

CORRESPONDENCE

David W. Edsall, M.D.
 Patricia D. Deshane, C.R.N.A., M.S.M.A.
 Norman J. Gould, M.D.
 Zoya Mehta, M.D.
 Stephen P. White, M.D.
 Eugene Solod, M.D.
 Medical Anesthesiology Consultants Corporation
 326 Nichols Road, Suite 16
 Fitchburg, Massachusetts 01420

Anesthesiology
 1997; 87:722
 © 1997 American Society of Anesthesiologists, Inc.
 Lippincott-Raven Publishers

In Reply:—Dr. Edsall's concern regarding the "smoothing issue" does not apply to our study. The computer scanning process, which identified records with defined intraoperative incidents, scanned the originally recorded data strings at 15-s intervals, not averaged data. In addition, our procedure for screening each record for artifacts included visual inspection of both the printed record (which does represent averaged data) and the originally recorded data strings at 15-s intervals. The CompuRecord[®] system we used in the study included a software module which facilitated rapid access to the originally recorded data.

Nevertheless, Dr. Edsall is correct to remind readers that retrospective review of any form of anesthesia record is unlikely to identify all artifacts with 100% certainty. We were very concerned about this problem and did our best to correctly identify artifacts when we visually examined each record selected by the computer system. But we agree with Dr. Edsall that identification of artifact remains a major challenge for anesthesia information management systems (AIMS). Concerning nomenclature, it seems that CPR (computer-based patient record) would be an unfortunate choice as an abbreviation for anything in the medical field other than cardiopulmonary resuscitation. Isn't that asking too much of context?

Among the anesthesiologists we studied, there was a very low compliance with voluntary reporting of intraoperative incidents iden-

References

1. Sanborn KV, Castro J, Kuroda M, Thys D: Detection of intraoperative incidents by electronic scanning of computerized anesthesia records. *ANESTHESIOLOGY* 1996; 85:977-87
2. Cooper J: Is voluntary reporting of critical events effective for quality assurance? *ANESTHESIOLOGY* 1996; 85:961-4
3. Edsall DW: Continuous quality improvement and postoperative nausea and vomiting. *ANESTHESIOLOGY* 1996; 85:A1044
4. Carroll NV, et al: *J Clin Anesth* 1994; 6:364-9

(Accepted for publication May 20, 1997.)

tified by the computer.¹ Dr. Edsall provides two more interesting and credible explanations for this low compliance. First, there is a delay of minutes or hours between the occurrence of the incident in the operating room and the opportunity to report the incident on the quality assurance computer in the PACU. Second, as we stated in our methods, the default answer to all quality assurance questions on the computer screen was "no." Dr. Edsall makes a convincing argument that these two conditions may have led to an unknown number of false negative entries.

Finally, we would echo Dr. Edsall's statement that Dr. Cooper's calculated cost of \$6 per case for AIMS² will easily be recovered by the savings which information management is likely to affect. Savings could be expected in expenditures for several categories, including pharmacy, billing, operating room efficiency, and medical record retrieval.

Kevin V. Sanborn, M.D.
 Associate Professor of Clinical Anesthesiology
 Columbia University
 St. Luke's-Roosevelt Hospital Center
 1000 Tenth Avenue
 New York, New York

(Accepted for publication May 20, 1997.)

Anesthesiology
 1997; 87:722-3
 © 1997 American Society of Anesthesiologists, Inc.
 Lippincott-Raven Publishers

Self-reporting Can Be a Reliable Means of Tracking Adverse Perioperative Events

To the Editor:—Sanborn *et al.*¹ suggests that automated anesthesia records can identify, track, and report deviations from specific limits for physiologic variables, and that this might be preferable to self-reporting of adverse events. Copper² concluded in his accompanying editorial that "anesthesiologists . . . do not report most events meeting criteria that they themselves had defined as relevant to QA." We

strongly disagree and published evidence to the contrary (Lagasse *et al.*³). In fact, we demonstrated that with a non-threatening QA system with 100% concurrent medical record review, anesthesiologists reported approximately 90% of adverse clinical outcomes. Our present QA system relies on self-reporting of adverse outcomes associated with 35,000 anesthetics performed annually. The resultant database