Obstetric Anesthesia Coverage

The Problem in Perspective

APPROXIMATELY 10 yr have passed since publication of the last national survey on obstetric anesthesia manpower and practices in the United States.\(^1\)\(^2\) In this issue of Anesthesiaiology, Hawkins \textit{et al.} (page 135) report the findings of the most recent workforce survey.\(^3\) Perhaps we should begin by asking why this interest in obstetric and not other anesthesia practices? The answer is that there are unique aspects to the delivery of obstetric anesthesia care that have inspired such studies. In 1981, 70% of all anesthetics for cesarean delivery were administered by or under the direction of an anesthesiologist, whereas the remaining 30% were provided by an obstetrician or by a certified registered nurse anesthetist independently practicing. For those undergoing labor and vaginal delivery, only 20% of the parturients had an anesthetic administered with the involvement of an anesthesiologist. The reasons for the discrepancy in anesthesia coverage between the obstetric suite and the general operating rooms is apparent from the 1981 survey.\(^4\) A majority of anesthesiologists (and obstetricians) indicated that provision of obstetric anesthesia was more time consuming, less financially rewarding, difficult to schedule because of unpredictable needs, and associated with greater risk of malpractice claims. These perceptions were so pervasive that it was not unusual, at the time, for potential employers to find it beneficial to explicitly state “No OB” in advertisements aimed at recruiting anesthesiologists. Fortunately, according to the most recent survey by Hawkins \textit{et al.}, some aspects of obstetric anesthesia care may have improved between 1981 and 1992.\(^5\)

National surveys of this type represent a huge commitment of time and resources, and the authors are to be congratulated on completing this laborious task. Before discussing their findings, it may be prudent to consider some of the limitations of the current study. First, we should keep in mind that it is based on data which are nearly 5 yr-old. In this period, there has been increasing reliance on managed competition to control health care costs and a decrease in the number of anesthesiology residents. Both of these changes certainly have affected the present day practice of anesthesiology. Second, bias may occur in any survey study by self-selection of the participants who are willing to respond. In the current survey, the hospital response rate was 35% compared with 98% in 1981.\(^1\)\(^2\) The reasons for this difference in response rates are difficult to explain. There are also marked variations in the response rate among hospital strata, suggesting that the attitude toward the survey questionnaire varied depending on the size of the hospital receiving it. Lastly, although one of the goals was to compare the 1992 findings with those of 1981, the unavailability of complete data for the latter makes it difficult to perform statistically meaningful comparisons.

The only data for which valid statistical comparisons could be made come from the American Hospital Association (table 1; see page 145).\(^3\) This information, not collected as part of the 1992 survey, indicates that there is a reduction in the number of hospitals providing obstetric care, which may be a result of a centralization of these services or merely a consequence of an overall reduction in the number of hospitals in the United States. Also, although it is noted that the proportion of hospitals with large delivery services (stratum I) has increased since 1981, this is the only group of hospitals in which a decrease in the actual number of deliveries has occurred. Births have increased in stratum II and III hospitals, particularly in the latter group. Yet, labor and delivery units at these small hospitals are most difficult for anesthesiologists to cover on a round-the-clock basis. It is difficult to predict with certainty how greater penetration of managed care into health care markets will affect the number of small hospitals providing obstetric care.

Perhaps the most resounding finding of the current survey is that the demand for obstetric anesthesia services has increased dramatically. Use of epidural analgesia for labor has more than doubled since 1981, and obstetricians now perform less than 2% of the blocks. A large proportion of obstetric anesthesia coverage is provided by a nurse anesthetist not directed by a physician anesthesiologist. Although this practice rarely occurs on the larger delivery services, it has increased dramatically in the smaller (strata II and III) hospitals. The data suggest that, in 1992, almost 100,000 more

Accepted for publication April 16, 1997.

Key words: Anesthesia; obstetric; manpower.
pregnant women, as compared with 1981, had neuraxial analgesia administered without the benefit of an anesthesiologist. It is even more alarming that in 1992, an anesthesiologist was not present for more than half of the cesarean sections performed in hospitals with fewer than 500 deliveries per year. Fortunately, the practice of administering anesthesia for cesarean section by personnel without formal training in anesthesiology appears to have been eradicated, but the void created by a decrease in the number of obstetricians providing regional blocks has not been filled by anesthesiologists. Clearly, obstetric anesthesia is the practice of medicine frequently requiring rapid medical decision-making in women whose physiology is altered because of pregnancy and, at times, having preexisting medical or obstetric conditions, such as preeclampsia. It is difficult to attribute the reluctance of anesthesiologists to provide professional services in the obstetric suite solely to the commonly voiced excuse that caseloads are too small to support a full-time anesthesiologist. Approximately 20% (nearly 20,000 cases) of unattended abdominal deliveries occurred in stratum I hospitals performing greater than 1,500 deliveries per year. Regardless of the professional education and licensure of the anesthesia provider, there should be some comfort in knowing that regional blocks were chosen more often than general anesthesia for cesarean delivery. A recent study, also by Hawkins et al., indicates that the case-fatality ratio for regional anesthesia is 16.7 times less than for general anesthesia, primarily because of a decrease in complications associated with regional anesthesia. It has been suggested that the use of epidural analgesia during the early latent phase may increase the risk of cesarean section in nulliparous women, although this has been disproven in at least two other studies. It is reassuring to note that despite a doubling in the use of epidural labor analgesia from 1981–1992 nationally, the cesarean section rates were 19% and 21%, respectively. Further, there was no difference in the primary or repeat cesarean section rates between hospital strata, despite differences in availability of regional analgesia for labor and delivery. Nonetheless, at least one managed care company has sent to their contracted obstetric and anesthesia personnel a “physician alert and guideline,” requesting that they “delay placement of epidural until five centimeters of cervical dilation has occurred to reduce the risk of cesarean section.” This is most concerning because many women suffer severe pain early on in labor, and they may request effective analgesia before a cervical dilation of 5 cm has been reached.

Before offering solutions with respect to obstetric anesthesia coverage in the United States, the problems should be put into perspective. It is difficult to react to trends in supply and demand without the availability of current data. This is particularly true when strong influences, such as managed care, are producing rapid changes in workforce and practices. Alarming trends, such as the absence of anesthesiologists for cesarean deliveries, cannot be condemned without outcome data to support the perception that quality of patient care is suffering. Surveys have been successful in identifying the problems, but only mandatory reporting of outcomes, risk factors, and practice parameters will allow improvements in the quality of obstetric anesthesia care by allowing us to make informed decisions about optimal practices. It would seem that the time has come for establishment of continuously monitored regional database registries of obstetric anesthesia practice to aid us in solving some of these problems.

Robert S. Lagasse, M.D.
Associate Professor of Clinical Anesthesiology
Alan C. Santos, M.D.,
Associate Professor of Anesthesiology, Obstetrics and Gynecology
Department of Anesthesiology
Montefiore Medical Center
Albert Einstein College of Medicine
Bronx, New York 10461

References