Integrating ACGME Competencies:
A Novel Approach Undertaken in the Preoperative Assessment Clinic

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Introduction

The pre-operative assessment clinic (PAC) rotation prepares resident physicians for the practice of perioperative consulting, and serves as a model for full implementation of the ACGME Outcomes/Competencies Project into our program. The PAC consists of an interdisciplinary team, with the resident functioning in the role of physician, office manager, and staff liaison. A wide spectrum of learning opportunities and assessment methods readily train and appraise all six competencies. The PAC rotation also provides a unique opportunity to teach and evaluate Systems Based Practice, and a novel process termed *Root-Cause Analysis (RCA)* was developed to this end.

Methods

Patient Care requirements during this rotation include effective interviewing; caring, respectful counseling and education of patients and families; and informed perioperative planning. Residents learn these skills and attitudes through daily clinical experience, faculty instruction, and performance feedback on a case-by-case basis.

Medical Knowledge required for complete pre-anesthesia evaluation encompasses the breadth of medicine. Application of this knowledge is essential for effective pre-anesthesia planning. Residents acquire knowledge through guided independent study, formal didactic lectures, and weekly departmental conferences (oral examinations and grand rounds/case conferences). Literally, the entire departmental education program provides learning opportunity.

Practice-Based Learning and Improvement is readily taught and assessed through a PAC that routinely evaluates over 800 patients per month. As such, the resident is encouraged to formulate and execute improvement measures. Implementing small innovative processes garners the resident personal experience in the field of continuous quality improvement. Expectations include improvement of patient care through evaluation of personal practice experience and clinical studies, as well as knowledge of study designs and use of information technology.

Interpersonal and Communication Skills are essential for effective information exchange and successful teaming with patients, families, and health care professionals within the clinic, the medical center, and the larger community. The rotation provides daily opportunities through clinical experience and performance feedback.

Professionalism is demonstrated through sensitivity to patient diversity and responsiveness to patients' age, gender, culture and disabilities. Residents manifest professionalism by fully carrying out PAC responsibilities, and adhering to ethical principles regarding confidentiality of patient information.

Systems-Based Practice is uniquely required during this rotation, as the resident must collaborate with other health care providers throughout the community and understand larger health care systems in order to provide pre-anesthetic care of optimal value. The resident learns to practice cost effective, quality healthcare by making decisions regarding further testing and/or consultation required prior to anesthesia. In addition, each resident performs a *root-cause analysis*. RCA is an in-depth, systems-based investigation into any process that has failed successful completion due to a number of causative factors. As a resident project, the intricate perioperative "roadmap" is explored and critically analyzed. Resident physicians identify a potential surgical delay, redundant process, or actual system failure, then determine the inciting factors to modify. A clearly defined solution is agreed upon by

staff and resident and then critiqued for suitable execution. Upon completion, the resident identifies root causes of the investigated problem in formal grand rounds. See Figures 1 and 2.

Results
Outcome assessment for competency in the six areas is accomplished by checklist and global evaluation of live performance, chart stimulated recall, record review, nursing staff surveys, and patient surveys. The assessment methods allow for a true 360-degree evaluation of the resident.

Discussion
Incorporating a dedicated PAC rotation, with completion of a RCA project, provides unique opportunities for teaching and assessing the six ACGME competencies. Systems Based Practice, which is often difficult to teach and evaluate within an Anesthesiology residency, is particularly utilized, taught, and assessed during the PAC rotation.

Adherence to institution guidelines was followed, no clinical or animal studies were used, and as such, IRB approval was not attained.

Figure: 1 RCA project designed to prevent delays in patients with pacemakers and AICD devices, incorporated into regular preoperative care.

Perioperative Pacemaker AICD Checklist

□ Pacemaker has not been evaluated within the last six months. Representative called for device interrogation in the holding room on day of surgery. Time/Date Called _____.

□ Patient is pacemaker dependant and surgery requires electrocautery between the mandible and xyphoid process.

□ Patient has an AICD. Representative called to suspend tachy-therapy in holding room on day of surgery. Time/Date Called _____.

□ Requested representative to evaluate Pacemaker/AICD in postoperative recovery unit.

Figure: 2 RCA project designed to incorporate the regular use of ACC/AHA perioperative cardiovascular guidelines into preoperative testing. Residents utilize this checklist as a final review in each patient's preoperative clearance for surgery.

Preoperative Patient Summary

_____
Date/Time

□ Major Clinical Predictors   □ Non-invasive Testing warranted
□ Intermediate Clinical Predictors   □ Labs OK
□ Minor Clinical Predictors   □ EKG OK
                                     □ CXR OK
□ Moderate to Excellent Functional Capacity   □ Old EKG reviewed
□ Poor Functional Capacity   □ PROCEED WITH CASE

□ High Risk Surgical Procedure
□ Intermediate Risk Surgical Procedure   _____
□ Low Risk Surgical Procedure   Resident Name, Pager Number