Smart and simple process changes help cut case times and costs

Most perioperative leaders are concerned about turnover time. And rightly so—lengthy turnovers squander expensive OR minutes. The typical surgery department, however, gives less attention to case time. Many OR directors view case time as a lower priority that is largely out of their control.

This is a mistake. Prolonged case times could be wasting up to 10% of available OR minutes, and long cases create schedule inefficiencies that prevent optimal utilization.

Case time problems are not unsolvable. Leading ORs have developed several perioperative process changes that address the root causes of extended case duration without interfering with surgeons’ operative technique. These organizations have established effective ways to work with physicians on case time reduction.

Data drives change
To tackle the problem of lengthy case times, OR leaders must first establish that there is both a problem and an opportunity to improve. The only way to do this is to obtain reliable data.

Step 1 is to establish appropriate definitions. Case time is defined as “wheels in to wheels out,” not “cut to close.” The distinction is important because many of the factors that contribute to long case times originate in perioperative processes outside of the actual surgery.

Step 2 is to develop mechanisms for accurately tracking perioperative events. Make sure circulators are well trained in documentation processes and understand the importance of accurate time-stamping. In addition, create an effective clinical measurement strategy. The secret to identifying specific throughput problems is to break down case times into 6 key intervals:

- patient in to anesthesia ready
- anesthesia ready to prep end
- prep end to incision start
- incision start to incision close
- incision close to OR discharge ready
- OR discharge ready to patient out.

Step 3 includes monitoring and analyzing case time data. Begin by conducting a baseline study to determine current average case times per interval. Once you have baseline numbers in hand, slice the data by surgeon and by procedure.

Within each procedure type, identify surgeons with consistently shorter case times. What do the most time-efficient surgeons do that is different from their peers? In addition, examine better-performing anesthesiologists and nursing teams. What practice patterns lead to faster setup and patient preparation?

Asking these questions—and developing solid answers—requires a multidisciplinary approach. A task force consisting of surgeons, anesthesiologists, nurses, and other clinical specialists should work together to identify specific process problems and solutions to improve patient throughput.
Improving efficiency

The case time reduction task force should begin by identifying opportunities to simplify pre-incision and postclosure processes. Many ORs are able to reduce average case times significantly by implementing a handful of process changes:

**Move anesthesia prep outside the operating room.** In many departments, anesthesiologists start all IVs, arterial lines, and pain blocks in the OR. This practice extends case time unnecessarily. Instead, work with the anesthesia department to perform these procedures in the preoperative holding area or a dedicated procedure room.

Some hospitals have created a dedicated block room and secured additional anesthesia coverage to help speed perioperative flow. In addition, consider empowering nurses to start IVs before transporting the patient to the OR.

**Convert sequential steps into parallel processes.** In many surgery departments, the OR must be completely set up before the patient arrives. However, some setup tasks can be performed during patient prep and induction. For example, scrub personnel do not have to finish setting up the back table before the patient enters the room as long as necessary supplies and equipment are in place.

Similarly, breakdown does not need to wait until the patient is out of the room. Nursing staff can begin cleaning up and taking carts out of the room during closure, keeping 1 table and 1 instrument tray sterile just in case a need arises.

**Simplify supply setup.** ORs can reduce supply expenses by analyzing and rationalizing surgeon preference cards. This effort can also simplify and speed preoperative setup. Weeding out rarely used items reduces the number of supplies that need to be prepped. Greater supply standardization helps nurses become more familiar with items in use. It also helps staff create standard approaches to specific procedures.

**Use PAs for complex cases.** Certain specialties—notably, neurosurgery, orthopedic surgery, and cardiovascular surgery—require more complicated setup and call for a higher level of support. For these specialties, hiring specialized physician assistants (PAs) can cut case times significantly. PAs are particularly important for procedures with significant technology setup.

**Require surgeon presence.** In many ORs, the attending surgeon is usually not in the OR during setup and patient positioning. In our experience, the pace of work is typically slower whenever a surgeon is absent. Once the surgeon does arrive, he or she often requests changes to positioning, draping, and/or equipment setup, adding further time to the case.

In addition, many surgeons leave the room before closure. Work slows down once more and, depending on the skill of the resident or other staff, the case can be extended significantly.

Requiring surgeons to be in the OR upon patient arrival ensures that work proceeds at an appropriate pace. In addition, when surgeons are required to stay in the room through most of the closure, the surgery takes less time and the attending surgeon can provide appropriate monitoring of the resident’s closing technique.

**Pave the way for discharge.** Patients are sometimes held in an OR because bay space is not available in the postanesthesia care unit (PACU). Often, the PACU is backed up because a room is not available in the inpatient surgical unit.

OR directors need to work with other nursing managers to resolve these problems. Fixing postoperative bottlenecks is the key to reducing OR discharge intervals.

Don’t forget about on-time starts. When the first case of the day starts late, it creates inefficiencies that reverberate through the remainder of the schedule. Creating preoperative processes that ensure on-time starts (at least 95%) will help optimize perioperative flow and allow care teams to perform cases as efficiently as possible.
**Working with surgeons**

Once you have started fixing perioperative problems and unit bottlenecks, you can begin to address surgeon-controlled processes that drive long case times.

Surgeon factors can lead to significant variance in average case times for the same procedure. For example, we recently worked with a hospital where umbilical hernia repair ranged from 30 minutes to 3 hours, depending on who held the scalpel.

The starting point for any surgeon initiative should be data transparency. Develop case time dashboards and share them with the surgical staff. Dashboards should include the surgeon’s personal case time averages along with department comparisons for like procedures.

Surgeons respond to data-driven decision-making, so this tack will engage them intellectually in case time reduction. Dashboards will also promote healthy competition among surgeons to improve case time performance.

Involve department chairs in your case time reduction initiative. Data will undoubtedly identify some surgeons with very long case duration averages. Department chairs should work with these outlier surgeons individually to address the specialty-specific issues and practice patterns that are leading to extended cases.

Highlighting best practices can help encourage surgical staff to become more efficient. Recruit surgeon champions to address case time issues during department meetings. Some hospitals have created transition to practice rooms (TPRs) for senior residents with top-quartile case time performance. TPRs reward efficient physicians while showcasing best practices for the entire staff.

The most successful case time reduction initiatives are driven by peer accountability. This approach underscores the importance of a physician governance body.
for an OR—a Surgical Services Executive Committee (SSEC). A surgeon-led SSEC is in a strong position to commission a case time reduction plan, endorse recommended changes, and hold peers accountable for performance improvement.

**Strong benefits**

From the hospital viewpoint, reductions in nonproductive OR utilization support stronger financial outcomes. In terms of performance metrics, lower average case times automatically translate into higher primetime utilization rates. When OR utilization is managed properly, the result can be higher case volumes leading to higher revenue and profitability, with quality and safety maintained or even enhanced.

For example, say a 12-room OR averages 800 cases per room per year, for a total annual volume of 9,600 cases. Department leaders successfully reduce average case time by 10%, which allows them to accommodate additional volume. A realistic 6% volume increase translates into 576 extra cases per year. Given an average contribution margin of $6,500 per procedure, the volume growth enabled by case time reduction produces a $3.7 million increase in net profit.

While many surgeons will view a case time reduction initiative as a challenge, a successful effort can increase their satisfaction. Efficiency improvements will enable many surgeons to complete more cases within their allotted block, thus producing higher practice revenue.

**Coming up**

A successful case time reduction effort can improve patient throughput. Another way to boost OR efficiency is to improve upfront processes for scheduling cases. In the next OR Business Performance column, we will highlight several techniques for ensuring an accurate schedule that supports OR efficiency, safety, and cost control.

---

*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.*

---

Get Your CE Credits!

Each issue of OR Manager is preapproved for 3.0 nursing contact hours for registered nurses.

To complete an online post-test and earn continuing education (CE) credits, simply login to www.ormanager.com and go to My Account. Click on “My Courses” and click into the issues.

Need help? Contact clientservices@accessintel.com.