Three Keys to Optimizing Efficiency and Productivity in the Operating Room

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As payors seek greater value for their healthcare dollars, hospitals and health systems are striving to make the delivery of care as efficient and productive as possible. This need for improved performance is especially apparent in the operating room and procedural areas, which have the highest potential revenue of any area in a hospital, generating anywhere from $3,000 to $4,000 per hour of contribution margin.

Numerous challenges, from misaligned incentives to inefficient practices, however, threaten that margin. Such challenges can be costly. Overhead costs, such as labor, electricity, and supplies, can run anywhere from $60 to $80 per minute. An OR that is not being run efficiently will quickly eat away at precious profit.

At the heart of the problem is the contentious culture within the OR, dating to the early 20th Century when physicians split from hospitals to form their own organized groups. Stemming from this independence are incentives for hospitals and surgeons that can differ and sometimes clash. Hospital administrators want an efficient use of labor and practices to maximize revenue, while surgeons want to use hospital services to treat their patients. Meanwhile, the costs of those services are responsibility not of the surgeon, but of the hospital. The result is a constant need to balance the need of the hospital for optimal efficiency and productivity with the surgeon’s need for access to the OR and hospital services.

Other problematic forces are at play. Although every member of a surgical team ultimately has the best interests of the patient in mind, in reality dissimilar motivations can cause inefficiencies that lead to a loss of productivity. For instance, surgeons practice in a fee-for-service, effort-based model. Generally, the more effort, the greater the financial reward.

Other care providers, such as nurses, are hourly or salaried workers, where the pay is the same no matter the number of cases.

The issue can be boiled down to a lack of the three Cs—communication, collaboration and cooperation among the key stakeholders: hospital administrators, surgeons, anesthesiologists, and nurses. This deficiency results in a low-performing OR with a lot of waste and problematic throughput.

The question becomes: How does a hospital address a century-old problem relating to fundamental skills that are essential to any well-run organization?
Fundamentals of Change

Remedying an inefficient OR to maximize efficiency and productivity while maintaining or improving clinical quality is a substantial undertaking that does not happen overnight, or even within a few weeks, but can be a one- to two-year process. The solution is threefold, involving:

1. A dedicated governance/management structure
2. Data and benchmarking of best practices
3. Performance reporting

Governance

The first step involves forming a governance structure that opens up lines of communication, cultivates collaboration, and drives cooperation among the key stakeholders. A surgical services executive committee functions as a kind of board of directors for the OR that defines issues and needs and creates alignment. The SSEC is comprised mainly of surgeons representing the primary specialties of the OR and the employment designation (e.g., employed, faculty, independent). The remaining members of the committee include anesthesiologists, nurses, and senior c-suite level administrators. The SSEC, which should have 12 to 15 members, is not a medical committee, but an administrative committee charged with overseeing overall performance of perioperative services from scheduling and pre-authorization to OR utilization, materials management, and recovery practices.

The committee functions to:

- Develop short and long-term strategic plans
- Define performance metrics (e.g., utilization, first-case, on-time starts) for the OR overall and individual surgeons
- Define needs of each clinical group (surgeons, anesthesiologists, nurses)
- Develop performance report cards and set benchmarking

A second part of the governance structure is the management committee comprised not only of a nursing director that typically manages perioperative services, but also co-directors, including a surgeon and anesthesiologist. This committee serves as the frontline management for surgical operations. The committee is chaired by the surgeon, but most of the daily operational management (e.g., managing the surgical schedule to ensure emergent, urgent, and elective cases are scheduled) is performed by the nurse and anesthesiology directors, who, in turn, empower managers below them.

Finally, frontline operations staff (mainly nurses) form performance improvement teams (PITs) to help identify choke points in the entire perioperative process. These points may include first surgical cases of the day or the time in between cases (turnover time). The PITs review every part of the perioperative process, breaking apart throughput into hundreds of steps and documenting each one. This leads to a more thorough analysis of potentially problematic areas.
Data and Benchmarks

The essential tool that members of the governance structure use to direct and manage operations is data. Data is collected on key areas of the perioperative process that often represent the weak spots where inefficiency creeps in, including:

- First-case, on-time starts
- OR turnover time
- Surgeon block time
- OR utilization

Although information systems, such as electronic health record systems, are adept at documenting data, data collection and analysis is best performed manually, often through observation, to attain verifiable, reliable data that will drive behavioral change among physicians. The key is extracting data on a daily basis to obtain a precise measurement of performance at the department and individual surgeon level.

These measures are then benchmarked against best practices of industry peers. Best practices for the key areas noted above include:

- First-case, on-time starts—90 percent of first cases should start on time
- OR turnover time—ORs should be prepared for the next case in 21 minutes
- Surgeon block time—surgeons should use at least 70 percent of their reserved time
- OR utilization—Overall OR utilization should be about 75 percent

Employing understandable and agreed upon data prevents confusion and frustration and fosters accurate, faster decision-making. Comparing performance to peers also enables clinicians to better understand opportunity for improvement in their own efforts.

Performance Reports

To hold key stakeholders—surgeons, anesthesiologists, nurses—accountable for their performance, they are provided with regular performance reports that gauge their progress on meeting organizational expectations set by the SSEC. Surgeons also receive individual report cards on a regular basis, such as monthly, how well they are using their OR time reserved for them (block time).

The reports are the tools used to actually change behavior. If a surgeon report card shows he is not using enough of his block time, he can be given a quarter or two to improve. If he doesn’t, that time can be reserved for another surgeon.

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A Smoother Operation

Making the OR more efficient is not only good for the bottom line, but also for helping to keep both physicians and patients happy. Better defined processes can help scheduling procedures go smoother and prevent cancellations, which can be burdensome to everyone involved.

Most organizations operate under a degree of inefficiency. Not having a complete understanding of the entire scale of such inefficiency can have serious consequences, especially at a time when healthcare organizations are tasked with providing better quality care for fewer dollars. Implementing a governance structure, employing data and benchmarking, and issuing performance reports to key stakeholders are essential to producing an efficient, profitable, quality-driven OR.

About the Author

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