New Jersey's hospital anesthesia standards

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On July 26, 1991, the New Jersey Department of Health adopted amendments to the anesthesia provisions of the hospital licensing standards. The New Jersey anesthesia standards, which took effect on October 15, 1991, have become the object of a great deal of interest, especially among anesthesiologists. According to a summary of public comments prepared by the Department of Health, the president of the New Jersey State Society of Anesthesiologists gushed that with the adoption of the standards, "New Jersey will rank as the safest State in the union for the provision of anesthetic care. . . . [T]hese rules will serve as a model upon which other states, if not nations, will base similar regulations." The standards have been the subject of two articles in a publication of the Anesthesia Patient Safety Foundation, established by the American Society of Anesthesiologists (ASA). The standards were also the subject of a three-page article in the December 1991 ASA Newsletter.

There is, in fact, much in the standards that is commendable. The standards address equipment, monitoring and reporting. All anesthesia machines in New Jersey must now be equipped with an oxygen failure-protection device to announce a reduction in oxygen pressure and, at lower levels of oxygen pressure, to discontinue other gases when the pressure of the supply of oxygen is reduced. Diameter index safety systems or their equivalent must be used on all large cylinders of medical gases as well as wall and ceiling outlets. There must be a written protocol to assure that surgery does not proceed when there are disabled alarms, depleted batteries, and inactive sensors in oxygen monitors; improperly positioned breathing-circuit sensors; or other insufficiencies.

The standards require continuous use of pulse oximetry during administration of general anesthesia, regional anesthesia, and conscious sedation, unless such use is not clinically feasible. An alternative method of measuring oxygen saturation may be substituted for pulse oximetry if the method has been demonstrated to have at least equivalent clinical effectiveness. An electrocardiogram monitor must be used continuously during the administration of general anesthesia, regional anesthesia, or conscious sedation. In addition, the body temperature of each patient under general or regional anesthesia must be continuously monitored. There must be a peripheral nerve stimulator available to monitor the extent of muscle paralysis from muscle relaxants in patients receiving general or regional anesthesia. Where a general anesthetic is given, an end-tidal CO₂ monitor must be used continuously unless its use is not clinically feasible.

The new standards introduce strict reporting requirements. If there is a death in an anesthetizing location or an unexpected intraoperative or postoperative event or outcome related to anesthesia, telephone notice must be given to the Department of Health within 24 hours, followed by written notice within 30 days.

Supervision of CRNAs

The New Jersey standards' emphasis on modernizing anesthesia equipment and improving monitoring standards is admirable. However, the position of the standards which will undoubtedly receive the most attention and the section to which the ASA Newsletter devoted two out of its three pages of coverage related not to monitoring or equipment or reporting but to the standards' provisions concerning supervision of Certified Registered Nurse Anesthetists. The ASA Newsletter stated that the standards require that "a CRNA be supervised by an anesthesiologist or a physician credentialed in anesthesia who is not the operating physician." This is incorrect and refers to language which appeared in an earlier draft of the standards. In fact, the provision describing supervision of CRNAs does not require supervision by an anesthesiologist or by a physician "credentialed in anesthesia." Consequently, the New Jersey State Society of Anesthesiologists, despite extensive ASA support, was denied the victory it
sought. It has, unfortunately, created a unique and baffling regulatory scheme for supervising CRNAs for which there is no justification.

The New Jersey standards provide that CRNAs can administer anesthetics "under the supervision of a physician who has been credentialed in accordance with medical staff bylaws to administer or supervise the administration of anesthesia... ."

The supervision of any anesthesia, except those agents utilized for conscious sedation or minor conduction blocks, shall be provided by a physician who is immediately available. The supervising physician may concurrently be responsible for patient care if he or she is available to attend to supervisory duties without jeopardizing the life or safety of patients under his or her care. While supervising anesthesia personnel, the supervising physician shall not perform surgery, except minor surgery as defined by medical staff policy, or administer anesthesia to patients under his or her direct care.1

The standards further provide that "Immediately available means that the supervising physician is present in the hospital and is available to respond and proceed immediately to the anesthetizing location."

What do these standards mean in terms of "supervision?" It is easier to describe what they do not require. The one thing that can be said with any certainty about these standards is that they do not require that CRNAs be supervised by an anesthesiologist. That can be said with confidence because earlier drafts of these standards actually provided that the CRNA had to be supervised either by an anesthesiologist or a physician credentialed to administer and supervise anesthesia who was not the operating physician. The New Jersey Association of Nurse Anesthetists and the AANA objected to the language, pointing out that no state's hospital licensing standards required that nurse anesthetists be supervised by an anesthesiologist and attempting to educate the Department of Health concerning the reality of anesthesia practice. Subsequently, the Department of Health revised the standards to permit CRNAs to be supervised by "a physician who has been credentialed in accordance with medical staff bylaws to administer or supervise the administration of anesthesia... ." (Emphasis added.) The Department of Health was, however, unwilling to revise its requirement that the supervising physician could not be the primary surgeon, except in cases involving minor surgery. The problem with the language, obviously, is that no one else regularly supervises CRNAs except the primary surgeon or an anesthesiologist.

**Regulations defeated twice**

The New Jersey standards are a reminder that state regulatory authorities have great difficulty understanding anesthesia and the dynamics of the anesthesia marketplace. The history of the standards goes back to 1985 when the New Jersey Board of Medical Examiners attempted to adopt regulations requiring supervision of CRNAs by anesthesiologists. Through the efforts of the New Jersey Association of Nurse Anesthetists, the AANA, and the cooperation of the New Jersey Board of Nursing, these efforts ended when it was demonstrated to the Board of Medical Examiners that there was no proof that requiring anesthesiologist supervision of nurse anesthetists would improve patient care. The Board of Medical Examiners again considered similar regulations in 1987 and the regulations were again defeated.

Having been unsuccessful with the Board of Medical Examiners, in 1988 the New Jersey State Society of Anesthesiologists approached the Department of Health about changes in the hospital regulations concerning anesthesia. While it is easy to speculate as to the motivation of the Department of Health, it must be recognized that over the three years in which these standards were developed, the staff of the department and a group of anesthesiologists representing the New Jersey State Society of Anesthesiologists worked closely together. The anesthesiologists were on a first name basis with health department staff, and, according to an article in the *Anesthesia Patient Safety Foundation Newsletter*, the close collaboration between the anesthesiologists and the department continued as they jointly reviewed standards for postanesthesia care units. On
the other hand, the department only tolerated the New Jersey CRNAs and the relationship was per-
functory, at best.

Having developed regulations in collaboration with the New Jersey State Society of Anesthesiolo-
gists, the Department of Health was surprised and reluctant to find out that they had been misled; there was no evidence which demonstrated a different quality of care between CRNAs and anesthesiolo-
gists. In a comment issued in connection with the adoption of the final standards, the department admitted, "In fact, current or large-scale statistical data does not exist from which one can infer the relative level of patient safety by anesthesia provider." In desperation, the department cited a 1989 analysis by John Eichhorn, MD, of 11 major intraoperative accidents solely attributable to anesthesia (out of approximately 1.3 million anesthetics administered from 1976 through mid-1988) occurring in nine hospitals associated with Harvard Medical School. From a risk management standpoint, Dr. Eichhorn listed the eight cases involving either a CRNA (three cases) or a medical resident (five cases) as a case in which the appropriate level of supervision could be questioned. The Eichhorn analysis could not, how-
ever, be used to promote one type of practitioner over the other since anesthesiologists working alone had the same number of anesthesia incidents (three) as CRNAs.

Nature of supervision misunderstood

The department hung tenaciously to its total misunderstanding of the nature of supervision in New Jersey and elsewhere. The department conducted a survey of anesthesia departments. Thirty-two out of 33 hospitals reported that CRNAs practice under the supervision of an anesthesiologist; three hospitals reported supervision by an anes-
thesia-credentialed physician; two hospitals reported both types of supervision. This led the de-
partment to the belief that its standards would not change and would not have an impact on anesthesia practice in New Jersey. What the department could not understand was that even in those circumstances where an anesthesiologist may provide supervision of CRNAs, the anesthesiologist may not be supervising all of the time. Twenty-nine percent of anesthesiologists providing supervision of unscheduled surgery were, according to the survey, on call.

Given the lack of evidence to support the sup-
ervision requirements in the hospital licensing stan-
dards, the department resorted to generalities. In its response to public comments, the department stated that it believed that its changes to the hospital regulations "represent a consensus of expert opinion which will further [the department's] mission of impro-
ving patient care and safety while balancing cost contain-
ment and access to care issues."

There certainly is no "consensus" of expert opinion indicating that CRNAs require the type of supervision that the hospital standards require. In fact, the overwhelming evidence is that anesthesiolo-
gist supervision of CRNAs does not improve the quality of care. For example, the Center for Health Economics Research (CHER) has concluded that anesthesia outcomes between CRNAs and anesthesiologists "have not been shown to differ." The truth is, the department's consensus of "expert opinion" refers primarily to the small group of anesthesiolo-
gists with whom the department worked.

The Department of Health's responses to pub-
lic comments regarding the hospital licensing stan-
dards also set forth the department's preconception that physicians who "supervise" CRNAs need knowledge of anesthesia to do so. The department stated that "it serves no purpose for a surgeon or other physician who is unfamiliar with modern anesthesia tech-
niques and equipment to be considered a 'supervisor.'" This conclusion, however, was unsupported by any evidence other than the partisan urgings of anesthesiologist organizations. It reflects the same his-
torical misconception that nurse anesthetists have fought for 100 years—that nurse anesthetists cannot master the body of anesthesia knowledge to be effective administrators of anesthesia. Nurse anesthe-
tists are effective administrators of anesthesia. There is no evidence that CRNAs supervised by physicians with knowledge of anesthesia techniques and equipment are any more effective than those who are not. To the contrary, there is ample evidence that CRNAs need no more guidance concerning anesthesia techniques or equipment than do anesthesiologists. The New Jersey standards reflect a fundamental inability to understand the reality of anesthesia practice. Hidden beneath the Depart-
ment of Health's rhetoric is a fundamental truth—the hospital standards regarding supervision have nothing to do with quality of care and everything to do with suppressing competition and institutionalizing physician control of CRNA practice.

It is a shame that New Jersey's standards so unnecessarily combine worthwhile provisions deal-
ing with monitoring and equipment with the turf battle of supervision. Because the standards make so little sense, they are unlikely to be followed by any state. Moreover, in the state where those who would restrict CRNAs to being supervised by anesthesiologists had their best shot, they were denied their goal. Once they get around to reading the standards as actually adopted, it is not likely that ASA or anyone else will consider the New Jersey standards a model of anything but confusion.