



# SAME-DAY SURGERY

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RELIAS MEDIA

## Amid Ongoing COVID-19 Uncertainty, Elective Surgeries Slowly Resume

*Focus on testing, securing PPE, and scheduling OR time*

As surgery centers slowly resume elective surgery cases, even as they brace for potential additional COVID-19 outbreaks this fall, there are several ways they can meet the challenge of the next phase of the pandemic.

Surgery center leaders and physicians should prioritize testing staff and screening patients; disinfecting operating rooms (ORs), waiting rooms, recovery rooms, and other areas more frequently; ensuring they have ample personal protective equipment (PPE) and the supply chain is fluid; helping staff maintain their mental and physical health; and reducing stress and anxiety.

“Our biggest enemy is complacency and cutting corners,” says **Richard Beers**, MD, chair of the American Society of Anesthesiologists Committee on Occupational Health. “We need to put in the proper precautions to protect the patients and healthcare workers.”

As surgery centers reopen, leaders will need to make decisions about triaging patients. They will need to weigh risks with public health concerns and ensure there is a procedure for allotting OR time. Leaders also will need to make ensure they have adequate staff, supplies, housekeeping, and processing, says **Beers**, professor of anesthesiology at the State University of New York Upstate Medical University.

The virus will not completely disappear in the near term, and there likely will be additional waves of cases, says **David Urbach**, MD, MSc, professor of surgery at the University of Toronto. “We had a terrible time in March, but come August, September, and when things are starting to open up, you’ll see additional cases in the community. We might be back to where we were in March 2020 again,” Urbach predicts. The idea that the pandemic is over and everything can return to

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normal functioning is inaccurate, he adds.

“We think we’ve entered a period of stability where we can catch our breath,” Urbach says. “But we don’t know how this will evolve over the next four to six months or year.”

The good news is surgeons and staff already know how to handle crisis management. “In surgery, we sort of are used to things that are a little closer to crisis management,” said **Joseph A. Dearani, MD**, president of the Society of Thoracic Surgeons. Dearani spoke at a Newswise media web conference on May 21 about surgeons and other health professionals during the pandemic’s post-crisis phase.

“When we’re in the operating room, we interface with technology. When things malfunction, it does require people to rally together, have coordinated efforts,” Dearani said.

The difference is this pandemic provides a relentless crisis to manage, and there are new stressors. “The pandemic has really tested our physical and our emotional well-being and our communication skills because it adds pressure to the situation,” Dearani said. “It’s brought the medical specialties and the surgical specialties much closer

together because we have to rely, for example, on the infectious diseases people to let us know if the screening process is satisfactory and if it is OK for someone to go to the OR.”

Dearani added that he believes the overall medical profession has answered the call under difficult circumstances. “Personally, I feel proud to be part of a profession that the higher the pressure, the better the performance,” he said.

With a lull in the pandemic, surgery center leaders can present this current situation to staff as one that requires counterterrorism measures, according to **Gilberto Montibeller**, professor of management services at Loughborough University in the United Kingdom. Montibeller also spoke at the May 21 Newswire web conference.

After a major terrorist attack, everyone is on high alert, working to prevent another attack. This is the way healthcare workers should view the COVID-19 pandemic. The first attack, which hit in the spring, is over, but now is the time to prepare for a second attack.

“In the long term, I would like to see something that is similar to counterterrorism analysis in which we use more intelligently

## EXECUTIVE SUMMARY

As the United States prepares for the next phase of the COVID-19 pandemic, surgery leaders should do what they can to protect their patients, staff, and business.

- Infectious disease physicians recommend testing staff regularly for COVID-19 infection and screening patients.
- Keeping the center stocked with personal protective equipment and knowing where the facility can obtain more, quickly and when needed, is critical.
- Surgery leaders can prepare for the next outbreak as they would for a terrorist attack; while recovery is underway from the first attack, they must prepare for a second one, sometime soon.

the resources available, building up capabilities,” said Montibeller, a senior research fellow at the University of Southern California in Los Angeles. “If you build up your protections, terrorists are aware and do not attack; if you build up your protections in the same way with health, the virus might not attack.”

With surgery centers returning to full staffing levels and caseloads, leaders must be aware of their employees’ emotional health and how the pandemic has affected them. Administrators can help staff deal with personal and professional grief and trauma by screening for depression and anxiety. Also, offer tips on resilience and coping with the emotional impact.

Surgeons can use a single-entry model that makes it faster and more efficient to reschedule the elective procedures postponed during the pandemic’s first phase, Urbach suggests.

“Instead of the usual way that referrals get to surgeons, where a primary care physician sends out a request to patients and tries to find a surgeon, you can put all the patients

on a list and get the next available surgeon,” he explains.

This method works well in Canada, where healthcare providers do not compete with one another, but it can be executed anywhere, he argues. “In Canada, the waits for surgery is a significant problem, and there’s a long wait to see a surgeon,” Urbach reports. “In the United States, access is not as much about the wait as it is about insurance and whether you’re eligible.”

The COVID-19 crisis has made scheduling and longer waits for surgery an issue in the United States, too. “Now, you have hundreds of people who have joint pain and can’t walk and are waiting for joint replacement,” Urbach observes. “All surgeons are waiting for OR time, and there might be less OR time available.”

The single-entry method could help surgery centers use their OR time more efficiently as they schedule postponed procedures. For example, a surgery center might work with one surgeon who has 50 total joint procedures that were postponed between March and June. Another

surgeon might have only 10 total joint procedures and a third surgeon has five procedures that were postponed. The surgery center may have decided to not schedule new patients until the backlog is at least halfway complete.

In this scenario, the surgery center has two available ORs, and the surgeon with 50 postponed procedures might take weeks to get through the backlog. “Does that mean one surgeon, all of a sudden, gets all of the OR time for the next few months, and other surgeons are out of luck?” Urbach asks. “Some would say that’s not entirely fair to surgeons who still need to maintain their skills and practice.”

The surgeons’ primary responsibility is to provide care to patients in an ethical way, Urbach says. Leaders could ask surgeons to pool their patients and distribute the procedures evenly between their center’s surgeons. This would use the OR time efficiently and fairly and help schedule people as quickly as possible.

“Put all of the patients on a list to get the next available surgeon,” Urbach suggests. ■

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## ‘I Was Blessed to Have Survived COVID-19’: A Firsthand Account of Beating the Virus

*Taking proper precautions still did not prevent one nurse from contracting an infection*

**H**ealthcare professionals go to great lengths to protect themselves against COVID-19. Still, the virus has managed to infect even the most vigilant providers.

**Kay Ball**, PhD, RN, CNOR, CMLSO, FAAN, the long-time nurse planner for this publication, contracted the virus in April. Thankfully, Ball has returned to her home and is in recovery. In this Q&A with *Same-Day Surgery*, Ball shares

her symptoms, how she was treated, and lessons learned. (*Editor’s Note: Ball provided her answers to these questions in writing. The transcript has been lightly edited for clarity.*)

**Same-Day Surgery:** What were your earliest symptoms and when do you think you were infected? Was it before state shelter-in-place orders, or did it occur in a healthcare setting?

**Ball:** My first symptoms appeared around April 2 when I lost my

appetite, had a non-productive cough, and an occasional headache. I hardly ever have headaches. My temperature was normal, but a couple days later it went to 100.3°F. Soon, the temperature went down again. I also had a right lower abdominal pain that persisted in the mornings.

I became infected after the stay-at-home orders were issued for Ohio. My husband and I were very careful when we had to go to the grocery

store: we used our masks and gloves regularly. When I became infected, I wasn't wiping down the groceries, so I may have contracted the virus then. Other than that, we just didn't go anywhere and we never met with anyone as we tried to avoid the virus. My husband and I are in the elderly range of ages but we work out in our basement gym every day and are healthy people. My husband also tested positive for COVID-19, but was asymptomatic.

**Same-Day Surgery:** Where were you treated during your illness and recovery?

**Ball:** On April 10, my husband drove me to a hospital emergency room (ER), per instructions of our family doctor, because my right lower abdominal pain became more intense. I started to think it could be appendicitis or something with an ovary. My other COVID-19 symptoms were cough, headache, and fatigue.

Being a nurse, I didn't want to take up a hospital bed that could be used for a COVID-19 patient, so I was reluctant to go to the ER — as most healthcare providers are, sometimes. The CT scan didn't show anything that could be causing the pain, but the ER doctor looked at my chest X-ray and told me that my COVID-19 test probably will come back positive, as I had viral pneumonia.

He sent me home with the instructions to return immediately if my breathing became labored. I really hadn't paid much attention to my breathing before, but now I realized I had very shallow breaths and avoided taking a deep breath because it caused me to cough.

When I got home, I slept in another room because my husband hadn't been tested yet for the virus. All through the night, I took my

pulse oximetry reading, which was in the low to mid 80s. The next morning, my family practice doctor sent me back to the hospital, and I was admitted with COVID-19.

I was placed on the COVID-19 floor in isolation. That was the very difficult part of hospitalization. I was given hydroxychloroquine twice daily for five days, was told to lay prone for 20 minutes five times a day to allow the alveoli to function better, was placed on oxygen, was told to use the incentive spirometer regularly, was given a sub-Q injection of a blood thinner every evening to prevent blood clots, and also was given vitamins and any lacking minerals, like magnesium. I underwent an ECG and blood work daily, and my vital signs were monitored continually.

My appetite slowly returned, but most of the time the food was cold by the time I received it. The sherbet and ice cream tasted very good, though. On the sixth day, I was released with a prescription for vitamin C and was told to continue to take my regular medications, including vitamin D-3, a baby aspirin, and blood pressure medications. I continue to use my incentive spirometer and regularly note my vital signs and pulse oximetry. After four weeks, I slowly was getting better.

**Same-Day Surgery:** From the perspective of surgery center patients, staff, and operations, what would be your recommendations about how much diligence they should put into preventing infection as the pandemic enters what many infectious disease experts believe will be a new phase of outbreaks in the fall?

**Ball:** The Association of periOperative Registered Nurses (AORN) has written amazing guidelines and statements about reopening your operating rooms

(ORs) and what should be done to prevent the spread of this and other viruses in the perioperative environment. (*Editor's Note: Learn more here: <https://bit.ly/36LTFjX>.)*)

Listen to what AORN and other professional organizations are saying, along with the Centers for Disease Control and Prevention and local health department suggestions and mandates. We will be establishing a new normal as we go along. Look at what the research is noting, and pay attention to the data about new cases and best treatments.

All during the month of April, while I was fighting COVID-19, I also authored a survey that AORN put online to a sample of our members to complete about the effects of surgical smoke exposure. The results are being analyzed now and will be available soon, but I was a bit surprised at the number of participants who noted that COVID-19 has driven their hospitals and surgery centers to implement smoke evacuation as a mandated and regular practice to avoid the spread of this virus.

**Same-Day Surgery:** How are you feeling now, both physically and emotionally, and how long did it take you to recover?

**Ball:** Currently, I am doing fine. We actually went camping over Memorial Day weekend, but I did struggle a bit with walking long distances. I had to sit down for a bit and catch my breath. My O<sub>2</sub> saturation was only 87% when it should be between 95% and 100%, ideally. I guess I still have some residual respiratory problems, but I'm sure that will subside as I continue to take deep breaths, use my incentive spirometer, and monitor my oxygen saturation.

**Same-Day Surgery:** Do you have any other thoughts or lessons learned about your experience?

**Ball:** I was blessed to have survived COVID-19. One of the most powerful lessons I learned was that friends and family make such a difference in recovery. Their prayers and good wishes, along with great medical care, had the prevailing influence on my life.

We need to be extremely careful in decreasing the transmission of this nasty virus in the future. We need to wear our masks in public places to protect and respect everyone else.

We need to wash our hands often, follow the rules of social distancing, and pay attention to what our

governors and health departments are suggesting.

This virus could very easily mutate and become even more virulent in the future. Being alert, focused, and having to do things that are not in our lifestyles or practices will determine if the virus wins or not. ■

## As the COVID-19 Pandemic Continues, Reopened Surgery Centers Must Protect Staff, Patients

*Regular screening and thorough testing top the lists of recommendations*

It is a challenging time for surgery centers as they go through their backlog of patients, whose procedures were put on hold for months during the COVID-19 pandemic.

Infectious disease physicians, surgeons, and others offer advice on how surgery centers can protect against a second wave of viral infections:

- **Find out who is carrying the virus.** “Screening and testing is absolutely the most important thing right now, not just for patients but also for healthcare workers,” said **Joseph A. Dearani**, MD, president of the Society of Thoracic Surgeons. Dearani spoke at a Newswise media web conference on May 21 about surgeons and other health professionals during the pandemic’s post-crisis phase.

“You need to know who is carrying the virus, who can wait, and who can’t so that you know how many people are really going to be at risk,” Dearani added.

Surgery centers can screen patients for symptoms and temperature. Also, staff should administer regular tests. “We recommend patients have a real-time PCR COVID test and have it within 48 to 72 hours of the procedure,” says **Richard Beers**, MD, chair of the American Society

of Anesthesiologists Committee on Occupational Health. “If a patient is asymptomatic for COVID — but may develop symptoms — he or she may be at risk for postoperative complications.”

Through testing, surgery centers can prevent an asymptomatic, COVID-19-positive patient from transmitting the virus. Nasal swab and serum testing can be performed right up until the day of surgery, at least until a vaccine is available, notes Beers, professor of anesthesiology at the State University of New York Upstate Medical University.

Obtaining COVID-19 diagnostic kits remains an ongoing issue, but the federal government has approved

more labs for this purpose. The Centers for Medicare & Medicaid Services announced on May 8 that pharmacies and other suppliers that are enrolled in Medicare can be classified, temporarily, as independent clinical diagnostic laboratories during the public health emergency. (*Learn more at: <https://go.cms.gov/36BN4IL>.*)

The Infectious Diseases Society of America (IDSA) studied SARS-CoV-2 nucleic acid detection tests, which led to the creation of an evidence-based diagnostic guideline for clinicians and other stakeholders. The IDSA panel made 15 diagnostic recommendations. The recommendations include collecting nasopharyngeal, mid-turbinate,

### EXECUTIVE SUMMARY

To meet the challenge of fully reopening surgery centers, leaders will need to focus on infection prevention.

- In April, the Infectious Diseases Society of America published eight recommendations for COVID-19 prevention.
- The Anesthesia Patient Safety Foundation recommends placing a filter between a patient’s airway and the anesthesia machine breathing circuit.
- The Centers for Disease Control and Prevention recommends healthcare facilities know the utilization rate of their personal protective equipment, understand their inventory and supply chain, and stay in communication with local healthcare coalitions and government entities to identify additional supplies.

or nasal swabs instead of saliva or oropharyngeal swabs for RNA testing in symptomatic individuals. (*Learn more at: <https://bit.ly/2y8vr6i>.*)

“The data we had at that time showed that the [saliva test] was less sensitive,” said **Angela Caliendo**, MD, PhD, FIDSA, member of the IDSA COVID-19 diagnostic guidelines expert panel. Caliendo spoke about the IDSA’s testing guidelines at a media web conference held on May 8. “We did not recommend that saliva be one of the specimens of choice, but this is something we may revisit as more data becomes available,” reported Caliendo, professor of medicine at Brown University.

The IDSA panel also suggested repeating viral RNA testing after an initial negative test in patients with symptoms and who exhibit an intermediate or higher clinical suspicion of COVID-19. Panel members recommended RNA testing in people without symptoms but who are undergoing time-sensitive surgeries.

Testing patients is not a perfect solution, but it is a safety procedure when people are undergoing elective surgery, says **Mary Dale Peterson**, MD, MSHCA, FACHE, FASA, president of the American Society of Anesthesiologists. Surgery centers have time to test elective surgery patients, but for the test to be effective, they also need to ask patients to self-quarantine until the procedure.

“The question of how often you should test, I think, is up for debate,” Peterson offers. “It’s a challenge because I don’t think we have enough testing supplies to test everybody on a daily basis or weekly basis.”

• **Focus on infection prevention.** The IDSA offers eight recommendations for COVID-19

prevention. Published in April, an IDSA guidance panel recommends using N95 respirators when involved in aerosol-generating procedures on suspected or known COVID-19 patients.

The IDSA panel also suggested that when a healthcare facility’s area is in contingency or crisis capacity, then a surgical mask or face shield should be used as a cover for the N95 respiratory to allow for extended use. (*Learn more about these tips online at: <https://bit.ly/2WUsNuC>.*)

“Assuming surgery patients test negative and continue to be asymptomatic, they are treated with droplet precautions,” Beers says. “This basically means we do wear surgical face masks, and are very careful about performing hand hygiene.”

Patients and healthcare professionals should wear surgical mask when meeting, he adds. “During aerosol-generating procedures ... we recommend healthcare professionals use airborne precautions and eye protection,” Beers says. “Those procedures would be intubation, extubation, and laryngoscopy.”

Gastrointestinal endoscopies also could be a situation in which there is potential for patients to cough or sneeze and cause aerosolization of droplets, Beers adds.

Instead of only wearing eye protection and surgical masks, staff and physicians should wear N95 respirators that are fitted and can filter tiny droplets. They also can wear a double layer of gloves, Beers offers. “The N95 mask is more restrictive of air flow. They’re difficult to breathe and can be more irritating than face masks, but they’re important for the reasons I’ve mentioned,” Beers explains. One additional infection prevention measure that hospitals have had to use during the pandemic

and that surgery centers might need to employ involves disinfecting N95 respirators. No one can assume their supply of N95s will be adequate as the COVID-19 crisis continues.

The Centers for Disease Control and Prevention (CDC) has issued techniques for optimizing the supply of personal protective equipment (PPE). (*Learn more about these at: <https://bit.ly/2WW9Ur0>.*)

One of these techniques calls for decontaminating facepiece respirators, like N95s, when there are shortages. For example, surgeons and other healthcare professionals at Washington University School of Medicine in St. Louis created a disinfection process for N95 respirators. Their method calls for clinicians to wear their N95s for a week and then disinfect. Within a day, the same N95, now clean, is returned to the clinician, explains **Shaina R. Eckhouse**, MD, FACS, assistant professor of surgery.

“The process we created is to give each N95 [labeled] back to the individual healthcare provider,” she explains. “I’m a small female, and I wear a mask on the bridge of my nose, so if I don’t get the same mask back, I might get one that has a wider area for the nose and it doesn’t fit.”

Also, directing clinicians to use the same N95 helps reduce wear and tear, and it provides them with some comfort, knowing they receive their own mask, Eckhouse adds.

Another infection prevention tactic is to place a filter between a patient’s airway and the anesthesia machine breathing circuit, Beers recommends. The Anesthesia Patient Safety Foundation made the same recommendation. (*Learn more at: <https://bit.ly/2WUu8Bw>.*)

“The Anesthesia Patient Safety Foundation also recommends we have a filter at expiratory, just before

expired gas enters the anesthesia machine,” Beers says. “The filter prevents potential contamination of the internal circuit of the anesthesia machine.”

Another precaution is to wait between patients for the room’s air to completely turn over. Many call for waiting at least 15 minutes, but others may wait longer out of an abundance of caution.

“In most ORs [operating rooms], that’s not an issue [air turnover] because it does take time to wipe down, remove the instruments, take out the trash, wipe down all surfaces, and prepare for the next patient,” Beers observes. “By the time the next patient is ready to come in, that air turnover is adequate.”

• **Maintain PPE supply and training.** Surgery center leaders must

assess their supply and access of PPE as surgery cases increase. The CDC recommends understanding the inventory and supply chain as well as use rate. Stay in communication with local healthcare coalitions and government entities to identify additional supplies.

Reduce the numbers of patients going into the setting and limit visits, part of which can include using telemedicine. Finally, train staff on using PPE, and ask them to demonstrate competency.

For instance, a surgery center could review N95 respirator fitting and reuse with OR staff. Employees trained on N95 respirators might have used the device when working with patients who had infections like tuberculosis. However, in those scenarios, employees simply may have

discarded the respirator after one use, says **Patrick Hughes**, DO, MEHP, FACEP, FACOEP, emergency medicine residency assistant program director, assistant professor of integrated medical science, and director of the emergency simulation program for Florida Atlantic University’s Schmidt College of Medicine.

Hughes trains healthcare workers on the proper use of PPE through simulation. Although healthcare employees are trained to use PPE, they often are not prepared to reuse equipment repeatedly, as has occurred during the COVID-19 pandemic.

“Now, people are wearing the N95 respirators for their whole shift,” Hughes says. “Staff need to refresh their skills and get updated on how to put on and take off personal protective equipment.” ■

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## A \$25 Simulation Technique Can Improve Staff PPE Safety

It is important for surgery center staff to learn and practice the correct way to wear personal protective equipment (PPE). One helpful technique is to use medical simulation.

“You want to be confident in your personal protective equipment when you go to work, enter a room, and intubate a patient,” says **Patrick Hughes**, DO, MEHP, FACEP, FACOEP, emergency medicine residency assistant program director, assistant professor of integrated medical science, and director of the emergency simulation program at Florida Atlantic University’s Schmidt College of Medicine.

Hughes led a team that developed a simulation that is inexpensive, easy to create, and effective. “We

developed a solution with the inside of a highlighter. You put the highlighter refills into warm water,” Hughes explains. “It leaks into the warm water, and then we spray the water on a mannequin.”

The highlighter creates a fluorescent solution, which can be put in a spray bottle. After soaking, the solution can sit for a few minutes. Hughes’ simulation lab typically sprays a mannequin within five minutes of starting the simulation. It does not matter whether the spray is wet or dry when the simulation starts, he notes.

The staff don their PPE and perform a simulation of a common operating room task or nebulizing treatment. Then, the surgery center’s infectious disease leader can turn on a

black light to show how the simulated contagion spread.

“We have them go out and see if there is any contagion on them after they took off their PPE, and 25% of participants might have some fluorescents on their forehead or face that they touched while contaminated,” Hughes reports.

For a hospital environment, the simulation scenario goes like this: A member of the staff roleplays a patient in respiratory distress. “They do a history and physical exam, and then the patient needs an airway intervention,” Hughes says. “They do a nebulizer treatment on the patient.”

This shows how using the nebulizer can put viruses like the SARS-CoV-2 into the air. “The person finished the procedure, and

we have them care for the patient. At the end, we turn off the light in the room and shine the UV light on participants to show them all of the contagion,” Hughes explains. “Then, we turn the light back on and have them take off their PPE in the manner they were taught. We reuse the UV light to see if anything was left on them.”

Seeing the visual impact of their PPE mistakes allows managers and staff to correct their use of PPE in

real time. “For instance, one person had some left on their cheek,” Hughes recalls. “When they had taken off their outer gloves, they had touched the under glove with the contaminated outer glove. Then, they touched the side of their face with their contaminated glove and left some of the solution on their face.”

Surgery centers can create a simulation that more closely reflects an operating room, presurgery procedure. The materials cost less

than \$25, and the mannequin can be anything that might work with the equipment used in the simulation. “This is something that can be done in any hospital or surgery center. You don’t necessarily need a high-fidelity simulator,” Hughes says. “We found that people liked the extra training and refresher course on using personal protective equipment. They liked the fact that we showed them how contaminated they were at the end of the scenario.” ■

## A Surgeon-Led Solution Makes It Safe to Reuse N95s in OR for Weeks

A lack of personal protective equipment (PPE), including N95 respirators, was one of the major reasons why surgery centers nationwide closed their operating rooms (ORs) to elective surgery during the COVID-19 pandemic.

A new study suggests a solution that involves disinfecting N95s so they can be reused for weeks. A team that includes surgeons devised a reproducible and scalable process for disinfecting N95 respirators.<sup>1</sup>

The team developed a disinfection process that includes vaporized hydrogen peroxide (VHP) and ultraviolet radiation, says **Shaina R. Eckhouse**, MD, FACS, assistant professor of surgery at Washington University School of Medicine in St. Louis.

N95 respirator masks and other PPE were in short supply in March and April, so the health system followed federal guidelines for extending their use. “We ran our first N95 disinfection run on April 1,” Eckhouse reports.

Eckhouse wears an N95 respirator with a regular mask over the respirator while in the OR. Her own N95

respirator was disinfected twice over a three-week period.

“I put a mask over [the respirator] to help protect it and to prevent gross soilage,” she explains.

Everyone receives his or her own N95 because it ensures these will fit them well and it provides some sense of security. Each disinfection process takes 24 hours. Since everyone owns one N95 respirator, they were encouraged to wear the same N95 until they have a day off.

When they send out their N95 respirator for cleaning, it is labeled so the respirator will be returned to the original user. Unless the N95 is damaged or contains visible soilage, it can be disinfected up to 20 times, Eckhouse notes.

“If the N95 has visible soilage or is exposed to any liquid, we discourage disinfection and strongly recommend getting a new N95 mask,” she says.

The disinfection process has worked well and was extended to multiple hospitals, post-acute care facilities, and to surgery centers in the region.

“We have one surgical center that is open and that will start using

our N95s,” Eckhouse reports. “They do time-sensitive cases — it’s not an emergency, but if surgery is not performed the function of the limb will be undermined with waiting.”

The disinfection process works like this:

- **Pick up the N95.** The healthcare provider places the used N95 respirator in a Tyvek pouch and closes it with self-sealing adhesive tape. The pouch is labeled with the person’s employee identification number or name, the hospital and department, and the unit’s location.

Every 12 hours, someone picks up the pouches, inspects them for proper labeling, and transports them to the VHP room.

“The N95s are picked up in the evening, at the end of a shift. First thing in the morning, 7:30 a.m., we start the VHP process, which takes a little less than four hours,” Eckhouse says. The Tyvek pouches are not reused.

- **Designate disinfection area.** “We have a completely separate ... four-room area for the vaporized hydrogen peroxide disinfection room,” Eckhouse says. There also is an

eration room, a common workspace, and a soiled utility area. The areas include access to hand hygiene and eye washing stations.

The N95 respirator collection bins are staged on wire racks in the soiled utility area. When the VHP room is sealed and closed, the Bioquell Z-2 disinfection cycle starts, lasting 4.5 hours. After each disinfection cycle, biological indicators are used to show whether the disinfection cycle was successful. This is followed by aeration.

• **Drop off N95.** After aeration, the disinfected N95 respirators are placed in new Tyvek pouches and dropped into clean bins. They are arranged alphabetically and returned to pick-up locations.

As hospitals stock up on N95 respirators, collecting enough to last for a month or so, they could issue two to each employee who

needs them. This way, an employee could wear one while the other is cleaned and not have to schedule the disinfection process for their days off. “Our hope is that we created a process that is reproducible in a quick manner,” Eckhouse says.

Evidence-based disinfection processes are another resource for healthcare providers to employ when PPE are in short supply, Eckhouse notes.

Creating a safe and effective disinfection process for N95 respirators makes it possible for hospital ORs and surgery centers to reuse the equipment during a crisis and PPE shortage. This disinfection process also could prove helpful to surgery centers as they reopen for elective procedures.

“Now that we have this process in place, we are hoping to get back to elective surgery here in the near

future,” Eckhouse says. “I am a bariatric surgeon, truly elective surgery. I’m involved in perioperative services leadership.”

When the pandemic and PPE shortage are over, some may begin to use N95 respirators as single-use items again.

“Once the demand drops, and N95 supply increases, we’ll go back to normal uses of N95 respirators,” Eckhouse reports. “But in the future, if another pandemic hits, we can utilize the processes we’ve developed to set up this in a shorter time frame.” ■

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# Prioritize Staff’s Emotional Health as Surgery Centers Return to Regular Business

**S**urgery center leaders can help prevent emotional problems among staff if they acknowledge and assess the potential for stress, anxiety, and depression among nurses, physicians, and others on staff.

Studies conducted before the COVID-19 pandemic revealed nurses and other clinicians faced high rates of suicide, post-traumatic stress disorder, depression, and anxiety. The public health crisis has worsened emotional problems considerably, according to mental health professionals.

“There are a lot of psychological issues involved in being a physician or healthcare professional, whether it’s having to be flexible about converting ventilators or prioritizing

surgeries, wishing that you could take care of people sooner,” said **Susan McDaniel**, PhD, professor of families and health in the departments of psychiatry and family medicine at the University of Rochester in New York. McDaniel spoke at a Newswise

media web conference on May 21 about surgeons and other health professionals during the pandemic’s post-crisis phase.

“There also are a lot of pressures on healthcare professionals right now. Fears about their own health, as we

## EXECUTIVE SUMMARY

The emotional fallout from the COVID-19 crisis could affect surgery center physicians, nurses, and other employees, but there are ways to prevent the common issues of stress, anxiety, and depression.

- Healthcare professionals are under a lot of pressure during the pandemic, including stress over contracting the virus.
- Encourage staff to acknowledge their anxiety and find a way to leave their work experiences at work.
- Leaders can support staff by encouraging them to take breaks and to designate quiet spaces for mindfulness.

haven't had enough PPE. Fears about their becoming positive, or taking the illness to family members," McDaniel continued. "I know about residents who are sleeping in their basements and not talking to their family members to try to make sure that they don't pass it on."

In a survey of 1,257 healthcare workers in Chinese hospitals, 50% reported symptoms of depression, 45% reported anxiety, 34% experienced insomnia, and 71% reported distress.<sup>1</sup>

Clinician burnout, depression, and suicide likely will spike after the pandemic, says **Bernadette Melnyk**, PhD, APRN-CNP, vice president for health promotion, university chief wellness officer, and dean of the College of Nursing at The Ohio State University.

"You will see issues like post-traumatic stress disorder, a lot of chronic grief, in response to this. More depression and, I hate to say it, but I do expect suicides," Melnyk says. "I published a longitudinal analysis of nurses' suicide in the country, and it shows that nurses are at higher risk of suicide than the general population.<sup>2</sup> That was an issue prior to the pandemic, and it will only grow after."

A number of physicians, nurses, and others who work in a surgery center setting have helped hospitals that were overwhelmed with COVID-19 patients. Those clinicians were firsthand witnesses to the trauma. But the others who witnessed it from a distance also

could be affected emotionally, says **Maureen Brogan**, LPC, ACS, DRCC, statewide program manager of the Traumatic Loss Coalitions for Youth program at Rutgers University Behavioral Health Care.

"We didn't have time to prepare this workforce for the level of exposure to trauma and the length of the trauma," Brogan observes. "People knew it would be traumatic, but we didn't grasp or understand completely what it would entail."

When people are under stress, they will not exercise or eat well, and they start drinking and self-medicating, says **Garrett P. Salmon**, DNP, RN, APN, CRNA, assistant professor of nursing at Middle Tennessee State University. People need encouragement to engage in constructive behavior, he adds.

It helps both leaders and staff to reduce stress when they acknowledge their anxiety and concerns, find a way to leave their work experiences at work, prioritize their goals, and execute, Salmon explains.

"Make a list of the biggest problems you're facing, execute, and get those things done," he offers. "It doesn't have to be a perfect plan because a good plan now is better than a perfect plan several days later."

There are other ways to help staff cope with the pandemic's emotional fallout:

- **Attend to the small stuff.** "I'm hearing of people who have not had a water break," Brogan says.

Healthcare workers should avoid overexposure to the media, Brogan

advises. "There's no escaping it because there is a 24/7 newsfeed, and they're being inundated by it," she observes. "Everything in print is something to do with the pandemic; turn on the radio, and it's about the pandemic."

Everyone needs a break from the bad news, so they should take time for themselves. Engage in distracting activities such as yoga, running, or walking. Watch TV shows that are funny or light. Read and embrace other hobbies.

- **Accentuate positive events.** "Cognitive behavioral therapy is a frontline treatment for depression and anxiety," Melnyk says.

This helps people learn how to accentuate the positive and bypass negative events. "Teach people that how they think affects how they feel and behave," Melnyk offers.

Learn to monitor employees for positive moments, and draw their attention to these good things that are happening. Practice mindfulness techniques, including deep abdominal breathing, which can lower blood pressure and reduce stress. "Those are the kinds of things that have really good evidence of success," Melnyk adds.

- **Support workers.** It is important for staff to know their leaders care about them and will have their back when they give their all to the job, despite challenges, Brogan says.

"Have supports in place: mental health, peer support, and infrastructure," she says. "This is not a short-term thing; it is the way we do business. We take care of each other."

Examples of this support include surgery center leaders encouraging staff to take breaks. If feasible, designate space for employees to retreat and practice mindfulness,

## COMING IN FUTURE MONTHS

- Study: ACA saved low-income surgery patients money
- Hip arthroscopy, arthritis, and total hip replacement
- Frail patients die more often after minimally invasive procedures
- Engineer designs process to reduce surgeon, nurse neck pain

or just to escape the frenzy, Brogan says. “We should have a culture that is accepting of that, showing people that self-care is not selfish,” she says. “If you’re not good to yourself, you can’t be good to anyone else.”

Supporting staff also includes putting some flexibility into work schedules and asking employees

(through surveys, if possible) for their opinions and their needs. “There is something very validating about that,” Brogan adds. ■

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# SDS Manager

## Adjusting to the New Normal

By Stephen W. Earnhart, RN, CRNA, MA  
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Many surgery facilities are re-opening and in the process of adjusting to the “new normal.” We are dipping our toes in the water again to check the temperature before we plunge into the pool.

This is as it should be — caution is advised. The challenge for everyone is going to be avoiding the phrase “This is not the way we used to do it.” It is never going to be “that way” again.

Historians are going to refer to the COVID-19 pandemic the same way we learned about the Great Depression of the 1930s, the Spanish flu pandemic of 1918, and other global-changing events. We lived through COVID-19 — and will continue to do so for the next year or longer.

However, it is difficult to write about this new normal because I have no benchmarks or experience to share, no “this is the way others have handled the issue” advice. All of us have to learn together how to cope and be successful.

Still, I can share what many of our facilities are going through that might be helpful for others:

- **Stay safe, and remain vigilant.**

The virus has not run its course. Until there is a cure or vaccine, danger remains. I find I have a false sense of security for which there is no basis.

- **Resist the urge to think everything is the way it was.** This is not true. We are all pressured to slam forward as quickly as possible and handle as many cases as we can. Resist this urge.

Just like with HIV precautions, we have to assume every patient is infected with COVID-19.

- **Huddle daily with the team.** Hold staff meetings frequently to review the new protocols put in place. We need to develop muscle memory on these procedures, just like we learned before the pandemic.

Meanwhile, I have noticed many surgeons who believe this is the time to get off the fence and develop their own surgery centers. The reasons I am hearing are:

- Medicare is going to be pushing many more elective procedures to ambulatory surgery centers, and

surgeons want to have a facility available.

- Surgeons have learned they cannot rely on others for their income. Thus, now is the time to protect their own interests by controlling the patient-from-office-visit flow through a process of their own.

I am glad we are returning to business. As healthcare professionals, we have once again proven ourselves. We should all be proud. ■

*(Earnhart & Associates is a consulting firm specializing in all aspects of outpatient surgery development and management. Address: 5114 Balcones Woods Drive, Suite 307-203, Austin, TX 78759. Phone: (512) 297-7575. Fax: (512) 233-2979. Email: searnhart@earnhart.com. Web: www.earnhart.com. Instagram: Earnhart.Associates.)*

## CME/CE OBJECTIVES

After reading *Same-Day Surgery*, the participant will be able to:

- identify clinical, managerial, regulatory, or social issues relating to ambulatory surgery care;
- identify how current issues in ambulatory surgery affect clinical and management practices;
- incorporate practical solutions to ambulatory surgery issues and concerns into daily practices.



# SAME-DAY SURGERY

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## CME/CE QUESTIONS

1. **As surgery centers increase their scheduled procedures over the summer, which should be a top priority?**
  - a. They should test staff and screen patients.
  - b. They should find new suppliers of personal protective equipment (PPE).
  - c. They should focus on reopening operating rooms as quickly as possible.
  - d. They should complete more agreements with payers.
2. **Surgery patients who test negative for COVID-19 and who continue to be asymptomatic should be handled at the surgery center in what way?**
  - a. Perform their procedures in a room reserved for patients who do not have COVID-19.
  - b. Schedule them as a priority when surgery centers reopen.
  - c. Treat them with droplet precautions, meaning staff wear surgical masks and are cautious with hand hygiene.
  - d. Surgeons and nurses can reuse masks between those patients.
3. **Mental health professionals recommend surgery centers and other healthcare facilities start to screen their staff for which issues the pandemic might exacerbate?**
  - a. Substance use
  - b. Mental health disorders
  - c. Unhealthy daily living habits
  - d. Stress, anxiety, depression
4. **A cost-effective simulation technique for showing staff how to use PPE properly can be created using:**
  - a. highlighter refills, black light, warm water, spray bottle, and mannequin/doll.
  - b. surgical tape, N95 mask, chest compression doll.
  - c. computer, PowerPoint presentation, role-playing cards.
  - d. nebulizer, surgical masks, gloves.