Benchmarking to Excellence: Using Quality Indicators to Improve Performance

BY IRVING PIKE, MD

What has been learned?

In a previous issue of *EndoEconomics*, the author had the opportunity to report on a project being initiated to benchmark quality performance in endoscopic practice among a group of practices around the country (*EndoEconomics*, May 2007:Vol. 12, Benchmarking to Excellence). At this time, the author offers an update on the evolution of benchmarking and quality improvement, as well as Pay-for-Performance (P4P) since the last report.

The Benchmarking project consists of 14 gastroenterology practices (academic, private, small and large), a gastroenterology pathology group, originally three and now four endorwriter software groups, and a large integrated healthcare delivery system. The organizations have partnered in an attempt to accomplish the following objectives:

1. Establish a central database for storage and maintenance of endoscopy quality measures for gastrointestinal (GI) endoscopists who want to document and improve their endoscopy performance.

2. Develop and validate quality measures for endoscopy, initially utilizing those proposed by the ACG-ASGE joint task force for the development of gastrointestinal endoscopy quality indicators.

3. Facilitate the development of a standard reporting software format for those GI endoscopists utilizing endowriters or other EMRs for recording and reporting their endoscopy reports.

4. Provide benchmarking data reports to participants that will support their quality improvement efforts. (See Chart A)

**Chart A**

**Intelligent Data Mining**

*Data Cleansing & Data Integrity*

- Olympus
- ProVation
- GMed
- Others

*Exploratory Data Analysis*

- Map
- Consolidated Data

*Data Warehouse Design/Architecture*

*Metrics Reporting*

- Reports
- Data Cube
- Discussion Board

*MD Access Via Web*

*Benchmarking Performance Management*

*Improve Health Outcomes*
To date, a lot of effort from all involved has resulted in some significant accomplishments. Under the leadership of Dr. Kathie Zimbro, (Director of Clinical and Business Intelligence at Sentara Health Care), a database has been created that has successfully received information from physicians and facilities submitting colonoscopy quality indicator data using diverse methods for reporting, including data extracted from paper charts using a data collection form and two separate electronic formats for transmitting data. (Chart B) The database has also been used to accept data submitted directly from several endwriter databases. This indicates that physicians using different methodologies and devices for recording their procedures can benchmark using a central database. In addition, a benchmark report has been created and used to provide physicians feedback on their performance.

Early data indicates that physicians’ performance with respect to key indicators is quite good. Each site has one, and in some cases two, physicians submitting data during the pilot phase of the project. Currently, only quality indicators for colonoscopy are being captured and reported. Cecal intubation rates for screening and surveillance procedures were 97%. (Chart C) Adenoma detection rates in men were 38.9%. (Chart D) Colonoscopy withdrawal times were just under seven minutes in screening procedures, and just over seven minutes in surveillance procedures. (Chart E)

Initial Physician Experience

Submission of data to the created central database was initially made by physicians who were not using electronic endwriters. These physicians and/or their staff were populating data fields in a commercial product called Forms Router or in an Access database created by Dr. Zimbro’s staff at Sentara Health Care. Interestingly, these basic electronic forms could be populated quickly, and the data submitted quite reliably. The electronic endwriters were capturing data, but the software written did not offer the ability to upload the data to a separate database. Physicians using manual transfer methods report that the process is simple. It adds approximately one minute to complete a paper data collection form after performing a colonoscopy, and, after gaining experience, about 1.5 minutes to enter the data in one of the databases.

The physicians utilizing endwriters to generate colonoscopy reports and simultaneously collect data, collectively report the process is not what was expected. The surprise has been locating the appropriate quality indicators, which takes much more concentration and time than just clicking through the procedure documentation for the purpose of documenting the procedure. The software was initially designed to
generate reports – not generate quality data. The two are not mutually exclusive. It is just a different design strategy. Now that the industry partners in this project have had time to work on their software, changes in the participant’s on-site software are improving the process.

Physicians almost unanimously report the way they perform colonoscopy has changed. Their withdrawal times are slower, even those who had six minute or longer times initially. One physician notes that he has become much more meticulous in the ascending colon and the splenic and hepatic flexures. This additional time and the additional time for documentation have made some physicians slightly less efficient. The physicians are anxious to see if their performance is improving.

The author asked a group of the participating physicians if, based on their experience to date, they felt the project was worthwhile. Each physician replied, yes. One physician reports, “Even though we are now just collecting data from one or two physicians at each of the pilot sites, all physicians at this particular 15 physician ASC are being measured for all of the quality indicators being used.” The collected data has been helpful in demonstrating to a couple of these physicians that their procedures needed improvement, and they have been able to improve. Several expressed interest in finding “someone” who will be agreeable to pay for the effort. Will that be the insurers in a true Pay-for-Performance model?

Industry’s Perspective

The project’s corporate partners were asked to weigh in on what has been learned, unexpected hurdles, how they perceive the future relative to quality measurement, and whether at this point the effort seems worthwhile. It seems the undertaking has been more significant than initially expected. The coordination of communication with each corporate partner and the Clinical and Business Intelligence Group at Sentara has taken on huge importance. The need for required fields and improved functionality relative to quality data is echoed by the vendors of the endwriter products.

In answering the question, “Do you think this effort is worthwhile?” the corporate sponsors have issued some answers worth directly quoting. “Absolutely! We are in the early phases of this effort. Over the long-haul, the benefits will be manifold, including not only better data for QI/P4P, but ultimately better patient care. It is through these types of efforts that healthcare can be transformed, and we must not waver from that path!” Another adds, “Is this a worthwhile effort? I don’t envision a future without it.”

Summary

A lot of effort has been put forth by all participants in this project. We have learned a great deal about changing the way we collect and record data on our procedures. We are quickly reaching the point of having a significant amount of data from the many cases submitted on a regular basis, and we feel comfortable the data can reliably be uploaded through the internet into a central database for redistribution in a comparison report format. Like most projects of significance, doing it right is a much larger effort than originally contemplated.

In the next installment of this series, it is hoped that a broader experience of benchmarking can be shared with the readers—based on successful uploading of data from additional sites using all of the participating corporate sponsors’ software.

Dr. Irving Pike practices gastroenterology as a member of a 32 physician single specialty group in southeastern Virginia, Gastrointestinal and Liver Specialists of Tidewater, PLLC. Dr. Pike regularly speaks as a faculty member at practice management programs. He served Sentara Health Care as a physician executive in a part-time role for twelve years. His positions included medical director for physician education and Vice President of Medical Affairs.