

## **The American Society of Anesthesiologists (ASA) Comments on Comparative Effectiveness Research and the Anesthesia Quality Institute (AQI) Data Registry**

In order to produce meaningful and ongoing comparative effectiveness research, it is important to establish the necessary infrastructure. To this end, the American Society of Anesthesiologists (ASA), through its leadership and House of Delegates, has recognized the importance of establishing a national clinical data registry and has created a related but separate organization focused on quality improvement in anesthesiology. The organization, the Anesthesia Quality Institute (AQI), has a vision to become the primary source of information for quality improvement in the clinical practice of anesthesiology. The organization will allow anesthesiologists to maintain and enhance their well earned reputation as the leading medical specialists in terms of quality of care and patient safety. This assistance could be expanded to include other anesthesia service providers and perhaps other perioperative care providers. The AQI seeks to accomplish three primary objectives.

### ***1. Improvement of Patient Outcomes and Quality of Care***

The development of a data registry for anesthesiology will help improve patient outcomes and thus raise the quality of care in the specialty in three main ways. First, more anesthesiologists will be able to collect and monitor their own practice data, which is the foundation of quality improvement. Without solid data a physician, practice, or hospital cannot accurately know his or her true level of performance and outcomes. Benchmarking reports will provide anesthesiologists with a mechanism to assess their own practice relative to their peers and will facilitate the development of meaningful report cards on physician and team performance.

Second, the data registry will support the development of products or services to assist anesthesiologists whose practices are achieving relatively lower performance. A number of current data registries collect voluminous amounts of data, but lack a comprehensive ability to analyze and translate that data back into practice and performance improvement. The AQI intends to go beyond mere data collection and close the loop on identified shortcomings through practice improvement materials and processes developed in partnership with ASA and the American Board of Anesthesiology.

Finally, a comprehensive national data registry for anesthesiology would provide new resources for improving the practice of anesthesiology through related research. Researchers could utilize the data registry to answer clinical questions of importance to patients and the specialty. While peer benchmarking will require a stable and standardized collection of data, specific, focused research initiatives can be provided temporary access to the registry to very rapidly acquire a broad-based sample of clinical information designed to address priority research interests, including comparative effectiveness research. Some of these priority research

topics might include the relationship of anesthetic management to tumor biology and cancer survival; the optimal strategies to prevent unintended intraoperative awareness and the impact of anesthetic exposure on cognitive function in the very young and very old.

Much of the potential of an anesthesiology-based clinical registry will be realized through interoperability and partnership with datasets collected by our partners in perioperative care, especially surgical colleagues. These linkages will be challenging and complex and invite a unified, nationally coordinated effort to integrate the related clinical registries.

## **2. *Dissemination of Anesthesiology Specific Information***

The data registry will allow the Anesthesia Quality Institute to develop reports for interested parties on either aggregate outcomes information or physician-level measures. As the data set grows increasingly robust and achieves validation, the AQI could partner with public and commercial payers who wish to learn more about anesthesiologists and the quality of perioperative care. Such reports could be used as an alternative to claims-based and administrative datasets which are weaker data sources in anesthesiology than in most other fields of medicine. Finally, ASA and the AQI could use the database to support organizational statements and public understanding about the safety and quality of the practice of anesthesiology.

## **3. *Develop and Further the Specialty of Anesthesiology for the General Elevation of the Standards of Medical Practice***

The data registry will elevate the standards of practice by providing evidence for use in future ASA practice statements and guidelines. The registry will demonstrate the validity of the collected data through a risk adjustment methodology and data validation process. Such data could then be sufficient for multiple purposes, including focused research queries, peer-review publications, and evidence to support ASA practice guidelines.

Although it is widely known that anesthesiologists have raised patient safety to nearly the Six Sigma level, this achievement is almost entirely related to the reduction of anesthetic mortality rates. The data registry will help define the current state of practice of anesthesiology by identifying rates of other, less dramatic but still important events and outcomes. Data reporting and comparative analysis is the only route to understanding clinical practice variation, a fruitful route to quality improvement.

Variations are seen throughout medicine and every medical specialty. Registry data will permit understanding of such variation and reduce it through the identification of outliers and dissemination of best practices, which will address important, but currently difficult to recognize, clinical problems in the specialty.

In conclusion, anesthesiologists are deservedly proud of their reputation as leaders in patient safety; however we do not intend to rest on our reputation. We recognize that the time has come to take the next step and develop a national data registry for anesthesia to help improve the health of our patients, communities and the performance of our practices and hospitals. We therefore request that a portion of the funds, authorized for comparative effectiveness research, be dedicated towards the development of national clinical data registries, such as the Anesthesia Quality Institute. There are many unanswered questions and gaps in knowledge across all specialties and we recognize the federal government cannot fund research in all of these areas at once. However, by funding such registries now, the Administration can build the infrastructure and data sets needed to support comparative effectiveness research today, while also laying the foundation for maintenance and expansion of such research in the future.