

Traumatic Amputation QUERI Workshop

Overview of the QUERI Six-Step Process and Associated Research and Quality Improvement Activities:

A Guide for QUERI Centers

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The *QUERI Six-Step Process* is a framework for development of a QUERI Center Strategic Plan and integrated portfolio of research and quality improvement activities. A QUERI Strategic Plan will generally include activities across the full range of QUERI steps in order to fully document, investigate, and correct the key clinical quality and performance gaps in a specific clinical area. A QUERI Center pursues these activities for one or (preferably) more clinical priority areas within its designated clinical condition.

This document briefly describes each step in the QUERI Six-Step Process (pages 1-2), and presents the standard “annotated” version of the QUERI process with sample projects for each step (pages 3-4). The “annotated” version of the QUERI process (pages 3-4) is incorporated in QUERI research project solicitations and the *QUERI Annual Report and Strategic Plan* template, and serves as a standard template for describing and planning QUERI activity. Specific examples of projects within each step can be seen in the *QUERI Center 2004 Annual Report and Strategic Plan* developed by each established QUERI Center.

Pages 5-6 describe two “pre-QUERI” steps or types of activity, with sample projects. The activity within these two steps is considered outside QUERI’s mission, but is necessary for QUERI Centers to achieve their mission. Additional detail is provided on pages 5-6.

Step 1: Select Diseases/Conditions/Patient Populations

Selection of a QUERI Center’s clinical mission (i.e., the general disease or clinical condition it will address) is completed prior to the Center’s establishment. Within each disease area or condition, however, each Center must prioritize the specific clinical practices or sub-populations it will address. Priorities are determined via research and expert consensus of the Center’s Steering Committee with input from QUERI’s Research and Methodology Review Committee.

Step 2: Identify Evidence-Based Guidelines/Recommendations

QUERI’s mission is to implement evidence-based guidelines and clinical recommendations. The development of guidelines and recommendations via clinical research and related guideline development activities (e.g., systematic reviews of clinical research) is outside the scope of QUERI. Accordingly, QUERI Step 2 entails the identification of new research findings, research syntheses, clinical practice guidelines, or other evidence-based practices likely to prove effective in improving VHA health care quality, outcomes, and efficiency. To accomplish Step 2, QUERI Centers work closely with the VA-DoD National Clinical Practice Guidelines Council and with

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VA and non-VA researchers and research centers conducting relevant clinical research. QUERI Centers monitor the research literature to identify new clinical recommendations and evidence.

Step 3: Measure and Diagnose Quality/Performance Gaps

QUERI Step 3 is a critical foundational step in the QUERI process, preceding QUERI efforts to design quality improvement programs and modify care delivery structures and processes to achieve quality and outcome improvements. QUERI Step 3 research includes the collection and analyses of data on VHA clinical practices and outcomes to: (a) identify significant quality and performance gaps, (b) understand and explain these gaps and their underlying causes and etiology, and (c) examine barriers and facilitators to change. QUERI projects to implement and evaluate improvement strategies (Steps 4-6) must be based on valid, comprehensive data and evidence from Step 3, to ensure that improvement efforts are appropriately designed and focused on important quality and performance gaps and their underlying causes.

Step 4: Implement Improvement Programs

Step 5/6: Evaluate Improvement Programs

QUERI Step 4 and its companion steps, 5 and 6, comprise the core “improvement” and change activities central to QUERI. QUERI Step 4 activities include small-scale developmental or pilot efforts to develop and refine improvement tools and programs, as well as larger efforts to demonstrate and rigorously evaluate these programs. QUERI’s responsibilities for quality improvement within VHA include large-scale multi-VISN demonstration/evaluation projects, but not national implementation (although QUERI Centers may become involved in the evaluation of national implementation efforts conducted by other VHA programs). Most Step 4 projects have a dual quality improvement/research focus, with the specific goal of achieving improvements in quality and outcomes within one or more VHA facilities, while simultaneously studying the improvement program and process to develop generalizable scientific and practice/policy-relevant knowledge.

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Annotated Six-Step QUERI Process Model with Sample Projects

Step 1: Select Diseases/Conditions/Patient Populations

1A. *Identify and prioritize (via a formal ranking procedure) high risk/high burden clinical conditions.*

- Epidemiological studies to quantify the incidence and prevalence of a disease or clinical condition within the veteran population.
- Outcome studies to measure the consequences and burden of a clinical condition, including direct and indirect costs (e.g., service utilization, lost productivity), patient and caregiver (e.g., spouse or other family member) clinical status, functional status, and psychosocial status.

1B. *Identify high priority clinical practices/outcomes within a selected condition.*

- Epidemiological studies to quantify the incidence and prevalence of specific facets of a disease or clinical condition (or specific sub-populations of patients) among veterans.
- Outcome studies to measure the consequences and burden of specific facets of a clinical condition, including direct and indirect costs (e.g., service utilization, lost productivity), patient and caregiver (e.g., spouse or other family member) clinical status, functional status, and psychosocial status.

Step 2: Identify Evidence-Based Guidelines/Recommendations

2A. *Identify evidence-based clinical practice guidelines.*

- Literature searches to identify evidence-based clinical practice guidelines.

2B. *Identify evidence-based clinical recommendations.*

- Literature searches to identify relevant clinical research findings and recommendations, clinical programs and care models, and other “best practices” (other than formal clinical practice guidelines).

Step 3: Measure and Diagnose Quality/Performance Gaps

3A. *Measure existing practice patterns and outcomes across VHA and identify variations from evidence-based practices (quality, outcome, and performance gaps).*

- Variations studies to measure current practices (care processes) related to a clinical condition, including identification of deviations from best practices (i.e., “performance gaps” or “quality gaps”).

3B. *Identify determinants of current practices.*

- Variations studies to explain (model) current practices, i.e., to identify determinants of (influences on) current practices and determinants of performance gaps.

3C. *Diagnose quality gaps and identify barriers and facilitators to improvement.*

- Studies of determinants of (influences on) current practices with a specific and additional focus on development of a foundation for subsequent improvement efforts via (a) identification of specific problems or causes of quality and performance gaps, and (b) identification of barriers and facilitators to practice change/improvement.

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Step 4: Implement Improvement Programs

- 4A. *Identify quality improvement strategies, programs, and program components or tools to address quality gaps (e.g., via literature reviews).*
 - Literature searches and analyses to identify and evaluate the evidence base for quality improvement or clinical practice support tools, interventions, innovative clinical programs and care models, improvement (organizational change) strategies and programs, etc.
- 4B. *Develop or adapt quality improvement strategies, programs, program components, or tools (e.g., educational resources, decision support tools) to address quality gaps.*
 - Development and evaluation of specific quality improvement or practice support tools (alone, rather than packaged with other tools into an overall improvement program), such as educational materials, reminders, etc.
- 4C. *Implement quality improvement strategies and programs to address quality gaps.*
 - Implementation (quality improvement) projects, including one-site (or other very small, rapid and low-cost) pilot efforts and larger efforts to: (1) implement an improvement program to assess its basic feasibility, (2) adapt/refine it for VHA use (if not yet used within VHA), (3) develop preliminary or more definitive evidence regarding its impacts, acceptance, feasibility, cost and (4) development of other evidence (cost-benefit and implementation strategy information) and approaches necessary to support subsequent decisions regarding further use within VHA and to support large-scale implementation as a VHA policy/management activity.

Step 5/6: Evaluate Improvement Programs

5. *Assess improvement program feasibility, implementation and impacts on patient, family, and system outcomes.*
6. *Assess improvement program impacts on health related quality of life (HRQOL).*
 - Step 4C projects (see above) involving assessment of outcome and system improvements (clinical practices, efficiency and quality of care; clinical, functional, and psychosocial outcomes; costs and other system outcomes).
 - Step 4C projects (see above) involving assessment of HRQOL outcomes.
 - Observational evaluations of VHA “natural experiments” (i.e., settings featuring recent or ongoing implementation of clinical practice support tools, interventions, innovative clinical programs and care models, improvement/organizational change strategies and programs, etc.).

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PRE-QUERI ACTIVITIES

QUERI Step 2 requires that evidence-based clinical guidelines, recommendations, or research findings exist in the published literature or other sources. If these recommendations or findings are not available, they must be developed through clinical research and guideline development efforts. QUERI “Step C” includes activities required to develop the clinical evidence cited in QUERI Step 2. Although Step C is beyond the scope of the QUERI program and the mission of a QUERI Center, each Center works to encourage or facilitate Step C work conducted elsewhere.

QUERI Step M includes activities necessary to conduct QUERI Step 3, 4 and 5/6 activities. In certain situations, QUERI Centers may conduct Step M projects, rather than working to stimulate or facilitate such work elsewhere.

Step C: Develop Clinical Evidence

- C-a. Empirical studies to develop clinical research findings and recommendations and “best practice” clinical processes.
- C-b. Empirical studies to evaluate (e.g., validate) clinical research findings and recommendations, clinical practice guidelines, clinical programs or care models and other “best practices” (including studies to assess the costs, risks, and benefits of these findings and recommendations and to determine whether their use produces desired improvements in outcomes and performance).
- C-c. Systematic reviews, syntheses and meta-analyses, and consensus-development efforts to develop clinical recommendations, guidelines, and best practices.

Step M: Develop Measures, Methods, and Data Resources

Patient registries and cohort databases

- M-a. Development of case-finding or screening algorithms and methods for identifying patients (from administrative data or direct survey or other means).
- M-b. Development (or expansion/improvement) of patient registries and cohort databases, derived from administrative data or by primary identification/enrollment of patients.
- M-c. Evaluation/assessment or validation of patient registries/cohort databases.
- M-d. Development, evaluation/assessment, or validation of data warehouses.

Patient outcome databases

- M-e. Development, evaluation/assessment, or validation of general (VA- or VISN-wide) patient satisfaction survey data or other psychosocial/quality of life data.
- M-f. Development, evaluation/assessment, or validation of general (VA- or VISN-wide) patient functional/clinical status data.

System performance/outcome databases

- M-g. Development, evaluation/assessment, or validation of general (VA- or VISN-wide) system performance/outcome databases, such as DSS databases, OQP performance measures reports, VA’s Chronic Disease Index and Prevention Index, etc.

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Delivery system structure databases

- M-h. Development, evaluation/assessment, or validation of general (VHA- or VISN-wide) organizational structure and staffing data resources (describing facility characteristics and policies, staffing characteristics, etc.)

Measure development, evaluation, and refinement (measuring structure, process, outcomes)

- M-i. Development, evaluation/assessment, or validation of structure measures/measurement tools.
- M-j. Development, evaluation/assessment, or validation of care process/practice pattern measures/measurement tools.
- M-k. Development, evaluation/assessment, or validation of outcome measures/measurement tools (including patient, caregiver, clinician, and system outcomes).