Responding to ‘Just Hire CRNAs, It Will Be Cheaper and We’ll Still Get the Same Services!’

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In this article, we will not be able to tell you the best care model for your group. In fact, when evaluating what is the best model for your situation, you should include as options introducing mid-level providers (CRNAs or AAs), increasing the use of mid-level providers, as well as increasing the number of anesthesiologists. We believe that each group should always determine the best care model for its patients and facility. The care model that will provide the best care is dependent on acuity and severity of the patient’s illness, surgical procedure and care required. So it may be that the best care model for your facility is physician-only, the anesthesia care team model or a mix of the two.

We also want to point out that we will not discuss having no physician involved in the anesthesia care. To quote from Mark A. Warner, M.D. in his 2005 Rovenstine Lecture, we believe “that all people in this country who undergo sedation in which there is a risk of loss of consciousness or anesthesia, or who require general or regional anesthesia, should have
anesthesiologists involved in oversight of their preoperative assessment and treatment, intraoperative care, and postoperative management."

Introduction

Nothing else will raise an anesthesiologist’s blood pressure more or cause such a visceral response than when someone implies that a CRNA can do the same job as an anesthesiologist and at less cost. Unfortunately, facing financial pressures, anesthesia groups frequently need to respond to an administrator (or even a surgeon) whose economic solution is to simply “lire CRNAs,” with the reasoning that “they are cheaper and we’ll get the same services!” Indeed, consulting groups providing just this type of advice to hospital administrators have become a cottage industry in health care.

Figure 1: Lines are not parallel?
Or are they?

Often the first impression when looking at issue is like looking at an optical illusion – with better understanding and knowledge, you discover that your first impression was misperception of the actual facts.

The purpose of this article is to provide you with an objective response to the perception that anesthesiologists and CRNAs are the same, and hence, in staffing models they can be substituted without consequence. We will show how this belief of equivalency is just like an optical illusion, as shown in Figure 1. On first glance, one sees one thing, but with deeper examination and understanding, one sees reality.

“CRNAs Are Cheaper”

In the December 2010 issue of the NEWSLETTER, one of us, with Stanley Stead, M.D. and Norman Cohen, M.D., examined the issue of compensation comparisons. The article examined the issue of improper comparisons of total compensation without looking at the breadth of work being provided for the salary. In this analysis, one needs to begin by looking at the hours being staffed. If your group requires evening, night and weekend coverage, hiring a CRNA instead of an anesthesiologist may not be a very good cost alternative.

A major impact of hiring more mid-level providers and having fewer anesthesiologists is that fewer physicians will be available to cover the after-hours cases (evenings, nights, and on-call). For example, if a physician-only group with 10 anesthesiologists is considering moving to the anesthesia care team model, then the resultant staffing might be four anesthesiologists and 10 CRNAs. In this situation, each anesthesiologist must now go from being on-call three times a month to seven times a month. Further, if the practice seeks to make the model economical by not having CRNAs stay late, then the anesthesiologists must now cover “after 5 p.m.” cases as physician-only cases. If on average the group has run three rooms from 5-7 p.m. (one by on-call and two by late anesthesiologist), then under the new model each anesthesiologist will not only be on call seven times a month, but will also have an increase in late room coverage from two times a month to 10 times a month. That is, each anesthesiologist goes from staying late or taking call once a week to every other day. All this coverage will change the demands on anesthesiologists in the group. It may result in giving a higher compensation than predicted, or attrition of anesthesiologists and a shortage of anesthesiologists. If, instead, one chooses anesthesia care team models for the evening cases, then the compensation of CRNAs will be higher because of the evening hours and/or the number of CRNAs needed will be higher because of the longer shifts required. Further, the staffing ratio may not be optimal, as noted below.

In addition, as discussed in the previous article, the staffing ratio makes a big impact on the cost evaluation. If you cannot utilize the anesthesia care team model in at least a 1:3 ratio, then the cost of hiring CRNAs is higher than the cost of anesthesiologists. Reasons one may not be able to implement a 1:3 or 1:4 ratio include academic setting (limited to 1:2 for resident education), geographic location of sites, number of sites, and acuity and severity of procedures, co-morbidity or services required.

Another impact of going to the anesthesia care team model or increasing the staffing ratio is the challenge of starting first cases. Under a physician-only model, one could start each room at the same time. But under an anesthesia care team model, staggered first case starts would have to be implemented. Increasing the ratio leads to more staggered starts. The care team model requires much greater departmental coordination at the start of the day.

For academic departments, the impact of increasing mid-level providers is to reduce the number faculty anesthesiologists available to meet the non-clinical missions of the department, including education, research and administration. In fact, the staffing cost per hour is similar.

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between faculty anesthesiologists and CRNAs. Because of this reality and the desire to have more faculty who can participate in the non-clinical activities, departments may find that hiring faculty instead of CRNAs to do faculty-only (physician-only) rooms may turn out to be more economical than focusing on meeting clinical needs by hiring more CRNAs.

"We'll Get the Same Services"
This statement shows a great misunderstanding of the difference in education, abilities, skills and services provided by anesthesiologists as compared to mid-level providers, including CRNAs. As noted in the above Dr. Warner quote, the surgical experience for a patient is not simply the time in the operating room, but starts with preoperative assessment and the development of an individualized plan of anesthetic care taking into consideration the patient’s health and co-morbidity and extends into the postoperative period in management of pain, nausea/vomiting and even the inflammatory process. The differences in education and training are well documented and we won’t rehash them here, but one should always point out that an anesthesiologist is a physician with medical education and years of residency that allow the physician to have a greater understanding of the pathophysiology of underlying medical conditions and the interaction with anesthetic management and surgical interventions. In extremes of ages or patients with co-morbidities, the issues can be literally life-threatening. Having a physician supervising the care goes without question, and simply looking at staffing models without considering these issues is shortsighted and puts patients at risk.

Trying to compare educational requirements for certification in medicine and nursing is literally comparing apples to oranges. The anesthesiologist’s training requirements can be easily found on the Internet for anyone to download. Unfortunately, the nurse anesthetist training program requirements are not open-access. Hence, one must rely on documents such as the Scope-of-Practice Report from the AMA published in 2009. To anyone comparing the training requirements, there is no question regarding the major difference in both educational requirements prior to starting training and the number and types of cases and clinical experience during training.

In addition, as a physician, the anesthesiologist is not tied to the anesthetizing sites, but can provide care and expertise throughout the perioperative experience and the facility. This ability and educational experience is the basis of the proposed model of care for anesthesiologists that has been termed the “perioperative home” or “surgical home.”

In particular, the perioperative home would move the anesthesiologist to coordinate care in the operating room and utilize more of his/her existing specialized training in acute pain management and critical care medicine. Anesthesiology residents are now required to spend at least four months managing patients in the intensive care unit, and many now have acute pain management rotations that include medical and procedural (i.e., postoperative peripheral nerve blocks) management.

In the arena of chronic pain management and procedures, all anesthesiology residents are required to rotate in the pain management clinic, evaluate new chronic pain patients and directly participate in procedures. In a letter from January 2011, then-ASA President Dr. Warner explains in detail the educational and clinical experience needed to provide care to chronic pain patients and how physician involvement is necessary. We refer the reader to this detailed letter that covers the clinical issues, educational and training needs.

Quality Evidence
The last item administrators often misperceive is that there is "no evidence" that anesthesiologists provide higher quality care, and therefore no difference in care. Your initial reaction may be similar to ours: “Why do you need evidence of what you already know?” What we know is that anesthesiologists provide or supervise the vast majority of the anesthetics provided in the United States. For higher ASA Physical Status (3 or higher), anesthesiologists are involved with an even greater percentage. We also know that there is a great deal of confusion about comparing quality and safety across all the existing modes of practice.

The science of comparing outcomes with different providers or in different modes of practice is difficult. The reasons are multifactorial but include the requirement for extremely large numbers of patients with detailed medical information on their care and possible complications. There needs to be large numbers of patients in each of the modes of practice under study. If the incidence of anesthetic-related mortality in a healthy population is 1 in 250,000, many times this number of patients are required to show differences in care. If the patients have significant co-morbidity, as is frequently the case, accurate risk adjustment is required. Few databases contain the required number of directly comparable patients or the medical detail to accurately assess risk.

The most common database used is Medicare billing; but Medicare billing data are in many ways a poor substitute for detailed medical information on the patient. Several problems exist that make definitive conclusions from these databases difficult. First is the confusion caused by the QZ modifier. This modifier is attached to the billed charge of the nurse anesthetist when he or she is “not medically directed” by an anesthesiologist. This situation can occur in ANY of the
following: a) an anesthesiologist is involved but he or she did not meet or did not complete all the documentation required to be in compliance to bill "medical direction," b) a CRNA was supervised by the surgeon, or c) in opt-out states, no physician supervised the care. The QZ modifier does not mean that NO ANESTHESIOLOGIST was involved; it may simply mean that the practice chose to not bill the procedure as medically directed. So using the Medicare database and using the QZ modifier to conclude that those patients did not have an anesthesiologist involved in their care is disingenuous at best.

Next, Medicare claims may not have ASA Physical Status reported, since physical status is not reimbursed in Medicare. Taking these limitations into account, there are two studies that tried to examine this issue using Medicare data. First, Silber et al. published a study in 2000 identifying the two groups correctly: care provided that was medically directed or non-medically directed. (Note: They did not say “CRNA working without an anesthesiologist.”) They found that when an anesthesiologist medically directed patient care, the incidence of major complications (e.g., readmission for cardiac problem) or 30-day mortality was lower.

In contrast, Dulisse and Cromwell mistakenly assumed that the QZ modifier signified “CRNA independent practice” and found no difference in outcomes. But they mentioned one result for which they did not discuss the implication. They found that medically directed care patients (anesthesiologist involved per billing data) had significantly higher base units, meaning the patients had more complex and difficult surgeries and anesthesia care. Given their assumption that quality was the same, one would have expected a higher complication rate from more complex cases as compared to simpler ones. But they found no difference. The conclusions should have been: a) anesthesiologists medically direct care when patients undergo more complex and difficulty surgeries; b) since the outcomes are the same, anesthesiologist medical direction provided improved care; and c) QZ modifier does not mean the CRNA worked without an anesthesiologist. Considering the aging of the U.S. population, the prevalence of patients who are ASA Physical Status 3 or higher is going to increase. Involvement by an anesthesiologist will be even more necessary in the future.

So what do you do when asked to “show evidence”? Our recommendation is to give out a copy of the 2003 British Journal of Medicine article looking at a meta-analysis of double-blind randomized studies on whether parachutes prevent death and traumatic injury when skydiving.

Conclusion
Under economic pressures, staffing models for providing perioperative care will be and should be reviewed. Simply viewing anesthesiologists and CRNAs as identical providers is both shortsighted and incorrect. On the other hand, there may be advantages to utilizing mid-level anesthesia providers in an anesthesia care team. The analysis must consider patient and surgical concerns (acuity of illness, complexity of surgery, the co-morbidity illnesses), physical limitations (geographical location of services covered), hours to be staffed, the impact on call and late coverage, and the additional services to be provided by the anesthesiologist.

References: