Overview

Point-of-care ultrasonography (POCUS) has been shown to reduce procedure-related complications from invasive bedside procedures and reduce ancillary diagnostic testing, which ultimately decreases patients’ exposure to radiation as well as healthcare costs. Despite its potential advantages, POCUS has not been well adopted into healthcare, an important barrier being the limited numbers of providers trained in its use. VA's Simulation Learning, Education and Research Network (SimLEARN) and Specialty Care Centers of Innovation have launched a collaborative initiative to develop a national POCUS training program. The goal of this collaborative training program is to train frontline VA providers in the most high-yield diagnostic and procedural applications of POCUS for the care of Veterans. This program also will evaluate the effectiveness of a POCUS training course on provider skill acquisition and retention, frequency of use, and will help identify barriers and facilitators to the use of POCUS at participating VA healthcare facilities.

Objectives

- Evaluate provider skill acquisition and retention, and frequency of POCUS use after participation in the POCUS Training Course.
- Determine the effect of the POCUS Training Course and implementation facilitation on facility-level frequency of POCUS use.
- Identify provider and facility-level barriers and facilitators to POCUS use.

Methodology

Evaluation activities will be conducted on-site at the SimLEARN National Simulation Center in Orlando, Florida and remotely using teleconferencing software. Both qualitative and quantitative data will be collected. QUERI investigators will:

- Register providers from the top 20 facilities meeting criteria for readiness for POCUS implementation. During FY17, each training course will accommodate 10 to 12 providers per course. Thirteen courses are scheduled for 2017.
- Train providers at the National Simulation Center during a 2.5-day POCUS Training Course. Pre- and post-course testing will be used to assess acquisition of knowledge and technical skills to perform POCUS exams. A brief Provider POCUS Survey will be used to determine the frequency of POCUS use by providers at baseline and again at six months post-course.
• Compare facilities in the early-intervention group to the delayed-intervention group with regard to frequency of POCUS use and bedside procedural complication rates. Using the brief Provider POCUS Survey, frequency of POCUS use by providers in both early- and delayed-intervention facilities will be compared at baseline and six months post-course. Additionally, coding data will be reviewed to assess the frequency of procedures performed with and without imaging guidance and procedural complication rates comparing the two groups of facilities.

• Assess provider and facility-level barriers using three tools:
  ▶ Provider POCUS Survey completed by all participating providers,
  ▶ Facility POCUS Survey completed by chiefs of staff of all VA facilities, and
  ▶ Field notes gathered by faculty from monthly conference calls and a Community of Practice website.

• Differences in barriers reported and their relationship to frequency of POCUS use will be compared.

Implementation Strategy

Findings from this project will guide ongoing efforts of this QUERI’s operating partners—Specialty Care Centers of Innovation and the Simulation Learning and Research Network—to develop a national POCUS training program and facilitate implementation of POCUS use across the VA healthcare system.

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Operational Partners
This Partnered Evaluation Initiative is a collaborative project with VA’s Simulation Learning, Education and Research Network and the Specialty Care Centers of Innovation.

For More Information
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