OR Manager Inc

OR Manager
Vol. 20 No. 11
November 2004

A few simple rules for managing block time in the operating room

Block time is a huge issue for surgeons because it affects how they manage their most precious resource—time.

How satisfied surgeons are with an OR has a lot to do with how well they think the OR's leaders manage this valuable resource, specifically, their block time.

More than ever, block time is a strategic issue. In today's competitive environment, surgeons have more options if they're unhappy with their block time. They can take their cases to an ambulatory surgery center. They can move to a competing hospital or even a specialty hospital.

"The market is changing, and block time becomes part of the strategy for responding to that," says William J. Mazzei, MD, a veteran medical director of perioperative services.

Block time can be used as a way to entice new surgeons, ideally those who will bring cases that contribute to the organization's bottom line.

Dr Mazzei and Tom Blasco, MD, MS, shared advice on how to manage block time at the OR Business Man-agement Conference in May in Albu-querque, NM. Dr Mazzei, a founder of the Association of Anesthesia Clinical Directors, is at the University of California, San Diego, and Dr Blasco is director of perioperative services at Advocate Lutheran General Hospital, Park Ridge, Ill. Both are with Surgical Directions, LLC, a Chicago-based consulting firm.

Managing block time is as much a political art as a science, they say.

Surgeons like block time because it's like a reservation at a restaurant, says Dr Mazzei: "A surgeon knows that if he shows up at the appointed time, there will be space for him—and that's a major satisfier."

Here's their advice:

Block vs open time

How much OR time should be blocked and how much should be left open?

Strive for 80% of OR time blocked.

There is no perfect number. But 80% probably is about right for a 10-OR suite in a mature market, Dr Mazzei notes.

If more than 80% of time is blocked, new surgeons can't get on the schedule. But if only 50% of time is blocked, patterns are not well enough established to allow surgeons to work with the same staff and anesthesiologists consistently.

Strategy also enters in.

"For younger hospitals in growing markets that are trying to attract business, we have sometimes recommended adding block time even with as low as 50% utilization so it's easier for new surgeons to get on the schedule," says Dr Blasco.

"It's an art in progress—you've got to constantly keep your eye on maximizing your revenue, keeping your customers satisfied, and working on your volume."

Have at least 2 open rooms.

A general-purpose OR needs at least 2 ORs open a day to have the flexibility to move cases and add cases to the schedule, Dr Mazzei advocates. That holds true whether the department has 20 ORs or 2 ORs. There may be exceptions for a facility such as an eye center where routines are well established. The rule is not rigid, he says, but the point is to have enough flexibility to accommodate changes and add-ons.

Full-day blocks are better than shorter blocks.

The best use of ORs is achieved with long blocks, they say. Best of all is to have

long blocks with one specialty or surgeon in one room all day. This isn't always practical, especially for community hospitals that have only a few surgeons in each specialty and who may be competitors.

"Eight-hour blocks are ideal because if the block takes the entire day, you have the greatest use of your OR time," Dr Mazzei advises. A 12-hour block is even better for specialties such as spinal surgery that typically have very long cases.

Try to avoid blocks shorter than 8 hours, he recommends. With 4-hour blocks, OR time is not used as efficiently. Either morning cases run over, or there is a gap at mid-day.

"Even worse are 2-hour blocks," he says. "People think they are doing a surgeon a favor by giving him a 2-hour block at 9 am every Monday, but that is not a particularly good thing for the system."

The rules can't be written in stone, Dr Blasco adds. Certain surgeons may flourish with a shorter block time, such as a cataract surgeon who does a lot of cases quickly.

"If you have a choice to have every OR blocked just in the morning and leave the afternoon open, or to leave 2 rooms open every day and have blocks for only surgeons who can fill up an 8-hour day, choose the latter," Dr Mazzei says.

Have variable release times for different specialties.

Variable release times are a quick way to build flexibility into a schedule where most of the time is blocked. Release times define when block time expires before the day of surgery. Release times can be different for different specialties. Specialties whose cases are booked far in advance, like joint replacement or cosmetic procedures, may have release times far in advance of the day of surgery. On the other hand, the cardiac service may need to hold its block until the day before surgery. Having a portion of release times far in advance of the day of surgery allows schedulers to add cases to blocks that otherwise would be underutilized.

Like in a restaurant, "if you hold all the tables for people who have reservations until right before dinner, you are going to have a lot of people who don't show up," Dr Mazzei notes. "It also means that anyone who calls up that day won't be able to get a table." Suggested release times are in the sidebar on p 10. These "are empiric and are what surgeons are typically happy with," he notes.

Adjusting block time

How block time is monitored and adjusted is one of the most sensitive issues perioperative leaders deal with.

Typically, blocks are adjusted according to utilization. Actually, from a scientific point of view, there are better methods than utilization for adjusting block time, notes researcher Franklin Dexter, MD, PhD, of the University of Iowa. The method depends on whether the OR is adjusting block time for operational reasons (to better match staffing to the existing workload) or for tactical reasons (to provide some surgeons with more convenient access to OR time). (See sidebar, p 11.)

Traditionally, surgeons are accustomed to using utilization for block-time adjustments, and that is what they perceive to be fair, Dr Mazzei contends. Again using the restaurant analogy, he says, "Who should be given the benefit of a reserved table? The answer would be, 'We should give it to the people who are most likely to fill up the tables'"—that is, most likely to use their block time.

These are some guidelines Drs Mazzei and Blasco offered for managing block utilization.

Set a utilization target.

There are not universal benchmarks on appropriate utilization. This varies with market conditions, Dr Blasco notes. A target of 80% might be appropriate for a facility in a market that is not particularly competitive and wants to boost its volume because it is losing money. In a competitive market, a target of 50% to 60% might be more appropriate because it avoids the risk of alienating surgeons who might go elsewhere.

Measure utilization monthly.

Inform surgeons of their block utilization monthly and report utilization monthly to the Surgery Committee. But don't make changes quickly.

"The ideal is to tell the surgeons each month what their utilization is," Dr Mazzei says. "You can also tell them you are not going to make changes for 6 months." This gives the surgeons and the committee time to monitor utilization patterns, answer questions, and make sure the measurements are accurate.

In measuring block time, use "adjusted utilization" (which includes setup and cleanup time) instead of "raw utilization" (sidebar, p 9). Adjusted utilization allows surgeons' block time to be measured more fairly, he explains. Consider two surgeons. One is a head-and-neck surgeon who does tonsillectomies in 30 minutes with a 15-minute setup time and a 15-minute cleanup time, for a total case time of 1 hour. In an 8-hour block, this surgeon can do 8 cases. The second is a neurosurgeon who does complex tumor resections, typically completing 1 case in 8 hours.

Who has the better utilization? Using raw utilization, the head-and-neck surgeon would have a block utilization of 50% (because his procedure time takes 4 of the 8 hours), while the neurosurgeon would have a block utilization of 100% because his procedure time takes the entire 8 hours.

Using adjusted utilization, however, both surgeons would have 100% utilization.

"We think adjusted utilization is the way to go," Dr Mazzei says, because it is more equitable and recognizes that an appropriate amount of setup and cleanup time is essential for cases to be completed safety.

Set criteria for reducing block time based on utilization

These are sample criteria for managing block utilization:

- A target for block utilization is set, for example, at 80%.
- Surgeons are expected to maintain block utilization at 80% for 3 consecutive months.
- If utilization falls below the target for those 3 months, it is reviewed for an additional 3 months to see if there are variations.
- If utilization remains below 80% at 6 months, block time might be reduced.

Taking away block time is never easy. The most palatable approach is not to shave the time off of each block but to take out a whole block on 1 or 2 days, Dr Blasco advises. For example, a surgeon has a 4-hour block every Monday, but his utilization has been 60% or below for 6 months. The best approach is to take away 1 of the Monday blocks, leaving him with 3 blocks instead of 4 during the month.

"If you just shave off a few hours each day, that just makes the system more dysfunctional," he says. "You have to take out entire blocks."

Should blocks be granted based on profitability?

Should you consider the profitability of a surgeon's procedures when granting block time?

This raises the highly controversial issue of economic credentialing.

The issue is coming up more and more because of trends hospitals are facing. As more well-paid surgical procedures move into freestanding surgery centers or specialty hospitals, hospitals have fewer profitable procedures to cushion losses from cases that are not profitable or lose money.

"There's a tremendous economic incentive right now for hospitals to allocate their time carefully. More than in the past, they're looking at revenue and profitability," Dr Mazzei notes.

At the same time, some hospitals are lowering their OR utilization rates to try to attract surgeons. That increases the pressure to focus on profitable procedures because there are fewer cases.

The payer mix affects whether hospitals can afford to lower OR utilization. In a market with affluent patients, hospitals can break even with 30% utilization, Dr Blasco notes. But if most of the patients are on Medicare, a hospital needs 70% to 80%

utilization to break even.

Granting block time based on profitability is politically charged, he cautions.

For example, say an ophthalmologist who plans to do cataract surgery has requested block time. In most places, a financial analysis would favor turning down the request because these cases are done primarily on Medicare patients and don't pay well. Or the hospital might have an orthopedic surgeon whose cases do not make money, and the hospital might want to give some of his time to other surgeons. But he is part of a group of 6 surgeons who also operate at the hospital, and many of their cases are profitable. Does the hospital really want to reduce this surgeon's block time?

Denying block time based on economics can have serious repercussions. "Word about this spreads like wildfire through the surgeons' ranks," Dr Blasco says. "They tend to close ranks, say the hospital doesn't care about them, and say they're taking their business elsewhere. You have to remember that it's a community you're working in."

Rather than using economic credentialing to deny block time, he suggests an alternative: Offering block time strategically as an incentive to attract surgeons who will bring potentially profitable cases. This might apply, for instance if the hospital is building new ORs.

To help develop this type of strategy, they suggest hiring or consulting with a business manager, such as an MBA with a marketing background.

"These are the rainmakers—people who can go out and grow your business," Dr Mazzei says. "We find that difficult as clinicians because we're not trained or comfortable with the idea of selling our services."

Leadership is key

The rules for managing blocks are only guidelines. The real key is leadership, stresses Dr Blasco. Leadership should come from a surgical executive committee. The committee needs to abide by these important principles:

- "The system must be scrupulously fair," he says. "If there is any favoritism, the surgeons will sniff it out, and it will never work."
- The system has to be changed gradually.

"The last thing you want to do is to make significant changes quickly," he says. "You have to gradually work with people who are interested in change, let the momentum build, and other people will come on board." ❖

—Pat Patterson

Utilization definitions

In measuring block utilization, adjusted utilization is preferred to raw utilization.

Raw utilization

Total hours of elective OR cases performed within block time divided by the hours of allocated block time.

Adjusted utilization

Total hours of elective cases performed within OR block time, including setup and cleanup time.

Source: Donham R T, Mazzei W J, Jones R L. Procedural times glossary. Am J Anesthesiology. *1996;23(5 Suppl):4-12. Reprinted in* AORN Standards, Recommended Practices, and Guidelines, 2004 Edition.

Suggested block release times

Burn service (inpatient)	1 day
Cardiac	1 day
General surgery	7 days
Gynecology	7 days
Head and neck	7 days
Neurosurgery	4 days
Ophthalmology	7 days
Orthopedics (joint)	14 days
Orthopedics (spine)	3 days
Pediatrics	7 days
Plastic (cosmetic)	14 days
Radiology	3 days
Vascular	2 days
Thoracic	3 days

Source: William J. Mazzei, MD; Tom Blasco, MD

OR Manager Inc

OR Manager
Vol. 20 No. 11
November 2004

What's the best way to adjust block time?

What criteria should you use to make decisions about adjusting block time? Traditionally, OR committees have used surgeons' utilization of blocks. But utilization isn't the best way to make this decision, the research shows. The method to use depends on why block time is being adjusted, notes Franklin Dexter, MD, PhD. Are blocks being adjusted for operational reasons (that is, to fine tune staffing to match the existing OR workload)? Or are they being adjusted for tactical reasons (such as to provide more convenient access to OR time for some surgeons)?

Consider these scenarios:

Scenario 1

Your OR has a group of neurosurgeons with 91% utilization of their block time. They're recruiting a new spine surgeon and need more OR time.

Dr Jenkins, a vascular surgeon, has 60% utilization of his block. It seems that he could use less time.

Should the OR Committee take some of Dr Jenkins's block time and give it to the neurosurgeons? This is a tactical decision.

Scenario 2

The neuro service currently has a block allocation on Mondays of 3 ORs from 7:15 am to 3:30 pm. They have little underutilized time and often have overutilized time (ie, run late). How should their block be adjusted? This is an operational decision.

Tactical decisions

For tactical decisions such as those in Scenario 1, decisions increasingly are being made at least partly to meet financial goals, Dr Dexter says. The OR committee might, for example, look at the contribution margin for spinal surgery to decide if giving the neurosurgeons more block time would help the hospital financially. (Contribution margin = revenue – variable costs.)

Block utilization is not the best choice for making tactical decisions regarding block time, says Dr Dexter. He cites 5 reasons from the literature:

1. *Utilization does not help to reduce patient waiting times,* which is usually a goal of patients as well as clinicians and administrators.
2. *Utilization is poorly related to contribution margin.* A surgeon or service with high utilization can still lose money for the hospital if reimbursement for these cases doesn't cover costs.
3. *Efforts to increase utilization can actually reduce margins;* for example, the hospital signs an insurance contract hoping to increase surgical volume, but not many of the patients have surgery, and the contracted rates are too low to cover the costs.
4. *Utilization is poorly related to variable costs.* Surgeons with equal utilizations can have different variable costs. For example, 2 surgeons have 70% block utilization. The first surgeon does outpatient breast surgery, which has one of the lowest hospital variable costs per OR hour, while the second does joint replacement, which has one of the highest variable costs per OR hour.
5. *It is questionable whether utilization can be estimated precisely for this purpose* if the surgeons in question have a low utilization. A 2003 study by Dr Dexter and his colleagues found, for example, that if during 1 quarter, 1 surgeon had a block utilization of 65%, and another surgeon had a block utilization of 80%, statistically there is at least a 16% chance that the 2 surgeons have the same utilization rate. "This measured difference may be random chance," he says. For surgeons with low utilization, it would take more than 10 years worth of data to measure block utilization accurately enough to be of practical value in making block-time decisions.

Operational decisions

Decisions such as those in Scenario 2 are operational decisions that should be

made to improve OR efficiency, Dr Dexter says. For this purpose, OR efficiency is defined as a balance between underutilized and overutilized OR time. An OR doesn't want underutilized time because revenue isn't coming in while the OR is incurring labor costs, and it doesn't want overutilized time because clinicians have to work late, which is a dissatisfier and can be costly if the staff must be paid overtime.

Achieving OR efficiency involves matching the staffing allocation as closely as possible to the existing workload, he notes.

In Scenario 2, depending on the details of the neuro service's workload, the decision based on OR efficiency might be to increase the neuro service's OR allocation (or block) from 7:15 am to 6 pm in 2 of the 3 ORs. The anesthesia providers and nurses gain by having more predictable work hours (ie, fewer overutilized hours). The purpose of this block adjustment is not to encourage more neurosurgery, because the neurosurgeons are already getting their cases on the schedule, but to achieve a better balance between underutilized and overutilized time.

"Generally, what surgeons care about are tactical decisions: 'How can I grow my practice?'" he says. "What anesthesiologists and nurses generally care about are decisions on the day of surgery: 'Will I finish on time?'"

More information on Dr Dexter's research and consulting is at www.FranklinDexter. net.

References

Dexter F, Blake J T, Penning D H, et al. Use of linear programming to estimate impact of changes in a hospital's operating room time allocation on perioperative variable costs. *Anesthes-iology.* March 2002;96:718-724.

Dexter F, Ledolter J. Managing risk and expected financial return from selective expansion of operating room capacity: Mean-variance analysis of a hospital's portfolio of surgeons. *Anesth Analg.* July 2003;97:190-195.

Dexter F, Macario A, Traub R D, et al. Operating room utilization alone is not an accurate metric for the allocation of operating room block time to individual surgeons with low caseloads. *Anesthesiology.* May 2003; 98:1243-1249.

Kuo P C, Schroeder R A, Mahaffey S, et al. Optimization of operating room allocation using linear programming techniques. *J Am Coll Surg.* 2003; 197:889-895.