

# Chronic Heart Failure

PALO ALTO, CALIFORNIA

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## Background

Heart failure is associated with high mortality and poor quality of life. Heart failure currently affects nearly five million Americans, and hospital admissions for this condition have increased six-fold in the United States since 1970, due, in part, to an aging population. Moreover, heart failure is the number one reason for discharge for Veterans treated within the VA healthcare system.

Therapies that improve this condition, including angiotensin converting enzyme (ACE) inhibitors, beta-blockers, aldosterone antagonists, and implantable cardioverter-defibrillators (ICDs), are available but often underused. And although guideline compliance for the process of care measures used by the Joint Commission, including measurement of ejection fraction and use of ACE inhibitors, is high within the VA healthcare system compared to other healthcare systems, vulnerable populations and those with comorbidities are likely to be under-treated. In addition, VA shows room for improvement on emerging performance measures, such as the appropriate use of beta-blockers. Thus, heart failure care is an ideal focus for the QUERI program.

## Chronic Heart Failure Quality Enhancement Research Initiative

The Chronic Heart Failure Quality Enhancement Research Initiative (CHF-QUERI) utilizes the QUERI six-step process (see sidebar) to improve the quality of care and health outcomes of Veterans with heart failure. Five goals have been identified for CHF-QUERI:

- Reducing readmission and improving

early follow up;

- Increasing the use of life-prolonging treatment;
- Increasing care that improves quality of life;
- Empowering patients and caregivers in self-management; and
- Improving the appropriateness of heart failure treatments and tests.

## CHF-QUERI Projects and Findings

### Heart Failure (HF) Provider Network

With the support of Robert Jesse, M.D., Ph.D., former Principal Deputy Under Secretary for Health, and John Rumsfeld M.D., Ph.D., Director, National Cardiology Program, VA's Patient Care Services, CHF-QUERI initiated the Heart Failure (HF) Provider Network – a network of VA providers interested in improving heart failure care throughout the VA healthcare system. Goals of the HF Network are:

- Share evidence-based HF programs;
- Understand and help resolve barriers and facilitators to implementation;
- Establish collaborations/networking;
- Disseminate findings and implement quality improvement (QI) projects; and
- Provide opportunities to identify/involve opinion leaders and/or local champions.

Currently, more than 910 providers from 144 VA Medical Centers and VA healthcare systems participate in this network. The HF Network is an important mechanism for the implementation of interventions that will improve the health of Veterans with heart failure. It also facilitates the solicitation of implementation-focused, QUERI-funded proposals

## About QUERI

VA/HSR&D's Quality Enhancement Research Initiative (QUERI) currently focuses on ten areas of great importance related to healthcare for Veterans: Chronic Heart Failure, Diabetes, eHealth, HIV/Hepatitis, Ischemic Heart Disease, Mental Health, Polytrauma and Blast-Related Injuries, Spinal Cord Injury, Stroke, and Substance Use Disorder.

Working with health system partners to develop research that speeds improvements in Veterans' healthcare, QUERI utilizes a six-step process to diagnose gaps in performance and identify and implement interventions to address them.

- Identify priority conditions and opportunities for improving the health of Veterans.
- Identify effective practices for improving outcomes for priority conditions.
- Examine variations in existing practices, the sources of variation, and their relation to health outcomes.
- Identify and test interventions to improve the delivery of best practices.
- Evaluate the feasibility, adoption, and impact of coordinated improvement programs to spread best practices.
- Evaluate the effects of improvement programs on Veterans' health outcomes, including quality of life.

to establish new affiliations and collaborations with network members, and conducts quality improvement projects such as the Save Five Million Lives Campaign and the VA Hospital-to-Home initiative.

### **VA Hospital-to-Home (H2H) Initiative**

The national H2H initiative is co-sponsored by the American College of Cardiology and the Institute for Healthcare Improvement, with a goal of reducing all-cause readmission rates following heart failure or acute myocardial infarction hospitalization by 20% among patients discharged with heart failure by December 2012. The initiative focuses on three key areas:

- Medication management,
- Symptom management, and
- Early follow-up after discharge.

CHF-QUERI has been facilitating implementation of the H2H initiative at all VA facilities. As part of this effort, all facilities have been provided toolkits, along with active support, such as web-based meetings, e-mails, consultations, and the participation of local opinion leaders.

Eighty-six VA facilities are enrolled in the national H2H initiative. Moreover, 91 (75%) facilities reported 529 projects aimed at improving heart failure care. Local opinion leaders at several facilities were identified as “internal facilitators.” Facilities with the local opinion leaders were very successful in implementing the VA H2H” initiative.

### **Web-based Heart Failure Provider Toolkit**

CHF-QUERI has developed a comprehensive web-based Heart Failure (HF) Provider Toolkit through collaboration with the members of its Heart Failure Provider Network, as well as non-VA organizations. The toolkit is available at [www.queri.research.va.gov/chf/products/hf\\_toolkit/default.cfm](http://www.queri.research.va.gov/chf/products/hf_toolkit/default.cfm). Providers are encouraged to review the toolkit to determine where these tools will be helpful in their practice, and to download relevant tools. Key focus areas are mortality risk models, practice guidelines, clinical

pathways, clinical algorithms, screening forms, admission and discharge order sets and instructions, best practices, as well as education materials for providers, patients, and caregivers. There also is an online opportunity for suggesting tools and providing feedback about downloaded tools.

This toolkit is being disseminated within VA through the HF Network and VA Program Offices. Outside VA, it is being uploaded as a quality tool on AHRQ’s Health Care Innovations Exchange website and has been provided to the national H2H initiative, which focuses on reducing heart failure readmissions.

### **Disease Management Protocol for Heart Failure**

In partnership with VA’s Office of Care Coordination, CHF-QUERI completed a standardized Disease Management Protocol (DMP) for Heart Failure (HF). This protocol has been beta-tested, and all four vendors are now installing it into their systems. Soon, Veterans at all VA facilities enrolled in the Care Coordination Home Telehealth (CCHT) program will be using this standardized DMP for heart failure.

Using a structured qualitative process, CHF-QUERI conducted a formative evaluation of this new DMP for HF at two VA facilities, with patients and providers. Preliminary findings show that a majority of Veterans reported being satisfied with the DMP, with most patients (85%) reporting that they responded at least five times per week to the questions asked by the device. Almost all Veterans found the question and answer choices asked by the device easy to understand, and helpful and relevant for their health condition. And based on the device, 90% knew who to contact if their health condition worsened. Among the providers, a majority (75%) said the questions were good for screening. These positive results demonstrate that this is a well-developed DMP that will enhance VA’s ability to track the health of Veterans with heart failure.

### **Partnerships to Improve HF Care**

CHF-QUERI has an ongoing partnership

with the Office of Specialty Care, and also is collaborating with VA’s Office of Quality and Performance, including Performance Management, Pharmacy Benefits Management, and Patient Care Services, including the Office of Care Coordination, National Center for Health Promotion and Disease Prevention, and My HealtheVet. CHF-QUERI also has ongoing projects with Ischemic Heart Disease-QUERI, Stroke-QUERI, and Mental Health-QUERI.

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### **The CHF-QUERI Executive Committee**

Each QUERI Center is led by a research expert and a clinician. The Director for CHF-QUERI is **Paul Heidenreich, M.D., M.S.**; the Associate Director is Mary Whooley, M.D., the Clinical Coordinator is **John R. Teerlink, M.D.**, and the Implementation Research Coordinator is **Anju Sahay, Ph.D.** The Executive Committee is a multi-disciplinary team and includes: David B. Bekelman, M.D.; Brian D. Carmichael, L.C.D.R., U.S.N (Ret); Anita Deswal, M.D.; Gregg Fonarow, M.D.; Elaine Furmaga, Pharm.D.; Julie Gee, R.N., M.S.N., CHFNI; Glenn Graham, M.D., Ph.D.; Peter Groeneveld, M.D., M.P.H.; Linda Kinsinger, M.D.; Harlan Krumholz, M.D., M.P.H.; Brian Mittman, Ph.D.; Ileana Pina, M.D.; Thomas Rector, Pharm.D., Ph.D.; Amy Rosen, Ph.D.; John Rumsfeld, M.D., Ph.D.; Roxanne Rusch, R.N.; John Spertus, M.D., M.P.H.; and Douglas Wholey, Ph.D., M.B.A.

**QUERI web link: [www.hsrdr.research.va.gov/queri](http://www.hsrdr.research.va.gov/queri)**