Having more reliable performance data will boost your credibility

Most OR leaders use performance reports to inform and guide critical decisions. The problem is that in most hospitals, the data used to create these reports are not reliable.

Why? Even the smallest surgery department is too complex for the most sophisticated OR data solution. To yield reliable reports, information technology (IT) systems require extensive customization and ongoing attention. Unfortunately, most OR leaders have not invested the time or resources to optimize their technology. As a result, physicians and staff do not trust the OR’s performance data, which ultimately undercuts the goals of data-driven decision-making.

Successful data analysis programs require careful planning and leadership commitment. Better-performing ORs follow seven steps to capture reliable performance data and use it effectively.

Customize measures
Many surgery departments try to build a data strategy on the base reports prepackaged in their information systems. In fact, most “canned” reports are not useful for managing an OR. To secure reliable information, you need to customize system reports to your OR’s unique needs.

First, construct measures based on your OR’s operating policies. How do you define a late start? In some hospitals, a delayed case is any procedure that begins more than 5 minutes late. Other ORs extend the window to 10 or 15 minutes. And how do you define start time—as “patient in room” or “incision start”? Make sure the measures used to generate performance data reflect your operating standards.

Second, customize measures to your organization’s performance goals. If improving preadmission testing (PAT) performance is a priority, you will need a PAT performance report to identify problem areas and evaluate process changes. It is unlikely your information system’s base model reports address your unique PAT issues. You will need to create a custom report with measures such as “percentage of charts complete on the day before surgery” and other relevant metrics.

Validate the data
Idiosyncrasies in the way an IT system processes information can alter the meaning of simple measures.

For example, say a case is canceled 30 minutes before its scheduled start. A nurse marks the cancellation and reschedules the case for the following week. In some systems, this action will rewrite the create date, thereby erasing the cancellation. To accurately measure same-day cancellations, you must understand the inner mechanics of your system and create the time stamps needed to yield a valid report.

Data auditing is essential. Cross-check system reports with manually tracked performance data. When an audit reveals a discrepancy, examine the underlying information fields and revise the data field map to generate accurate performance metrics.
Build credibility

Performance reports are tools for driving organizational improvement. But if stakeholders—especially surgeons—doubt your data, efforts to change processes will make little headway.

First, educate circulating nurses and other OR staff on the importance of collecting accurate data. Most electronic record systems include many more time fields than older paper-based systems, so data capture is more challenging than ever.

Second, teach staff to make effective judgment calls. Many surgical information systems require the user to assign a reason for any delayed start. Some nurses automatically select “surgeon was late,” even when other factors are at play. Other nurses sidestep confrontation by selecting “other.” Both practices undermine the credibility of the data.

The solution is communication. Encourage OR nurses to initiate a dialogue: “This is a late start—what should I enter as the reason?” Alternatively, the nurse can suggest a reason and ask for feedback. OR leaders can help by modeling this dialogue and making sure all physicians and staff understand that the process is focused on finding root causes, not on assigning blame.
Process “manually”
Many types of raw performance data are not usable until they have been evaluated by a person. Manual intervention is particularly important for tracking block time utilization.

For example, say a urologist has an individual block on Wednesday morning, but the schedule also includes a robotic urology block (shared by the entire service) during the same period. How do you allocate this surgeon’s robotic cases? Even where block time rules are clear, an individual will still need to evaluate the situation and make a decision.

Utilization decisions are even more complex when you fold in block time release rules. The bottom line is that human judgment is required to generate useful reports.

Tailor reports
OR information systems capture a huge amount of data. For these data to become useful information, they must be filtered to meet the needs of the individual user. An effective reporting strategy tailors information to specific OR stakeholders.

For example, all OR stakeholder reports should include the monthly delayed-start rate. It is an important indicator of progress against efficiency goals. But frontline OR leaders should also receive a daily report of delayed cases so that they can address specific efficiency problems immediately.

The standard turnover time metric is “wheels out to wheels in.” Surgeon reports, however, should also include personal “gloves off to next incision” data. Most ORs do not track this metric, but it can provide surgeons with a useful gauge of patient care and OR efficiency.

Anesthesia providers should also receive tailored data. For instance, an anesthesiologist who runs the board needs information to help manage the afternoon drawdown. Provide a report of rooms in progress by hour.

High-level leadership reports should emphasize performance goals and progress indicators. For example, a dashboard report for a surgical services executive committee (sidebar) could include volume, efficiency, and market share performance targets; actual performance data for several time frames; variance and trend indicators; and a simple system for characterizing current progress.

Sharing targeted reports with surgeons, as well as anesthesia and nursing staff, helps everyone get a clearer picture of what is occurring in the OR and what they can do to improve processes. As performance numbers improve, weekly or even daily positive results energize the entire department.

Slice the numbers
Effective leaders excel at finding creative ways to drill down on performance data. For example, say an OR’s on-time start rate is less than 80%. Weak performance in a handful of spots could be dragging down the entire department. To find out, query the delayed-start report by:
• Service line. Is there a problem with a particular specialty group?
• Physician. Do a few surgeons account for the bulk of delays?
• Specialty team. Do certain nurse/surgical technologist/certified registered nurse anesthetist teams need to adopt better processes?
• Length of delay. If “on time” is defined as within 10 minutes, what percentage of delays are 11-24 minutes, 25-39 minutes, and 40-55 minutes?

Finding the answers to these questions can help you understand the severity of the problem, locate broken processes, and identify opportunities for education.
Focus on solutions
Many surgeons and nurses see data collection as an effort to assign blame. OR leaders need to stress that the goal is to understand the causes of problems so that the department can find solutions.

For example, say “contaminated instrumentation” is a leading cause of case delays. Do certain staff members need additional education? Does sterile processing reflect current best practices? Does the department need an equipment upgrade? Thinking in terms of root causes will help uncover solutions.

What do you do when performance data indicate that surgeon tardiness is a problem? Often, surgeons do not arrive on time because they know their room will not be ready when scheduled. In that case, the burden of proof is on the OR staff. Staff in both the preoperative area and the OR need to prove to physicians that they will be ready and waiting at the scheduled start time for all cases. Only then can the OR turn to surgeons and enforce arrival-time expectations.

Selecting a platform
The foundation of a strong data analysis program is appropriate technology. The first step in selecting a data platform is to understand the pros and cons of different IT options.

Electronic medical record (EMR) systems centralize patient information, making them a candidate for data analysis. The main drawback is that an EMR system is designed to function as a patient record, not for reporting. To generate useful operational reports from an EMR, staff must perform extensive work “under the hood.”

Business intelligence platforms are designed expressly for reporting. Powerful capabilities make them relatively complex, so you will need to hire someone who understands the architecture of your specific system.

Data warehouse systems capture data feeds from information systems throughout an enterprise, and they offer robust reporting and tools (interactive dashboards, gauges, thermometers, etc). The main benefit is that a data warehouse enables apples-to-apples comparisons of consistent data across ORs and facilities. The downside can be inconvenience. OR leaders must submit report requests to a data management team, explain their needs, and wait for the results.

Securing expertise
What personnel do you need to enable effective data analysis? Your staff investment depends on your requirements and your resources.

In a small hospital, surgery department leaders might assign simple reporting duties to the OR business manager. Talented business managers can become adept at manipulating the EMR to generate useful reports. Many large hospitals and health systems, on the other hand, maintain a full data reporting team to manage the data warehouse.

There is an effective middle option for many hospitals—hiring a dedicated data analyst for the OR. Strong candidates understand not only the business intelligence platform, but also OR operations and finances. Combining these unique knowledge sets, an OR data analyst can produce sophisticated performance reports that leaders can use to guide clinical, financial, and strategic improvement. If the hospital has a data warehouse, the analyst can use his or her knowledge of OR processes to get full value out of the system. ✤
This column is written by the perioperative services experts at Surgical Directions (www.surgicaldirections.com) to offer advice on how to grow revenue, control costs, and increase department profitability.