Correspondence

The anesthetic record

To the Editor:

The study by Devitt *et al.*¹ addressing the accuracy and completeness of the anesthetic record adds to the literature supporting the shortcomings of written records. The anesthetic record is now scoured for research data,² scrutinized for fiscal and cost containment information,³ monitored to ensure CQI,⁴ and exhibited to resolve medicolegal disputes. Can meaningful conclusions be made in these realms using a record generated with pen and paper? Accurate representation of hypotensive and hypoxic events in electronic records requires sampling intervals of 36sec and 13sec respectively.⁵

Devitt's record resembles that of our centre. The grid portion of the chart allows the user to create the time axis. The tendency is to define one small box as a five minute interval thus conforming to the CAS guidelines for heart rate and blood pressure recording. The accurate graphical documentation of a simulated (or real) critical incident of five minute duration is very difficult. Boldly placed blood pressure and heart rate readings between the lines may compromise legibility. What readings should be recorded - minimum, maximum or "smoothed" values? Devitt did not display the chart's note area. Often these spaces are too small to allow detailed notes of an event. Until the widespread introduction of AIMS, manual charting will remain the norm. We would make the following suggestions:

- 1 Despite the study results showing no improvement in charting accuracy or completeness, we would still encourage the use of the trend function when charting retrospectively.
- 2 Expand the time scale of the graphical written record during critical incidents. Notes are necessary if events cannot be accurately described graphically.

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REPLY:

The letter by Cherry and Dain raises several important points. Our study supports a growing body of literature that suggests hand charting by anesthesiologists is inaccurate.¹⁻⁴ As a result, the data recorded in the chart may be flawed and any use of this retrospective information could lead to erroneous conclusions.

Byrne and coworkers have studied the accuracy of hand charting when the time scale was expanded from 5 to 2.5 min blocks. Despite the change in time scale, more than 20% of the values charted were in error by more than 25% of the real value.² Our anesthetic chart is a four-page folding document. The chart design presented in Figure 1 represents a portion of the inside left hand page. There is a 4 × 9 cm comments box at the bottom of this page. The facing page (inside right hand page) contains an additional four-hour grid for charting and an additional 8 × 18 cm comments box at the bottom of the page. In our study when we collected the data for the charted value, we included not only what was recorded in the grid portion of the chart but also any values written in the comments box that corresponded to the critical incidents.

We agree with the suggestions of Cherry and Dain. However, despite these suggestions, caution should be exercised when using retrospective hand charted anesthesia data for research, quality improvement or medicolegal purposes as the data contained in charts is likely to be inaccurate and any conclusions from the above processes may be incorrect.

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PONV in Outpatients: when should it be assessed?

To the Editor:

Despite major advances in anesthesia, postoperative nausea and vomiting (PONV) still remains a common distressing problem facing patients. In ambulatory care setting, it may lead to delayed discharge and unanticipated overnight admission, both with financial implications to both the patient and the health provider. Referring to the recent article by Dr Chung in the April edition of this journal, I would like to comment on the low incidence of PONV (2.18%) reported in patients undergoing ambulatory surgery in this centre.

In a recent study of 140 patients undergoing dental extractions under general anesthesia (propofol/N₂O/sevoflurane) in our ambulatory care unit, we noted a similarly low incidence of PONV (2.9%) in the post anesthesia room (PAR). However, the incidence at 48 hr post-op was 28%. Could the author provide further details on the incidence of PONV at 48 hr at the Toronto hospital to allow inter institutional comparison?

Documentation of other adverse events (e.g. respiratory, CNS, cardiovascular, excessive pain and bleeding) in the PAR can be accurate assessors of surgical day care associated morbidity. However, in the case of PONV, perhaps follow-up by telephone may provide us with more realistic information?

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REPLY:

We thank Dr. Collins for her interest in our article.¹ Overall, 4.6% of the patients developed PONV before dis-

charge. We interviewed 30% of the patients 24 hr postoperatively and found that 9.1% of the interviewed patients suffered from PONV in the first 24 hr. We do not have data on the incidence of PONV 48 hr postoperatively. Detailed information on PONV in the same patient population were presented elsewhere.²

Determining the PONV incidence 24 or 48 hr postoperatively may provide more realistic information on total PONV than recording in-hospital PONV occurrences. Most outpatients tend to assume normal activities in the first 24 hr after surgery, which may contribute to PONV following discharge. Total PONV incidence, including the occurrence of post-discharge PONV, more appropriately reflects the long-term impact of ambulatory surgery on patients, while in-hospital PONV incidence may be more important in determining PACU cost or PACU nursing workload. In our study, we decided to follow up after the first 24 hr. We expect the highest PONV incidence to occur during the first 24 hr postoperatively as residual anesthetic effect subsides with time. With a 9.1% PONV incidence at 24 hr, it is unlikely that the 48-hr PONV incidence in our institute would be close to the 28% PONV incidence in Dr. Collins' institution. The case-mix of ambulatory population in our institution, 36% underwent relatively low-risk eye surgery, may explain the difference. Undoubtedly, characteristics of the patient populations play a key role in any interinstitutional comparison.

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Continuous interscalene block

To the Editor:

We read the article "A new technique of continuous interscalene nerve block"¹ and the accompanying editorial² published in the Canadian Journal of Anesthesia. We approve of the suggestions made by Coleman and Chan² to prevent damage to the catheter by the sharp end of the Tuohy needle and the recommendations not to perform interscalene block