Murphy Site **Site ID:** 43694

Configurable Measure Reports

Generate Report

TIME PERIOD

Interval: Quarterly

From: 2011 Q

To: 2011 Q

REPORT 1

Measure: Evidence-Based Specific Beta Blockers*

Format: Bar Chart

Compare to: (ctrl-click to select multiple)

- My Hospital
- 100 - 250 Bed Hospital
- 101 - 300 CAD Discharges
- 101 - 300 HF Discharges
- Academic Hospitals
- All Hospitals
- All NY Hospitals
- Interventional Hospitals
- Middle Atlantic Hospitals
- Northeast Region Hospitals
- Transplant Hospitals

Run numerous reports and benchmark against like hospitals in real time!

FILTER OPTIONS SHOW

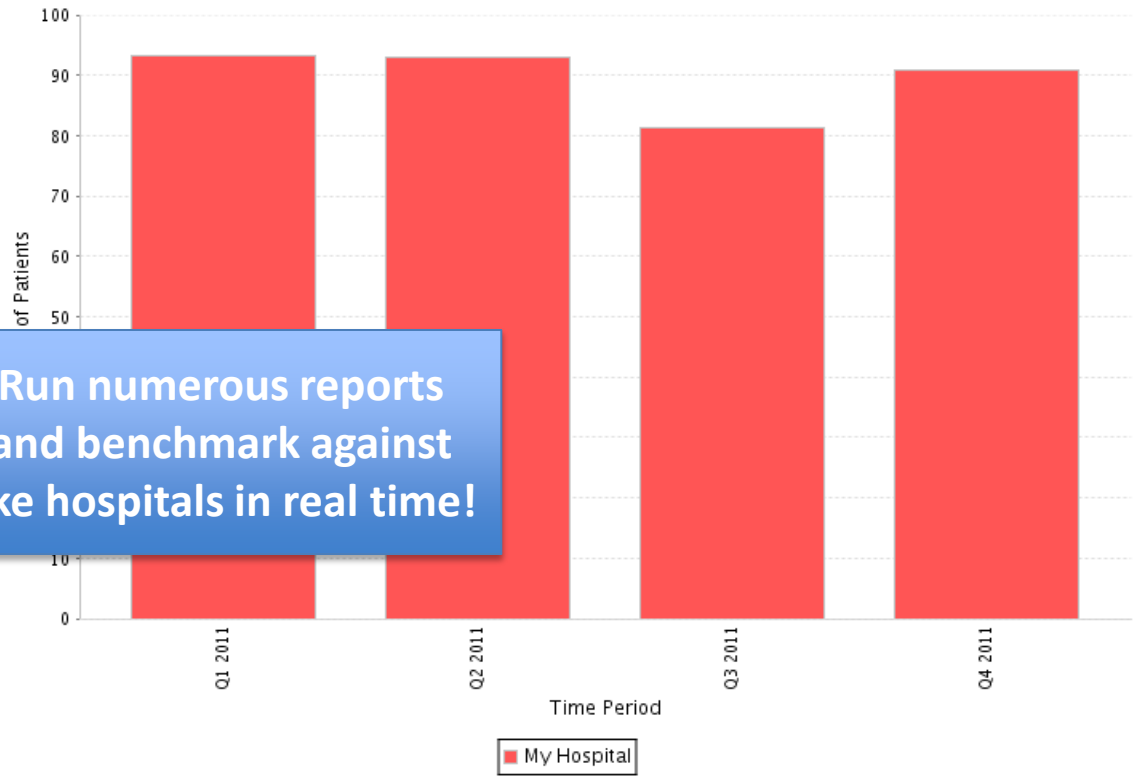
DISPLAY OPTIONS SHOW

Generate Report

Evidence-Based Specific Beta Blockers*

Percent of HF patients who were prescribed evidence-based specific beta blockers (Bisoprolol, Carvedilol, Metoprolol succina

Time Period: Q1 2011 - Q4 2011; **Site:** TEST Sheree Murphy Site (43694)



Evidence-Based Specific Beta Blockers*				
Benchmark Group	Time Period	Numerator	Denominator	% of Patients
My Hospital	Q1 2011	42	45	93.3%
	Q2 2011	53	57	93.0%
	Q3 2011	35	43	81.4%
	Q4 2011	40	44	90.9%

Updates Planned for Spring 2014

- Upgrading to FIPS-140-2 Compliant.
  - This security upgrade will ensure GWTG meets VA Hospital Security Standards
- Add elements and measures to support data collection for The Joint Commission Advanced Certification in Heart Failure inpatient measures
- Update the Anticoagulation for Atrial Fibrillation or Atrial Flutter measure, to include patients based on thromboembolic risk profile
- Update the CRT-D or CRT-P Placed or Prescribed at Discharge measures to align with the latest AHA/ACCF Heart Failure Guidelines

2013 ACCF/AHA Guideline for the Management of Heart Failure

http://circ.ahajournals.org/content/early/2013/06/03/CIR.0b013e31829e8776

Developed in Collaboration With the American Academy of Family Physicians, American College of Chest Physicians, Heart Rhythm Society, and International Society for Heart and Lung Transplantation

Endorsed by the American Association of Cardiovascular and Pulmonary Rehabilitation

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Classification of Recommendations and Levels of Evidence

SIZE OF TREATMENT EFFECT

ESTIMATE OF CERTAINTY (PRECISION) OF TREATMENT EFFECT	CLASS I *Benefit >>> Risk* Procedure/Treatment **SHOULD** be performed/administered	CLASS IIa *Benefit >> Risk* *Additional studies with focused objectives needed* **IT IS REASONABLE** to perform procedure/administer treatment	CLASS IIb *Benefit ≥ Risk* *Additional studies with broad objectives needed; additional registry data would be helpful* Procedure/Treatment **MAY BE CONSIDERED**	CLASS III *No Benefit* or CLASS III *Harm* Procedure/Test / Treatment COR III: No benefit — Not Helpful / No Proven Benefit COR III: Harm — Excess Cost w/o Benefit or Harmful / Harmful to Patients
LEVEL A Multiple populations evaluated* Data derived from multiple randomized clinical trials or meta-analyses	■ Recommendation that procedure or treatment is useful/effective ■ Sufficient evidence from multiple randomized trials or meta-analyses	■ Recommendation in favor of treatment or procedure being useful/effective ■ Some conflicting evidence from multiple randomized trials or meta-analyses	■ Recommendation's usefulness/efficacy less well established ■ Greater conflicting evidence from multiple randomized trials or meta-analyses	■ Recommendation that procedure or treatment is not useful/effective and may be harmful ■ Sufficient evidence from multiple randomized trials or meta-analyses
LEVEL B Limited populations evaluated* Data derived from a single randomized trial or nonrandomized studies	■ Recommendation that procedure or treatment is useful/effective ■ Evidence from single randomized trial or nonrandomized studies	■ Recommendation in favor of treatment or procedure being useful/effective ■ Some conflicting evidence from single randomized trial or nonrandomized studies	■ Recommendation's usefulness/efficacy less well established ■ Greater conflicting evidence from single randomized trial or nonrandomized studies	■ Recommendation that procedure or treatment is not useful/effective and may be harmful ■ Evidence from single randomized trial or nonrandomized studies
LEVEL C Very limited populations evaluated* Only consensus opinion of experts, case studies, or standard of care	■ Recommendation that procedure or treatment is useful/effective ■ Only expert opinion, case studies, or standard of care	■ Recommendation in favor of treatment or procedure being useful/effective ■ Only diverging expert opinion, case studies, or standard of care	■ Recommendation's usefulness/efficacy less well established ■ Only diverging expert opinion, case studies, or standard of care	■ Recommendation that procedure or treatment is not useful/effective and may be harmful ■ Only expert opinion, case studies, or standard of care
Suggested phrases for writing recommendations	should is recommended is indicated is useful/effective/beneficial	is reasonable can be useful/effective/beneficial is probably recommended or indicated	may/might be considered may/might be reasonable usefulness/effectiveness is unknown/unclear/uncertain or not well established	COR III: No Benefit: is not recommended; is not indicated COR III: Harm: potentially harmful; causes harm; associated with excess morbidity/mortality
Comparative effectiveness phrases†	treatment/strategy A is recommended/indicated in preference to treatment B treatment A should be chosen over treatment B	treatment/strategy A is probably recommended/indicated in preference to treatment B it is reasonable to choose treatment A over treatment B		COR III: No Benefit: should not be performed/administered/other; is not useful/beneficial/effective COR III: Harm: should not be performed/administered/other

A recommendation with Level of Evidence B or C does not imply that the recommendation is weak. Many important clinical questions addressed in the guidelines do not lend themselves to clinical trials. Although randomized trials are unavailable, there may be a very clear clinical consensus that a particular test or therapy is useful or effective.

*Data available from clinical trials or registries about the usefulness/efficacy in different subpopulations, such as sex, age, history of diabetes, history of prior myocardial infarction, history of heart failure, and prior aspirin use.

†For comparative effectiveness recommendations (Class I and IIa; Level of Evidence A and B only), studies that support the use of comparator verbs should involve direct comparisons of the treatments or strategies being evaluated.

Stages, Phenotypes and Treatment of HF

GET WITH THE GUIDELINES. HEART FAILURE

At Risk for Heart Failure

STAGE A
At high risk for HF but without structural heart disease or symptoms of HF

e.g., Patients with:
- HTN
- Atherosclerotic disease
- DM
- Obesity
- Metabolic syndrome

or

Patients
- Using cardiotoxins
- With family history of cardiomyopathy

THERAPY

Goals
- Heart healthy lifestyle
- Prevent vascular, coronary disease
- Prevent LV structural abnormalities

Drugs
- ACEI or ARB in appropriate patients for vascular disease or DM
- Statins as appropriate

Structural heart disease

STAGE B
Structural heart disease but without signs or symptoms of HF

e.g., Patients with:
- Previous MI
- LV remodeling including LVH and low EF
- Asymptomatic valvular disease

THERAPY

Goals
- Prevent HF symptoms
- Prevent further cardiac remodeling

Drugs
- ACEI or ARB as appropriate
- Beta blockers as appropriate

In selected patients
- ICD
- Revascularization or valvular surgery as appropriate

Development of symptoms of HF

Heart Failure

STAGE C
Structural heart disease with prior or current symptoms of HF

e.g., Patients with:
- Known structural heart disease and
- HF signs and symptoms

HF*p*EF

THERAPY

Goals
- Control symptoms
- Improve HRQOL
- Prevent hospitalization
- Prevent mortality

Strategies
- Identification of comorbidities

Treatment
- Diuresis to relieve symptoms of congestion
- Follow guideline driven indications for comorbidities, e.g., HTN, AF, CAD, DM
- Revascularization or valvular surgery as appropriate

HF*r*EF

THERAPY

Goals
- Control symptoms
- Patient education
- Prevent hospitalization
- Prevent mortality

Drugs for routine use
- Diuretics for fluid retention
- ACEI or ARB
- Beta blockers
- Aldosterone antagonists

Drugs for use in selected patients
- Hydralazine/isosorbide dinitrate
- ACEI and ARB
- Digoxin

In selected patients
- CRT
- ICD
- Revascularization or valvular surgery as appropriate

Refractory symptoms of HF at rest, despite GDMT

STAGE D
Refractory HF

e.g., Patients with:
- Marked HF symptoms at rest
- Recurrent hospitalizations despite GDMT

THERAPY

Goals
- Control symptoms
- Improve HRQOL
- Reduce hospital readmissions
- Establish patient's end-of-life goals

Options
- Advanced care measures
- Heart transplant
- Chronic inotropes
- Temporary or permanent MCS
- Experimental surgery or drugs
- Palliative care and hospice
- ICD deactivation

Definition of Heart Failure

American Heart Association | American Stroke Association

GET WITH THE GUIDELINES. HEART FAILURE

Classification	Ejection Fraction	Description
I. Heart Failure with Reduced Ejection Fraction (HF*r*EF)	≤40%	Also referred to as systolic HF. Randomized clinical trials have mainly enrolled patients with HF*r*EF and it is only in these patients that efficacious therapies have been demonstrated to date.
II. Heart Failure with Preserved Ejection Fraction (HF*p*EF)	≥50%	Also referred to as diastolic HF. Several different criteria have been used to further define HF*p*EF. The diagnosis of HF*p*EF is challenging because it is largely one of excluding other potential noncardiac causes of symptoms suggestive of HF. To date, efficacious therapies have not been identified.
a. HF*p*EF, Borderline	41% to 49%	These patients fall into a borderline or intermediate group. Their characteristics, treatment patterns, and outcomes appear similar to those of patient with HF*p*EF.
b. HF*p*EF, Improved	>40%	It has been recognized that a subset of patients with HF*p*EF previously had HF*r*EF. These patients with improvement or recovery in EF may be clinically distinct from those with persistently preserved or reduced EF. Further research is needed to better characterize these patients.

Classification of Heart Failure

American Heart Association | American Stroke Association

GET WITH THE GUIDELINES. HEART FAILURE

ACCF/AHA Stages of HF		NYHA Functional Classification	
A	At high risk for HF but without structural heart disease or symptoms of HF.	None	
B	Structural heart disease but without signs or symptoms of HF.	I	No limitation of physical activity. Ordinary physical activity does not cause symptoms of HF.
C	Structural heart disease with prior or current symptoms of HF.	I	No limitation of physical activity. Ordinary physical activity does not cause symptoms of HF.
		II	Slight limitation of physical activity. Comfortable at rest, but ordinary physical activity results in symptoms of HF.
		III	Marked limitation of physical activity. Comfortable at rest, but less than ordinary activity causes symptoms of HF.
		IV	Unable to carry on any physical activity without symptoms of HF, or symptoms of HF at rest.
D	Refractory HF requiring specialized interventions.		

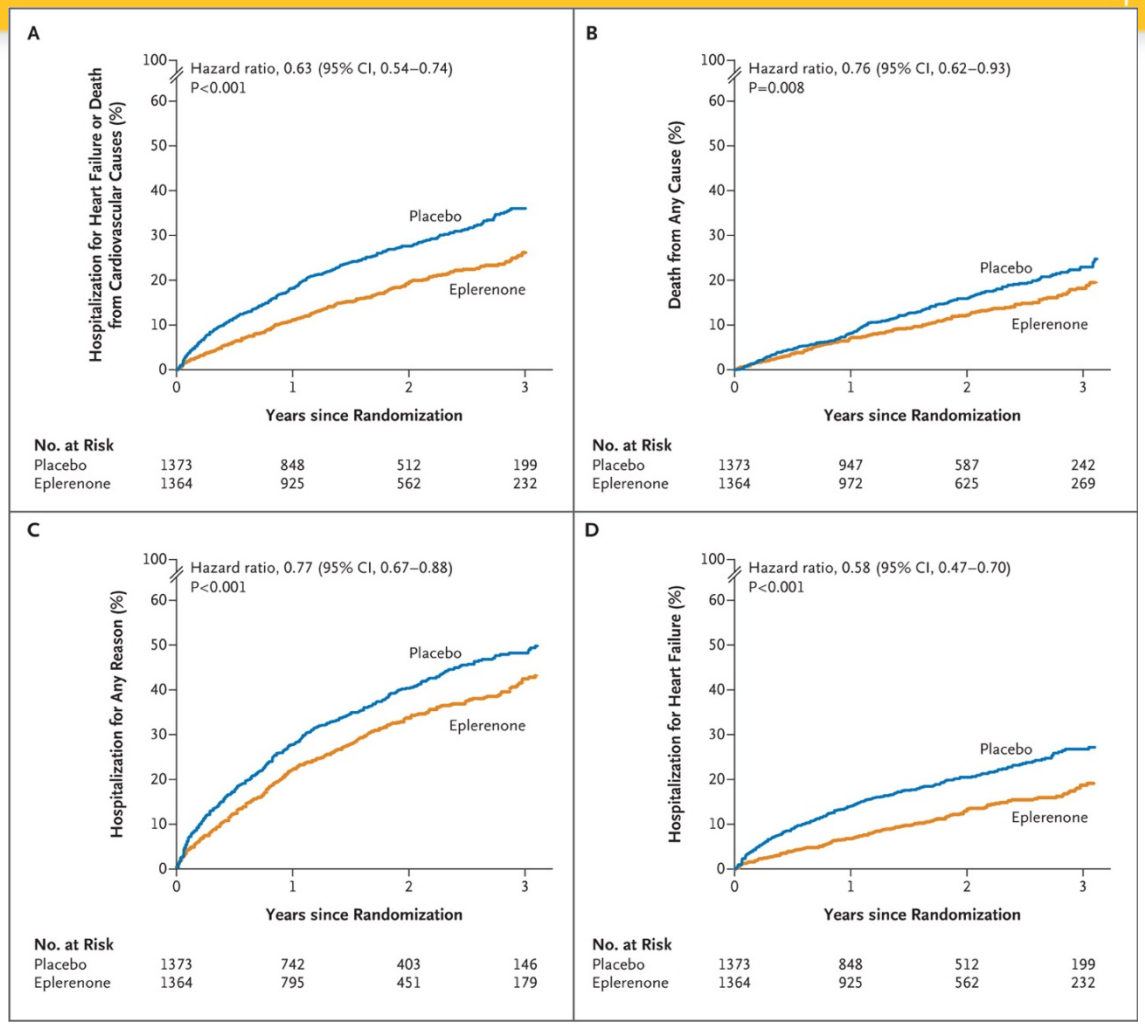
Treatment of Stages A to D

Pharmacological Treatment for Stage C HF/EF

Pharmacological Treatment for Stage C HF*r*EF (cont.)

Aldosterone receptor antagonists [or mineralocorticoid receptor antagonists (MRA)] are recommended in patients with NYHA class II-IV and who have LVEF of 35% or less, unless contraindicated, to reduce morbidity and mortality. Patients with NYHA class II should have a history of prior cardiovascular hospitalization or elevated plasma natriuretic peptide levels to be considered for aldosterone receptor antagonists. Creatinine should be 2.5 mg/dL or less in men or 2.0 mg/dL or less in women (or estimated glomerular filtration rate >30 mL/min/1.73m2) and potassium should be less than 5.0 mEq/L. Careful monitoring of potassium, renal function, and diuretic dosing should be performed at initiation and

Cumulative Kaplan–Meier Estimates of Rates of the Primary Outcome and Other Outcomes, According to Study Group.



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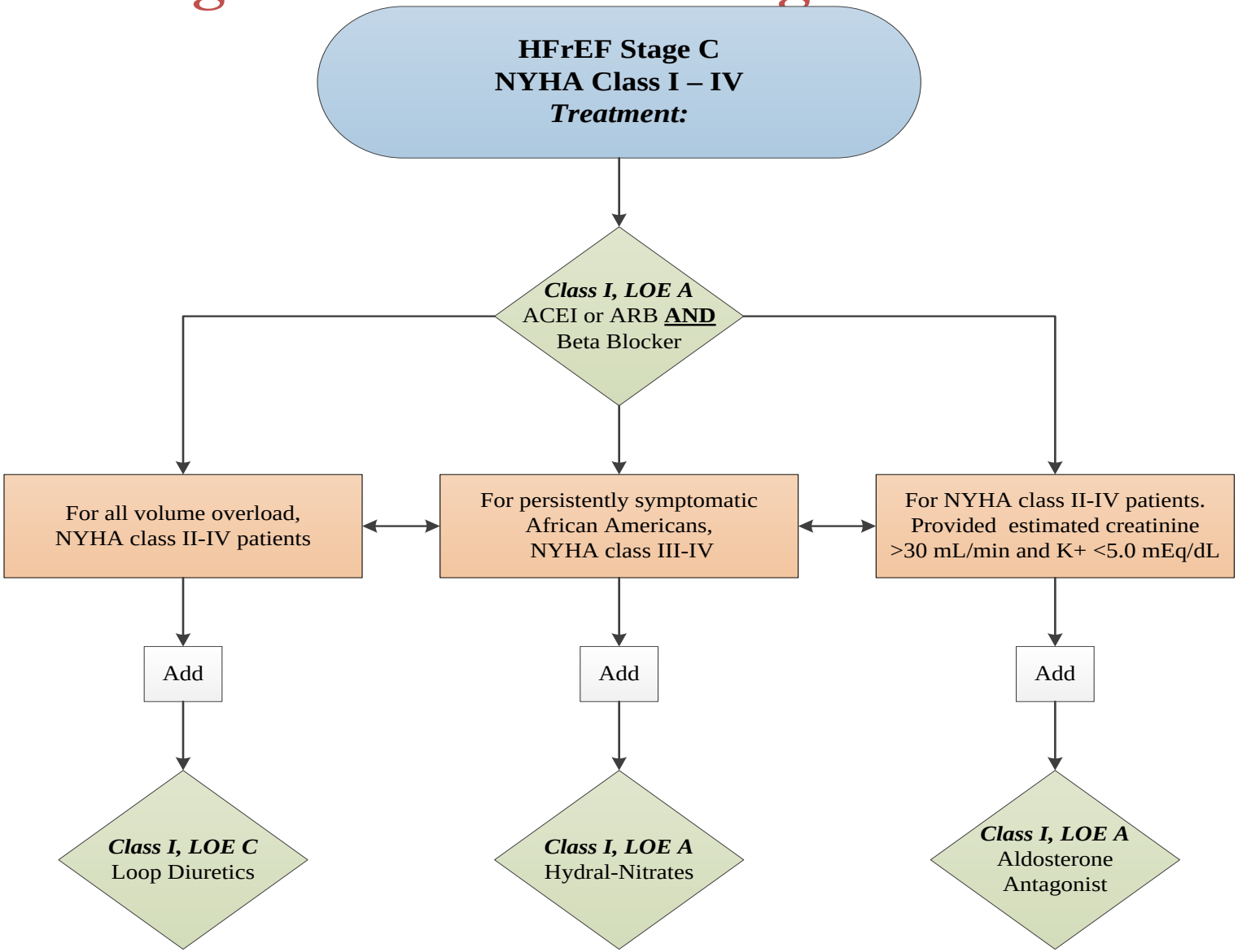
GET WITH THE GUIDELINES. HEART FAILURE
The NEW ENGLAND JOURNAL of MEDICINE

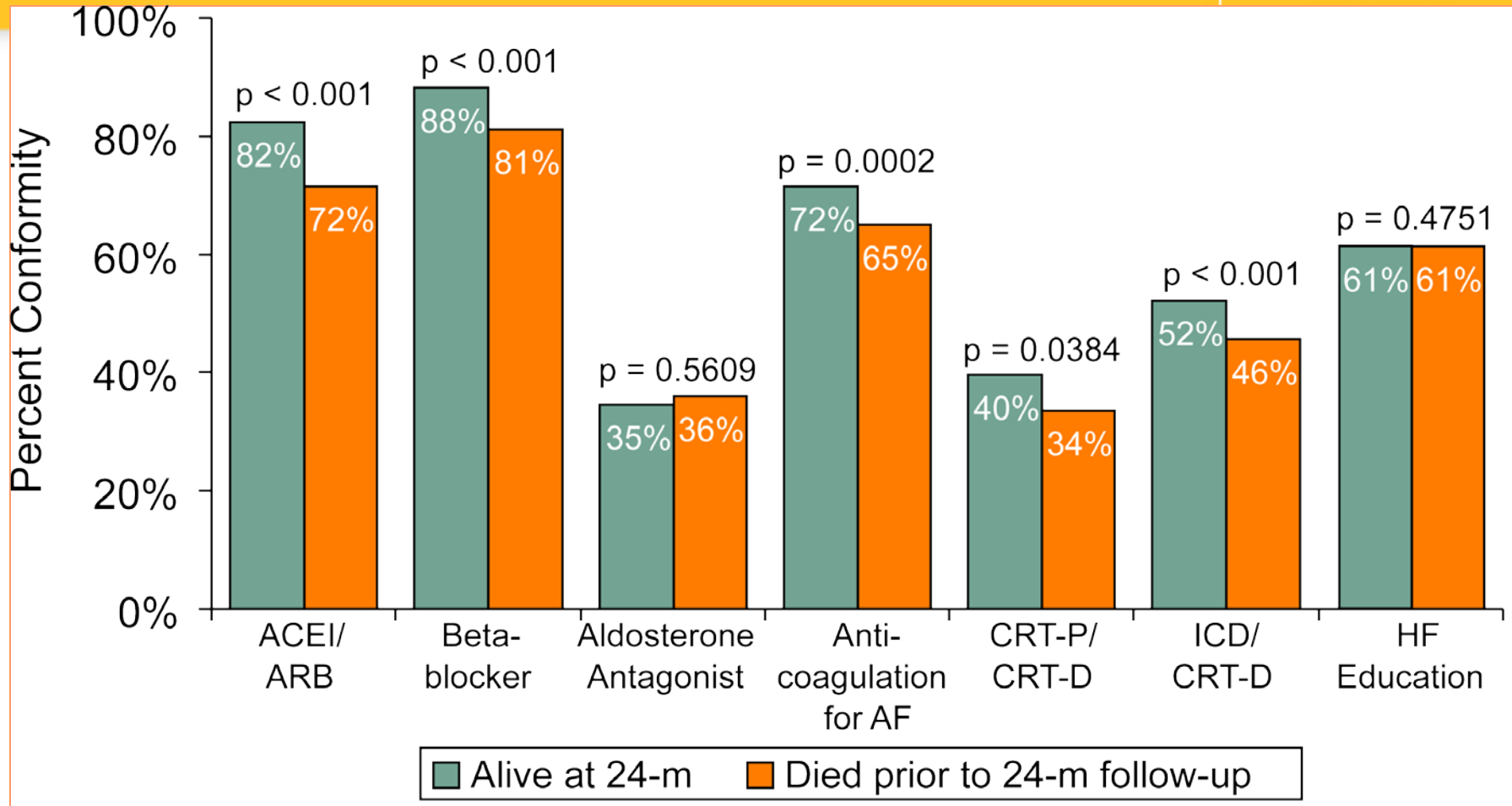
Pharmacologic Treatment for Stage C HF*r*EF



Medical Therapy for Stage C HF*r*EF: Magnitude of Benefit Demonstrated in RCTs

GDMT	RR Reduction in Mortality	NNT for Mortality Reduction (Standardized to 36 mo)	RR Reduction in HF Hospitalizations
ACE inhibitor or ARB	17%	26	31%
Beta blocker	34%	9	41%
Aldosterone antagonist	30%	6	35%
Hydralazine/nitrate	43%	7	33%

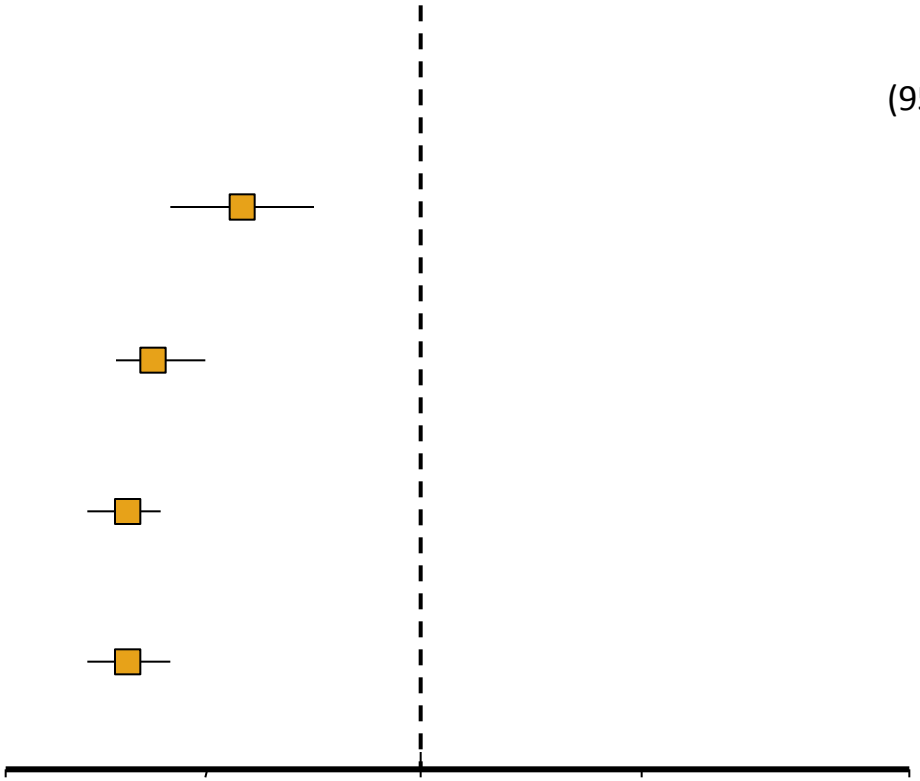
Baseline Measure Conformity: Alive vs. Dead at 24-Month Follow-Up



The baseline process measure conformity was significantly lower among patients who died compared with those who survived for 5 of 7 individual measures.

Fonarow GC, et al. *Circulation*. 2011;123(15):1601-1610

Results: Mortality Reduction Based on Number of Guideline-Recommended Therapies at Baseline



Number of Therapies (vs 0 or 1 therapy)	Odds Ratio (95% confidence interval)
2 therapies	**0.63** (0.47-0.85) (p=0.0026)
3 therapies	**0.38** (0.29-0.51) (p<0.0001)
4 therapies	**0.30** (0.23-0.41) (p<0.0001)
5, 6, or 7 therapies	**0.31** (0.23-0.42) (p<0.0001)

Fonarow GC… Yancy CW. *J Am Heart Assoc* 2012;1:16-26.

Treatment of Stages A to D

Treatment for Stage C HF*p*EF

Treatment of HF*p*EF

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GET WITH THE GUIDELINES. HEART FAILURE

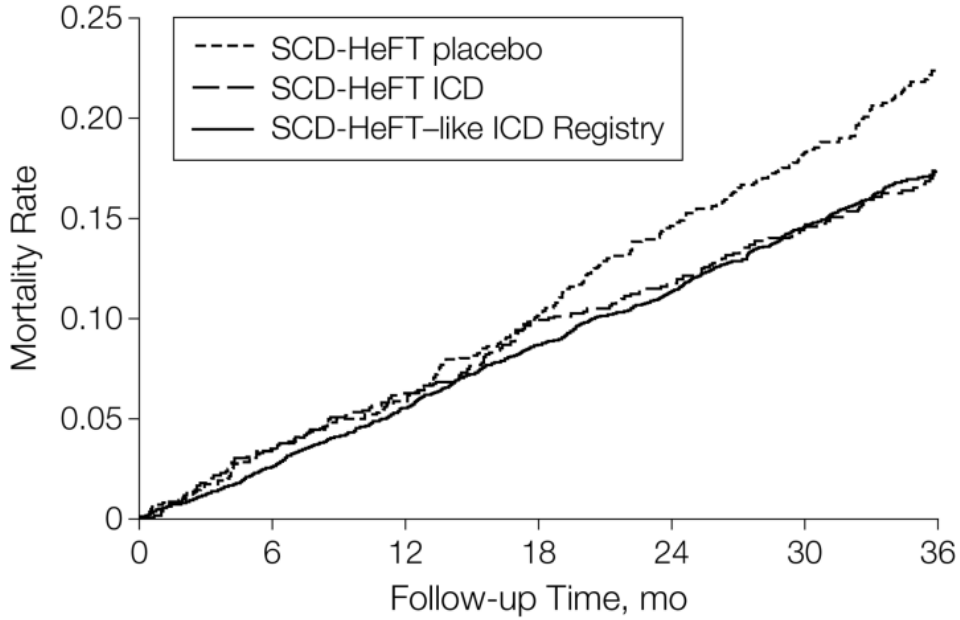
Recommendations	COR	LOE
Systolic and diastolic blood pressure should be controlled according to published clinical practice guidelines	I	B
Diuretics should be used for relief of symptoms due to volume overload	I	C
Coronary revascularization for patients with CAD in whom angina or demonstrable myocardial ischemia is present despite GDMT	IIa	C
Management of AF according to published clinical practice guidelines for HFpEF to improve symptomatic HF	IIa	C
Use of beta-blocking agents, ACE inhibitors, and ARBs for hypertension in HFpEF	IIa	C
ARBs might be considered to decrease hospitalizations in HFpEF	IIb	B
Nutritional supplementation is not recommended in HFpEF	III: No Benefit	C

Treatment of Stages A to D

Device Treatment for Stage C HF/EF

From: **Survival of Patients Receiving a Primary Prevention Implantable Cardioverter-Defibrillator in Clinical Practice vs Clinical Trials**

JAMA. 2013;309(1):55-62. doi:10.1001/jama.2012.157182



No. at risk							
SCD-HeFT placebo	847	818	797	761	724	631	504
SCD-HeFT ICD	829	800	778	747	732	611	497
SCD-HeFT–like ICD Registry	3352	3264	3165	3061	2969	2150	1289

Figure Legend:

Patients compared were SCD-HeFT–like patients in the ICD Registry, SCD-HeFT patients randomized to ICD therapy, and SCD-HeFT patients randomized to medical therapy only (for matched patients only). SCD-HeFT indicates Sudden Cardiac Death in Heart Failure Trial; ICD, implantable cardioverter-defibrillator.

Date of download: 4/25/2013

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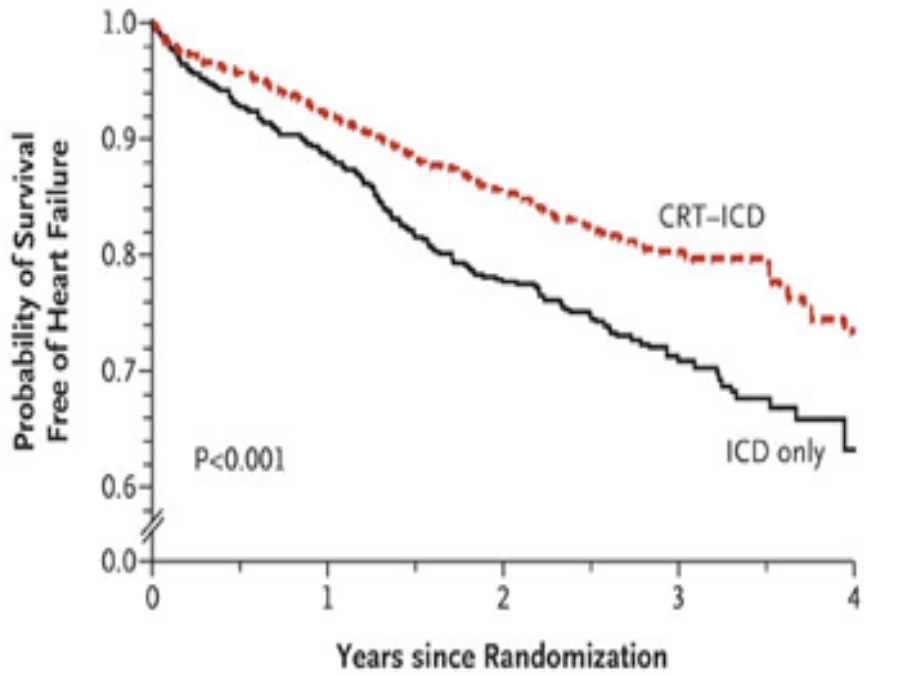
MADIT-CRT (NEJM. 2009)

- 1820 ICM/NICM pts:
  - EF ≤ 30%
  - QRS ≥ 130 msec
  - NYHA I/II
- Randomization:
  - CRT-D vs. ICD-only
  - 3:2 ratio
- Mean Follow-up:
  - 2.4 yrs
- Outcome:

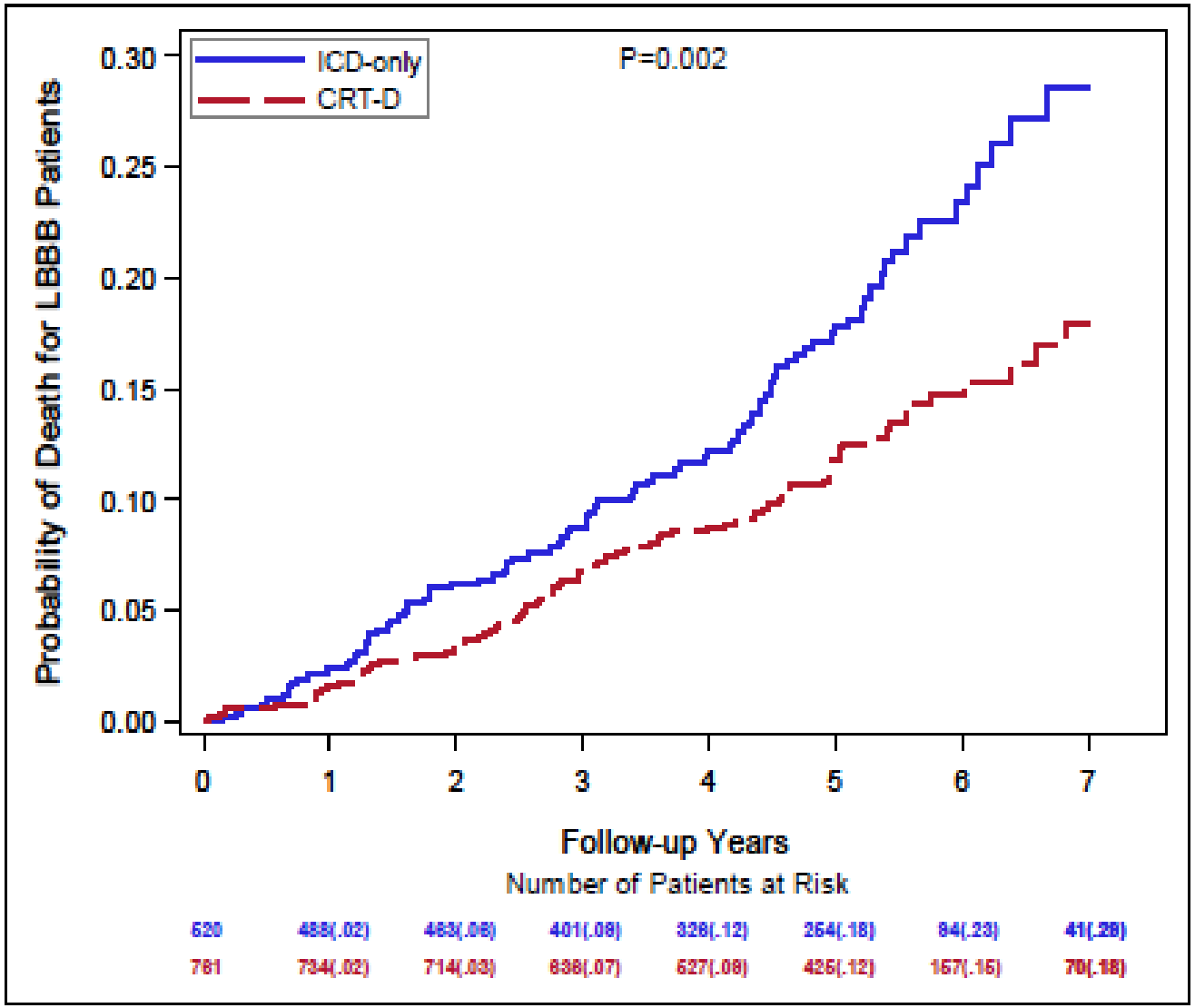


No. at Risk (Probability of Survival)

ICD only	731	621 (0.89)	379 (0.78)	173 (0.71)	43 (0.63)
CRT–ICD	1089	985 (0.92)	651 (0.86)	279 (0.80)	58 (0.73)

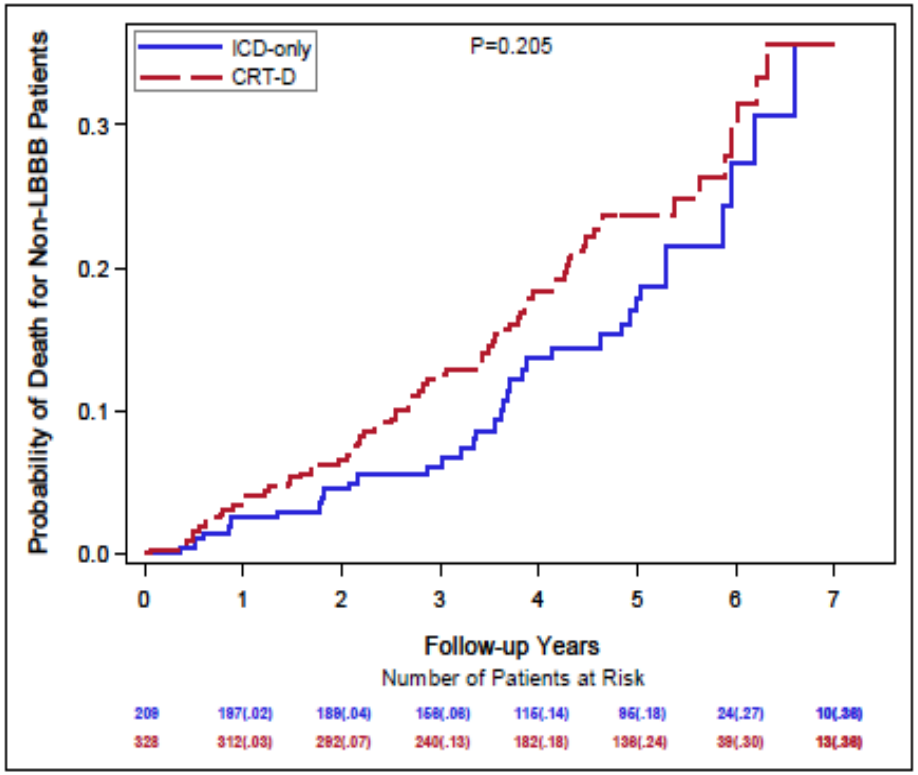
LBBB: ALL-CAUSE MORTALITY

NNT = 9

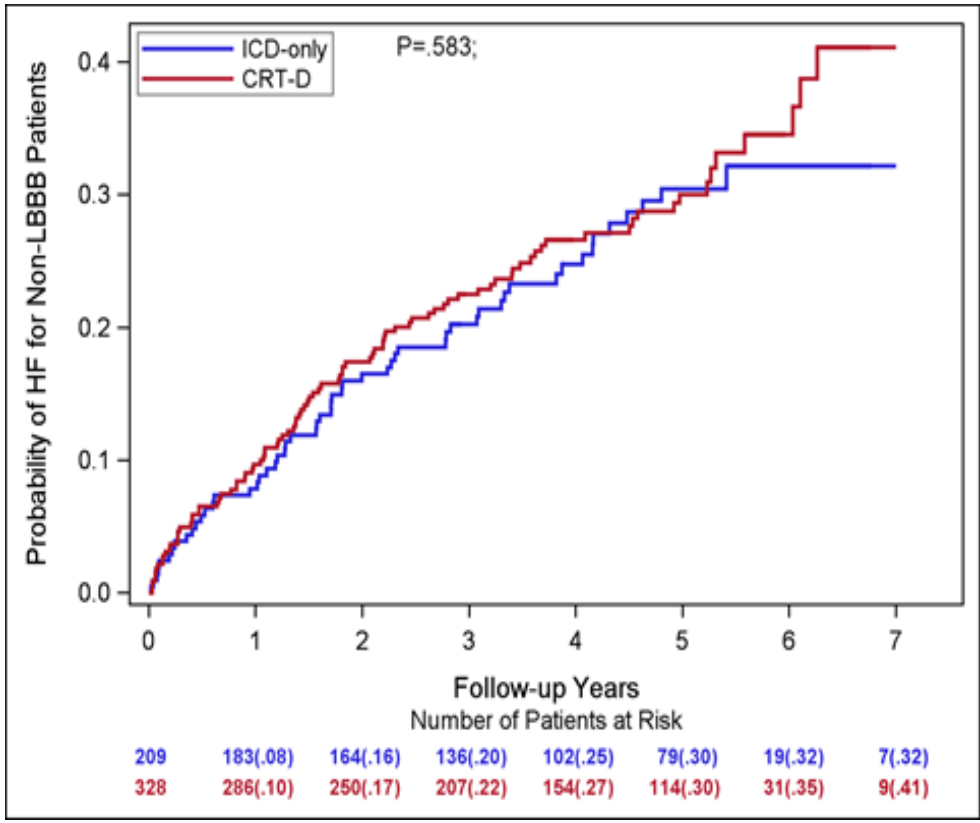


NLBBB

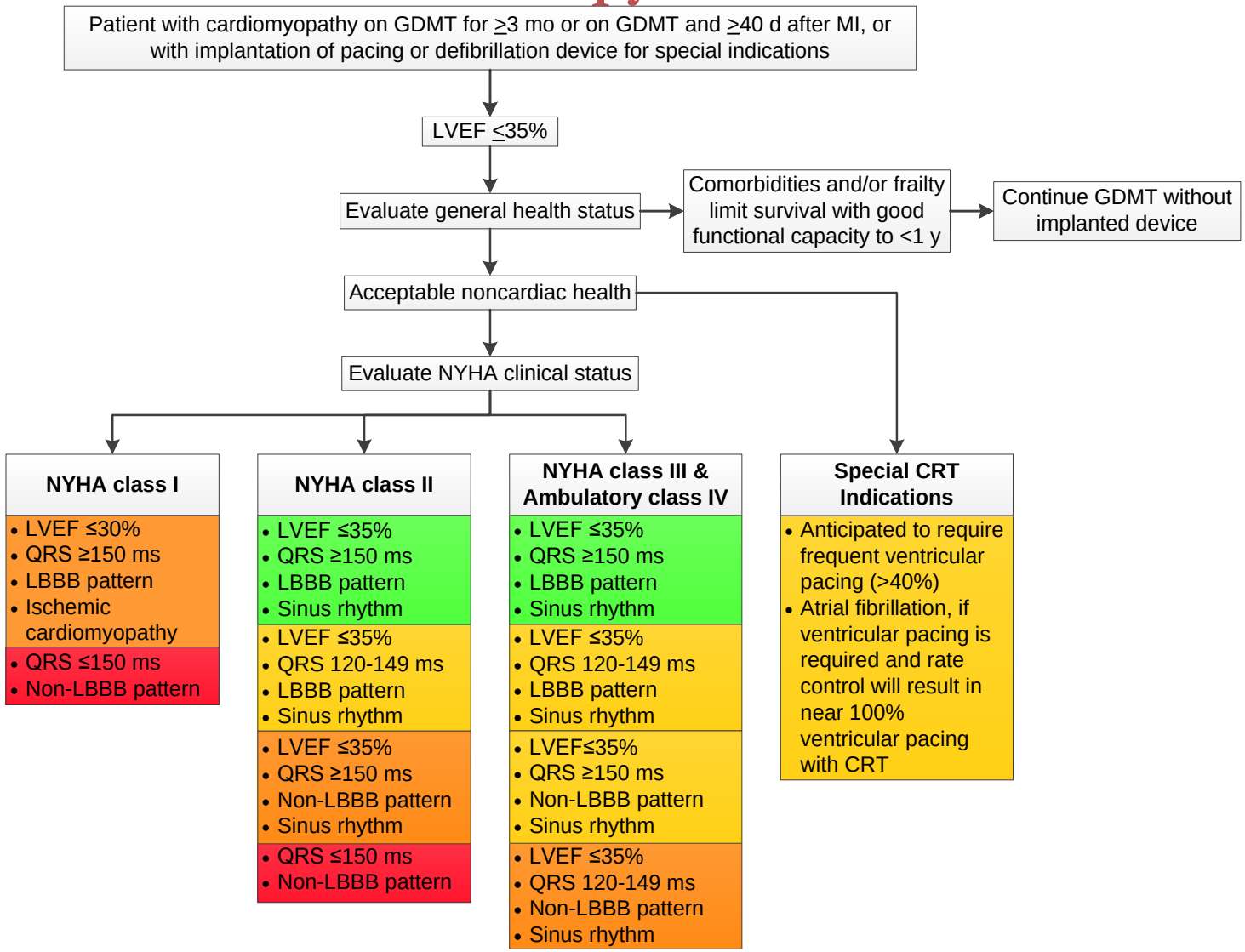
ALL-CAUSE MORTALITY



NON-FATAL HF EVENTS



Indications for CRT Therapy



Colors correspond to the class of recommendations in the ACCF/AHA Table 1.

Benefit for NYHA class I and II patients has only been shown in CRT-D trials, and while patients may not experience immediate symptomatic benefit, late remodeling may be avoided along with long-term HF consequences. There are no trials that support CRT-pacing (without ICD) in NYHA class I and II patients. Thus, it is anticipated these patients would receive CRT-D unless clinical reasons or personal wishes make CRT-pacing more appropriate. In patients who are NYHA class III and ambulatory class IV, CRT-D may be chosen but clinical reasons and personal wishes may make CRT-pacing appropriate to improve symptoms and quality of life when an ICD is not expected to produce meaningful benefit in survival.

Guideline for HF

The Hospitalized Patient

Hospital Discharge

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Recommendation or Indication	COR	LOE
Performance improvement systems in the hospital and early postdischarge outpatient setting to identify HF for GDMT	I	B
Before hospital discharge, at the first postdischarge visit, and in subsequent follow-up visits, the following should be addressed: a) initiation of GDMT if not done or contraindicated; b) causes of HF, barriers to care, and limitations in support; c) assessment of volume status and blood pressure with adjustment of HF therapy; d) optimization of chronic oral HF therapy; e) renal function and electrolytes; f) management of comorbid conditions; g) HF education, self-care, emergency plans, and adherence; and h) palliative or hospice care.	I	B
Multidisciplinary HF disease-management programs for patients at high risk for hospital readmission are recommended	I	B
A follow-up visit within 7 to 14 days and/or a telephone follow-up within 3 days of hospital discharge is reasonable	IIa	B
Use of clinical risk-prediction tools and/or biomarkers to identify higher-risk patients is reasonable	IIa	B

ACCF/AHA/AMA-PCPI 2011 HF Performance Measurement Set

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Measure	Description*	Care Setting	Level of Measurement
1. LVEF assessment	Percentage of patients aged ≥18 y with a diagnosis of HF for whom the quantitative or qualitative results of a recent or prior (any time in the past) LVEF assessment is documented within a 12 mo period	Outpatient	Individual practitioner
2. LVEF assessment	Percentage of patients aged ≥18 y with a principal discharge diagnosis of HF with documentation in the hospital record of the results of an LVEF assessment that was performed either before arrival or during hospitalization, OR documentation in the hospital record that LVEF assessment is planned for after discharge	Inpatient	• Individual practitioner • Facility
3. Symptom and activity assessment	Percentage of patient visits for those patients aged ≥18 y with a diagnosis of HF with quantitative results of an evaluation of both current level of activity and clinical symptoms documented	Outpatient	Individual practitioner

*Please refer to the complete measures for comprehensive information, including measure exception.

Adapted from Bonow et al. J Am Coll Cardiol. 2012;59:1812-32.

ACCF/AHA/AMA-PCPI 2011 HF Performance Measurement Set (cont.)

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Measure	Description*	Care Setting	Level of Measurement
4. Symptom management†	Percentage of patient visits for those patients aged ≥18 y with a diagnosis of HF and with quantitative results of an evaluation of both level of activity AND clinical symptoms documented in which patient symptoms have improved or remained consistent with treatment goals since last assessment OR patient symptoms have demonstrated clinically important deterioration since last assessment with a documented plan of care	Outpatient	Individual practitioner
5. Patient self-care education†‡	Percentage of patients aged ≥18 y with a diagnosis of HF who were provided with self-care education on ≥3 elements of education during ≥1 visits within a 12 mo period	Outpatient	Individual practitioner
6. Beta-blocker therapy for LVSD (outpatient and inpatient setting)	Percentage of patients aged ≥18 y with a diagnosis of HF with a current or prior LVEF <40% who were prescribed beta-blocker therapy with bisoprolol, carvedilol, or sustained release metoprolol succinate either within a 12 mo period when seen in the outpatient setting or at hospital discharge	Inpatient and Outpatient	Individual practitioner Facility

*Please refer to the complete measures for comprehensive information, including measure exception.
†Test measure designated for use in internal quality improvement programs only. These measures are not appropriate for any other purpose, e.g., pay for performance, physician ranking or public reporting programs.
‡New measure.

Adapted from Bonow et al. J Am Coll Cardiol. 2012;59:1812-32.

ACCF/AHA/AMA-PCPI 2011 HF Performance Measurement Set (cont.)

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Measure	Description*	Care Setting	Level of Measurement
7. ACE Inhibitor or ARB Therapy for LVSD (outpatient and inpatient setting)	Percentage of patients aged ≥18 y with a diagnosis of HF with a current or prior LVEF <40% who were prescribed ACE inhibitor or ARB therapy either within a 12 mo period when seen in the outpatient setting or at hospital discharge	Inpatient and Outpatient	Individual practitioner Facility
8. Counseling regarding ICD implantation for patients with LVSD on combination medical therapy†‡	Percentage of patients aged ≥18 y with a diagnosis of HF with current LVEF ≤35% despite ACE inhibitor/ARB and beta-blocker therapy for at least 3 mo who were counseled regarding ICD implantation as a treatment option for the prophylaxis of sudden death	Outpatient	Individual practitioner
9. Post-discharge appointment for heart failure patients	Percentage of patients, regardless of age, discharged from an inpatient facility to ambulatory care or home health care with a principal discharge diagnosis of HF for whom a follow-up appointment was scheduled and documented including location, date and time for a follow-up office visit, or home health visit (as specified)	Inpatient	Facility

*Please refer to the complete measures for comprehensive information, including measure exception.
†Test measure designated for use in internal quality improvement programs only. These measures are not appropriate for any other purpose, e.g., pay for performance, physician ranking or public reporting programs.
‡New measure.

Adapted from Bonow et al. J Am Coll Cardiol. 2012;59:1812-32.

Target: Heart Failure

- An AHA initiative launched in 2010 whose purpose is to improve quality, care transitions, and outcomes for patients with heart failure with a targeted initiative and leveraging the American Heart Association's premier quality improvement suite of resources including Get With The Guidelines-Heart Failure.
- •Provide healthcare professionals with content-rich resources and materials designed to help them advance heart failure awareness, prevention, treatment and recovery.
- •Participants must demonstrate > 50% compliance on the following measures:
- • *Medication optimization*
- • *Early follow-up and care coordination*
- • *Enhanced patient education*

Target: Heart Failure

- ACEI/ARB at discharge
- Evidence-based beta-blocker at discharge
- Aldosterone Antagonist at discharge
- Follow-up visit within 7 days
- Referral to disease management program
- Patient education (at least 60 min)
- Interactive workbook

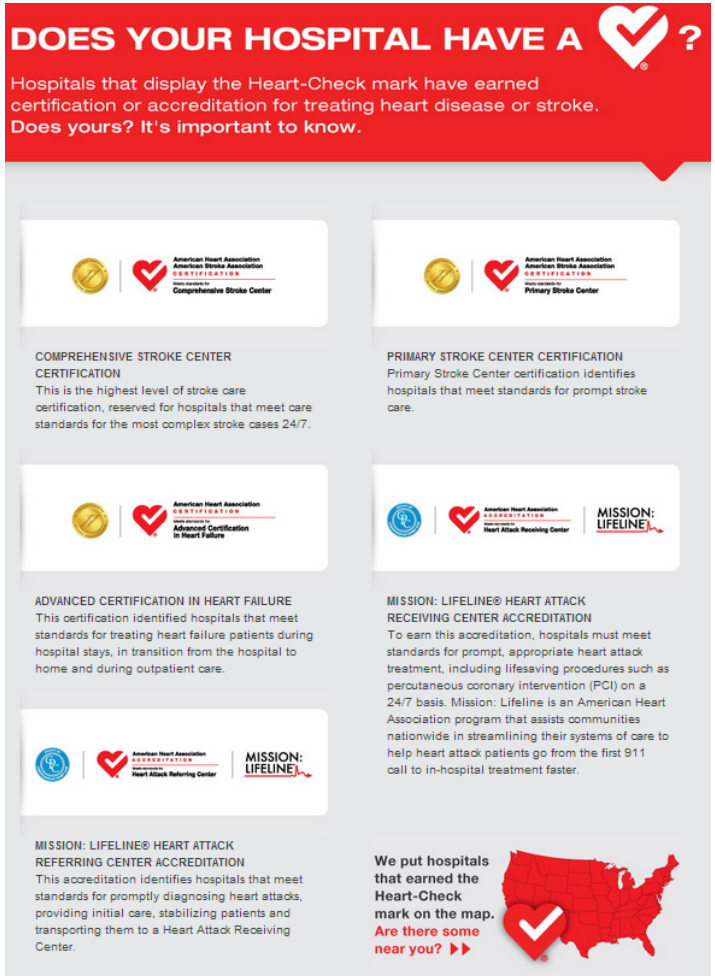
Advanced Certification in Heart Failure

- Launched in July 2011 in collaboration with The Joint Commission
- Certification is for organizations seeking better outcomes for patients with heart failure. Certification evaluation will focus on patient care in the inpatient setting as well as a thorough assessment of the coordination of care, including transition to outpatient heart failure care providers.
- Integrated with the *2009 Focused Update Incorporated Into the ACC/AHA 2005 Guidelines for the Diagnosis and Management of Heart Failure in Adults.*
- To date, there are:
  - 50 Advanced Heart Failure certified hospitals

Hospital Accreditation Consumer Webpage

- Re-launched 12/9/13
- Educates consumers on reasons to look for heart-check mark to recognize and identify hospitals that have achieved accreditation or certification

www.heart.org/myhospital



Want to learn more about Advanced Certification in Heart Failure?

Please visit www.heart.org/certification or email us at accreditation@heart.org.

Joint Effort

American Heart Association
The Joint Commission

Learn more at heart.org/certification.

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Conclusions

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Evidence-based guideline directed diagnosis, evaluation and therapy should be the mainstay for all patients with heart failure

Effective implementation of guideline directed best quality care reduces mortality, improves QOL and preserves health care resources

Ongoing research is needed to answer the remaining questions including: prevention, non-pharmacological therapy of HF including dietary adjustments, treatment of HFpEF, management of hospitalized heart failure, effective reduction in HF readmissions, more precise use of device based therapy, smaller mechanical circulatory support platforms and cell based regenerative therapy.

Benefits of Get With The Guidelines – Heart Failure

- **Understand and address readmissions**
  - 30-Day Post Discharge Follow-Up Form
    - Tracks 30-day all cause re-hospitalizations (as well as mortality).
    - Tracks other critical items post-discharge such as medication adherence, follow-up since discharge, labs/tests, and education.
    - Readmission Frequency as well as 30-Day, 60-Day and 90-Day readmissions. (
      - *NOTE: The GWTG Readmission Measures are not equivalent to the CMS 30-Day Risk Standardized Readmission Measure. They are not risk adjusted, do not represent all cause readmission, and do not capture readmission to other hospitals.)*
- **Improve care transitions**
    - Post discharge follow-up appointment and phone calls
    - Care Transition record transmitted to the next care setting
    - Referral to Heart Failure disease management programs

Benefits of Get With The Guidelines – Heart Failure

- **Track key indicators not available anywhere else**
  - Evidence-Based Specific Beta Blockers
  - CRT-D or CRT-P Placed or Prescribed at Discharge
  - ICD Counseling or ICD Placed or Prescribed at Discharge
  - Anticoagulation for HF Patients with Atrial Fibrillation
  - Discussion of Advance Directives
- **Consulting from local Get With The Guidelines field team**
  - Provide guidance on data collection and measurement
  - Consult on ongoing quality improvement activities
  - Connect you with other hospitals for support and mentorship
- **Distinguish your hospital as a leader in Heart Failure care**
  - Get With The Guidelines has a national recognition program
  - Get With The Guidelines supports Joint Commission Advanced Certification in Heart Failure
  - Join the Target:HF network and become part of the Target:HF Honor Roll
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