QUERI: Translating Research Findings into Improved Patient Care

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In 1998, the Veterans Health Administration’s (VA) Health Services Research and Development Service launched the VA Quality Enhancement Research Initiative (QUERI). The QUERI mission is to translate research discoveries and innovations into better patient care and systems improvement. QUERI is founded on the principle that practice needs determine the research agenda and research findings determine the interventions used to improve the quality of patient care [1,2]. While the benefits of linking research and quality may seem obvious, its potential to improve outcomes has not always been appreciated [3–9]. This article describes the QUERI process and its ongoing activities designed to systematically improve care for the 3.5 million veterans in the nation’s largest integrated health care system.

The QUERI Process

QUERI uses a 6-step model to facilitate the translation of research findings into better health care practices for veterans. The steps are:

1. Identify high risk/high volume conditions
2. Identify best practices
3. Define existing practice patterns and outcomes across the VA and current variation from best practices
4. Identify and implement interventions (including performance criteria) to promote best practices
5. Document that best practices improve outcomes
6. Document that outcomes are associated with improved health-related quality of life

Identify High-Risk Conditions

An analysis of morbidity, mortality, and other data related to veterans conducted by the Under Secretary for Health, the Chief Research and Development Officer, and the Director of the Health Services Research and Development Service led to the selection of the 8 high-risk or highly prevalent conditions that QUERI currently focuses on (Table): chronic heart failure, diabetes, HIV/AIDS, ischemic heart disease, spinal cord injury, stroke, mental health, and substance abuse. Cancer has been added as a priority condition, and establishment of a new cancer QUERI group is now under consideration.

Identify Best Practices

Step 2, “identify best practices,” is conducted by coordinating centers under the direction of an executive committee established for each QUERI condition. Each committee is co-chaired by a research coordinator and a clinical coordinator and is charged with developing a strategic plan that addresses current issues in the health care system related to their specific condition [10]. Identification of best practices involves: synthesizing existing evidence; analyzing the quality of available guidelines, performance measures, and related best practice information; and collaborating with others in the organization engaged in guideline development and use. If existing guidelines reveal a knowledge gap, the research agenda is revised to assure that new data are gathered to inform policy decisions and practice.

Define VA Practice Patterns

Within the first 14 months, each group began Step 3, “define existing practice patterns and outcomes across the VA.” For example, by looking at outcomes following stroke and exploring the extent to which evidence-based stroke guidelines are followed, the stroke group was able to prioritize areas for change, such as promoting increased accessibility to high-quality anticoagulation services.

Identify and Implement Interventions

By the fall of 1999, all groups had begun Step 4, “identify and implement interventions to promote best practices.” Using what they had learned in Steps 2 and 3, the groups updated and expanded their strategic plans to include targeted research and quality improvement activities designed to take

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their findings into practice. For example, the HIV/AIDS group developed a variety of tools designed to improve outcomes associated with highly active antiretroviral therapy. Use of these tools is being studied in facilities across the VA, and findings will be used to further target HIV/AIDS research within the VA and to enhance quality improvement efforts currently underway. Successful dissemination and implementation typically involves integrated, active, multi-pronged approaches [11–18]. For example, the substance abuse group is using several different approaches to improve treatment of veterans with opiate addiction. Experience has shown that no single translation activity results in improved outcomes and that a coordinated approach that targets key stakeholders is most effective.

Outcomes Monitoring and Measurement
Using scientific methods, the QUERI groups are collecting and analyzing data to determine the impact of improvement activities and to assess whether best practices lead to improved outcomes. Existing outcomes monitoring systems were expanded, or new ones developed, to assure that the groups monitor outcomes accurately for all veterans. These systems also allow VA investigators, managers, clinicians, administrators, and others to link outcome information to data related to processes and organizational structure. This information is then fed back in real-time so that it can be used by decision makers (eg, clinical and quality managers, providers, patients) to improve patient care at all levels across the system.

QUERI Organization
While VA headquarters in Washington, DC, provides oversight and resources for the national QUERI effort, the decentralized coordinating centers apply the 6-step QUERI model to their specific disease or condition. All groups are asked to consider common outcome measures such as morbidity, mortality, patient satisfaction, and health-related quality of life. In addition, each QUERI group also takes responsibility for identifying other outcome measures important to veterans. Although the QUERI groups are progressing through the steps sequentially, the process is flexible and iterative. Steps may be taken out of sequence, repeated, or postponed. For example, if a new high-quality guideline becomes available while a group is concentrating on Step 5, they will go back to Step 2 (“identify best practices”) and assure that use of the new guideline is considered.

Managing the Complexities of Change
The establishment of formal mechanisms linking research and quality improvement is contributing to improved patient care throughout the VA. More than 120 quality improvement tools have been created across the 8 QUERI groups thus far; these tools make evidence to support decisions more accessible [19]. As the groups continue in their work, the organization is learning a great deal about managing the complexities of change and the importance of effective teamwork, committed leadership, and being comfortable with uncertainty. It has helped to openly acknowledge that there are no experts; all participants learn together. The QUERI groups learn from each other by sharing their strategic and translation plans, exchanging ideas on a list server and intranet, and collaborating at an annual conference. Simultaneously, the groups are expanding their understanding of existing quality improvement activities within the VA, forging new relationships with those involved in quality improvement at the local level and outside the VA, and acquiring new skills, such as techniques for risk adjustment in order to make meaningful comparisons. Strengthening both formal and informal ties between the VA’s Health Services Research and Development Service and the VA’s Office of Quality and Performance has been central to current success.

Managing the complexities of change is the current priority as the QUERI groups continue to build an organizational infrastructure that supports ongoing, systematic improvement and evaluation activities [20–23]. In merging the fields of research and quality improvement, QUERI promotes a culture of critical thinking and ongoing learning. These qualities not only systematize outcome improvement, but they make it easier to promote sound, explicit evidence-based policies and manage change generally [24–26]. Ultimately, QUERI and the other quality improvement initiatives underway at the VA are promoting a dynamic, learning organization leading to optimal outcomes for veterans.

Additional information about QUERI is available at www.va.gov/resdev/queri.htm.

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References


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