

## CORRESPONDENCE

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*In Reply:*—Although we did not have access to technical details about epidural placement in our study, we agree with Dr. Gevirtz *et al.* that several alterations in anesthetic technique have improved our safety with regional anesthesia in obstetrics. Common teaching in the 1970s and 1980s (experienced by several of our authors) was to perform obstetric epidurals with single bolus doses of 10–15 ml of 0.5% bupivacaine for labor or 20–25 ml of 0.75% bupivacaine for cesarean section. In contrast, test doses and incremental dosing through a catheter are now routine, and spinal anesthesia is increasingly used for cesarean section. Many anesthesiologists are using very small intrathecal doses of narcotics or local anesthetics to initiate

labor analgesia followed by low-dose infusions. In our current practices, parturients will rarely be exposed to large concentrated bolus doses of epidural local anesthetics.

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## Cardiac Arrest and Epidural Anesthesia

*To the Editor:*—Drs. Liguori and Sharrock<sup>1</sup> are to be congratulated for their informative case reports regarding a complication that has tremendous implications.<sup>2</sup> Not only have they provided the most comprehensive, clinical detail to date of the progression of this heretofore, little-understood occurrence, they have also provided insight as to the “at-risk” time frame as well. They have now documented the occurrence of profound bradycardia in the absence of obvious predisposing factors up to 3.5 h after institution of epidural anesthesia. However, this additional information raises many additional concerns. Just as our evolving realization that preterm neonates were at risk for apnea related to postconceptual age for some ill-defined time in the postoperative period,<sup>3</sup> so too we apparently now are faced with determining how far after institution of (or “top-up” of) epidural anesthesia our patients are at risk for profound (catastrophic?) bradycardia. I am afraid that had Liguori’s and Sharrock’s patient number 11 who developed asystole 1 h after admittance to the PACU been in my practice setting, it would have been an unwitnessed arrest with a less fortuitous outcome because that patient, in all likelihood would have already transferred to the ward. This series of reports and the elucidation of the late occurrences in some instances will aid those of us faced with hospital administrators trying to reduce staffing requirements in the PACU by accelerating discharges to the ward. Although I agree with Liguori’s and Sharrock’s admonition of vigilance on our part, it may be not unlikely that these events will

and do occur outside of our vigilant realm. The true value of their report lies in “heightened awareness,” not only to “. . . provide optimal treatment of progressing bradycardia . . .” but also to aid clinicians with real information to ward off the omnipresent drive to treat patients faster and cheaper.

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