

Conference issue

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Salary/career survey

Survey finds staffing patterns stable but positions hard to fill

A sluggish economy continues to drive OR staffing, according to the 23rd annual OR Manager Salary/Career Survey. Although economic growth in the US has ticked slightly upward, 70% of respondents say the economy affected their OR staffing in the past 6 months, comparable to 68% last year and 69% in 2011.

The OR workforce remains relatively static, with most directors saying turnover of RNs and surgical technologists (STs) has

stayed the same over the past year, at 70% and 74%, respectively.

Few signs of movement can be detected, although 19% of directors report using agency or travel nurses to fill budgeted positions, up from 12% last year. However, that's still below the 32% from the prerecession days of 2007. An aging workforce means long-term staffing challenges can't be ignored: Nearly half (46%) of re-

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Standards & regulations

Early action advisable to prepare for new alarm safety standards

Walk into any patient care unit—whether preoperative, intraoperative, or postoperative—and you will hear numerous alarm signals. Some are signaling a medical necessity, but many are false alarm noises that do not require action.

Health care workers can hear several hundred alarm signals per patient per day, which may cause alarm fatigue. Overwhelmed or desensitized by the constant barrage, care givers may take unsafe actions, such as turning down the devices, shutting them off, or ignoring them.

Patient safety advocates have warned of alarm fatigue for years, and it's a growing concern as hos-

pitals invest in more complex devices with a growing number of features and sensors.

In June, the Joint Commission approved a new National Patient Safety Goal on clinical alarm safety (NPSG.06.01.01). The effective date is January 2014.

The goal consists of 4 elements of performance to be phased in over 2 years—2 start in 2014 (Phase I), and 2 start in 2015 (Phase II).

The Joint Commission says it plans to publish the Phase I and II requirements at the same time to provide the field with complete information about the ultimate re-

Continued on page 17

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Editorial

The economy continues to present staffing and budgetary challenges, our annual staffing survey finds; little has changed since the 2008 recession despite slightly better overall conditions (see cover story). Perioperative leaders report they've had to reduce overtime, eliminate open positions, and tell staff to take time off without pay in order to meet the bottom line.

Recent months have seen a steady stream of announcements about layoffs to compensate for budget shortfalls. All told, nearly 6,000 health care workers are expected to be let go from hospitals across the US, according to analysts with Investor's Business Daily, because of factors such as lower inpatient admissions and the decline in Medicare reimbursements.

Examples abound:

- Vanderbilt University Medical Center has cut some 300 jobs because of dwindling research funding and lower Medicare and Medicaid reimbursements, says Dr Jeff Balser, the medical center's chancellor.
- The University of Maryland Medical Center eliminated 65 jobs.
- At LifeBridge Health in Baltimore, perioperative services staff were reduced by leaving vacant positions unfilled, according to Jerry W. Henderson, MBA, RN, BSN, CNOR, CASC, assistant vice president perioperative services.
- St John Providence Health System in the Detroit area eliminated 160 jobs.
- Liberty Hospital, near Kansas City, Missouri, cut 120 positions, closed a clinic, and reduced services.
- The Ozarks Medical Center in Arkansas laid off 32 people, cut managers' pay by 5%, and left open positions unfilled.
- The Baystate Franklin Medical

Center in Greenfield, Massachusetts, said it would cut up to 9 positions among its medical-surgical nursing staff, largely because average patient stays dropped from 3.4 to 2.4 days between 2012 and 2013, according to Baystate Franklin President Charles Gijanto. Interestingly, however, he also said new ORs were being designed to attract more surgeons and "to try and bolster the surgical side of the equation."

Meanwhile, legislators in New York State are grappling with a bill designed to increase the nurse-to-patient ratios in the state's 185 acute care hospitals in an effort to boost patient safety. And plenty of hospitals are investing in new technology, equipment, and staffing structures or workflow changes to improve care. But these are challenging times.

What are some of your biggest challenges, and how have you met them? We'd like to share your experience with our readers. Send an e-mail to Elizabeth Wood, ewood@accessintel.com.

And next month, look for our list of "greatest accomplishments" reported by our survey respondents—it's sure to be an inspiration. ♦

—Elizabeth Wood

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OR Manager of the Year embraces golden rule

Letters nominating Pamela Smith, BSN, RN, CNOR, as the 2013 OR Manager of the Year described her as a leader who has supported her staff and their decisions, an advocate for education, and a clinical manager who “drives quality and efficiency while balancing high patient and staff satisfaction scores.”

Smith, manager of the OR at Bon Secours St Francis Hospital in Charleston, South Carolina, will be honored at a luncheon on Tuesday, September 24, during the OR Manager Conference in National Harbor, Maryland.

St Francis, a community-based hospital, is the only Magnet facility in the “low country” part of South Carolina, according to Smith. She has been there since 1981, gradually working her way up from LPN to RN and ultimately to perioperative clinical manager in 2002. Smith has a staff of 70 and manages the sterile processing department (SPD) and 8 OR suites along with a cysto suite and a minor procedure room.

Getting certification

“In 2005, we only had 3 nurses who were certified as CNOR. I felt that certification was important for our patients and our staff, so we began engaging staff and within a year we were at 92% certification,” she says. “We’ve maintained that 92% level for our RNs, and our scrub techs and SPD techs are at 100% certification.”

By getting her certification at the same time as her staff, Smith won over those who initially balked at the new requirement. “As long as you’re willing to participate and do the things you’re asking your team to do, it’s much easier to get buy-in,” she says.



Pamela Smith, BSN, RN, CNOR

Achieving efficiencies

“I have witnessed year-after-year improvement in first-case on-time starts, first-shift utilization, block scheduling, SCIP [Surgical Care Improvement Program] success, and employee satisfaction,” writes Mitchell J. Siegan, MD, chair of the hospital’s anesthesia department and medical director of the perioperative service, who supported Smith’s nomination.

Clinical nurse specialist Jennifer Vieau also praised Smith’s efforts to boost efficiency, noting that immediate-use sterilization rates and unintended hypothermia rates have dropped during her tenure.

While modest about her accomplishments, Smith cites better communication between the OR and the SPD as a notable achievement. An OR/SPD process improvement committee composed of nurses, surgical technologists, and the SPD coordinator meets each month to brainstorm about how to be more efficient. As a result, the hospital now hires surgical technologists into the SPD so they can be cross-trained between the OR and the SPD, she says.

Fostering teamwork

Being honest and fair with staff and having open communication are the cornerstones of Smith’s leadership style. “In order to lead them, I have to treat them how I want to be treated. That sounds so basic, but it’s true,” she says.

“Be prepared to work. Everyone is part of the team,” Smith tells new hires. “I am right there with them. It’s not uncommon for me to be turning rooms, helping patients, whatever needs to be done. We’re here for the patients.”

St Francis employees are part of an extended family, Smith says. “We have staff who have been here for 10 or 15 years, and they do a good job of bringing new people into the fold.”

Dr Siegan concurs: “Many of our RNs and technicians have been working in this unit for over a decade. As a result, we have no traveling nurses or technicians. I cannot overstate the importance of having such deep-rooted relationships among our surgeons, anesthesiologist, nurses, and technicians.”

That close collaboration is reinforced through the Back Pack Buddies program, which gives elementary school students from low-income areas food to take home. Smith’s team participates by going to the food bank, picking up the month’s shipment of food, bringing it back to work, packaging it, and taking it to the school.

Being a team player and living by the golden rule have made Smith a highly successful leader, and while she is thrilled to have been named OR Manager of the Year, she is quick to give credit to her staff: “I’m the recipient of the award, but it’s really about the staff and the hard work they do. They’re the ones who deserve the recognition.” ♦

Practicing a personal time-out can help to engage you and your team

Among the tools and procedures intended to increase efficiencies and reduce errors in the OR are time-outs and checklists, which have become a standard practice during many surgical procedures.

Vicki Hess, MS, RN, CSP, believes these same tools can be used to promote engagement and decrease stress among those working in the OR, creating an environment that leads to stronger teamwork and improved outcomes.

"Everyone is realizing that employee engagement is what drives patient satisfaction, quality, safety, and all other metrics that we measure," says Hess, former adjunct professor at Johns Hopkins University Graduate School of Business and a Certified Speaking Professional.

"A time-out for engagement is not about OR job processes—it's a time-out to reconnect you to what



Vicki Hess, MS, RN, CSP

gets you energized, satisfied, and productive at work," she adds. "As an OR manager, taking a time-out for yourself and encouraging others to take time-outs provides that space where you can refocus, re-energize, and reset."

Using humor, real-life stories, and evidence-based research, Hess

will share strategies for OR leaders to bolster their own engagement and thus be more effective during a general session at the OR Manager Conference September 23-25 at the Gaylord National Resort in National Harbor, Maryland, near Washington, DC.

Creating an environment of employee engagement requires a leader to champion the cause, not only by singing the praises of such an environment but also by practicing the principles of an engaged workplace, Hess notes.

A tool similar to the time-out tool often used in ORs during surgical procedures can be leveraged to help promote an engagement ecosystem. The "Engagement Checklist" consists of 12 statements designed to help identify where you currently stand on engagement. From questions about your own connection to work to others about staff who report to you, an easy-to-use grading system identifies where you are doing well and where you need to focus when it comes to engaging your team.

Hess calls this sense of engagement in the workplace "Professional Paradise." Creating such a paradise—a work environment in which all employees are satisfied, energized, and productive—is in fact realistic, even in challenging times, Hess believes.

Learn more about creating this paradise during her session, "Time-Out! Creating Your Own Checklist for Success." Hess will provide information, tips, and anecdotes for building engagement in the workplace and fostering the leader within. Visit www.VickiHess.com or send an email to vicki@vickihess.com.

Register online at www.ormanager.com.

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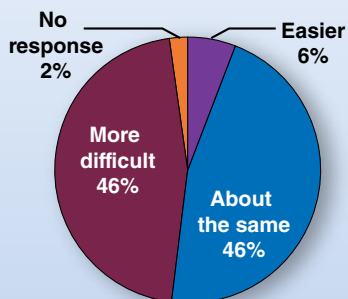
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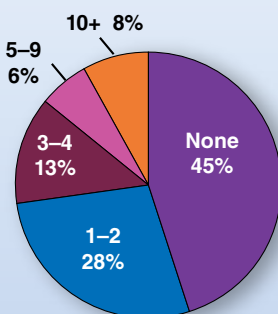
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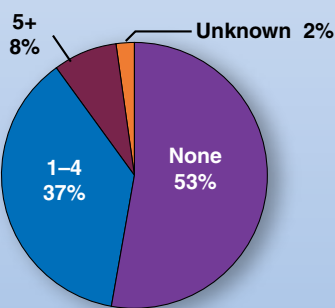
How difficult is it to recruit experienced OR nurses?



What percentage of FTE positions are open?

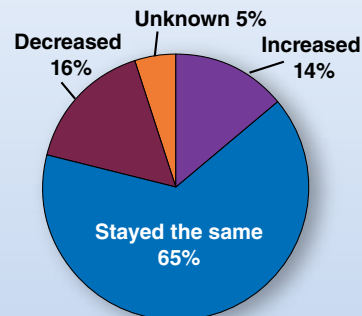


RNs

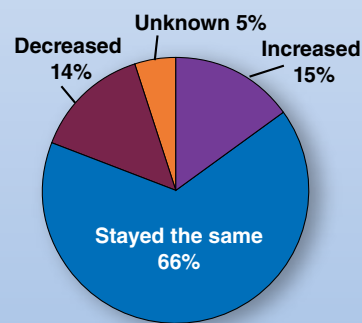


STs

How do open positions compare to 12 months ago?



Open RN FTE positions



Open ST FTE positions

Hospital respondents to survey

Region	Response
Northeast	14%
Midwest	39%
South	24%
West	22%

Staffing survey

Continued from page 1

spondents say recruiting experienced OR nurses has been more difficult in the past year, compared with 26% in 2010 and 43% in 2012.

Survey highlights

Other key findings include:

- The three main responses to the economic conditions of the past 6 months have stayed the same for 3 years now: reducing overtime (49%), eliminating open positions (35%), and requiring staff to take time off without pay (32%).
- About two-thirds (65% for RNs

and 66% for STs) of respondents say there hasn't been a change in the number of open positions in the past year, similar to 2012 responses.

- The average number of open positions in the OR has increased from 2 years ago for both RNs (3.1 vs. 2.4 in 2011) and STs (1.9 vs. 1.1 in 2011); however, they are lower than last year at 3.6 and 2.0, respectively.

About the survey

Data for the OR Manager Salary/Career Survey was collected from March to May 2013. The survey list comprised 775 OR Manager subscribers who are directors (or equivalent) of hospital ORs. The

survey was closed with 160 usable responses—a 21% response rate. To ensure representation of the target audience, results were filtered to include only the 155 respondents who work full time in a hospital. The margin of error is ± 7.0 percentage points at the 95% confidence level. This article features the staffing findings from the survey. Other findings, including compensation and management responsibilities, will be reported in the October 2013 issue.

Most respondents work in a community hospital (76%) rather than a teaching hospital (19%),

Continued on page 8

Salary/career survey

Number of open FTE positions in ORs

mean (median)*

	Type of facility						
	Overall	Community	Teaching	Northeast	Midwest	South	West
RNs	3.1 (1.0)	1.8 (1.0)	5.0 (2.0)	3.3 (1.0)	3.5 (0)	3.0 (2)	2.5 (1.0)
STs	1.9 (0)	1.5 (0)	2.8 (1.0)	1.2 (0)	1.4 (0)	3.3 (1)	1.7 (1)

Number of weeks positions have been open

mean (median)*

	Type of facility						
	Overall	Community	Teaching	Northeast	Midwest	South	West
RNs	10.5 (8)	9.9 (8)	9.9 (8)	12.1 (8)	9.8 (7)	9 (6)	12.4 (10)
STs	11 (6)	11.3 (8)	7.1 (6)	14.6 (10)	9.8 (5)	9 (6)	13.3 (10)

Staff turnover rate

	Type of facility						
	Overall	Community	Teaching	Northeast	Midwest	South	West
RNs	6.4% (3%)	5.7% (2%)	8.9% (4%)	4.6% (1%)	6.8% (2%)	6% (5%)	7% (3%)
STs	6.8% (1%)	6.7% (1%)	7.4% (2%)	8.5% (0%)	8% (1%)	4.9% (3%)	5.7% (2%)

ORs that use agency or travel nurses to fill budgeted positions

Overall	Type of facility					
	Community	Teaching	Northeast	Midwest	South	West
19%	17%	20%	23%	11%	13%	35%

*The mean is the average. The median is the midpoint in the distribution. The mean is influenced by extremely large and small values, while the median is not.

Continued from page 7

with the location split fairly equally among rural (37%), suburban (33%), and urban (28%). Nearly all respondents (91%) work in not-for-profit facilities,

and the average number of licensed hospital beds is 246, with a median of 192.

Staffing profile

The average number of open staff positions was 3.1 for RNs (vs 3.6

in 2012) and 1.9 for STs (2.0 in 2012). The number of RN open positions was significantly higher in teaching hospitals (5.0) than in community facilities (2.8).

Positions were open an average of 10.5 weeks for RNs and 11

Salary/career survey

How often does your OR use overtime to staff its ORs?

	Type of facility		
	Overall	Community	Teaching
Always/almost always	19%	18%	27%
Occasionally	55%	55%	53%
Rarely	18%	18%	17%
Never	5%	7%	0%
Unknown	2%	2%	3%

Ratio of RNs to surgical techs

Hospital ORs

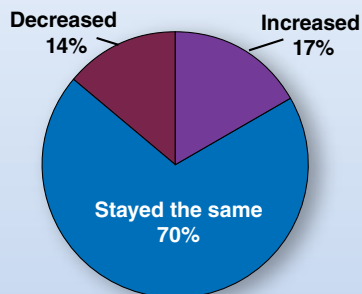
Data over 10 years shows little change.

2013	63:37
2008	62:38
2003	64:36

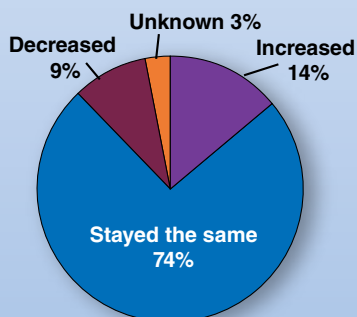
Ambulatory surgery centers

2013	66:33
2008	66:38
2003	64:36

How does staff turnover compare to 12 months ago?

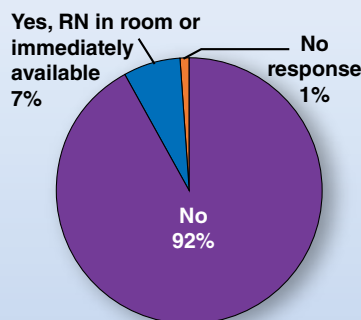


RN turnover

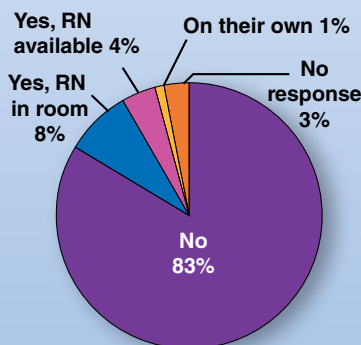


ST turnover

Do surgical techs circulate?



Hospitals



Ambulatory surgery centers

weeks for STs, compared with 11 weeks and 8 weeks, respectively, in 2012. Community facilities tended to fill RN positions more quickly than their teaching counterparts.

Almost half of OR directors re-

ported no open positions for RNs (45%), and more than half had no open positions for STs (53%).

Although more than half (55%) use overtime occasionally, only 19% (down from 24% in 2012) of OR directors reported they “al-

ways or almost always” use it, while 18% use it rarely, and 5% never use it. As in the past, directors in teaching hospitals tend to use more overtime than community hospitals (27% vs 18%, respectively, in the always/almost always category).

OR skill mix

The ratio of RNs to STs in hospitals has changed little since OR Manager started collecting the data in 1995. This year the average ratio is 63:37, similar to previous years. The ratio of RNs to STs is slightly higher in ambulatory surgery centers (ASCs), at 66:33.

Only 7% of hospitals report that STs circulate with an RN in the room or immediately available. ASCs report slightly higher figures, with 8% reporting STs circulate with an RN in the room and 4% reporting STs circulate with an RN available.

Continued on page 10

Continued from page 9

Turnover and recruiting

The average staff turnover rate (defined as the percentage of staff who have left and been replaced in the past 12 months) is slightly higher than last year at 6.4% (5% in 2012) for RNs and 6.8% (6% in 2012) for STs. Some geographic variations exist; the West and Midwest have the highest turnover rates, at 7% and 6.8%, respectively, for RNs, while the Northeast and Midwest have the highest rates for STs, at 8.5% and 8%, respectively. Teaching hospitals have higher turnover rates than community hospitals: 8.9% vs 5.7% for RNs and 7.4% vs 6.7% for STs.

OR directors are having problems filling some of their open positions. Nearly half (46%) say it's more difficult to recruit experienced OR nurses than a year ago, with 46% reporting about the same difficulty. Only 6% say it's easier to recruit RNs. Urban hospitals have the most difficulty with recruitment: More than half (53%) say recruitment has been more difficult, compared with 45% for suburban and 43% for rural.

Teaching hospitals are slightly more likely than community hospitals to use agency or travel nurses (20% vs 17%). More than a third of hospitals in the West (35%) use agency or travel nurses, followed by 23% in the Northeast, 13% in the South, and 11% in the Midwest.

Trend of stability

Overall trends in OR staffing have improved only slightly since the recession of 2008. It remains to be seen if a continued economic recovery, aging work-

Trends in perioperative nurse staffing

	2007	2009	2011	2013
Average number of open positions in the OR				
RNs	4.1	1.8	2.4	3.1
STs	1.5	1.2	1.1	1.9
Open positions as a percentage of budgeted FTEs				
RNs	10%	6%	7%	8%
STs	9%	6%	14%	11%
Average number of weeks positions have been open				
RNs	15	14.9	13	10.5
STs	12	9.8	9	11
Average staff turnover rate				
RNs	8%	5%	8%	6%
STs	7%	5%	7%	7%
Routinely use agency/traveler nurses				
RNs	32%	15%	14%	19%

Source: OR Manager, Inc.

How have economic conditions affected your OR staffing in the past 6 months?

	2013	2011
Reduced use of overtime	49%	45%
Required staff to take time off without pay	32%	35%
Eliminated open positions	35%	35%
Reduced use of agency personnel	29%	27%
Had layoffs of management	6%	3%
Had layoffs of direct care staff (RNs and STs)	5%	5%

force, and aging population base make a significant impact on OR staffing. ❖

—Cynthia Saver, MS, RN

Cynthia Saver, president of CLS Development, Inc, is a freelance writer based in Columbia, Maryland.

Thank you!

OR Manager thanks those who generously took time to complete this year's survey. We appreciate your part in gathering this information, which will be useful to your colleagues around the country.

A steep price to pay: Fatigue compromises staff and patient safety

It's not uncommon for nurses to work 3 12-hour shifts at 1 hospital and then work another 3 at a different hospital, yet anyone who works 12 hours is putting their patients in jeopardy, Sheryl A. Michelson, MS, RN-BC, said at the AORN Congress in March 2013.

"This is not what nurses want to hear, but we need to think about this. We didn't go into nursing to hurt people," Michelson said during a compelling presentation on worker fatigue.

"When we allow people to work 6 12-hour shifts in a row, we are pretty much signing their death certificate or maybe someone else's in the community who gets hit by the person driving home," Michelson told a packed audience.

Having known 2 nurses who died from falling asleep at the wheel after working long shifts, Michelson is highly attuned to the dangers of auto accidents. "One was a very dear friend of mine. She left 3 young children, and it had a huge impact on me," she said.

As the manager of perioperative education at Stanford University Hospital in Stanford, California, Michelson is on call every fourth or fifth weekend, working from 3 pm Friday until Monday morning as the administrative manager. Over time, she has noticed an increase in complaints about staff behavior among people working long shifts, such as lack of teamwork, yet she also found more staff were requesting more hours.

Michelson, a member of Stanford's needlestick injury committee, sought to learn the association between injury incidence

“
Allow
recovery time
between shifts.
”

and length of shift. Through an extensive literature search, she learned some startling facts about the effects of fatigue: \$18 billion per year is lost in productivity and accidents (among nurses and other shift workers such as fire fighters and the police), and there are at least 1,500 fatalities, 100,000 auto crashes, and 76,000 injuries annually.

It's important to know that fatigue constitutes overwhelming tiredness and impaired cognitive and physical function, she said. Nurses will admit to feeling exhausted, but they don't know when they are dangerous. Often, it's not until a major error occurs that people realize how much fatigue affects their performance. In one study, among 22,000 RNs who rotated shifts, 35.5% admitted to falling asleep while caring for patients.

At Stanford, an academic institution with more than 600 beds that treats mainly adult patients, "we don't force people to do 24-, 48-, or 72-hour call shifts, but many places do that," she said. Some people take long hours voluntarily, and others are being mandated to do so because of how their hospital schedule is run. "They don't feel that they have the ability to say 'this is not safe,'" Michelson said.

Fallout from fatigue

Safety risks increase after working 8 hours, so working 10- or 12-hour shifts significantly increases the risk that nurses will harm themselves or their patients, according to Michelson.

"Sleep duration is linked to metabolism and appetite regulation. Glucose tolerance is altered by short-term sleep restriction, so even being sleep-deprived just 1 or 2 days a week raises the risk of being overweight or prediabetic," Michelson said, adding that at least one-third of the attendees in the room were likely diabetic.

Other risks associated with sleep deprivation include a higher likelihood of injury, preterm birth, and rate of accidents. In a small study of 45 ICU nurses working 12-hour shifts, she said, all but 2 staff members surveyed admitted to having had an auto accident in the previous 12 months.

In a study of 47,000 nurses, 54% admitted to being impaired in some way from fatigue during a 28-day period. Inadequate rest is also linked to moodiness, cognitive problems, reduced job performance and motivation, depression, worse hand-eye coordination, and decreased memory.

Strategies to catch some z's

Sleeping in a darkened, cool room, napping and exercising in a timely manner, and using caffeine appropriately are some ways nurses can get better sleep. And studies support the benefits of working shorter shifts, even though this is not a popular option, she said.

Among the changes Michelson suggested are to avoid schedul-

Continued on page 12

Research defines dangers of shift work sleep disorder

The combination of 12-hour shifts and call can be lethal. That may be 1 reason why more than half (51%) of surgical services directors don't use 12-hour shifts, according to the 2013 OR Manager Salary/Career Survey. For those who do use 12-hour shifts, most respondents use them for weekdays, weekends, and holidays (58%); but slightly more than a third (38%) use them only for weekdays, and just 4% use them only for weekends and holidays.

Even if you don't have 12-hour shifts in your OR, you may have part-time employees who are working these shifts elsewhere, and taking call can easily disrupt normal sleep cycles. OR leaders must be aware of the potential problem of sleep disturbances, including shift work sleep disorder (SWSD). Employees with SWSD have a difficult time staying awake when working the night shift even if they had sufficient sleep before the shift. They may also have difficulty getting to sleep during the daytime, sleep too much during the day, or have difficulty waking up to go to work at night.

SWSD dangers

Jeanne Geiger-Brown, PhD, RN, FAA, associate professor and assistant dean for research at the University of Maryland School of Nursing, says her sleep research has identified 4 primary areas of neurocognitive changes with SWSD: performance deficits such as not performing a task as well as when rested; impaired information processing such as decline in short-term memory and reduced ability to learn; cognitive flexibility, which results in faulty risk assessments and less ability to recognize better alternatives; and impaired mood, including anxiety, depression, and decreased communication skills.

These deficits not only can lead to patient harm but may cause the employee personal physical harm (through accidental needlesticks or falling asleep at the wheel of a car) and may adversely affect interpersonal relationships.

Unfortunately, people may not be aware of the danger. "Research has shown that with repeated

days of not getting enough sleep each night, vigilant performance gets worse and worse, but a sleep-deprived person doesn't have a parallel increase in sleepiness, so they can have a false impression that they aren't as impaired as they actually are," Geiger-Brown says.

People at risk for SWSD include women, older individuals, and those working in health care. "Most nurses are women, have an average age of 46, and are working in health care, so it's not surprising they're at risk for SWSD," says Kathryn Lee, PhD, RN, FAAN, CBSM, professor and associate dean for research at the University of California at San Francisco School of Nursing. An experienced sleep researcher, Lee adds that other risk factors include an anxious personality and lack of internal locus of control.

Although it relies on subjective responses, the Epworth Sleepiness Scale can be helpful in identifying how much the disrupted sleep is affecting the shift worker.

SWSD solutions

It's vital to help employees find relief from SWSD. Although correlation doesn't imply causation, it's worth noting the night shift has been associated with an increased risk of breast cancer, vascular disease, metabolic syndrome, irregular menstrual cycles, lower birth weight infants, and diabetes. The most common complaints are gastrointestinal symptoms such as irritable bowel syndrome and abdominal pain.

Managing SWSD includes better sleep hygiene (see main article). In some cases, treatment with modafinil or armodafinil may be necessary.

To learn more about SWSD in staff (and in patients), access "Shiftwork Sleep Disorder: The Role of the Nurse, Understanding SWSD for You and Your Patients" at <http://www.americannursetoday.com/Article.aspx?id=10218&fid=9534>. Access a tool kit about sleep disorders at <http://eo2.compartners.com/users/swsd/>.

—Cynthia Saver, MS, RN

Continued from page 11

ing people for more than 2 or 3 consecutive night shifts and allow 10 to 12 hours of recovery time between shifts. The airline indus-

try has altered pilots' schedules to increase safety, she noted, and the health care industry should do likewise.

In 2011, following a deadly plane crash, the Federal Aviation

Administration instituted new rules about the number of consecutive hours pilots are allowed to fly, including a 30-hour period each week when they must not work. The airlines require annual

Salary/career survey

training on topics such as nutrition, exercise, and sleep disorders, she added.

The average RN gets 25.7 minutes of break during a shift, and nurses who work longer shifts tend to get shorter breaks than those who work shorter shifts. Studies have shown that short naps lasting less than 45 minutes are effective at restoring energy and alertness, she said—so it's important to take a break and sleep for a short period, if possible.

Caffeine (at least 200 mg) can be helpful if it's consumed 15-30 minutes before starting a shift or during the period between 3 am and 5 am when people tend to get very sleepy.

To the dismay of many in the audience, she advised using it only at work and never at home because drinking caffeine routinely

Does your OR department use 12-hour shifts?

Yes	49%
No	51%

What are 12-hour shifts used for?

Weekdays only	38%
Weekends and holidays only	4%
A combination of the above	58%

will diminish its effectiveness.

Likewise, she noted that exercise helps people sleep better, but it must be carefully timed; it's better to exercise after a shift than before going to work.

What's next?

When asked whether she thought the Joint Commission would mandate changes to shifts, Michelson said the Commission has mandated that institutions begin taking some responsibility and look at how they are attempting to mitigate worker fatigue. "Hospitals will be hard-pressed to justify letting people work 24-hour shifts," she said.

As these changes evolve, nurses will have to take call on days when they're not working because they won't be allowed to take call after their regular shifts, and it may be necessary to hire additional full-time employees. But Michelson stressed that nurses can be proactive and try to adjust their schedules before anything is mandated. ❖

—Elizabeth Wood

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Survey finds continued economic stress for ASCs

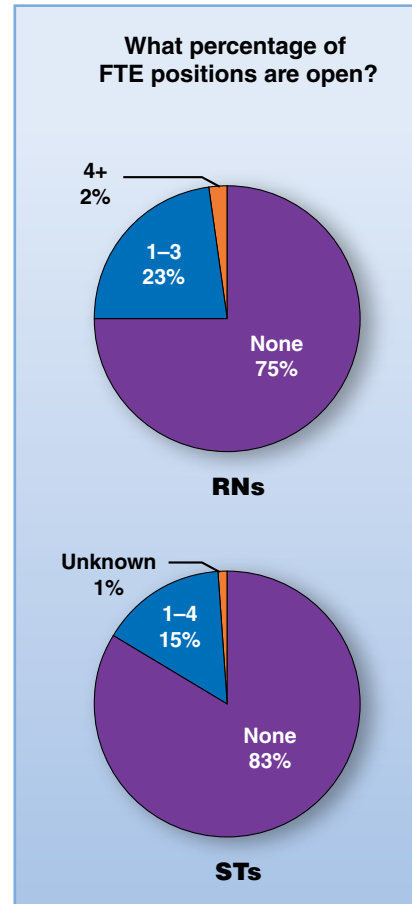
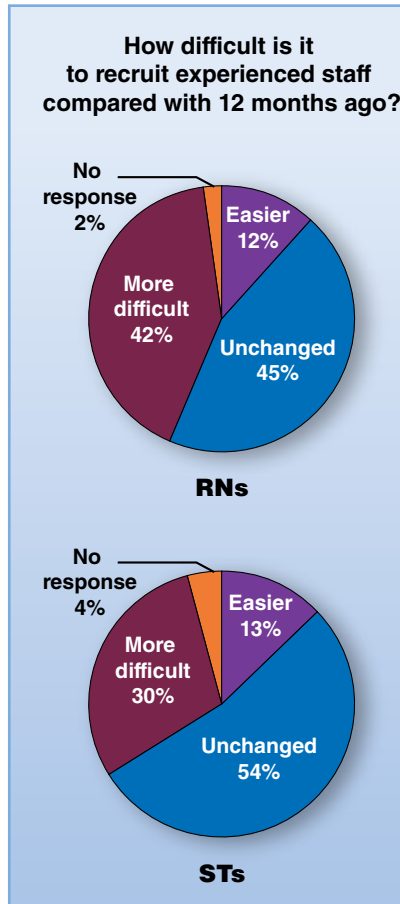
Although economic difficulties have started to ease in some areas of the US, many ambulatory surgery centers (ASCs) are still feeling the pinch, according to the 23rd annual OR Manager Salary/Career Survey. More than one-fourth (28%) of respondents say economic conditions have caused financial difficulties for ASCs primarily because of changes in reimbursement (76%, up from 67% in 2011), declines in elective surgery (71%, down from 83% in 2011), and lack of available credit (16%, essentially unchanged from 17% in 2011).

ASC managers continue responding to economic conditions as they have since 2009: reducing overtime (43%), requiring staff to take time off without pay (39%), and eliminating open positions (20%).

Of total respondents, 78% of nurse managers say RN staff turnover stayed the same compared with 12 months ago, and 82% say ST staff turnover stayed the same. Nearly half (42%) found it more difficult to recruit experienced RN staff, up from 37% in 2012, although the average number of weeks for an open RN position was 6 weeks, down from 9 weeks last year.

About the survey

Data for the OR Manager Salary/Career Survey was collected from March to May 2013. The survey list comprised 990 nurse managers of ASCs who were either OR Manager subscribers or part of an external list. The survey was closed with 189 usable responses—a 19% response rate. To ensure representation of the target audience, results were filtered to include only the 181 respondents who work full time in an ASC. The margin



How many FTE positions are open?

mean	
RNs	0.4
STs	0.2

Average number of weeks positions have been open

RNs	6
STs	6

of error is ± 6.6 percentage points at the 95% confidence level. This article features the staffing findings from the survey. The rest of the findings will be reported in the October 2013 issue.

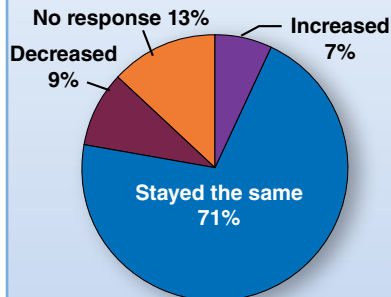
As in previous years, most respondents (43%) work in physician-owned ASCs, followed by joint venture (21%), corporate or LLC (21%), and hospital-owned

(11%) facilities. Nearly two-thirds (62%) of ASCs are multispecialty. The most common types of single-specialty ASCs are ophthalmology (35%), gastroenterology (25%), and cosmetic/plastic surgery (14%).

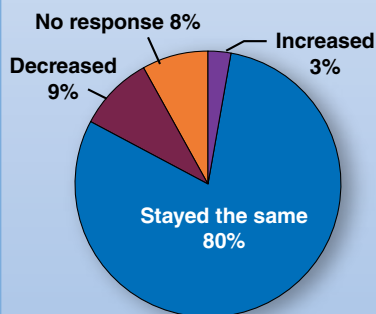
Half (50%) of respondents' ASCs are in suburban settings, with 33% in urban and 14% in rural locations.

Salary/career survey

How do open positions compare to 12 months ago?

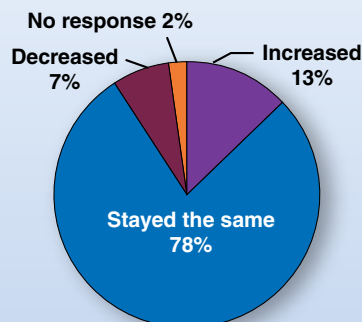


Open RN FTE positions

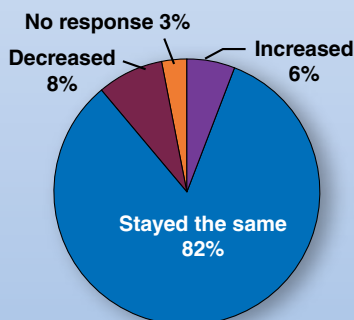


Open ST FTE positions

How does staff turnover compare to 12 months ago?



RN turnover



ST turnover

age of 0.4 RN (the same as 2011, after a small increase to 0.8 in 2012) and 0.2 ST (unchanged from 2012) open positions. Positions stay open an average of 6 weeks for both RNs and STs, compared with 9 weeks and 8 weeks, respectively, in 2012.

Future challenges?

Most respondents say that recruiting experienced RN staff is the same (45%) or more difficult (42%) compared with 12 months ago; for STs, 54% report recruitment is the same and 30% say it's more difficult. Although managers report that open positions mostly stayed the same for RNs (71%) and STs (80%), it should be noted that only 9% reported a decrease in the number of open positions for either role. Perhaps factors such as an aging workforce and implementation of health care reform may affect ASC staffing in the future. ♦

—Cynthia Saver, MS, RN

Cynthia Saver, president of CLS Development, Inc, is a freelance writer based in Columbia, Maryland.

How has the economic downturn affected your ASC's staffing in the past 6 months?

	Overall		
	2013	2011	2009
Reduced use of overtime	43%	43%	44%
Required staff to take time off without pay	39%	40%	36%
Eliminated open positions	20%	23%	20%
Reduced use of agency personnel	7%	13%	13%
Had layoffs of management	1%	2%	0%
Had layoffs of direct care staff (RNs and STs)	2%	7%	5%

Note: The questions were first asked in 2009.

Turnover and open positions

Staffing is stable at most ASCs, with 75% of managers reporting no open FTE RN positions, and

23% reporting 1 to 3 open positions. Most managers (83%) also report no open ST positions, and 11% report only 1 open position.

ASC managers have an aver-

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Alarm safety

Continued from page 1

quirements of NPSG.06.01.01.

Phase II requirements may be enhanced before they are implemented in 2015. These changes could arise from hospitals' experience with Phase I requirements as well as newly emerging evidence about best practices. If any changes to the Phase II requirements are made, accredited hospitals will be notified.

The new goal will appear in the 2013 Update 2 to the Comprehensive Accreditation Manual for hospital and critical access hospital programs.

Phase I begins in 2014

The first 2 elements of performance (EP) require the following:

EP 1. As of July 1, 2014, hospital leaders establish alarm safety as an organizational priority.

EP 2. During 2014, hospitals identify the most important alarms to manage based on the following:

- input from medical staff and clinical departments
- risk to patients if the alarm is not answered or malfunctions
- whether alarms are needed or unnecessarily contribute to alarm noise and fatigue
- potential for harm based on incident history
- review of best practices and guidelines.

Form a multidisciplinary committee

Before July 1, hospitals will want to form a multidisciplinary committee to review the literature and decide which alarm signals or alarm systems are most important to manage, says John R. Rosing, MHA, FACHE, vice president and principal, Patton Healthcare Consulting, Milwaukee, Wisconsin.

It is important that hospitals do

Identify the highest priority alarms.

this early, so the prioritization of alarms is established before July 1, says Rosing. The committee should keep detailed minutes of its meetings, including a directive from leadership stating that alarm safety is an organizational priority. This documentation will be needed to demonstrate compliance when the Joint Commission does its survey, he says.

"I believe the committee should be organizational and not departmental," advises Mary Logan, JD, CAE, president of the Association for the Advancement of Medical Instrumentation (AAMI). "If you try to approach the alarm problem as an OR issue, a PACU [postanesthesia care unit] issue, an ICU [intensive care unit] issue, or something else, the problem isn't going to be solved," says Logan. The committee needs to involve nursing leadership, quality and patient safety leadership, physician leadership, clinical engineering, and information technology, she says.

"A senior administrator, such as a chief nursing officer or a chief medical officer, has to lead this effort," says Robert Maliff, MBA, director, applied solutions group, at ECRI Institute. "You need someone who is really going to believe in this and push this and secure the resources, or things will fall through the cracks," he says.

Every member of this multidisciplinary team has a distinct role, says Maliff. For example, physicians are vital because they are ultimately responsible for patient

care, and they can help establish alarm parameters. Nurses are crucial because they are ultimately responsible for responding to all alarms. Clinical engineering staff are important because they will be responsible for changing the alarm defaults. Both AAMI and ECRI Institute are engaged in activities to promote safe alarm system management and support the National Patient Safety Goal (see box on p 18).

Tailor strategies

According to the Joint Commission, it is important for each hospital and each department to understand its own situation and to develop a systematic, coordinated approach to alarm management. Standardization contributes to safe alarm management, but solutions may have to be customized for specific clinical units and patients.

Each care unit has a unique set of circumstances dictating how alarm signals are heard and responded to, says Rikin Shah, senior associate, applied solutions group, ECRI Institute. Thus, alarm response strategies should be tailored to each unit.

The architectural layout and the alarm coverage model play a huge role, says Shah. For example, most PACUs are open spaces with direct lines of communication between nurses and patients, so most alarm signals are both heard and seen across the unit. In ICUs, where patients are secluded in small private settings, a more robust plan for communication and alarm response is needed.

Alarm fatigue is not quite the same issue in the OR that it is in the ICU, says Rosing. In the OR, it is understood what alarm signals mean for a patient, and they are responded to quickly. But, Rosing says, OR leadership will still want to participate in committee discus-

Continued on page 18

Resources for alarm management

Association for the Advancement of Medical Instrumentation (AAMI)

The AAMI website contains useful information on safely managing alarm systems with links to activities the AAMI Healthcare Technology Safety Institute is engaged in to promote safe alarm system management, including:

- survey of hospital practices in setting alarm parameters, followed by a study of alarm parameters
- library of literature on best practices on alarm system management
- webinars on safe alarm management
- summary of the Clinical Alarms Summit hosted by AAMI in 2011.

<http://www.aami.org/htsi/alarms/>

ECRI Institute

ECRI Institute offers information such as articles, policies, and webinars on safely managing alarm systems on its website. The website also includes:

- Health Devices Top 10 Health Technology Haz-

ards, which lists alarm hazards as the number 1 issue for 2012 and 2013

- Health Devices Achievement Award winners, which includes the Johns Hopkins Hospital Comprehensive Alarm Management Initiative
- Pennsylvania Patient Safety Authority alarms resources. (https://www.ecri.org/Forms/Pages/Alarm_Safety_Resource.aspx)

Joint Commission

The Joint Commission published a Sentinel Event Alert on medical device alarm safety in April 2013. The alert contains suggestions for assessing and managing risks associated with alarms and complements the expectations of the new safety goal.

(http://www.jointcommission.org/sea_issue_50/)

Other Joint Commission resources include:

- 2 Take 5 podcasts (http://www.jointcommission.org/podcast.aspx?CategoryId=13&F_All=y)
- replay of an alarm safety webinar held in May. (http://www.jointcommission.org/alarm_safety_webinar/)

Continued from page 17

sions and decisions about alarms.

Rosing anticipates that surveyors will go into the OR and ask, "Have you been part of the discussion on alarm management and fatigue?" OR managers will want to be able to say "yes we have," says Rosing, and they may want to continue with "we have decided to leave our alarm settings as they are." That would reflect a deliberate decision made by OR leaders as opposed to not having been at the table at all, he says.

Prioritize alarms

The approved version of the safety goal is easier to comply with than the draft would have been, says Rosing. The annual inventory of alarms has been deleted, and the phasing of the safety goal into 2014 and 2015 rather than January 1, 2014, allows more time for implementation.

Even though the annual inventory has been deleted, he says, it

will likely be necessary to create a master inventory list of all alarms or alarm systems so the committee will have something to work from as it prioritizes the alarms that are the most important.

It also may be useful to categorize this list by service, such as alarms serving the OR, PACU, ICU, medical-surgical units, telemetry units, and the emergency department.

"When identifying the highest priority alarms," notes Logan, "you have to ask, 'What are the actionable alarm signals and why? What are the nonactionable alarm signals and why? How can you assess who needs to hear them and why?'"

For example, says Logan, nurses and anesthesiologists have very specific requirements for the alarm signals needed in the OR, which are different from the alarm signals nurses need in the PACU, surgical ICU, or cardiac ICU. "This is why everyone has to work together," she says.

In 2011, AAMI and the Food and Drug Administration co-con-

vened a Clinical Alarms Summit. It brought together clinicians, regulators, alarm system experts, industry, and others to discuss and set priorities for alarm management issues. The Joint Commission, ECRI Institute, and American College of Clinical Engineering also participated in the summit, which brought much greater national attention to the problems with alarm management and identified priorities for action.

A list of "Top 10 Actions You Can Take Now" to improve alarm conditions in health care organizations was developed from audience discussion at the summit (see box on p 19).

Phase II begins in 2015

In the last 2 elements of performance, the following steps are required as of January 1, 2016:

EP 3. Hospitals will establish policies and procedures for managing the alarms identified in EP 2.

At a minimum, these policies and procedures will address:

Standards & regulations

- clinically appropriate settings for alarm signals
- when alarm signals can be disabled
- when alarm parameters can be changed
- who in the organization has the authority to set alarm parameters, change alarm parameters, and set alarm parameters to “off”
- monitoring and responding to alarm signals
- checking individual alarm signals for accurate settings, proper operation, and detectability.

EP 4. Hospitals will educate staff and licensed independent practitioners about the purpose and proper operation of alarm systems for which they are responsible.

Manage alarms

Two of the key issues to be addressed by policies and procedures for alarm management are clinically appropriate settings for alarm signals and unnecessary alarm signals.

“To have clinically actionable alarm signals, which means eliminating nuisance alarm noise, you first need to look at what is happening in the context of your unit,” says Shah.

For example, how are system alarm sounds such as leads-off alarm signals being handled? Too many leads-off alarm signals could be a result of inadequate skin preps and lack of electrode replacement. Most hospitals probably already have a skin prep policy for leads and electrode replacement, and they could eliminate many of these system nuisance alarm sounds if they were following their policies, Shah says. He noted that ECRI Institute was part of an alarms management review at Johns Hopkins Hospital in Balti-

Top 10 Actions You Can Take Now: 10 things you can do now to improve alarm conditions in your health care organization

- Gain cross-disciplinary leadership support.
- Establish a cross-functional team with clinical leadership to address alarm fatigue across all environments of care.
- Re-establish priorities: Process should drive technology adoption rather than allowing technology to drive the process.
- Develop a continuous improvement process for constantly optimizing alarm system policies and configurations.
- Conduct clinical testing and analyze alarm data to implement optimized alarm limits and delays (both alarm condition and alarm signal generation delays) and to reduce clinically nonactionable alarm conditions.
- Test acoustics on clinical floors: Environmental noise impacts patient and staff well-being and patient safety.
- Implement an alarm system configuration policy based on clinical evidence.
- Change single-use sensors more frequently to reduce nuisance alarm conditions (except in pediatric units).
- Mandate alarm system management training for all clinical operators.
- Share experiences with AAMI, the FDA, TJC, ECRI Institute, and others with problem reporting systems so everyone can benefit from your efforts in a cross-disciplinary way.

This list was originally published in Clinical Alarms: 2011 Summit, a report from the Association for the Advancement of Medical Instrumentation, www.aami.org. Reprinted with permission. Any other distribution of AAMI-copyrighted material requires written permission from AAMI.

more in which proper skin preps and electrode replacement eliminated close to half of the alarms on an acute care unit. AAMI’s “Top 10 Actions” list also includes changing leads.

Another policy that might already be in place is standardization of default volume settings on monitoring equipment or in central stations, says Shah.

“One of the things we recommend is attacking the ‘low-hanging fruit’ first,” says Maliff. “Start with the care areas with a lot of alarms and a lot of monitored patients. It is a tall task to tackle every single unit with physiologic monitors,” he says.

Health care delivery organizations need to set a timeline for what they are going to get done

by when, says Logan. Hospitals that think they can wait until the 4th quarter of 2015 to implement new alarm policies “are going to be in big trouble,” she says. “This is something that takes planning and takes time.” ♦

—Judith M. Mathias, MA, RN

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- * Decision-making on the day before and on the day of surgery to increase OR productivity
- * Targeting specific surgeons for use of the extra OR to reduce turnover times
- * Relying on data not impressions for decisions on how to use the extra OR
- * Having a sufficient number of turnover teams to benefit from the extra OR

October 23, 2013

Reducing Variability in Anesthesia Work Hours by Good Decision-Making on the Day of Surgery

- * Review of how to calculate allocated OR time to be able to reduce over-utilized time
- * Decision-making on the day of surgery to reduce over-utilized time
- * Review of why use displays to guide decision-making
- * Monitoring reduced variability in work hours

November 13, 2013

Reducing Variability in Anesthesia Work Hours by Good Decision-Making in the Scheduling Office

- * Review of how to calculate allocated OR time for use 1-2 days before surgery
- * Making good staff scheduling decisions to facilitate assignments the day before surgery
- * Decision-making 1-2 days before surgery to reduce over-utilized time
- * Review of why use displays to guide decision-making

December 4, 2013

Targeting First Case Starts to Reduce Over-Utilized Time and Do More Cases

- * Review of how to calculate allocated OR time for use the day before surgery
- * Targeting ORs with over-utilized time
- * Benefits of targeting specific ORs and surgeons to increase productivity
- * Making deliberate decisions on staggered anesthesia start times
- * Using displays to facilitate desired decision-making

December 18, 2013

Achieving More On-Time Starts for To-Follow Surgeons

- * Use of displays to identify cases' with expected tardy starts
- * Relying on average lateness of start data to reduce tardiness of starts
- * Improving case duration prediction to reduce tardiness of starts
- * Predicting time remaining in late running cases to make decisions on the day of surgery



Franklin Dexter, MD PhD has published more than 300 papers in the field of anesthesia group and operating room management. He is Professor in the Department of Anesthesia at the University of Iowa. Several times a year, he teaches a four-day intensive course in OR management. He has given more than more than 135 invited presentations. He is Statistical Editor of Anesthesia & Analgesia, as well as Section Editor for Economics, Education, and Policy. Details of his expertise, contact information, and the comprehensive bibliography of scientific papers in OR management are at www.FranklinDexter.net

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Sterile processing questions and answers

Answers to some of the questions asked at several recent annual meetings, notably AORN, APIC (Association for Professionals in Infection Control and Epidemiology), and IAHCMM (International Association of Healthcare Central Service Materiel Management), are offered by sterilization expert Martha Young. Also included are questions from seminars and webinars she has presented.

Question: The OR staff opened a processed instrument set in the OR on the back table and the chemical indicator (CI) was missing. Do they have to tear down the entire room?

Answer: “No, only the area/items that may have contacted the suspect package need to be removed,” says Ramona Conner, MSN, RN, CNOR, manager of the standards and recommended practices for AORN. “The package with the missing CI should be considered unsterile, so any surfaces that came into contact with it should be considered unsterile.”

To avoid this situation, follow the recommendation VI.f.4. in the AORN Recommended Practices for Sterile Technique, which states: “Before the instruments are placed on the sterile field, the internal chemical indicator should be examined for the appropriate color change and the inside surface of the container inspected for debris, contamination, or damage.” By doing so, you can avoid the situation posed by the question above.

The recommended practices go on to say that when organic or inorganic material is remaining on a surgical instrument or when an instrument in a sterile set is

found assembled or clamped closed, you should at a minimum remove from the sterile field the entire instrument set or any other instruments that came in contact with the contaminated instrument. In addition, any team member who may have touched the contaminated items should change gloves.

For more information, see Sections VI and VII of the AORN Recommended Practices for Sterile Technique.

Question: Our OR is using rigid containers in a dynamic air removal steam sterilizer for a 270°F/132°C, 4-minute cycle. Is this considered an immediate-use steam sterilization cycle (IUSS)?

Answer: Yes, it is considered an IUSS cycle because there is no dry time. Containerizing the instruments should be the standard of practice for IUSS. Containerizing the instruments reduces the risk of contamination during transportation, but staff should be careful because the contents are hot, wet, and possibly heavy.

The container should be transferred immediately to the sterile field using sterile technique and opened immediately so it is not stored for later use. Be sure to use a container cleared by the Food and Drug Administration (FDA) for use in IUSS.

In addition, all the processing steps in the medical device manufacturer’s instructions for use (IFU) (eg, cleaning, decontamination, rinsing, packaging, sterilization process, and cycle parameters) should be followed in the OR just as they are in sterile processing. No shortcuts can be taken. Remember to clean the containers after every use in the OR according to the container

manufacturer’s IFU; do not just wipe them down with alcohol.

For more information on IUSS, see Section VII of the AORN Recommended Practices for Sterilization.

Question: Implants are processed in the OR using IUSS and a 10-minute, 270°F/132°C gravity-displacement cycle. Is that the correct cycle to use for processing implants?

Answer: It is correct only if the manufacturer’s IFU states that IUSS can be done at that time and temperature in a gravity-displacement steam sterilizer. That is not a recommendation I see in the manufacturer’s IFU for complex instrument trays or implants. The Association for the Advancement of Medical Instrumentation (AAMI) states that a dynamic air removal cycle should be used unless a gravity-displacement cycle is recommended.

AAMI, AORN, and the Centers for Disease Control and Prevention (CDC) also say that implants should not be processed by IUSS because of the risk to the patient if the implant is not properly processed and quarantined until the biological indicator (BI) result is negative. The exception is a documented emergency situation where no other option is available. IUSS “should not be used as a substitute for sufficient instrument inventory.”

For more information, see the IUSS section in the introduction in AAMI ST79 and Section 10.6.3 on the release criteria for implants. See also section VII of the AORN Recommended Practices for Sterilization.

Continued on page 23



Which instrument has a higher chance of causing a surgical site infection?

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Sterile processing

Continued from page 21

Question: We run a 1-hour and a 3-hour rapid readout BI in loads containing implants so we can release the implant in 1 hour. Is that correct?

Answer: No, that is not correct because the 1- and 3-hour rapid readout BIs are FDA-cleared to be used in different cycles (eg, the 1-hour BI is for use in 270°F/132°C gravity steam cycles and the 3-hour BI is for use in 270°F/132°C vacuum-assisted or 250°F/121°C gravity steam cycles). I assume this is a vacuum-assisted cycle, so the 3-hour rapid readout BI should be used and the implant should not be released until the results are negative at 3 hours. This is an example of operator error, failure to use critical thinking skills, and failure to follow the BI IFU. The Joint Commission is citing health care facilities that do not use the correct BI for the loads they are processing. Be sure to follow the BI manufacturer's IFU to determine which BI to use in which cycle.

Question: The BI process challenge device (BI PCD) used in the OR for routine sterilizer efficacy testing (eg, weekly, or preferably daily) of the IUSS cycle is an open perforated instrument tray that contains a BI and a Class 5 integrating CI. During the rest of the day, we use rigid containers for IUSS. Is this the correct BI PCD for routine efficacy testing?

Answer: No, it is not. The BI PCD does not represent the loads being processed and in fact is not as great a challenge to air re-

moval and steam penetration as a rigid container. The BI may be killed in the open perforated instrument tray but not in a rigid container because the cycle time and temperature may not be correct for the container, the container is failing to remove air or allow steam penetration because of a poorly functioning mechanical filter, or there are leaks caused by damaged gaskets.

The risk of not using the correct BI PCD that is representative of the loads being routinely run is that a sterilization process failure may go undetected.

In this example, the BI PCD to use should be the rigid container with a BI and a Class 5 CI inside the container in the area determined by the container manufacturer to be the greatest challenge. The BI PCD is placed on the rack, over the drain, in an empty sterilizer. Health care facilities are running BIs inside each container to ensure that sterilization process failures related to incorrect time and temperature, nonfunctioning mechanical filters, and damaged gaskets are detected. The Joint Commission is citing health care facilities that do not use the correct BI PCD for routine efficacy testing.

For more information, see AAMI ST79 Section 10.5.4 about PCDs, Section 10.7.4 about routine biological monitoring of IUSS cycles, and Section 10.7.6 about Bowie-Dick testing, along with the BI and BI PCD manufacturer's IFU.

Question: We have 2 auto-readers, but we only run a positive control in 1 of them. Is that correct?

Answer: That is not correct. A positive control (ie, BI from box,

not sterilized) should be incubated in each incubator or auto-reader each day a test vial is incubated. The positive control and test vial should be from the same lot number so they have experienced the same transportation and storage conditions. This is good science.

The purpose of the positive control is to verify that the test BI was placed into the correct incubator or auto-reader, the unit is functioning, the spores in the BI were still viable before they were sterilized, and the media will still promote growth of the spores.

Read and record the test and control results at the end of the incubation time. If the positive control is negative, the test BI results are invalid because the spores died in storage or the incubator temperature was not correct. The load should not be used, and the reason for the negative control should be investigated.

Read the BI manufacturer's IFU for information on how to use a positive control. The Joint Commission is citing health care facilities that do not record the results of the positive control and test BI and if they are not from the same lot.

For more information about use of controls for IUSS cycles, see AAMI ST79 Section 10.7.4.3.

Question: Is it mandatory to have physical evidence of the routine sterilizer efficacy testing and sterilizer qualification testing for audit purposes, including the major or minor repairs during servicing of the steam sterilizers?

Answer: Yes. If you do not document this information there will be no proof that this required

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Sterilization & infection control

Continued from page 23

testing was done. AAMI ST79 states that each sterilizer cycle needs to be documented. See Section 10.3.2 for details on what information is recorded. Preventative maintenance and repair records should also be documented and retained so you can determine if the repair to the sterilizer was minor or major—which requires qualification testing of the sterilizer before it is placed into routine use. See Section 9.5.1 of AAMI ST79 for what maintenance information should be recorded. ♦

*Martha Young, MS, CSPDT
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*tion Solutions for Healthcare
Woodbury, Minnesota
Martha Young is an independent
consultant with long experience in
medical device sterilization and dis-*
infection.

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High labor expenses? Better staffing and scheduling can cut costs

OR Business Performance is a series intended to help OR managers and directors improve the success of their business.

The OR labor budget usually takes a back seat to supplies and equipment. But labor costs can still create significant spending problems. Many hospital surgery departments use nursing full-time equivalents (FTEs) to solve problems that could be addressed with less expensive resources. As a result, labor costs balloon, often running 20% to 30% higher than they need to be.

Effective surgical services directors use a combination of strategies to control labor costs. Many have been able to reduce labor spending by addressing root problems within their OR schedule, their clinical team model, and staff satisfaction.

Use “vertical” scheduling

Most hospital ORs have a “horizontal” schedule. The department manages fluctuations in case volume by opening more rooms rather than by making the most of every available room. Staff have significant downtime during prime time OR shifts. Overtime pay is used liberally to accommodate late-afternoon cases. Overall room utilization is low, and worked hours run high in relation to case volume.

The alternative is a “vertical” scheduling model. A vertical schedule optimizes staff productivity, which inherently minimizes downtime to make full use of paid hours and reduce excess staffing costs.

In the May issue of *OR Manager* we showed how to increase utilization by reforming the sur-

“
**Predictability
reduces burnout
and turnover.**
”

geon block schedule. Optimizing utilization will typically enable a department to reduce the number of staffed rooms by requiring surgeons to fill their blocks in a vertical fashion rather than peppering cases throughout the week. The next step is to take full advantage of room reductions by tailoring an efficient staffing structure.

“How Many FTEs Do You Need?” illustrates a 5-step process for calculating total FTEs based on the number of staffed rooms and hours of operation (p 27). The benchmark used here is AORN’s standard 2.5 FTEs per room, but this number can vary based on case mix and other factors. Benefit hours or percentages depend on your department’s actual benefits package, educational mission, and so forth. Note that this framework is for direct care staff only. Calculate support staff requirements separately based on workload and assignments.

Achieving an optimal FTE count will result in labor cost reductions or reallocations in most organizations. For example, suppose a hospital OR implements utilization improvements to reduce staffed rooms from 18 to 15. Annual labor costs (inclusive of benefits) per room include 1.5 RNs (\$90,000/FTE) and 1 surgical technologist (\$60,000/FTE). Anesthesia staff-

ing costs will also be affected. In many settings, the anesthesia stipend can range between \$150,000 and \$550,000 per room per year, depending on whether anesthesia uses a team-based or an all-physician model. Costs for nurses, surgical technologists (STs), and anesthesiologists combined are approximately \$345,000 to \$745,000 per room per year. Bottom line: eliminating 3 staffed rooms could result in annual labor expense savings of between \$1,035,000 and \$2,235,000.

Manage the day

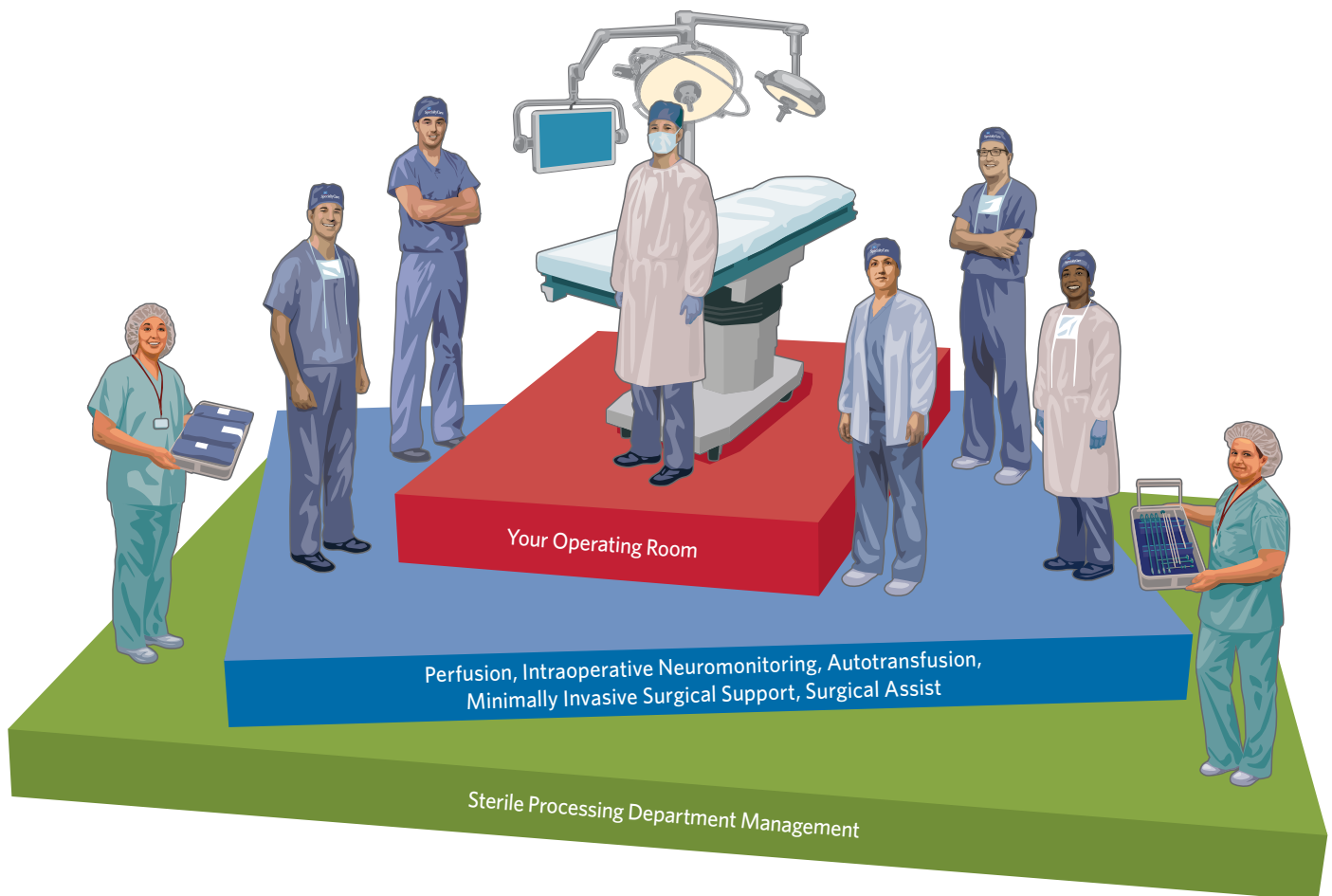
Surgical services directors can also control labor costs by managing the daily use of existing staff resources more efficiently.

- Stagger start times. Some ORs assign a 7 am start time for all rooms. Typically, however, presurgical holding staff cannot prepare every patient in time for the scheduled start. This leads to staff downtime and reduced productivity. The solution is to start morning cases in waves. Depending on the capacity of presurgical, nursing, and anesthesia staff, you could open 4 rooms at 7 am, another 4 rooms at 7:15 am, and so on.
- Flex staff appropriately. Many OR managers do not carefully monitor flex schedules. At 1 hospital we visited, the OR staffed 18 rooms from 7 am to 7 pm every day, regardless of the number of procedures scheduled for a particular day. To develop an effective flex schedule, track case volume by day of week and hour of day. Most OR software applications can report the number of open ORs and total surgi-

Continued on page 27

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How Many FTEs Do You Need?

Step 1: Calculate total staffed hours per week				
Schedule	# of rooms	Days per week	Hours per day	Total hours
07:30 - 15:30	18	5	8	720
15:30 - 17:30	11	5	2	110
17:30 - 19:30	5	3	2	30
Weekend	2	2	8	32
				892

Step 2: Calculate basic FTEs	
Total staffed hours per week	892
x staff per room	2.5
= total working hours per week	2,230
÷ weekly hours per FTE	40
= total working FTEs	55.75

Step 3: Calculate benefit hours per FTE	
Vacation/sick	160
+ holiday	48
+ education/orientation	150
+ break/lunch	260
	618

Step 4: Calculate benefit FTEs	
Total working FTEs	55.75
x benefit hours per FTE	618
= total benefit hours	34,453.5
÷ annual hours per FTE	2,080
= benefit FTEs	16.56

Step 5: Calculate total minimum clinical staff	
Basic FTEs	55.75
+ benefit FTEs	16.56
Total FTEs	72.31

\$170,000) and to streamline the OR management structure. The consolidation also enhanced peer-to-peer accountability for performing functions effectively because staff now understood the downstream repercussions of not completing charts, such as lack of preoperative testing optimization and discharge delays.

Optimize staffing model

Many hospital ORs can reduce labor costs by using more STs. Any nursing role that is converted to a ST position represents a savings of approximately \$30,000 in salary and benefits. In addition, hiring more STs makes it easier to manage call teams.

Still, there are several

High labor expenses

Continued from page 25

cal case minutes per day in half-hour increments. By reviewing historical utilization by day and hour, you can develop a room and staff schedule that mirrors existing volume patterns. Any efforts to achieve a vertical, high-utilization schedule will support more robust flexing.

- Improve the accuracy of scheduled case times. Many ORs allow surgeons or surgeons' office staff to assign case duration when scheduling a procedure. These case time estimates are usually inaccurate and often reflect wishful thinking. Instead, use a "historical case time" method for scheduling. Identify the actual duration of the last 12 like procedures performed by a surgeon, drop the high and low

values, and average the remaining 10 case times. Most clinical information systems can be configured to automate this calculation for scheduling staff.

- Cross-train selectively. Better-performing surgery departments cross-train staff in the preoperative unit and the postanesthesia care unit (PACU). This allows an OR to add staff at the beginning of the day to get cases started and at the end of the day to assist with patient recovery.

Cross-training provides greater ability to flex staff up and down to match case volume, and it can create opportunities to consolidate staff. We recently helped a hospital combine staff from pre-surgical testing, same-day surgery, and the PACU into a single unit. This move allowed the OR to reduce staffing by 2 RN FTEs (in this case, a total savings of

good reasons to maintain a higher ratio of RNs. In some surgery departments, increasing the RN staff will reduce overtime and agency costs. In many hospitals, particularly academic medical centers, mission and service commitments call for a richer staff structure. In other hospitals, a higher RN ratio is a key marketing differentiator. For example, OR teams may include a first assistant or the department may employ a dedicated turnover team. Both staffing strategies can increase surgeon satisfaction.

Up-staffing can also improve department efficiency. For example, RNs enable greater versatility in cross-training staff between different specialties. Some hospitals have found that hiring physician assistants (PAs) for certain OR specialty teams can

Continued on page 28

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- Presentations should focus on practical topics related to surgical services management, such as OR throughput, staffing, and cost management.
- Avoid sales pitches or commercial presentations.
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- Willingness to be interviewed and/or featured in an OR Manager article or webinar at a future pre-arranged date.

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OR Business Performance

Continued from page 27

improve service efficiency while decreasing case times. PAs can also provide added value to key service lines (like orthopedics) by assisting in rounding and writing scripts, thereby creating a competitive advantage in the market.

Do not forget to review your staffing model in out-of-department or non-OR areas. An academic medical center we visited was significantly overstaffed in its OR access center. By streamlining processes and implementing a more productive staffing model, the department reduced access center staffing from 21 to 10.5 FTEs. In this institution, that translated into a savings of \$610,000 per year.

Reduce turnover

Staff turnover is a huge source of cost in hospital ORs. Turnover increases the use of overtime and nursing agencies and also creates onboarding costs. Nationwide, average annual OR turnover is 14%, so any rate below 12% could be considered "good." Keep in mind, however, that many best-run surgery departments achieve annual nursing turnover of 3% or less.

How can you transform an OR from a high-turnover to a "high-retention" organization? Maintaining staff satisfaction is one of the most valuable competencies in OR leadership, and many factors come into play. Here, we focus on what we see as two critical components of nurse satisfaction:

- Predictability in working environment. Once again, the key issue is scheduling. A chaotic schedule often results in staff being sent home early without pay. Alternatively, staff are frequently called in from home or asked to work overtime. The extra money is nice, but the personal disruption is wearing on a long-term basis. A high-utili-

zation schedule with consistent 8-, 10-, or 12-hour shifts creates a predictable working environment for staff. Ultimately, greater predictability reduces burnout and turnover.

- Involvement in decision making. Instead of dictating all decisions, effective surgical services directors describe a problem and invite staff to take part in devising a solution. One thing that makes Magnet organizations so effective is that staff members participate in nursing governance councils, contributing directly to decisions involving departmental processes and clinical improvement.

Nurses should also have a say in more mundane matters. At a large urban medical center we visited, OR nurses provide input on the monthly schedule. They submit the days they would like to work and the days they want off. Requests are not guaranteed, but the chance to help set their own schedule is highly appreciated. This improves staff morale, gives nurses a stronger sense of ownership in decisions, and consequently helps keep turnover low.

Next month

Effectively managing your OR schedule and staffing model not only supports cost control, it helps keep nurses engaged in your department's mission and objectives. In the next OR Business Performance column, we will explore an important strategy for keeping surgeons engaged in OR goals. Learn how to use surgeon dashboard reports to maintain your OR's clinical and financial performance. ❖

This column is written by the peri-operative services experts at Surgical Directions (www.surgicaldirections.com) to offer advice on how to grow revenue, control costs, and increase department profitability.

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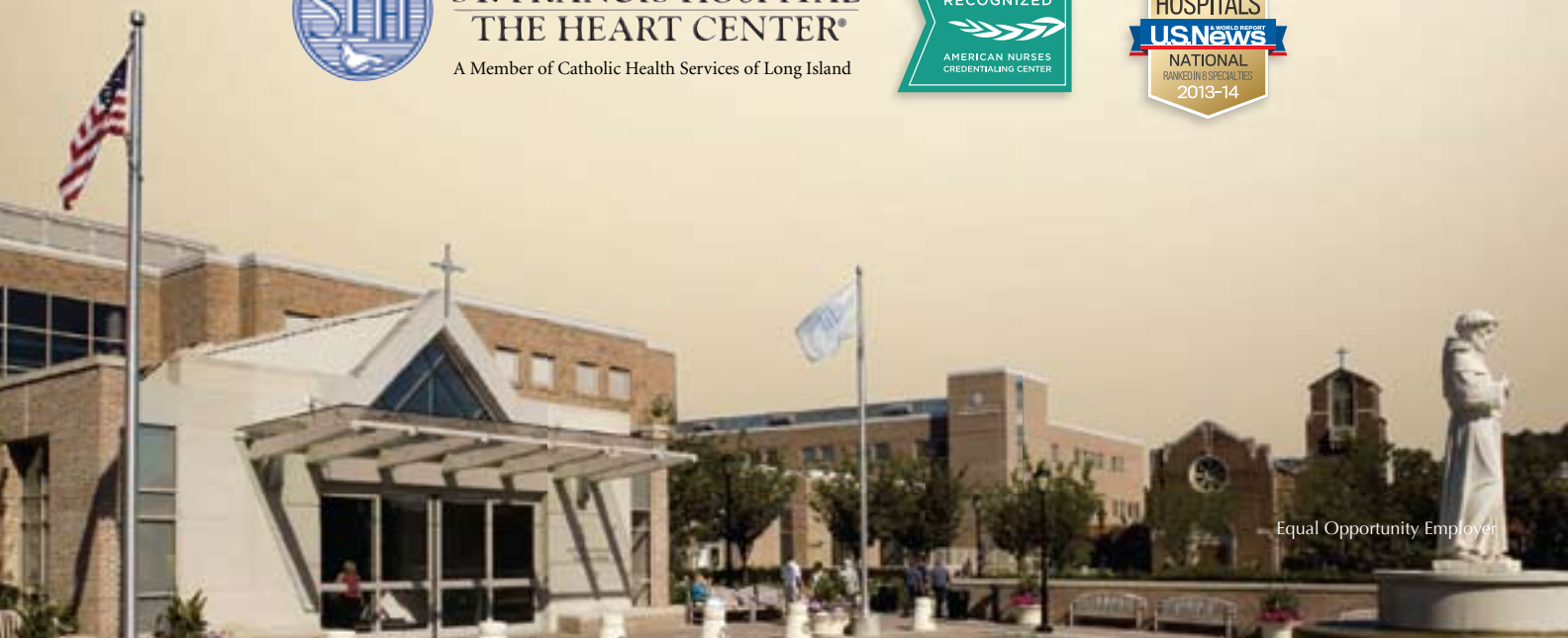
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Turnover rates plummet with Patient Care Intern training program

Nurse turnover is a problem that affects the performance and profitability of every health care organization. The cost of a nurse leaving a facility is roughly twice that nurse's annual salary while a replacement is sought and orientation is completed. In addition, patient care may be compromised because the temporary staff who fill in the gaps lack the continuity and knowledge of the experienced nurse.

Studies have shown that a fairly high percentage of RNs change jobs early in their careers; in one study, 30% of new RNs left their positions in the first year after graduation and 57% left in their second year of practice.

During the mid- to late 2000s, employee turnover rates at IU [Indiana University] Health University Hospital were very high. This trend not only was costly but also affected staff performance and morale. Why were they leaving, and how could the problem be fixed?

It took time and effort, but an overhaul of the existing training model led to adoption of the Patient Care Intern (PCI) program in the perioperative setting. IU Health University Hospital has 23 operating rooms. The day surgery area, the OR, the postanesthesia care unit (PACU), and the interventional radiology area all participate in the PCI program. Since program implementation, turnover has dropped to less than 4%—far less than the national average of about 10%.

The old model

The high vacancy rate at IU Health University Hospital coincided with the use of a 9-month, time-based training program that



Patricia Vassell, MBA, RN, CCRN, CNOR

served as an internship in the OR. New nurses were trained in each surgical service line and were considered trained upon completion of the program.

Nurses coming into the program with a fairly high level of competency found the orientation period too long, and those with a lower level of competency felt insecure after just 9 months of training. Morale on the unit was poor, and it was hard to retain staff. The turnover rate added to the already high cost of training.

When the program was reviewed, other flaws were revealed:

- There were too many variations among preceptors, many of whom were not trained and did not understand their role.
- The time-based program did not allow participants to move on to the next stage based on demonstrated competencies.
- Candidates selected for training were mostly new graduates from nursing programs with little to no prior exposure to the OR.

Nursing interns often left the

hospital during or immediately after their training to take positions in ORs with other hospitals. Exit interviews with a nurse retention specialist revealed that some nurses lacked a sense of belonging to the unit; they felt excluded by existing cliques. And there was no program in place to help new nurses assimilate into the unit culture or to mentor them through the onboarding process.

Recommendations

After the program review was completed, recommendations were developed:

- Conduct behavioral interviews and select applicants based on attitudes.
- Select students pursuing a bachelor's degree.
- Change training and orientation to a competency-based model.
- Create written goals for interns and review weekly.
- Conduct preceptorship workshops with identified preceptors.
- Orient new staff in the patient care advocate role.
- Rotate interns through other perioperative areas to enhance their training.
- Establish a unit-based mentoring program to pair new, novice staff with volunteer expert staff.

PCI implementation

Students from area nursing schools who apply for the PCI program are first peer reviewed, and then they shadow an RN and a student nurse. During this time, candidates are assessed in terms of whether they seem compassionate and committed enough to go through the program. Candidates are not required to be li-

Human resources

censed, but they must have completed 1 semester of clinical work before entering the program.

Once selected, the PCIs receive a modest salary and are matched with a preceptor who monitors their performance. PCIs learn the duties of scrub and circulating nurses, although their exposure to the scrub role is not as extensive as their training in the circulator role.

Staff interested in precepting the PCIs are trained on adult learning principles, delivering appropriate feedback, and other teaching principles. They are then assessed as preceptors and selected by management. Assessment of the preceptors is ongoing, and the PCIs are required to complete written preceptor evaluations.

To ensure that they remain focused on school, most PCIs work just 1 or 2 full days per week while school is in session and usually 3 days per week during the summer. The PCI is a supplemental position rather than a full-time position, but because PCIs are hired as much as 2 years before graduation, by the time they are licensed, they have a nearly complete orientation to the role of the OR nurse.

Program benefits

Competency-based models have proven to be the most effective for evaluating knowledge, skill, ability, and behavior in the clinical setting. Each PCI receives individual training, with more or less time spent as needed on a given skill or knowledge area.

The PCI program costs about half of what it would cost to train a licensed nurse. The focus on individual progression makes students and preceptors more engaged and less frustrated compared with the time-based training model.

Being employed as nursing students gives the PCIs exposure

to the OR, the unit staff, and the culture. PCIs and their leaders engage in a trial run to assess the potential for a good long-term fit. PCIs who want to stay in the OR after graduation and seem to be a good fit are interviewed and offered nursing positions. For PCIs not retained by the OR, efforts are made to place them elsewhere in the organization.

Thirty-four percent of IU Health University Hospital OR's current staff nurses have come through the PCI program, and about 70% of the PCIs brought in over the past 2 years have accepted nursing positions on the unit. Staff morale and the work environment of the unit have steadily improved, based on employee survey scores, and the costs associated with training and turnover have been dramatically reduced.

The hospital's OR has employed 16 PCIs scheduled to graduate between May 2013 and May 2014. The goal is to employ and train 4 to 6 PCIs for each graduation date (May, August, and December) annually.

In addition, a relatively new nurse created a mentoring program that pairs each new nurse with an experienced expert nurse of their choice. Mentees and mentors have lunch together and participate in committees and events. The program has helped to improve new nurse assimilation into the unit culture.

Opportunity to expand

This success of the PCI program in the perioperative setting—including the preprocedure area, ORs, PACU, and interventional radiology areas—suggests it could be applied to other areas in the IU Health system. Success would be measured by the ability of other IU Health hospitals' perioperative services to hire and train the PCIs to assume vacant positions

in their departments and to have a pipeline for replacing nurses as positions are vacated.

Expanding this program could improve the quality of patient care while decreasing staff turnover and vacancy rates.

Patricia Vassell, MBA, RN, CCRN, CNOR, was administrative director of perioperative services at IU Health University Hospital, Indianapolis, when PCI was developed. Kristen Robertson, MSN, RN, was her coauthor.

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Ambulatory Surgery Centers

Careful screening and scrutiny needed to select ambulatory surgery patients

The patient, an elderly woman, arrived at Red Rocks Surgery Center in Golden, Colorado, for an ophthalmology procedure. A paraplegic, she was using a scooter chair. Administrator Jane Klinglesmith, BS, RN, CNOR, watched her checking in at the admissions desk and noticed she was on dialysis. As she approached, Klinglesmith became aware that the patient was morbidly obese as well.

The patient was not happy to learn that she would have to have the procedure at a later date, in a hospital.

How could this happen?

Klinglesmith believes the referring physician may not have been aware of the patient's weight because of her chair; her other conditions would not have automatically disqualified her for the procedure at the surgery center. As it happened, this particular patient had been added to the schedule late in the afternoon of the day before the procedure.

The incident illustrates how critical, yet difficult, it is to ensure

“
Compliance is key for successful outcomes.
”

that ambulatory surgery centers (ASCs) serve all eligible patients but none who are not eligible.

As a multispecialty ASC owned by Hospital Corporation of American (HCA), Red Rocks is bound by the hospital company's policy “to create an overall culture that makes patient safety paramount,” and that includes following clinical and regulatory standards for patient selection.

The anesthesia factor

“Most ASC tragedies occur not from error, but from faulty patient selection,” according to anesthesiologist David Shapiro, MD, manager of the Ambulatory Surgery

Company in Tallahassee, Florida. Good patient selection generally starts with the anesthesiologist, Dr Shapiro notes, because “in most surgery centers, almost anything you do includes anesthesia care.” He advises that when ASCs contract with anesthesiologists, as many do, they should be sure candidates are skilled in working with outpatients. “There's a huge difference in what they do,” he says, “so don't just hire them from hospitals. They need ASC-appropriate skills.”

The American Society of Anesthesiologists (ASA) has developed a 6-level scale to assess the physical status of a patient:

1. a normal, healthy patient
2. a patient with mild systemic disease
3. a patient with severe systemic disease
4. a patient with severe systemic disease that is a constant threat to life
5. a moribund patient who is not expected to survive without the operation
6. a declared brain-dead patient

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whose organs are being removed for donor purposes.

The list appears annually in the ASA Relative Value Guide but does not include specific criteria for each category. While it is a useful guideline, the ASA does not consider the physical status classification to be a measure of an individual patient's risk of undergoing a particular surgical procedure. There are no studies to show any correlation between ASA physical status and surgical risk.

Consider the procedure

The type of procedure is the second major criterion for proper patient selection; not all patients, regardless of ASA status, can safely undergo a given procedure. As technology advances, more complex procedures such as orthopedic implants are being approved for ASCs, but only for the most qualified patients. Such patients not only are in good general health but also have adequate care available at home after discharge.

Various agencies and professional organizations have issued guidelines for the assessment of risk factors for ambulatory surgery, and the Centers for Medicare and Medicaid Services (CMS) has published detailed rules for determining a patient's status.

The Agency for Healthcare Research and Quality (AHRQ), part of the US Department of Health and Human Services, has issued patient selection guidelines for ambulatory surgery (visit www.ahrq.gov).

Before accepting a patient, the ASC staff or referring physician should obtain a medical history and conduct a physical examination that covers at least the following areas:

- ASA status
- body mass index
- respiratory status
- risk of thrombosis or embolism
- cardiovascular status via electrocardiogram, if clinically indicated
- complete blood count and blood chemistry, if clinically indicated.

The AHRQ recommendations state that patients with ASA status 1-3 may be considered for ambulatory surgery, depending on the type of procedure and type of anesthesia.

Age is another consideration. The AHRQ recommendations note that persons over age 60 are at increased risk of cardiovascular disease. Patients with a body mass index up to 34.9 kg/m² can be considered, but others generally should be treated in a hospital. Obese patients should be screened for obstructive sleep apnea. The more risk factors there are, the more likely it is that a particular patient should not have the procedure as an outpatient.

Section 416.52 of the CMS Conditions for Coverage, Standard: Admission and Pre-surgical Assessment, contains standards for preadmission procedures. First, the medical history and physical assessment (H&P) must be completed within 30 days of the scheduled procedure. The H&P may be performed the day of surgery but must be completed before the patient enters the OR because the information obtained (allergies, for example) could lead to modifying or even canceling the procedure. CMS specifically allows for a single H&P to cover more than 1 surgery as long as all are performed within the 30-day limit.

Regardless of the result of the H&P, Section 416.42(a)(1), Stan-

dard: Anesthetic Risk and Evaluation requires that a physician separately examine the patient immediately before surgery. "Patients may have had a change in health status after the H&P but may not recognize the significance for their planned surgery," the CMS guidance explains.

The number and types of tests included in the physical assessment may vary by patient, ASC, and requirements of state regulators. At Red Rocks, an online questionnaire allows patients to provide history and medication information at their convenience. They are asked to describe chronic conditions (comorbidities), allergies, medications they are currently taking, and past reactions to anesthetic drugs. Those without computer skills or access receive a phone call. "We do the best we can to get in touch with the patient ahead of the scheduled procedure," Klinglesmith says.

What tests, when?

In the early days of outpatient surgery, many patients were admitted to the hospital the evening before the procedure so that clinicians could administer blood tests, a chest x-ray, an electrocardiogram (ECG), and a history and physical. They also would prepare the patients for anesthesia, instructing them about fluid and diet restrictions and medication changes as appropriate. A patient in good health might then be sent home and return the following day for the actual procedure.

"Now we have better technology," Klinglesmith says, "and the referring physician can do some of those tests." Other tests, such as ECGs, can be referred to clini-

Continued on page 34

Medicare may drop bariatric surgery center certification requirement

Supporters of the bariatric surgery facility certification established in 2006 by the Centers for Medicare and Medicaid Services (CMS) are anxiously awaiting the agency's final ruling on whether to reverse that decision. CMS issued a proposed decision memo in June and is expected to make its final ruling by the end of September.

In a joint letter to CMS, the American Society for Metabolic and Bariatric Surgery (ASBMS) and the American College of Surgeons (ACS) opposed overturning the current policy of requiring certification.

Since February 2006, CMS has covered only bariatric procedures performed at facilities certified by the ACS as a Level 1 Bariatric Surgery Center or by the ASBMS as a Bariatric Surgery Center of Excellence. But researchers led by John D. Birkmeyer, MD, FACS, professor of surgery and director of

the University of Michigan's Center for Healthcare Outcomes and Policy, Ann Arbor, have urged CMS to drop certification requirements because of a study showing that the policy hasn't led to better outcomes for patients (JAMA 2013;309:792-797).

Dr Birkmeyer, a study coauthor, believes the policy change could improve access for some patients, and to ensure quality, bariatric surgeons should participate in registry programs through professional societies or payer-supported collaborative improvement programs.

ASBMS and ACS leaders strongly disagree. "This proposed decision by CMS could be a setback, particularly for Medicare beneficiaries, who have a higher risk of morbidity and mortality than the general surgery population," said David B. Hoyt, MD, FACS, executive director of ACS.

Jaime Ponce, MD, president of ASBMS and a bariatric surgeon in

Chattanooga, Tennessee, echoed those concerns: "We do believe that this [reversal] could be very harmful for Medicare patients."

Dr Ponce cited a study of bariatric surgery patients showing declines in mortality, readmission, and reoperation rates after the coverage decision was implemented (Ann Surg. 2011;254:860-865). Another study found in-hospital mortality rates at nonaccredited bariatric surgery centers were more than 3 times higher than the rate at accredited centers (Surg Endosc, in press).

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<http://www.facs.org/news/2013/medicare0813.html>

<http://www.acssurgerynews.com/specialty-focus/general-surgery/single-article-page/medicare-may-scrap-certification-for-bariatric-surgery-centers/69133960975b80cb3f889ade551ab348.html>

Careful screening

Continued from page 33

cal laboratories.

A federal law provides additional flexibility. The 1988 Clinical Laboratory Improvement Amendments (CLIA) established quality standards for laboratory testing that apply regardless of the type of facility where the tests are conducted. In 1992, the Food and Drug Administration published regulations under 42 CFR part 493 that permit waivers for facilities conducting tests that are easy to perform and without risk to patients. Many states have CLIA certification programs that allow Medicare-certified ASCs to provide onsite testing.

Such a policy keeps preadmission tests to a minimum but does not eliminate them completely. Among tests Red Rocks performs are those that could reveal very recent changes in a patient's condition. For example, if a woman is of child-bearing age, she receives a pregnancy test. Diabetic patients are tested for blood glucose. Those receiving diuretic medications are tested for potassium levels.

Any adverse results could force cancellation at the last minute, Klinglesmith agrees, "but that is rare."

In the final reckoning, no amount of testing or screening can outweigh the patient's role in making ambulatory surgery successful. The very nature of outpa-

tient surgery requires the patient's understanding and cooperation. According to Klinglesmith, the most common reason for canceling a procedure is a patient's lack of compliance with preparation instructions, such as failure to fast, take or halt medications, or arrange for an escort. ♦

—Paula DeJohn

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Centers for Medicare and Medicaid Services. State operations manual, Appendix L – guidance for surveyors: ambulatory surgical centers. Dec 22, 2011:160.



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At a Glance

Costs compared for inpatient vs observation stays

Medicare paid nearly 3 times as much on average for short inpatient stays as it did for observation stays in 2012, and beneficiaries paid almost 2 times more, according to a report from the Department of Health and Human Services Office of Inspector General.

The report is a result of concerns by CMS that services provided during short inpatient stays should have been provided in the outpatient setting, according to the July 30 Physician's Money Digest.

Last year, Medicare patients had 1.1 million short inpatient stays. The top 3 reasons were chest pain, coronary stent insertion, and irregular heartbeat.

—<http://www.hcplive.com/physicians-money-digest/practice-management/Short-Inpatient-Stays-Cost-LBJ>; <https://oig.hhs.gov/oei/reports/oei-02-12-00040.asp>

Lower mortality seen at ACS NSQIP hospitals

Surgical patients at California hospitals enrolled in the American College of Surgeons National Surgical Quality Improvement Program had significantly lower mortality rates compared with non-ACS NSQIP hospitals in a study

presented at the ACS NSQIP national conference in San Diego.

Analyzing outcomes of 7 complex surgical procedures in more than 1 million patients at 227 hospitals from 1995 to 2009, researchers found 30-day and 1-year mortality rates were 0.73 and 0.84 in ACS NSQIP hospitals and 0.81 and 0.90 in non-ACS NSQIP hospitals.

ACS NSQIP hospitals also had decreased 30-day readmission and in-hospital mortality rates, but the difference did not reach statistical significance.

—<http://site.acsnsqip.org/news/surgical-patients-mortality-rates-drop-at-acnsqip-hospitals-in-california/>

Forced-air warming may affect OR ventilation

Excessive heat from forced-air warming systems may disrupt ventilation airflow over the surgical site, potentially increasing exposure to airborne contaminants, a study finds.

In an experimental study using neutrally buoyant detergent bubbles, researchers found that forced-air warming generated hot air convection currents that mobilized detergent bubbles over the anesthesia site and into the surgical site. Conductive warming devices had no noticeable effect on

ventilation airflows.

An accompanying editorial says the findings provide only indirect evidence of potential infection risk in a simulated setting. Pending further research, the prudent course would be to continue with proven successful warming therapies but keep an open mind about the possible need to change practice, the authors note.

—Belani K G, Albrecht M, McGovern P D, *Anesth Analg*. August 2013; 117:406-411

Using telemedicine for postop follow-up

Telemedicine can be safely used as an alternative to the standard postoperative clinic visit in patients who have undergone low-risk ambulatory surgical procedures, a study finds.

Patients were assessed 2 weeks after surgery by a physician assistant, who used a scripted template.

Nearly all of 115 patients who had open hernia repairs and 26 who had laparoscopic cholecystectomies expressed great satisfaction with the telephone follow-up method.

Travel and time expenses were reduced, and clinic time was freed up to schedule new patients.

—<http://archsurg.jamanetwork.com/article.aspx?articleid=1710512>