Practice standard in the making: Pulse oximeters

We appear to be witnessing an unusual event: the creation of a new practice standard in anesthesia. Because it so clearly illustrates a fundamental principle of the law covering health care, it is appropriate to examine this development.

In order to illustrate the principle, I am going to make some assumptions about the introduction of pulse oximeters to practice settings. My information on this subject is neither scientific nor historic; it merely reflects my impressions. Because my information is undoubtedly limited, it must be recognized that this article is illustrative only and is not intended as a history of the introduction of pulse oximeters nor as a legal conclusion as to their requirement.

As we have seen, because the courts do not understand the health care field, they designate practitioners in the field as “professionals.” The profession sets its own standard of practice and when the court needs to know what this standard is, the court seeks expert testimony. The question of whether a particular practice is required in the standard of care is one to be answered by CRNAs and not by lawyers. The issue of the standard of practice is also a factual matter because it depends on the testimony of expert witnesses. What the expert testifies to and what the jury believes can vary from case to case.

Disquieting though it may be, as a practical matter it must be recognized that the standard of professional care is determined on an individual basis for each case. Thus, to discuss whether something is or is not included in the standard of care is really to make a prediction as to what experts will testify to and what will be believed by both jury and judge at a malpractice trial.

These points are illustrated by the case of Keys v. Mercy Hospital of New Orleans, 485 So. 2d 514 (Louisiana, 1986). This case was recently summarized in a medical newsletter, which incorrectly stated, “The experts agreed that the anesthetist was negligent in attempting the intubation without an anesthesiologist assisting her.” The trial court discussed the standard of care under Louisiana law (as it is the law in many other jurisdictions): “where the alleged acts of medical negligence raise issues peculiar to the particular medical specialty involved, then the plaintiff has the burden of proving the degree of care ordinarily practiced by physicians or dentists within the involved medical specialty.” The court pointed out that because the field of anesthesiology is a specialty, a “plaintiff seeking to prove that a medical specialty failed to adhere to these standards of care or skill is not limited to expert medical testimony by witnesses practicing or familiar with the standards of care and skill within the defendant's specialists community or locality.” (485 So. 2d 516)

In this case, four anesthesiologists testified as to the standard of care. The plaintiff's expert anesthesiolo-
gist testified that the CRNA was negligent in attempting intubation without assistance from an anesthesiologist. Three anesthesiologists testifying on behalf of the defendant stated that the CRNA was not negligent in beginning the intubation without an anesthesiologist at her side. Thus, clearly, experts did not agree that the anesthetist was negligent in attempting the intubation without an anesthesiologist assisting her.

The court decided that there was ample evidence at the trial to support the trial court’s determination of negligence on the part of the defendant. The trial court had specifically stated that there was a variance in the expert testimony. The trial court agreed with the plaintiff’s expert testimony. Interestingly, the appellate court went out of its way to agree with the plaintiff’s expert without agreeing that an anesthesiologist had to be present for the intubation. The appellate court summarized the plaintiff’s expert testimony as being simply that the defendants were negligent in not taking sufficient measures to prevent the accident. This case illustrates that the standard of care is a factual matter to be established by testimony and that where experts disagree the court or jury must choose which expert to believe.

Pulse oximeters as a standard of care

Recognizing that the standard of care is difficult to predict, is the use of pulse oximeters now part of the standard of care? When pulse oximeters were first introduced, there seemed to be some reluctance to use them on the part of anesthetists. It was said that they were not reliable; people who used them would relate that they either set off alarms all the time or only when a patient was already comatose. Pulse oximeters represented an additional expense which, given their lack of reliability, many people did not want to incur. Additionally, pulse oximeters were subject to breakdowns.

Over the past five years, there seems to have been a growing acceptance of pulse oximeters in the anesthesia field. (See, for example “Monitoring in anesthesia”, 1985, by Jordan and Huffman, Vol. 53, AANA Journal, p. 513.) The reliability of pulse oximeters has been improving and more and more nurse anesthetists indicate that they are using them.

In an article published by the Journal of the American Medical Association in August, 1986, it was reported that the Harvard Medical School had adopted standards for patient monitoring during anesthesia. These standards require that, “During every administration of general anesthesia, the anesthetist shall employ methods of continuously monitoring the patient’s ventilation and circulation.” A variety of examples were given which included pulse oximetry as a method of monitoring circulation. In the article accompanying the standards, it was noted that not even all of the Harvard affiliated hospitals were following uniform procedures.

One might ask, by the way, whether the mere publication of these standards, in and of itself, might have resulted in their becoming the standard of practice. By the nature of the judicial system (except for the legislature, which may adopt standards as part of its licensing requirements), there is no one body that has the power to develop standards for all anesthesia. Following the publication of the Harvard standards, the Board of Directors of the American Association of Nurse Anesthetists endorsed them as well. Ultimately, it is the profession itself that determines its own standards. No institution, not even Harvard nor the AANA, can set standards for the profession.

As yet, no appellate case has mentioned the use of pulse oximeters as part of the standard of care. While appellate courts do not determine the standard of care, it would appear likely, given the amount of anesthesia litigation, that if trial courts were adopting pulse oximeters as a standard of care, one of the cases would have been appealed on some grounds. The lack of references to pulse oximeters in appellate cases may be evidence that the standard of care does not yet include the use of pulse oximeters.

What will be required in an actual case to establish that pulse oximetry is the standard of care is expert testimony: in similar circumstances CRNAs would customarily use pulse oximeters. There has, however, been a development which makes me believe that such testimony may not be far away. At a December, 1987 meeting of AANA Executive Director John Garde, AANA Finance Director Mark Krzmarzick and myself with The St. Paul Property & Liability Company, at which St. Paul reviewed its premiums for malpractice insurance, St. Paul advised us that although there was no clear trend in terms of total claims paid, there was clear evidence that the number of anesthesia claims was declining. (In other words, there are fewer claims. Because awards made on these claims appeared to be growing, it is not yet clear what is happening in terms of the total dollar amount of claims. But significantly, the number of anesthesia claims is declining and this number is declining for both anesthesiologists and CRNAs.) CRNAs with whom I have discussed this decline attribute it to technological changes, primarily pulse oximetry.

Even though the decision is up to the profession and is demonstrated by expert testimony in court, I believe that the use of a pulse oximeter either is or is about to become the standard of care. Clearly, I am not an expert on anesthesia practice so this is sheer speculation on my part. And since I am not an expert,
my speculation cannot affect the issue. However, if you are a CRNA administering anesthesia without a pulse oximeter, I would urge you to prepare now to defend your practice.

If an avoidable death occurs (an avoidable death is one which five years after the fact, a jury believes could have been avoided) how will you defend yourself? If your hospital administration refuses to buy pulse oximeters, does it have valid reasons? You and the hospital should begin documenting those reasons. There might, in fact, be good reasons why a hospital refuses to buy a pulse oximeter, including lack of data, a belief that they remain unreliable, the use of alternative equipment, and the like. Because the standard of professional care will be determined by expert testimony, it will be helpful to your hospital if it has evidence of experts agreeing with its conclusion. You should discuss with hospital administration, and perhaps with the hospital attorney, what expertise the hospital will be able to present supporting its decision.

If a hospital refuses to buy a pulse oximeter simply because of a determination that it is too expensive, and if you are unable to obtain expert testimony that pulse oximeters are not part of the standard of care, you and the hospital stand at risk. An accident which is determined to be avoidable may well be blamed on the failure to use a pulse oximeter, and the fact that the hospital for which you work refused to buy one will not be considered an excuse. You should never be in a position in which you are practicing what you believe to be substandard care.

Whether or not pulse oximeters have become the standard of care, it is time to determine your position on this issue.

AANA Call for Research Papers

The AANA Program Committee is extending an invitation for research papers for presentation at the 56th AANA Annual Meeting
August 19-24, 1989
Boston, Massachusetts

For further information and to obtain an application form, contact

Glen C. Ramsborg, CRNA, MA
Director of Programs and Meeting Services
American Association of Nurse Anesthetists
216 Higgins Road
Park Ridge, Illinois 60068

Deadline for application is August 1, 1988