Competing Interests

The authors declare no competing interests.

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Current Quality Registries Lack the Accurate Data Needed to Perform Adequate Reliability Adjustments

To the Editor:

We would like to thank Drs. Wakeam and Hyder[1] for their excellent discussion and description of reliability adjustment in the recent issue of Anesthesiology. The authors correctly highlight the important role that the statistical analysis of data submitted to the various registries can play in the ranking of institutions. This is particularly important now that the Centers for Medicare and Medicaid Services requires providers to participate in a Physician Quality Reporting System[2] using a Qualified Clinical Data Registry. These requirements are a precursor to altering physician payments based upon measures of care quality.

We would like to raise the issue of another area of "reliability": the reproducibility of the underlying data themselves. While some registries such as National Surgical Quality Improvement Program do periodic data audits and have well-described accuracy thresholds,[3] many do not. In fact, some registries, including the Anesthesia Quality Institute and the American Society of Anesthesiologists Perioperative Surgical Home initiative, allow for widely divergent methods of data collection, yet lump these data together assuming they are comparable. For example, one group might define postoperative nausea and vomiting based on postanesthesia care unit antiemetic administration, while another bases it on direct patient interviews. Other registries, such as some maintained by the National Quality Foundation, utilize administrative claims data, which have been shown to be discordant with data collected by other methods.[4–8] Despite these very different methods of data collection, all of these examples are considered equally valid national quality registries.

We find the idea that the underlying data used in these registries may be inconsistent to be worrisome. Ideally, the data on patients in various registries should be identical regardless of the method by which they were collected. At the very least, even if the data are not identical between registries, it is critical that within a registry, the data from various sites be of equal quality and have the same definitions, something the major registries in our own specialty lack. If the data inputs are not consistent, we are left with the question of which data to believe, and the conclusion is that the risk adjustment models used may be unable to control for patient-specific risk factors the way they are intended.

It seems inevitable that in the near future, providers will be compared to each other and paid partially based on these comparisons. This concept is based upon the unverified supposition that we can effectively compare patients across institutions. On the basis of the current landscape, we find this supposition unlikely, and we are concerned that using these inadequate tools may lead to incorrect choices in the near future. Drs. Wakeam and Hyder are absolutely correct that "big data" require more than assembling a large sample size and assuming that the "N" will solve the problem, but rather a thorough understanding of statistics and attention to detail. Unfortunately, it seems that the goals of some of the quality registries are outpacing the science behind them.

Competing Interests

The authors declare no competing interests.

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In Reply:

We appreciate the thoughtful attention that Dr. Hofer and colleagues have given our article describing the advantages and disadvantages of reliability, or "shrinkage" adjustment.[1] Their title, "Current Quality Registries Lack the Accurate Data Needed to Perform Adequate Reliability Adjustments" may be accurate for the anesthesia data collections they mention but not for all surgical quality registries.

Dr. Hofer and colleagues' message about the importance of measurement error cannot be understated. Measurement error, whether in administrative data or in registries, undermines both the validity and utility of quality measurement. When reliability adjustment is applied, unmeasured patient and case-mix factors leave "residual" variation that may be falsely attributed to hospitals or physicians rather than inadequate risk adjustment.[2] With or without reliability adjustment, measurement error is critical when benchmarking quality across hospitals or physicians because federal mandates are linking payment to outcome-based performance measurement.

Physicians and hospital leaders already appreciate that meaningful outcomes comparisons are very costly to produce, particularly when accrued through a clinical registry and analyzed with the necessary statistical expertise. The first question is whether physicians believe that meaningful outcomes comparisons are important enough to pay for them. The American College of Surgeons (ACS) and the Society of Thoracic Surgeons (STS) staked out their positions on this issue decades ago and currently generate the highest-quality outcomes data in surgery while stewarding multiple measures in the National Quality Forum.[3–5] Some may wonder why anesthesiologists have not taken a similar leadership position.[6] However, it is important to consider that (1) participation in these registries is costly, (2) neither the ACS nor STS registry outcomes are part of current or proposed Centers for Medicare and Medicaid Services payment programs, and (3) the jury is still out on whether participation in ACS or STS registries improves quality.[7,8]

So how can anesthesiologists improve the quality of quality measurement? This is crucial because mandated links between payment and "performance" are moving forward with or (more commonly) without high-quality measurement science. Solutions are many: investing in anesthesia registries, fostering partnerships with surgeons to share the costs of registries, and uniting with surgeons and nurses for a stronger political voice. In brief, anesthesiologists must either "pony up" the financial and leadership costs of performance measurement or risk being left in the dust.

James C. Eisenach, M.D., served as Editor-in-Chief for this exchange.

Competing Interests

The authors declare no competing interests.

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Steroids Do Not Reduce Persistent Pain after Cardiac Surgery: Should This Be the End of the Question or the Beginning of Newer Questions?

To the Editor:

We read with interest the study by Turan *et al.*[1] on the use of methylprednisolone for persistent incisional pain after cardiac surgery. This substudy was done on 1,110 of the 7,500 patients included for the Steroid In caRdiac Surgery (SIRS) trial.[2] The

This letter was sent to the author of the original article referenced above, who declined to respond—Evan D. Kharasch, M.D., Ph.D., Editor-in-Chief.