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ORIGINAL RESEARCH

Resident Education in Practice Management: Who Needs It?

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To obtain primary certification in anesthesiology by the American Board of Anesthesiology (ABA), the board offers a 45-page content outline to guide the resident's review.¹ In the past few years, practice management (PM) has been included as a general subheading of topics to be covered. However, even with its inclusion, the only specific fiscally related topic listed by the ABA would be Health Insurance Portability and Accountability Act (HIPAA) covered under Special Problems or Issues in Anesthesiology.¹

All anesthesia residents are exposed to cardiac, obstetrical, pediatric, and other specialized anesthesia training although they may not actually practice in any of these areas. In part, this is because a well-trained anesthesiologist should be knowledgeable outside of her or his particular area. In addition, to communicate effectively within a department or group, members must appreciate the problems confronting their colleagues.

When times were good, reimbursement was more liberal and margins for hospitals were more generous, anesthesia practice management could be taken care of with ad hoc, on-the-job training. There were few established benchmarks, and the scientific study of operating room management had not come into its own.

Starting in the 1990s, as it was recognized that operating rooms (OR) were significant sources for either positive or negative margins for hospitals, more scientific management of these areas became the focus of academic study. In 1997 and 1999, Strum and Vargas^{3,4} published seminal work on surgical suite utilization and capacity planning. Dexter, Traub, and Marcon^{5,6} were then able to apply discrete event simulation models to OR data, so that by the early 2000s, equations and analytic methods were developed to analyze this data. In 2006, Macario at Stanford published a simple scoring system to help anesthesiologists determine if their ORs were "efficient."⁷ Since that time, there has been significantly more research into optimization of operating room flow, efficiency, and maximizing utilization.⁸

The American Society of Anesthesiologists (ASA) recognized the growing importance of economics and practice management. It started the Practice Management Program (PMP) in 1995^{9,10} and offered the first Resident Track at the Conference in Practice Management in 2009.¹¹ The Association of Anesthesia Clinical Directors (AACD) published its Procedural Times Glossary in 1998.¹²

However, a well-defined corpus of what constitutes training in operating room management has not been fully defined. Many would argue that essential skills

would encompass mastering both leadership and management theory, understanding operating room data and how to make decisions with these data, operating room operational goals, a fundamental understanding of accounting and financial terms, and familiarity with information technology systems for healthcare.¹³

This study by Gurwinder et al.¹⁴ is an excellent addition to the body of knowledge of how we, as educators, can incorporate and measure our success in teaching PM to our residents in anesthesiology. As educators, we all know that the anesthesiology curriculum is already packed with content that our residents must master. This has occurred even with the lengthening of the residency to four years and despite the fact that a large proportion of residents continuing on to fellowship training.

To create a PM module within a one-month period, as the authors were able to do, is significant because there are so many competing demands on residents' attention. With a team leader exercise, directed readings, training from the ASA web-based module, and a billing exercise, the rotation validated improved scores from a pretest of knowledge. Quantitatively and qualitatively the residents showed improvement and subjectively reported that the rotation

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was useful to them. Moreover, this rotation combined the PM module with participation in the OR, so it was successful on more than one level.

The study had the obvious limitations as noted by the authors. It was taken from a small cohort of residents and the improvement was measurable but not dramatic. Nonetheless, with refinement in the teaching methodology, further development of the curricula, and extrapolation to other institutions, this study demonstrates that PM can be taught successfully to anesthesia residents in a focused period of time. It need not detract from other important curricular objectives.

Education such as this will permit all future anesthesiologists to understand the tradeoffs and challenges in managing an operating room suite and why efficiency is so critical both to their practice and the hospital. While not everyone in an anesthesia group needs to master the details of

operating room management, they need to have an appreciation of the subject so that when issues arise in their practice, they can communicate effectively with all parties in the operating room.

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