



WHITEPAPER

Achieving OR Turnover Agility

A Framework for Creating a More Productive OR

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WHITEPAPER HIGHLIGHTS

- The ability to establish effective turnover practices in the perioperative setting is an essential skill of OR directors.
- Turnover agility requires a process that encompasses turnover time as one of several factors in successful room cleaning and turnover practices.
- OR turnover kits help streamline turnover practices through their ease of use and standardization of process flow.
- Leadership traits associated with the ability to establish and maintain agile turnover practices include leading by example, continuous engagement, and approachability.

Introduction

Improving OR efficiency is a critical responsibility and an ongoing challenge for OR directors, who are aware that every minute in the OR comes with a cost to the hospital. A focus on turnover time is one aspect of utility that allows OR directors to guide perioperative teams to work with greater efficiency. But achieving turnover agility is demonstrated by more than just a faster turnover time. OR directors must have the ability to establish and maintain agile turnover practices through teamwork, process standardization, product selection, and potential to adapt.

This whitepaper profiles how OR directors and clinical nurse educators create turnover agility in different settings. Expert insights from clinical consultants identify key strategies and factors that promote successful turnover practices in the OR.

Defining Turnover Agility

Today's OR directors feel tremendous pressure to turn over rooms more quickly and efficiently. In many ORs in the United States, the cost of each minute can range from \$60 to \$100.¹ According to a recent study,² the average cost of 1 minute of OR time in California is \$36 to \$37. Findings from a prospective evaluation of OR efficiency in 101 consecutive operations in a burn center showed that a reduction in preparation and turnover time could save \$1.02 million and generate \$1.76 million in additional revenue annually.³

To improve OR efficiency and the bottom line, OR directors are approaching turnover practices as a process with dimensions

(eg, staffing needs, equipment setup, room cleaning) that go beyond tracking turnover time. Turnover agility is defined as a comprehensive approach to room cleaning and turnovers that has four essential components:

1. Teamwork
2. Process standardization
3. Product selection
4. Potential to adapt

OR directors who promote teamwork and process standardization (inclusive of reporting metrics), perform smart product selection, and create conditions for staff to adapt to challenges and opportunities in their turnover practices are better positioned to maximize OR efficiency and face future challenges. The following experience-based profiles illustrate approaches to turnover agility and how they are influenced by factors such as facility size, current OR initiatives, staffing, product use, and leadership style.

Profile #1

At Atchison Hospital, in northeast Kansas, Jan Branson, MHA, BSN, RN, CNOR, Director of Surgical Services, is challenged to ensure patient satisfaction and evolve her facility's turnover practices. Atchison Hospital is a 25-bed critical access hospital with an average case volume of 205 per month. Its specialties include general surgery, gastrointestinal surgery, orthopedic surgery, otolaryngology, ophthalmology, and pain management. Major initiatives of the OR are achieving on-time starts, eliminating same-day cancellations, and containing variable expenses, with special attention given to reducing implant inventory.

“Effective turnovers are a top priority. If we don't keep our rooms ready on time, our patients and families wait. That's a big dissatisfier.”

Because Atchison Hospital has two general surgeons and an orthopedic surgeon on staff, it maintains a steady-to-high volume of cases for its three ORs. “Our volume requires us to be very cautious of not wasting anyone's time,” says Branson, who joined Atchison Hospital as OR director in 2017. “Effective turnovers are a top priority. If we don't keep our rooms ready on time, our patients and families wait. That's a big dissatisfier. We've been able to increase our patient satisfaction scores by making sure we maintain on-time starts, keep the rooms turned over, and maintain a smooth process.”

Turnover Practices

The turnover process at Atchison Hospital begins with an overhead page. Any staff member who is not actively engaged in caring for a patient responds by going to the room to help clean within the allotted 15-minute turnover time (ie, the length of time between wheels out of the OR to wheels in). All staff members are trained to terminally clean ORs, not only to support one another but also to keep the turnover process smooth. The overhead page alerts PACU (postanesthesia care unit) staff that a patient will be coming to their area.

Branson describes the moment of responding to the overhead page as a kind of “surge” that promotes teamwork and collaboration. She has not encountered the challenge of team members being unwilling to respond or pitch in.

“Because our hospital is small, team members are not just somebody you work with,” says Branson. “This is a community, and our staff is a work family. Just because I’m the OR director and hold advanced degrees, that does not mean I can’t take out the trash or the linen or mop the floor. One reason our staff is agile in our turnovers is that no one is above doing what needs to be done to make sure the patients are cared for.”

Branson has fully mapped the turnover process for her team and facilitates training or process flow adjustments when needed. “This level of drilling down often allows for the potential of a few seconds, and even minutes, of improvement in an area, leading to an overall win for the patient if [his or her] procedure goes on time and any possible delays get addressed proactively instead of reactively,” she says.

Branson’s team does not meet the 15-minute turnover time for every single case. But she is pragmatic enough to acknowledge

that turnover time is going to fluctuate. “We face the same challenges with on-time starts as other facilities that are larger than us do,” she says. “It’s not always the staff members who are not ready. Some causes of delays are within the staff’s control, but we have to recognize those that aren’t, such as when the patient or provider is late.”

Branson agrees that turnover agility involves more than just turnover time. However, as a component of process standardization, she routinely tracks and reports on turnover time to her staff, along with other metrics (eg, on-time starts, patient satisfaction scores). “Knowing how our staff is tracking with metrics helps create a sense of challenge and ownership in the outcome, especially when there’s sustained consistency or when we’ve gotten a little bit better.”

“ Unlike reusable linens, the enhanced absorbency of disposable turnover sheets helps prevent excess fluid scenarios that impact room cleaning activities . . .

Evolving Turnover Practices—Turnover Kits

Branson, in strategic collaboration with perioperative and administrative leadership, is currently exploring use of disposable room cleaning and turnover kits to help streamline her staff’s turnover process and create additional patient-centric staff time.

“I’ve used turnover kits in previous roles and know how fabulous they are,” she says. “They have strong draw sheets and the disposable table sheets are incredibly absorbent, which is important for wicking away fluids from the patient’s skin and not having fluids run onto the floor.”

According to Kathryn Murphy, Senior Clinical Consultant at Cardinal Health, when using a linen table sheet, fluid from the procedure can soak through the table sheet and pool on the OR table pads, run off the table top, and then pool under the table pads or run onto the floor. “Any of these scenarios impacts room cleanup,” explains Murphy. “Longer cleanup time is necessary to ensure that all fluid has been eliminated and all surfaces have been decontaminated. Extended cleanup time has a direct influence on total room turnover time because procedure setup cannot begin until all cleaning activities have been completed. As the Atchison team rightly identifies, unlike reusable linens, the enhanced absorbency of disposable turnover sheets helps prevent excess fluid scenarios that impact



room cleaning activities to facilitate efficient room turnover processes.”

Branson is proactively aware that if Atchison Hospital were to outsource its linen and laundry services, which it may because of its small size and rural location, it would be more cost-effective and necessary at that point to move to turnover kits.

“I know the staff would be all in as soon as they tried the kits,” says Branson. “Staff buy-in is so important when it comes to introducing new products and process change.”

Next steps for Branson in exploring turnover kits are to work strategically with the hospital’s materials manager, meet with vendors to demo products, and ultimately determine whether introducing the kit makes sense financially. Branson also plans to commence a turnover study this year to further evaluate and optimize her team’s turnover practices.

Approach to Leadership

A hallmark of any successful OR director is his or her ability to establish and sustain on-time operations. Branson emphasizes the value of four leadership traits that help make OR directors

Top 5 Benefits of Using OR Turnover Kits

Disposable cleanup and room turnover kits are recognized as an effective method for improving turnover practices. The kits provide all the necessary products to clean and turn over an OR, help protect expensive equipment from fluid damage and other wear and tear, and support infection prevention strategies through their single-use nature. Asilinn La Brie, Senior Consultant, Clinical Operations, and Kathryn Murphy, Senior Clinical Consultant, at Cardinal Health, present the top five benefits associated with the kits, explaining why OR directors choose to invest in this solution.

- 1. Consistency of product.** OR turnover kits are customizable during the ordering process and provided the same way every time. Kit consistency enables clinicians and personnel to use the same products in the same manner every time, which supports compliance with facility-established protocol.
- 2. Ease of use.** Staff can pull one turnover kit and have all products immediately available instead of searching for multiple products throughout the OR. Facilities using non-disposables are paying employees to make their own turnover kits, which is inefficient for hospitals and adds to already-expensive labor costs.
- 3. Support of infection prevention strategies.** Reusable linens can return stained or with retained hair follicles and other items (eg, adhesive tape) that can increase the amount of lint or debris introduced into the OR. Reusable linens also may not adequately protect expensive OR equipment, which can require additional cleaning after fluid-intensive procedures. One-time use, disposable kits arrive having never been used and

are produced using established manufacturing practices that reduce outside contamination.

- 4. Decrease in linen costs.** Linen cleaning services can be extremely expensive over time, and linens provide less absorbency than disposable sheets. If a procedure is fluid-intensive and the cleaning service charges a per-pound rate of laundry, the total cost of the linen service can fluctuate widely over time and end up being much higher than the cost of disposable products. Reusable linens can also be rough and abrasive, increasing the potential for pressure injury.
- 5. Improved turnover times.** OR turnover kits can be quickly pulled for each case and added to the case cart without any time spent searching for products. Every second counts when it comes to decreasing turnover times and keeping the OR on schedule.

OR directors are typically successful in gaining staff buy-in for turnover kits. However, La Brie and Murphy recommend providing education to all involved stakeholders around the rationale for this type of solution to promote positive team dynamics and process flow. For instance, having a clear understanding of the benefits of turnover kits may help reduce the potential for resistance from staff. If there are environmental concerns about using disposable kit products, it can be helpful for all stakeholders to understand the costs associated with labor and the environmental effects of laundering.

[Click here to learn more about the customizable OR room cleanup and turnover kits from Cardinal Health.](#)



successful in their role: honesty, integrity, confidence, and decisive decision-making.

“Leading by example is the best way I know to motivate my staff to perform at a high level,” Branson adds. “I have an open-door policy, I’m accessible to the staff, and I encourage everyone to do what’s best for the patient, every day, all the time.”

Profile #2

At UCHealth University of Colorado Hospital–Denver Metro Region, Julie Zorn, BSN, RN, RNFA, Clinical Nurse Educator, is challenged to promote exceptional teamwork and process standardization in turnover practices both regionally and system-wide. As an urban, academic, level I trauma facility with Magnet® status, UCHealth has 25-plus ORs for in-patient, 8-plus ORs for outpatient, mother and family ORs, and eye center ORs. There are 650-plus patient beds, multiple ICUs, and an emergency department. The hospital has multiple specialties, of which 11 have been nationally ranked by *U.S. News & World Report*.

“As nurse educators, we take the time to help staff members understand the why behind the job they are performing for the OR,” says Zorn, who is also strategically aware of how her role supports the goals of the system’s OR directors and perioperative leadership. “A central focus in my role is how I can help in guiding staff to those goals,” she adds.

Turnover Practices

At UCHealth, turnover time plays a significant role in OR efficiency and on-time starts. Goal turnover time ranges from 30 minutes in large facilities to 20 minutes in smaller facilities. Nurse educators focus on the competencies and structured orientation processes necessary for ensuring that staff are trained appropriately on how to perform room turnovers and that staff understand both how infections spread and how the products they use help to stop the spread of any infections. Educational techniques utilized to facilitate staff training include mock turnover with role play and information dissemination in multiple modalities (eg, lectures by educators and product experts).

“We help make sure the staff responsible for turnovers realize their value to the OR and how we cannot perform surgery safely without them,” says Zorn.

Strategies employed to help ensure quality and safety are not compromised when staff are trying to quickly turn over the OR from one procedure to the next include the routine use of a fluorescent gel product. According to Zorn, the supervisor will go into a room before it is cleaned to mark high-touch areas with



“ [Nurse educators] help make sure the staff responsible for turnovers realize their value to the OR and how we cannot perform surgery safely without them.

the gel. Next, the turnover team will clean the room. After the room is cleaned, the supervisor will check the areas marked with a black light to identify if they have been adequately cleaned.

“This quality control has helped staff identify if there are any areas that are routinely missed as well as alert them to how effectively they are cleaning,” says Zorn.

Impact of Turnover Kits

Consistency in turnover time at UCHealth is currently largely dependent on staffing ratios and having appropriately trained individuals to turn over the OR or procedure rooms. But the effects of staffing on turnovers were not fully understood until the system introduced turnover kits into its room cleaning and turnover processes.

“Staffing can be a common challenge with turnovers,” says Zorn. “We just weren’t aware of how much it was affecting our turnovers until after we had standardized our process with turnover kits. The kits have helped us tremendously because

staff are no longer hunting for certain supplies or equipment. Now, when our turnover times rise, we are able to recognize the deeper recurring issue of staffing—especially when we have gaps in hiring—and the need for ongoing training of new staff.”

In her consultations with clinicians to help them strategically evaluate turnover practices, La Brie often sees this situation. “Implementation of solutions like turnover kits can reveal isolated factors, such as delays owing to staffing, equipment availability, timeliness of surgeons and clinical staff, or procedural scheduling,” she says. “Having awareness of these factors and figuring out how to harness and manage their complexity provides facilities with an operational advantage that will ultimately help to establish more fluid processes that support turning over an OR inside of the allotted time as well as improving overall turnover agility.”

Addressing Staffing Challenges

Nurse educators work closely with the perioperative service assistant tech (PSAT) supervisor and the certified surgical tech (CST) educator to train and provide education to the PSAT team members who are responsible for performing the turn-overs. Because of a high rate of attrition in the PSAT position and fluctuations in daily staffing ratios, UCHHealth is looking at new ways to address these challenges through a focus on culture and teamwork.

“We have an opportunity to encourage more of a team environment in our culture, where all team members, whether they are an RN, a PSAT, or a surgical tech, are available to help turn over the room when needed so that there are no delays.

“Historically, certain roles have not necessarily helped with the turnover process if we are short-staffed, even though all team members are educated about it,” says Zorn. “We have an opportunity to encourage more of a team environment in our culture, where all team members, whether they are an RN, a PSAT, or a surgical tech, are available to help turn over the room when needed, so that there are no delays.”

Being part of a large health care system allows Zorn, together with a team of RN educators, to strategically evaluate how individual hospitals perform in metrics like turnover time, and then to rate how that compares with the rest of the system. “If a certain hospital is doing extremely well in a metric, we

INSIGHTS FOR CLINICAL NURSE EDUCATORS

How to Boost Turnover Agility

Be open to feedback. As much as we give feedback, nurse educators need to be open to receiving feedback as well. This ensures that we learn what methods are working for our staff and what methods need to be adjusted.

Use your experts. Our hospitals use a turnover kit as well as a turnover cart. This approach has been very helpful in terms of efficiency and standardized process flow. Working with the vendor representative was instrumental in helping with staff education and implementation.

What to do after switching to a new turnover product. It’s important to remove all the old product so that staff do not have a choice. It may sound silly, but staff may revert to what they were comfortable using before if the old product is available.

want to assess why they’re doing well to determine if there is an approach, a process step, or a team dynamic that we can standardize and transition across all the ORs,” she says. “We’re seeing the positive impact of increased teamwork on turn-overs at one hospital and know that we have the potential to get there across the entire system.”

Approach to Leadership

The leadership traits that Zorn believes are most helpful to nurse educators are continuous engagement, positivity, and the ability to have a broad-spectrum view. She shares insights for other nurse educators in their approach to leadership and turnover agility (see sidebar). Zorn further emphasizes the value of communication: “If you’re trying to change behaviors and competencies, it’s important to be giving the same message to team members across the board,” she says. “You can’t let your guard down—consistency is critical.”

Profile #3

At Porter Adventist Hospital in Denver, Colorado, Katie Scaggs, MSN, RN, CNOR, Director of Surgical Services, is challenged to establish a new recruitment and retention framework and create a culture of teamwork that enables staff to be high performing and adaptive in their turnover practices. Porter Adventist Hospital is a level III trauma center that has received

“Turnover time is important, but we are more agile in our turnover practices by not overemphasizing or rewarding faster times beyond our goals, because that could mean important aspects of cleaning or patient engagement are missed.

its third Magnet designation. The hospital has 370 beds and 23 ORs. Top specialties are cardiac, transplant, spine, and total joints. Major initiatives for the OR are “nose to toes,” a new protocol that provides decolonization to each surgical patient; case cart checks, in which case carts are reviewed for “forever wet” tray and case cart organization; and elimination of immediate use steam sterilization.

Turnover Practices

Turnovers are a shared team focus. Perioperative assistants are largely responsible for stocking the turnover cart and initiating room cleaning and turnovers. Perioperative facilitators are responsible for assisting during turnovers by helping set up next cases and providing patient care. Facilitators are tasked with assisting between two rooms, by specialty, to more quickly provide support when needed and ensure fluid team dynamics. Environmental Services contributes by defining appropriate cleaning methods and dwell times for cleaning agents. Finally, all team members (including surgeons) are expected to—and do—help out during turnovers.

“We are more fluid in our engagement with turnovers by expanding team dynamics to allow for a collaborative group effort and focus,” says Scaggs. “Strong communication allows us to be responsive and adaptive for every case, which is a huge part of being on a high-performing team because we all have high expectations of one another.” In these conditions, she adds that standard work is still important, especially for utilizing swim lanes,⁴ so that all team members know their role.

Because Scaggs is six months into her director role, she has strategically chosen to take the time to get to know her team and identify desired processes before introducing new solutions or providing turnover metrics. As a direct result of the positive team dynamics being established, Scaggs says she will begin to evaluate turnover products to aid in process standardization (eg, turnover kits) and also share turnover times with staff on a regular basis to enhance performance awareness and create pride in metrics. In this initial stage of tracking turnover time, Scaggs has identified the goal of 20-minute turnovers for short cases and 40-minute turnovers for higher acuity or ICU cases.

“Turnover time is important,” acknowledges Scaggs. “But we are more agile in our turnover practices by not overemphasizing or rewarding faster times beyond our goals, because that could mean important aspects of cleaning or patient engagement are missed.”

Addressing Current Challenges

The biggest challenge that Scaggs currently faces is recruiting and retaining talented team members. “We have to hire people who want to be here,” she says. “Otherwise, there will not be a cohesive team of individuals who want to work together.”

A secondary priority for Scaggs in this phase of team building is establishing a culture where team members feel empowered to speak up and perform at a high level. Scaggs believes that team dynamics and culture are the foundation for effective turnovers practices and much more. This focus has required Scaggs to adopt an approachable leadership style, to role model the team dynamics she expects of her staff, and to always follow up on an issue that a staff member brings to her. “Being a leader who staff can trust is critical to establishing the right culture of teamwork,” she says.

“Being a leader who staff can trust is critical to establishing the right culture of teamwork.

According to Scaggs, motivation and acknowledgment are important to sustaining strong team dynamics and making sure team members feel valued. “The team is motivated by positive feedback, either from the surgeon or from perioperative leadership, and they’re motivated by getting the work done,” she says. “We are regularly talking with staff so they know how much we value them, especially when there are really busy days.”

Approach to Leadership

Scaggs highlights three leadership capabilities that she believes give OR directors the most agency in their role:

- **Role model.** Commit to being a good role model, and don’t be afraid to get your hands dirty when you can, including during turnovers.
- **Always keep a finger on the pulse by talking with staff to find out daily issues.** This includes talking with surgeons to understand and be responsive to their concerns as well.
- **Always know your data.** As a director, don’t settle. If you don’t like your dashboards, make new ones. Hold your managers accountable to set and meet goals.

Strategies for Cultivating Turnover Agility

In working with OR directors and clinicians nationwide, La Brie and Murphy routinely discuss aspects of turnover efficiency⁵ and provide guidance on approaches and solutions that will resolve issues, have lasting impact, and create a more productive OR.

“Effective turnover practices have the potential to increase daily billable procedures and reduce labor spend,” says La Brie. “Without the right focus on cost tied to OR minutes, many hospitals don’t realize the leaky bucket of operational costs that are happening every day, which may lead to extended turnover times, decreased productivity, and longer patient wait times.”

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La Brie and Murphy offer the following best strategies for OR directors to use when evaluating or seeking to cultivate OR turnover agility at their health care system or hospital.

Identify the Drivers of Variation or Inefficiencies

Ascertain the metrics and reporting available to evaluate the turnover process and any challenges or bottlenecks that exist. Because drivers of variation can vary over time, it is important to have a strong representative sample of the reasons for delays before suggesting changes to existing processes.

Engage Clinicians in Strategy-Building

After establishing a strong representative sample of the reasons for delays and identifying the bottlenecks, share the findings with the stakeholders (eg, surgeons, perioperative personnel, Infection Control, C-suite) to aid in development of improvement strategies that will have cross-functional success.

Be Selective

Prioritize the top two to three strategies that stakeholders agree will make the largest improvement to the overall turnover process. Process bottlenecks will vary by hospital, but teamwork, process flow, and product availability and cost will normally be consistent, high-value opportunities for improvement.

Share Information

Share the agreed-upon strategies with all stakeholders and during staff meetings. Reinforcing the importance of turnover

agility (including goal turnover times) and the strategies to improve on its essential components, while at the same time requesting feedback, will help improve adoption, reinforce inclusiveness, and develop a better understanding of the end-to-end process. Incorporate education and training for implementation of any new process, product, or solution.

Monitor for Impactfulness

After a strategy has been employed for a period of time, evaluate its impact and be ready to make recommendations or adjustments. Make valid comparisons against suitable hospitals, especially those in the same system. Valid benchmarking against recommended, demonstrated best practices as provided by vendors is also helpful to sustaining improvement.

Conclusion

Consideration of the insights and strategies discussed in this whitepaper can help OR directors and nurse educators make turnover agility the best it can be at their facility. Addressing delays and bottlenecks may present enormous opportunities for OR directors who reexamine or transform their hospital’s turnover practices. By focusing on turnover agility, OR directors are better positioned to create a framework for enhanced efficiency that allows teams to be more consistent in their turnover process and consequently more resilient to delays. Perioperative leaders and educators who leverage their leadership capabilities to cultivate turnover agility will be the ones who succeed at managing the complexities of OR productivity.

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