

The Team Approach to Heart Failure

Mariell Jessup MD FACC, FAHA

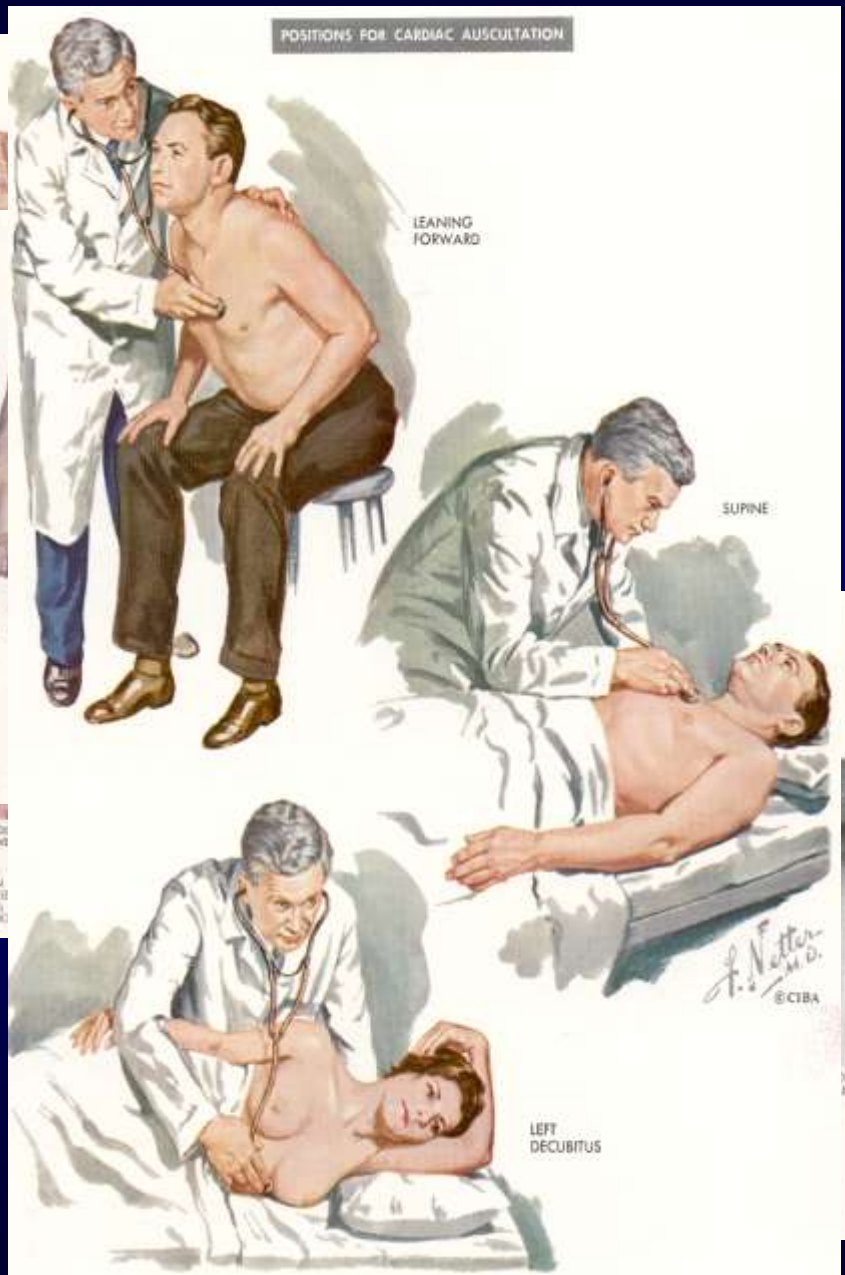
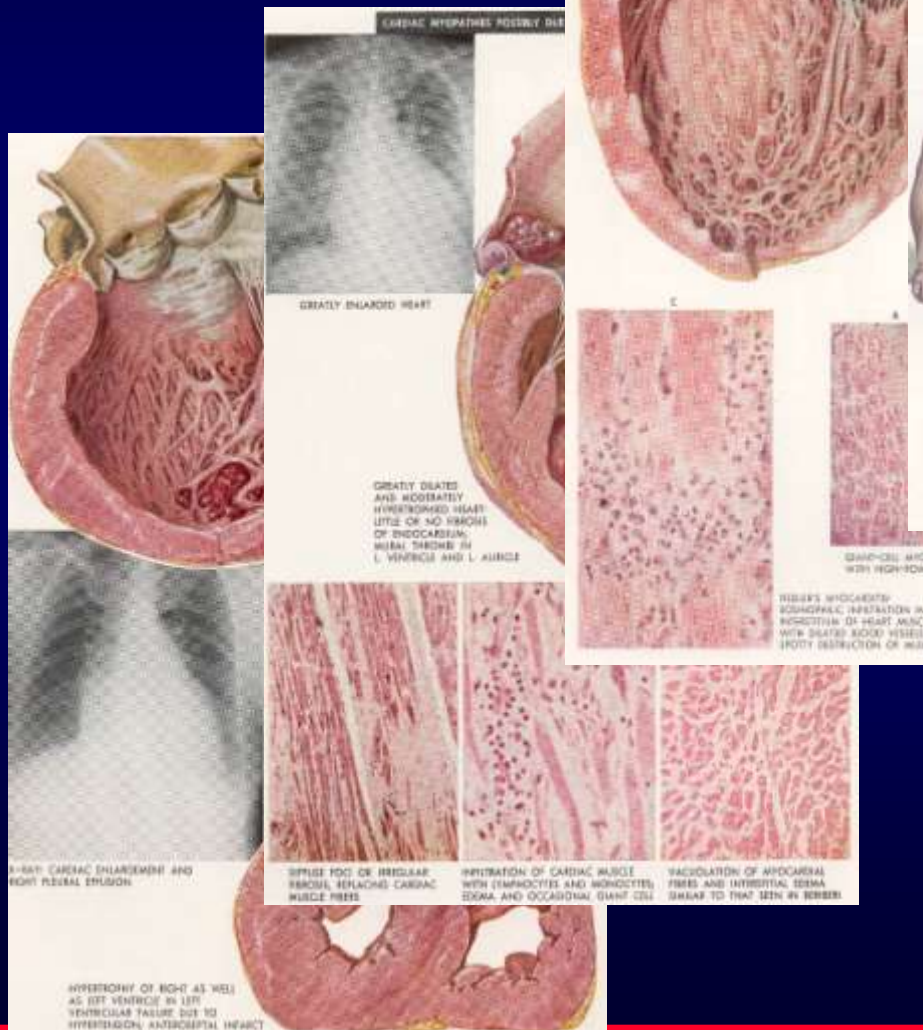
Professor of Medicine

University of Pennsylvania

Philadelphia, Pennsylvania

Disclosure: No relevant relationships.

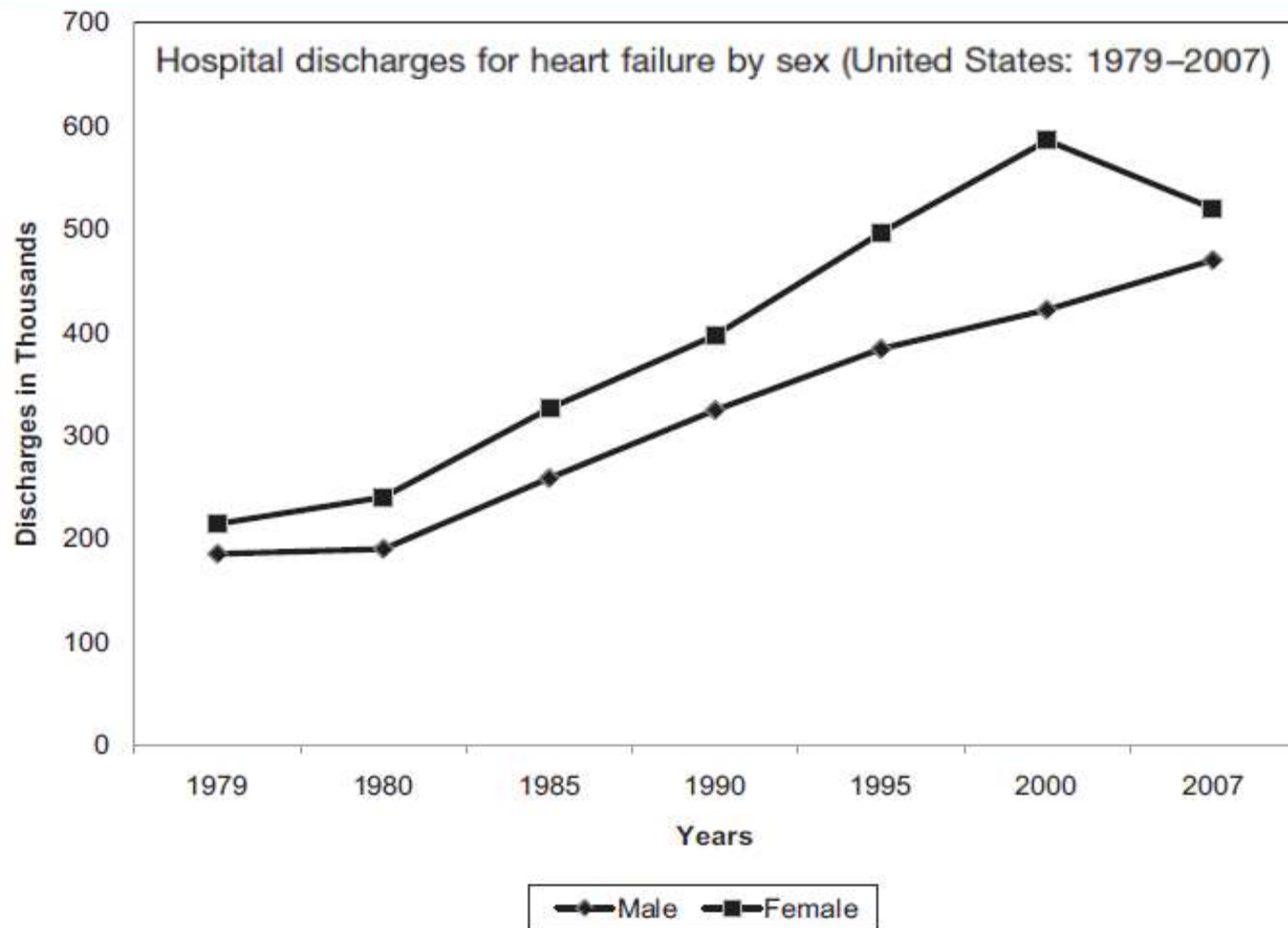
Frank Netter Montage of Heart Failure



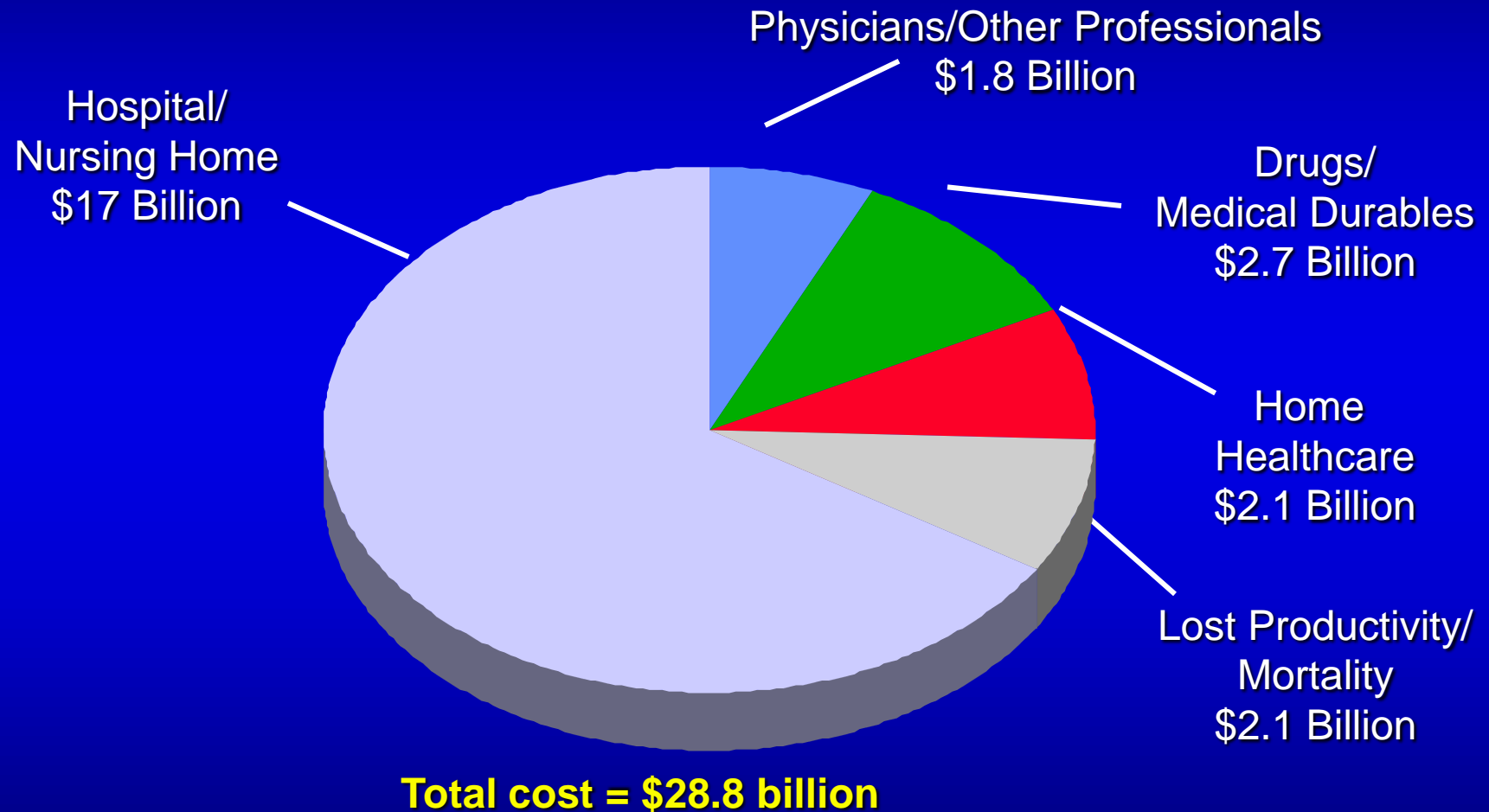
ORIGINAL ILLUSTRATION

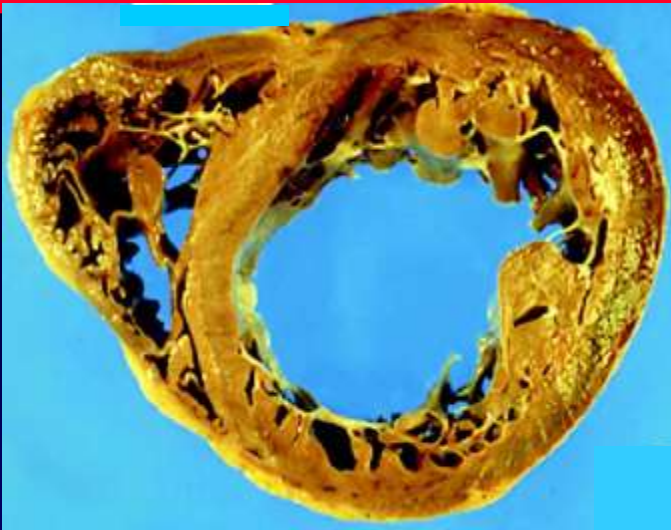
AHA Statistical Update

Heart Disease and Stroke Statistics—2011 Update A Report From the American Heart Association



Heart Failure in the United States: Estimated Total Costs





**Systolic
Heart
Failure**



Normal



**Diastolic
Heart Failure**



What else needs to happen?

Treatment Goals for Patients Admitted for ADHF

- Improve symptoms, especially congestion and low-output symptoms
 - Restore normal oxygenation
- Optimize volume status
- Identify etiology (see Table 4.6)
- Identify and address precipitating factors
- Optimize chronic oral therapy
- Minimize side effects
- Identify patients who might benefit from revascularization
- Identify patients who might benefit from device therapy
- Identify risk of thromboembolism and need for anticoagulant therapy
- Educate patients concerning medications and self management of HF
- Consider and, where possible, initiate a disease management program

What else needs to happen?

- Medication reconciliation
- Continue evidenced-based therapy
- Start evidenced-based therapy
- Written discharge instructions
- Post-discharge systems of care

What else needs to happen?

Table 27 Goals of treatment in acute heart failure

- **Immediate (ED/ICU/CCU)**

- Improve symptoms

- Restore oxygenation

- Improve organ perfusion and haemodynamics

- Limit cardiac/renal damage

- Minimize ICU length of stay

- **Intermediate (in hospital)**

- Stabilize patient and optimize treatment strategy

- Initiate appropriate (life-saving) pharmacological therapy

- Consider device therapy in appropriate patients

- Minimize hospital length of stay

- **Long-term and pre-discharge management**

- Plan follow-up strategy

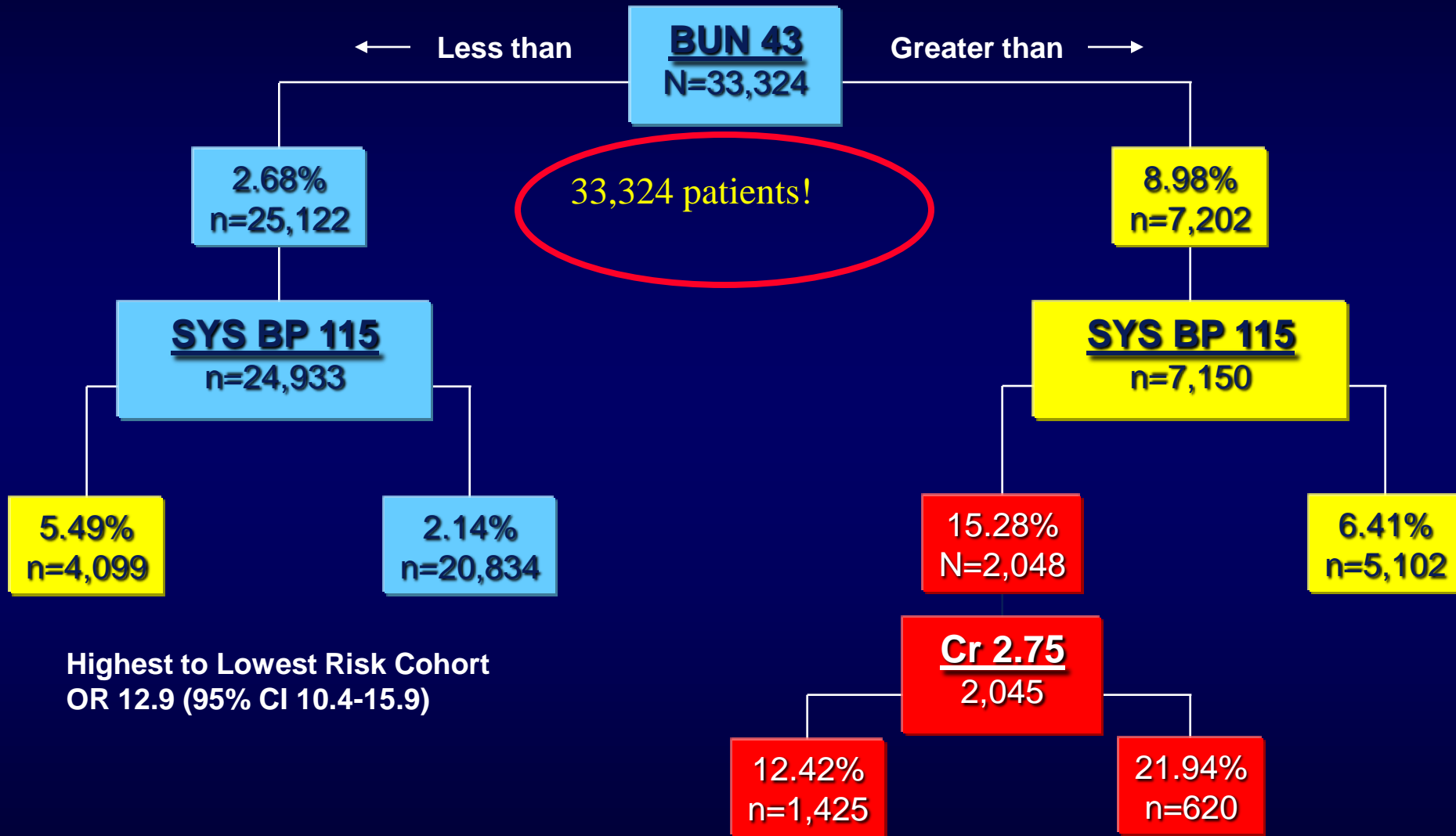
- Educate and initiate appropriate lifestyle adjustments

- Provide adequate secondary prophylaxis

- Prevent early readmission

- Improve quality of life and survival

ADHERE[®] CART: Predictors of Mortality



Highest to Lowest Risk Cohort
OR 12.9 (95% CI 10.4-15.9)

Stages & steps: treatment of systolic HF

Stage A

High risk
with no
symptoms

Stage B

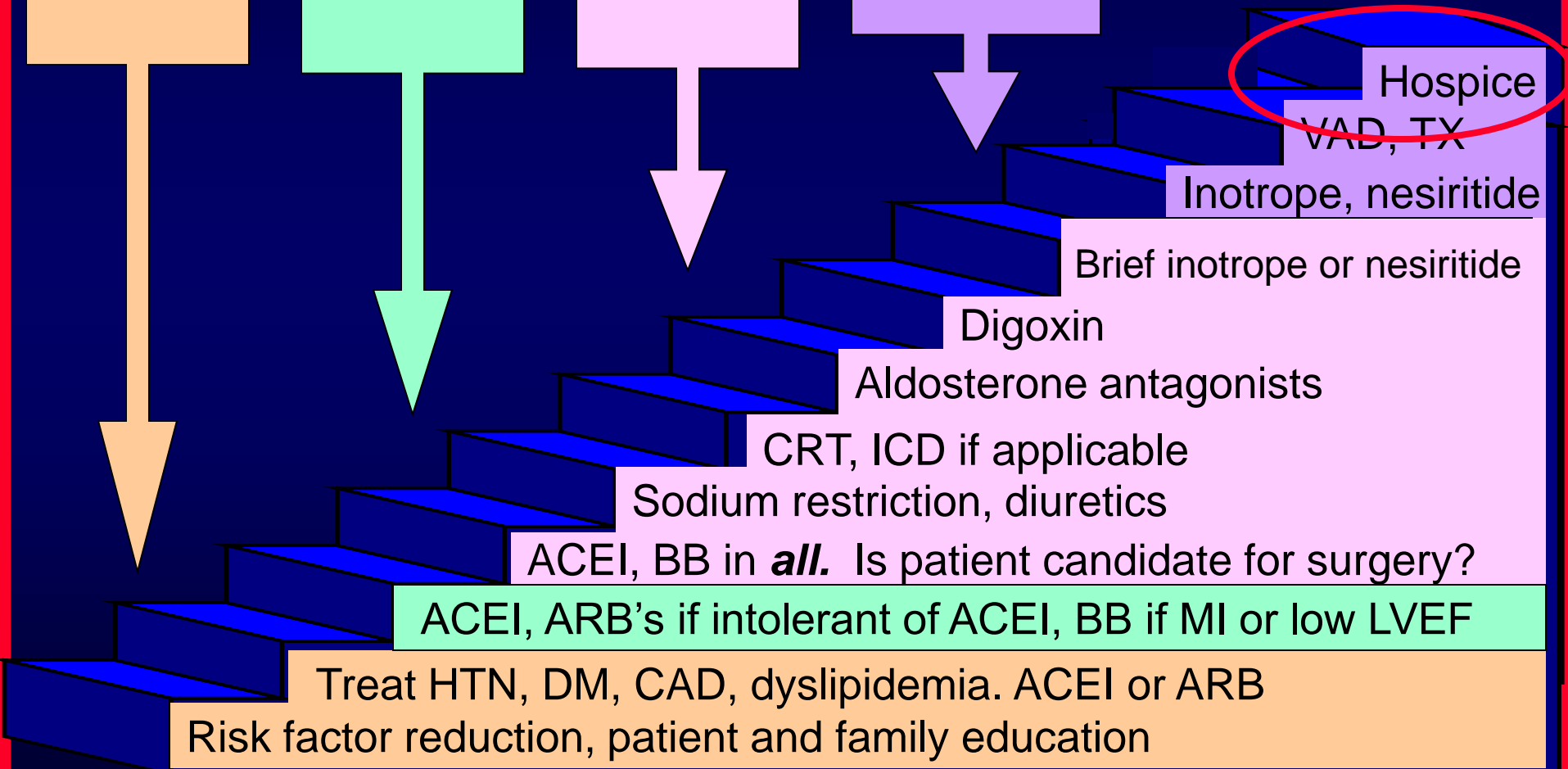
Structural
heart
disease,
no
symptoms

Stage C

Structural
disease,
prior or
current
symptoms

Stage D

Refractory
symptoms
requiring
special
intervention



Evidence-Based Interventions to Improve the Palliative Care of Pain, Dyspnea, and Depression at the End of Life: A Clinical Practice Guideline from the American College of Physicians

Amir Qaseem, MD, PhD, MHA; Vincenza Snow, MD; Paul Shekelle, MD, PhD; Donald E. Casey Jr., MD, MPH, MBA; J. Thomas Cross Jr., MD, MPH; and Douglas K. Owens, MD, MS, for the Clinical Efficacy Assessment Subcommittee of the American College of Physicians*

Evidence for Improving Palliative Care at the End of Life: A Systematic Review

Karl A. Lorenz, MD, MSHS; Joanne Lynn, MD, MA, MS; Sydney M. Dy, MD; Lisa R. Shugarman, PhD; Anne Wilkinson, MS, PhD; Richard A. Mularski, MD, MSHS, MCR; Sally C. Morton, PhD; Ronda G. Hughes, RN, MHS, PhD; Lara K. Hilton, BA; Margaret Maglione, PhD; Shannon L. Rhodes, MS; Cony Rolon, BA; Virginia C. Sun, BS, MSN; and Paul G. Shekelle, MD, PhD

American College of Cardiology Foundation (ACCF)
American Heart Association (AHA)
Physician Consortium for Performance Improvement® (PCPI™)

Heart Failure
Performance Measurement Set

2010

Measures addressing patient-centered outcomes

Measure #4: Symptom Management (*for quality improvement only*)

Process measures: Several processes of care, demonstrated to improve outcomes for heart failure patients, are recommended:

Measures addressing underuse of effective services (diagnostic and treatment strategies)

- ➔ Measure #1: Left Ventricular Ejection Fraction (LVEF) Assessment (Outpatient Setting)
- ➔ Measure #2: Left Ventricular Ejection Fraction (LVEF) Assessment (Inpatient Setting)
- ➔ Measure #6: Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction
- ➔ Measure #7: Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction
- ➔ Measure #8: Counseling regarding Implantable Cardioverter-Defibrillator (ICD) Implantation for Patients with Left Ventricular Systolic Dysfunction on Combination Medical Therapy (*for quality improvement only*)

Measures addressing underuse of patient-centered care strategies

- Measure #3: Symptom and Activity Assessment
- Measure #5: Patient Self-Care Education (*for quality improvement only*)

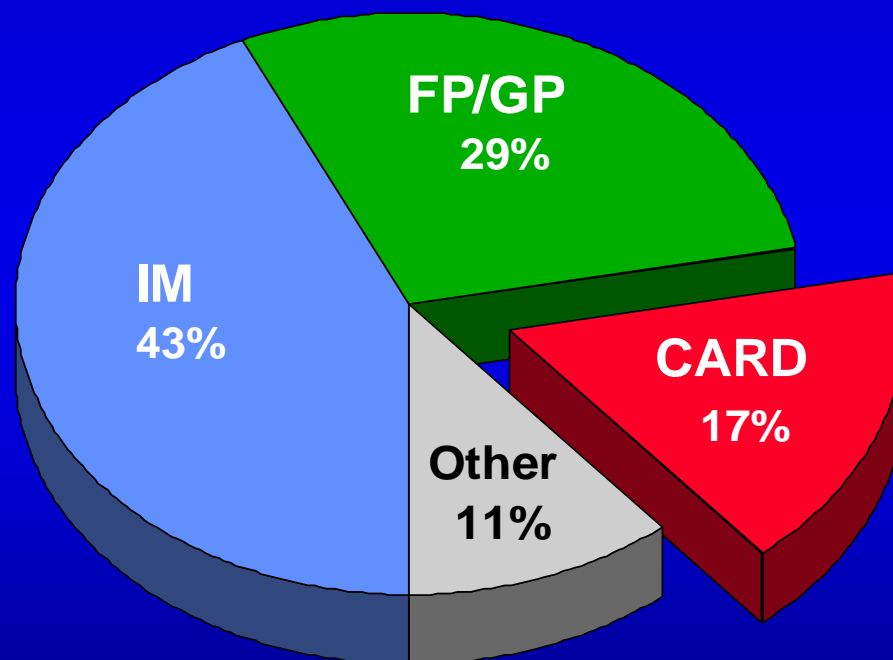
Measures addressing care coordination

- Measure #9: Post-Discharge Appointment for Heart Failure Patients

Measures addressing underuse of effective services (diagnostic and treatment strategies)

- Measure #6: Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction
- Measure #7: Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction

Who Manages CHF?

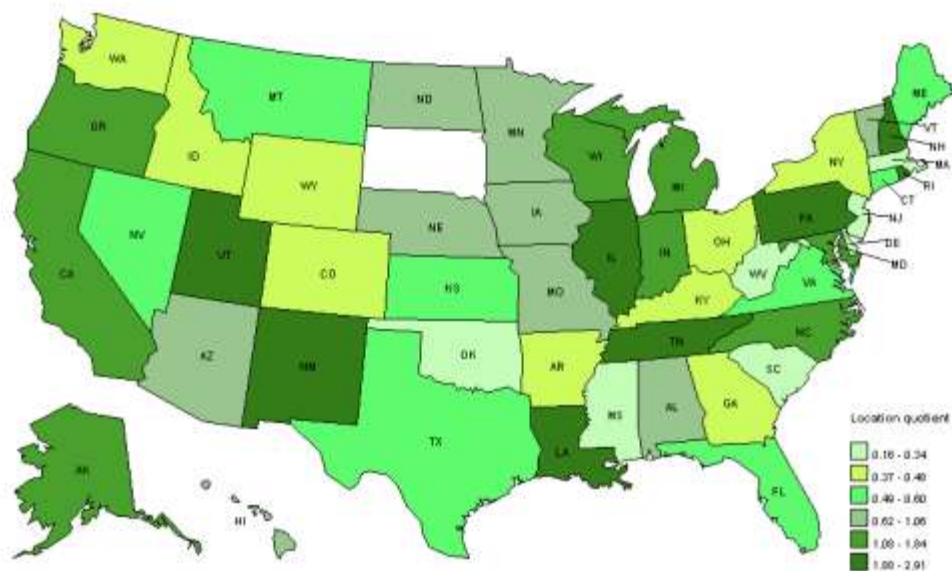


Who and how we will take care of the heart failure patients?

- 2007 HF hospital discharges: 990,000
- 2007 HF office visits: 3,434,000
 - 83% hospitalized once
 - 43% hospitalized at least 4 times

- 2010 internists, and generalists: 50,070
- 2010 Physicians and surgeons: 293,740
- 2010 cardiologists: 20,000

Location quotient of healthcare practitioners and technical workers, all other by state, May 2010



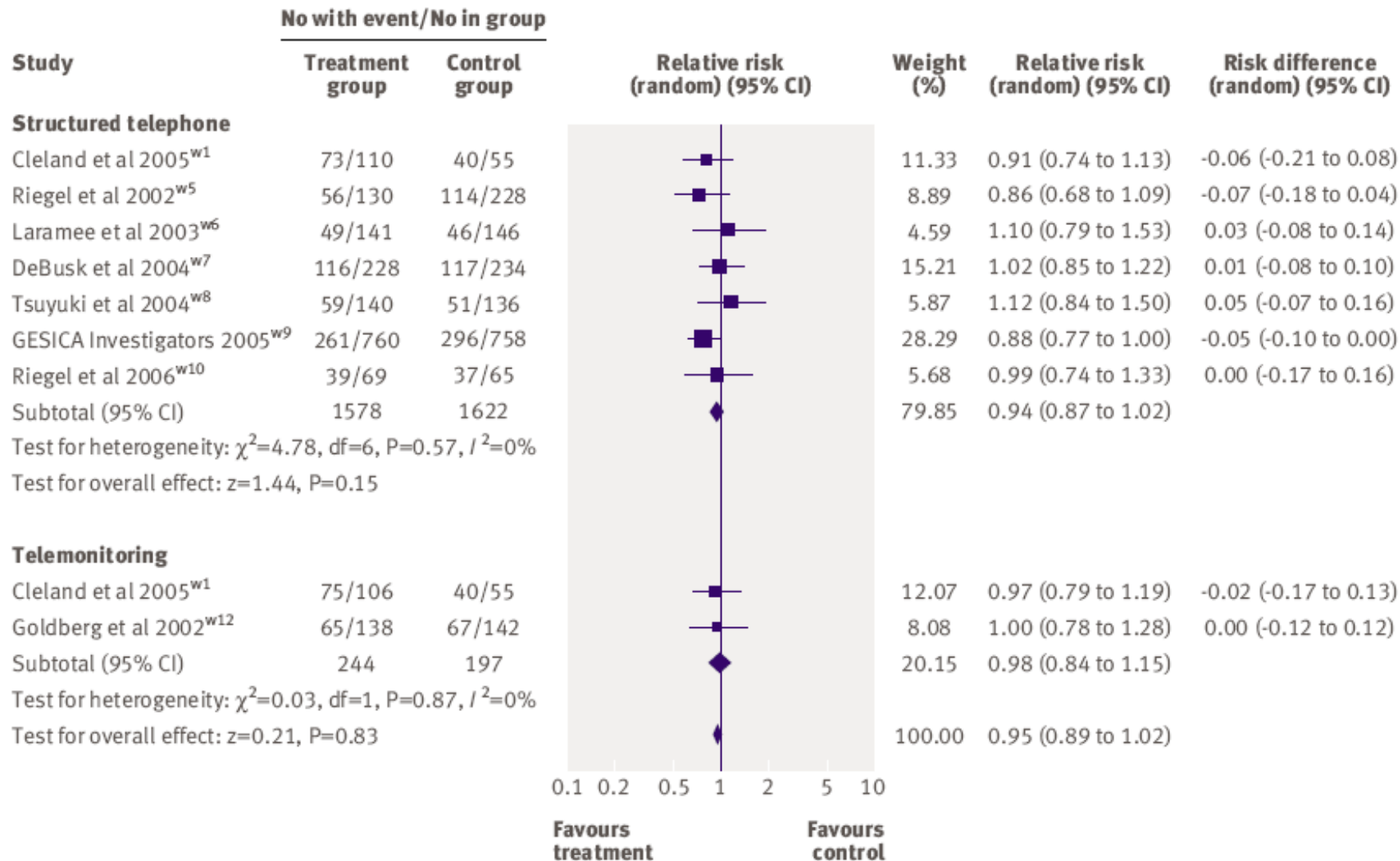
New Survey Reveals Critical Shortage in Number of Cardiologists Available to Care for Growing Number of Americans with Heart Disease

SEPTEMBER 10, 2009

TABLE 2. Cardiovascular "Demand Catalysts"

An aging population with more chronic cardiac patients living longer
The "epidemics" of obesity and type 2 diabetes leading to more cardiovascular disease
Heart patients' outcomes are better if they receive part of their care from a cardiologist
The demise of the gatekeeper model resulted in enhanced access to cardiologists
A better informed public with growing expectations in terms of their health care
More women learning they are more likely to die from cardiovascular disease than cancer
Continuing technological and procedural innovations that diffuse rapidly into practice
Growing use of cardiovascular screening tests that result in more referrals and procedures
Progressive subspecialization within cardiology that result in more "internal" referrals

Circulation
February 24, 2004 vol. 109 no. 7
813-816



All cause hospitalization

Clark et al. *BMJ* 2007; 337:942

No with event/No in group

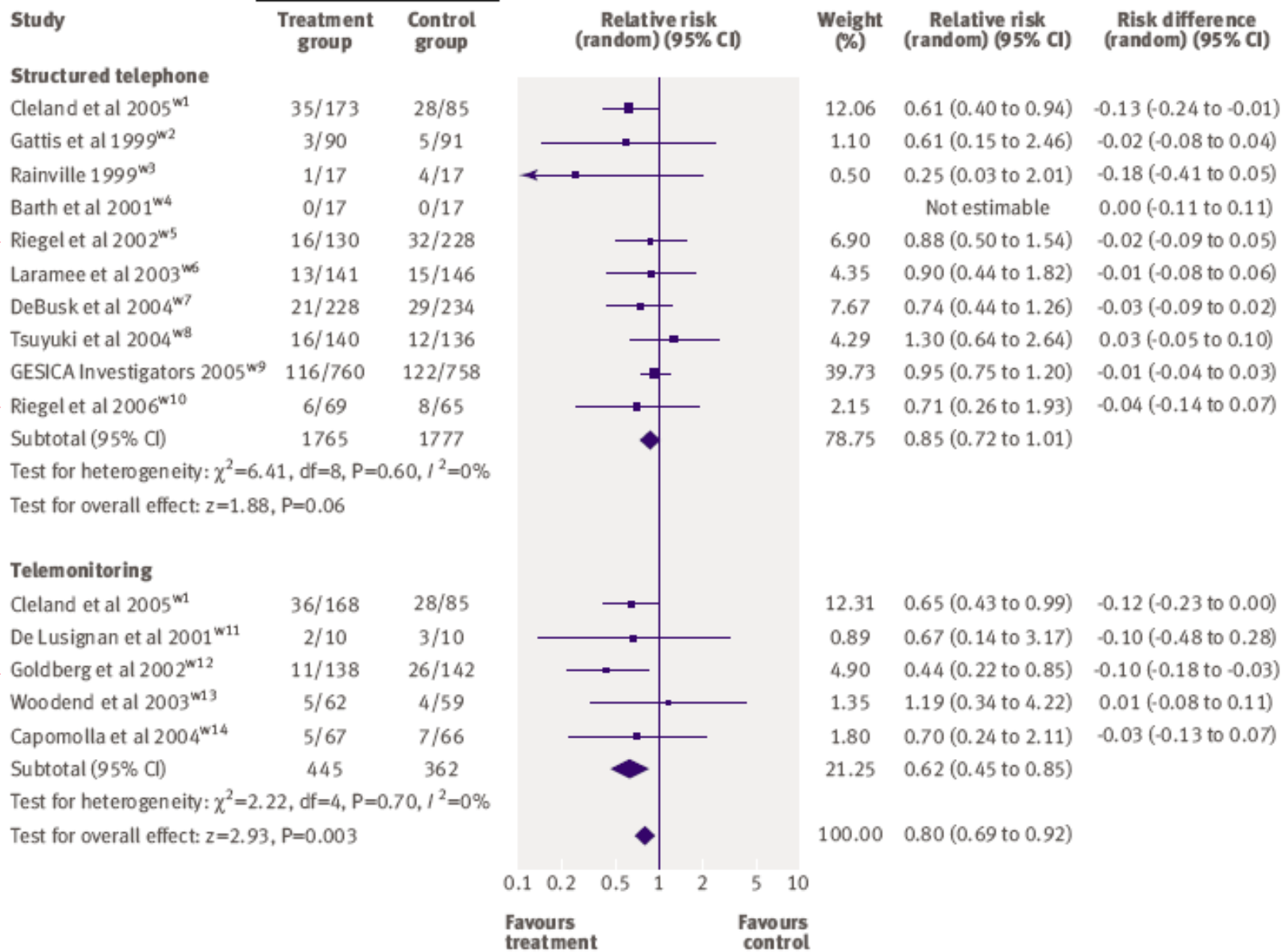
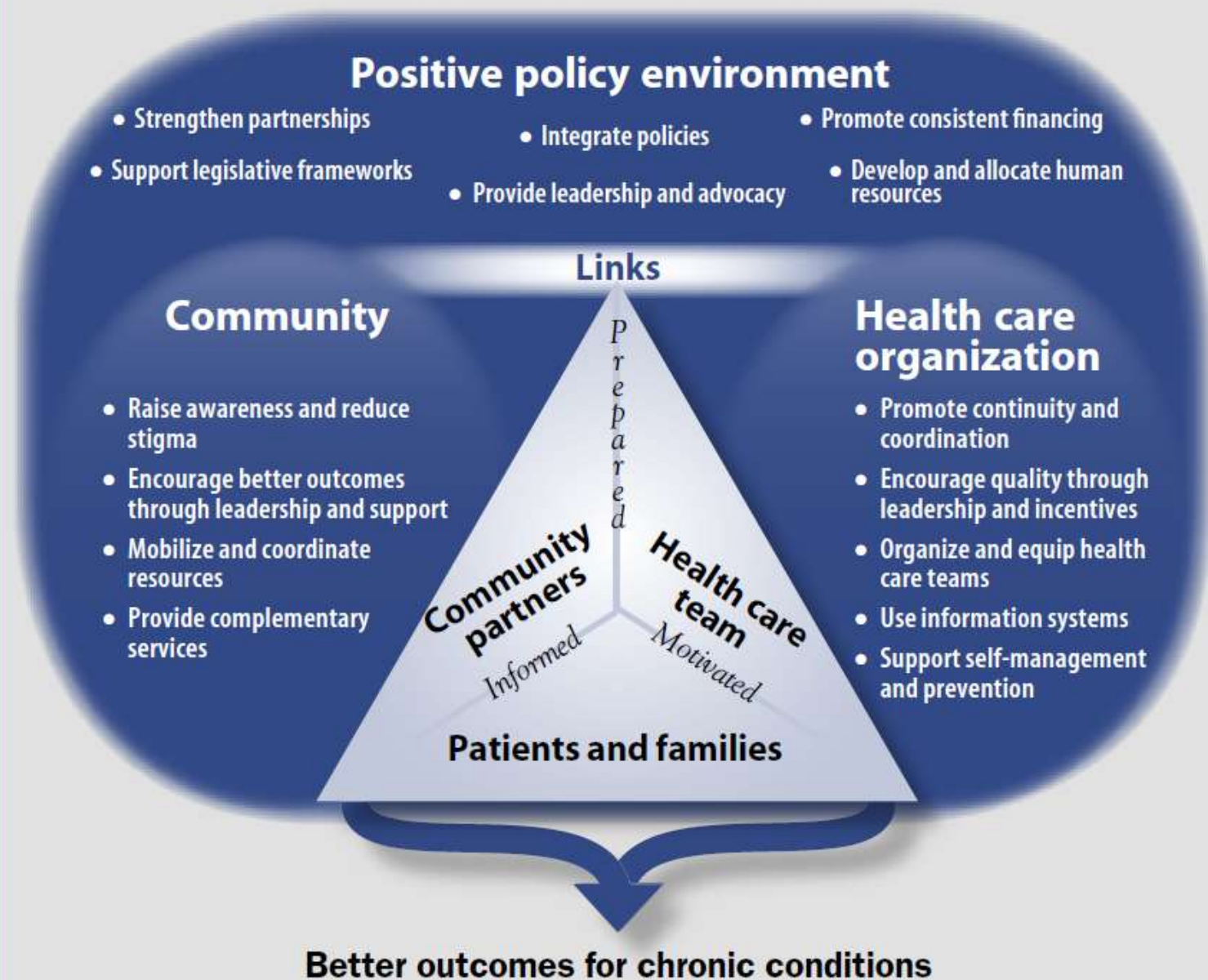


FIGURE 1. The Innovative Care for Chronic Conditions Framework (1).



Core Competencies

1. Patient-centred care

- Interviewing and communicating effectively
- Assisting changes in health-related behaviours
- Supporting self-management
- Using a proactive approach

2. Partnering

- Partnering with patients
- Partnering with other providers
- Partnering with communities

3. Quality improvement

- Measuring care delivery and outcomes
- Learning and adapting to change
- Translating evidence into practice

4. Information and communication technology

- Designing and using patient registries
- Using computer technologies
- Communicating with partners

5. Public health perspective

- Providing population-based care
- Systems thinking
- Working across the care continuum
- Working in primary health care-led systems

World Health Organization

Heart failure as a model of chronic care.

ACCF/AHA/HFSA 2011 Survey Results: Current Staffing Profile of Heart Failure Programs, Including Programs That Perform Heart Transplant and Mechanical Circulatory Support Device Implantation

2010

Acute Heart Failure Syndromes: Emergency Department Presentation, Treatment, and Disposition: Current Approaches and Future Aims

2009

State of the Science

Promoting Self-Care in Persons With Heart Failure

A Scientific Statement From the American Heart Association

Barbara Riegel, DNSc, RN, FAHA, Chair; Debra K. Moser, DNSc, RN, FAHA;

Stefan D. Anker, MD, PhD; Lawrence J. Appel, MD, MPH, FAHA;

Sandra B. Dunbar, RN, DSN, FAHA; Kathleen L. Grady, PhD, APN; Michelle Z. Gurvitz, MD;

Edward P. Havranek, MD; Christopher S. Lee, PhD, RN; JoAnn Lindenfeld, MD, FAHA;

Pamela N. Peterson, MD, MSPH; Susan J. Pressler, DNS, RN, FAHA;

Douglas D. Schocken, MD, FAHA; David J. Whellan, MD; on behalf of the American Heart Association Council on Cardiovascular Nursing, Council on Clinical Cardiology, Council on Nutrition, Physical Activity, and Metabolism, and Interdisciplinary Council on Quality of Care and Outcomes Research