CORRESPONDENCE

Benchmarking of Intraoperative Processing Times in a Prospective Multicenter Comparison

by PD Dr.P.H. Dr.med. Martin Bauer, PD Dr. med. Robert Hanss, Dr. med. Thomas Römer, Dr. med. Laelia Rösler, Katrin Linnemann, Diol.-Inform. Jürgen Hedderich, and Prof. Dr. med. Jens Scholz, in volume 47/2007

Limited Informative Value

This article's title arouses the expectation that measuring and comparing figures relating to operating room processing times will help optimize the processes concerned. It seems, however, that this was not really the purpose of the study, which rather served to document the contention that the greater amount of educational activity occurring in large hospitals lengthens operating room processing times, but is not adequately compensated by the DRG system. This hypothesis seems plausible, and it is certainly worthy of being examined. The authors' research revealed that the anesthesia preparation time, perioperative time, and anesthesia time after the end of surgery were longer in university hospitals than elsewhere, and that this finding was "locally statistically significant." From a process management point of view, an interesting observation was that the hospitals with better results – i.e., shorter processing times – showed lower variances, indicating that the processes were relatively stable.

Although the method of the study was well-conceived and well-structured, I would nonetheless like to offer two critical remarks. First, each of the participating hospitals was represented, in the end, by only 7 to 12 data sets, which is not a very large number. This limits the informative value of the study. Second, the conclusion seems problematic. The authors' step-by-step segmentation of operative room processing still contains no information about the actual occurrence of educational activity, which is merely surmised. The individual processes in the operating rooms of university hospitals were not inspected any more closely to see whether they fulfilled their intended purposes. Could there not be other factors at work, besides educational necessity, to explain the longer processing times? To put it a bit more pointedly: How can we be sure it is not the case that operations in university hospitals take longer, while the need for adequate training remains unmet? For a reliable answer to this question, it is necessary to examine the processes involved critically and in greater detail, with closer questioning of the participants.

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In Reply:

Our article was entitled "Benchmarking of Intraoperative Processing Times in a Prospective Multicenter Comparison." Its subject of our study was, indeed, precisely this.

As for your expectation that we would come through with measures for process optimization as well (as part of an "all-around carefree package," so to speak), your wish was presumably father to the thought. This is understandable, considering the large amount of pressure currently being placed on hospital performance.

Reality, however, shows that even the longest voyage must begin with a single step. The necessary first step here is an adequate description of the current state of affairs, which was the purpose of our study. We performed a preliminary statistical analysis to ensure that the chosen sample would be large enough to yield adequately informative data (i.e., that the power of the study would be adequate). We struck a compromise between informative value of the data set and practicality of study performance, as we preferred to generate sufficient data to support a statistically significant conclusion rather than speculate about optimal data.

Larger study samples would certainly be desirable. We are, therefore, currently working on a system of Internet-based online entry of processing times, with the goal of a continually growing benchmark database. We will be presenting this system at the upcoming German Anesthesia Congress (Deutscher Anästhesiecongress [DAC], Nuremberg, 26–29 April 2008).

With our study, we have taken not merely the first step, but, in fact, two steps down the long road, as we have provided evidence that the effect of educational activity (training) may be playing a major role. As you correctly pointed out, error analysis now requires that the involved processes should be examined "critically and in greater detail, with closer questioning of the participants."

I hope very much that our preliminary work has motivated you, as a quality and process manager, to take some of the further steps along the road yourself, with your own studies.

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Conflict of interest statement

The authors of both articles declare that they have no conflict of interest as defined by the guidelines of the International Committee of Medical Journal Editors.