Ischemic Heart Disease

Background
Ischemic heart disease (IHD) results from atherosclerotic plaque build-up in the coronary arteries that can lead to narrowed or clogged arteries and cause symptoms of angina pectoris, heart attack, and/or death. Despite the development of efficacious treatments for IHD over the last three decades, it remains the leading cause of death among men and women in the United States. It also is one of the most frequent indications for hospitalization within the VA healthcare system.

Ischemic Heart Disease Quality Enhancement Research Initiative
The overall mission of the Ischemic Heart Disease Quality Enhancement Research Initiative (IHD-QUERI) is to improve the quality of care and health outcomes of Veterans with IHD by working collaboratively with operational units and other QUERI groups to enable implementation of best practices in prevention, acute care, and chronic longitudinal care of ischemic heart disease. IHD-QUERI has invested substantial effort into forging partnerships with VA leaders to support interventions that both improve care and foster implementation research, including direct collaboration with VA’s Patient Care Services, the Office of Analytics and Business Intelligence, the Office of Information, Employee Education System, and the National Clinical Practice Guidelines Council.

In 2014, IHD-QUERI revised their goals to focus on:
- Increasing care that is Veteran-centric across the spectrum of IHD care, which includes prevention, acute care and chronic longitudinal care;
- Improving population health of Veterans with IHD across the spectrum of IHD care; and
- Understanding variation in value of healthcare delivered across the spectrum of IHD care.

Current IHD-QUERI Projects
Implementation Trial of a Coaching Intervention to Increase the Use of Radial PCI is a project that is expected to advance the goal of increasing care that is Veteran-centric. Percutaneous coronary intervention (PCI) is part of the comprehensive treatment of coronary heart disease, with approximately 14,000 PCI procedures performed at 65 VA facilities annually. PCI can be performed via the radial artery in the wrist, commonly called trans-radial intervention (TRI), or the femoral artery in the groin, called trans-femoral intervention (TFI). While both access routes are considered standards of care, TRI has many advantages over TFI, including being more comfortable for patients, allowing them to be released earlier, being easier for staff to monitor, having half the rate of bleeding complications, and lower costs per episode of care. These advantages have been demonstrated in both randomized trials (highly controlled settings) and registry analyses (real-world settings). However, while TRI has been widely adopted in other countries, in the U.S. it only accounts for approximately 16% of PCIs, and diffusion has been slow. Currently there is little or no evidence-based implementation resources to support the adoption and implementation of TRI and sustain adopters through the steep learning curve. This project’s overall goal is to increase...
adoption and implementation of TRI. The specific aims are to:

- Test the effectiveness of a successfully-piloted, team-based coaching intervention in increasing implementation of radial-artery access cardiac catheterization percutaneous coronary interventions (TRI, also called transradial PCI);
- Perform a mixed-methods, formative evaluation to support the coaching intervention; and
- Perform a cost analysis of the coaching intervention and effects on costs per episode of care.

Hybrid Effectiveness/Implementation Study of a Multi-Faceted Intervention to Improve Adherence to Clopidogrel is a project that is expected to advance the goal of improving population health of Veterans with chronic ischemic heart disease. The main objective is to conduct a type I hybrid effectiveness/implementation study to test the effectiveness of a successfully-piloted, evidence-based, multi-faceted intervention to improve patient adherence to clopidogrel following percutaneous coronary intervention (PCI). The intervention was developed based on the Chronic Care Model and leverages clinical information systems to deliver team-based coordinated care that will improve clopidogrel adherence among patients. Specific aims of the study include:

- Evaluating current practices at each VA PCI facility (n=67) to enhance adherence to clopidogrel, and assessing organizational readiness to change;
- Implementing the multi-faceted intervention through four roll-out phases; and
- Assessing barriers and facilitators to intervention implementation, and incorporating lessons learned from each roll-out phase into subsequent roll-out phases.

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The IHD-QUERI Executive Committee
Each QUERI Center is led by a research expert and a clinician. The Co-Directors for IHD-QUERI are Michael Ho, M.D., Ph.D. and Charles Maynard, Ph.D. and the Co-Clinical Coordinators are Michael Ho, M.D., Ph.D. and Thomas Maddox, MD, MSc. The Co-Implementation Research Coordinators are Christian Helfrich, Ph.D., M.P.H., Anne Lambert-Kerzner, Ph.D., and Borsika Rabin, Ph. D. The Executive Committee includes other experts in the field of ischemic heart disease including: Matthew S. Freiberg, M.D., M.Sc.; Paul Heidenreich, M.D., M.S.; Cynthia Jackevicius, Pharm.D., M.Sc.; Michelle A. Lucatorto, R.N., D.N.P.; Laura Petersen, M.D., M.P.H.; John Rumsfeld, M.D, Ph.D.; Sunil V. Rao, M.D., Mary A. Whooley, M.D.; Paul Hebert, Ph. D. and Russ Glasgow, Ph.D.

QUERI web link: www.hsrd.research.va.gov/queri