

## Developing a Resident Quality and Safety Curriculum

Inspired by attending the American Medical Student Association's Patient Safety and Quality Leadership Institute at Jefferson, I believed that my Physical Medicine & Rehabilitation (PM&R) residency program had many opportunities to improve its training of residents in how to improve safety culture and conduct quality improvement projects. Here we discuss how a curriculum was developed to leverage these opportunities.

The Accreditation Council for Graduate Medical Education (ACGME) released a new set of approved standards for residency education (effective July 1st, 2011)<sup>1</sup> that placed an increased emphasis on quality and safety education. They require that residents develop familiarity with the related vocabulary, concepts and implementation procedures through educational initiatives designed to fill the gaps in their knowledge base.

Initially, we developed a needs assessment survey to determine how prepared residents in our PM&R training program were to initiate continuous quality improvement and recognize safety culture. The Safety Attitudes Questionnaire (Ambulatory Version)<sup>2</sup> provided half of the survey items. The remaining survey items were adapted from the ACGME "Facilitator's Manual"<sup>3</sup> and specific departmental program objectives. The survey was administered during protected didactic time to 17 physiatry residents and assessed several domains, including safety attitudes and familiarity with stated program educational objectives. The data was presented as a poster at the National Physician's Alliance National Meeting in October, 2011. The majority of residents (94%) felt it was important to be a part of hospital safety initiatives, but only a few residents were confident in their

ability to conduct a quality improvement initiative (24%) or root cause analysis (18%). Just over half (59%) could identify a near-miss event, and less than half (47%) knew how to identify systems causes of error.

A concurrent Jefferson Hospital Patient Safety Champion project allowed residents to implement a quality improvement initiative. Safety Champions from various clinical areas were trained as facilitators to identify and address their respective department's areas of deficiency as assessed by Pascal Metrics' Safety Attitudes Questionnaire (SAQ). As the department Safety Champion, I recruited a team of eight PM&R residents who created "Safety Rounds," a thirty-minute session held during didactics once per two-month block, to discuss on-call issues encountered on our inpatient rehabilitation unit. Our aim was to improve our learning from the errors of others, which was the chosen area of deficiency that was identified from the SAQ. Since its inception six months ago, we have held three Safety Rounds. After the first session, we surveyed our residents to determine on-call concerns, and these were addressed at subsequent sessions. For example, to help residents facilitate the transfer of patients from our unit back to acute care, the process was reviewed, a real-time demonstration was given, and a senior resident created a pocket-size handout describing the step-by-step process to distribute to all residents and post on the unit as a reference tool.

There have been other attempts at augmenting resident education about quality improvement and safety culture. Two quality improvement articles were selected as an addition to required reading for one of our PGY-2 rotations. A

quarterly lecture has been added into our didactic curriculum. Given that 94% of residents on our needs assessment survey agreed on the importance of standardized communication while sharing information during handoffs of patient care, a Grand Rounds was presented reviewing the evidence of handoff communication.

Our needs assessment survey was re-administered one year after the initial survey to determine whether the interventions had been successful and identify further areas of possible curricular enhancement. Overall, there has been heightened awareness of safety culture among residents. The data quantified areas of improvement and identified opportunities to develop further educational programming during the upcoming year. During the next year, we will attempt to create additional curricular interventions and repeat our needs assessment survey as a tool to analyze the effects of our efforts. As ACGME accreditation requirements continue to evolve, it will be important for residents not only to understand quality improvement and safety culture, but also be able to demonstrate skills relating to systems-based practice.<sup>4</sup> ■

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