

Vizient/Sg2 guidance for resumption of electively scheduled surgery and procedures in the COVID-19 era



Introduction

In March 2020, electively scheduled surgery and other procedures (ESS) were postponed in the U.S. as the outbreak of COVID-19 gripped the country and our health care system. However, ESS does not imply that procedures are “optional” — only that they were not highly critical and time-sensitive given COVID-19 health care priorities during its initial surge in the population. Indeed, many of these patients cannot wait indefinitely for medically indicated treatment.

We believe that COVID-19 infections will persist in the population into 2021, notwithstanding the rapid development of effective therapy or vaccination. Accordingly, health care providers and facilities will be treating patients, including ESS, while ongoing infections are present in their communities. We also believe that many organizations will be treating patients with resource constraints including, but not limited to, virus or antibody testing capabilities, contact tracing support, personal protective equipment (PPE), and hospital or ICU beds.

We propose the following guidance to health care providers and organizations to safely balance the provision of health care overall, including for COVID-19 patients, with the necessity to provide ESS. Herein, we consider four broad areas that we believe leadership should address and plan in ESS management. We also provide references or links that we believe are most relevant to the challenges at hand.

As new knowledge is gained regarding COVID-19, we fully expect that this document will be modified on a regular basis to reflect new lessons and insights.

Finally, as COVID-19 presents a unique challenge to health care, we believe a strong and expanded surgical governance structure is critical. In addition to hospital, surgical and nursing leadership, we believe that other parties should be included in high-level decision-making including infectious disease specialists, epidemiologists, supply chain leadership, medical ethicists and others as appropriate. Likewise, given the uncertainties and dynamic nature of COVID-19 including disease course, diagnosis, treatment, and public health ramifications, we believe effective surgical governance requires ongoing, frequent evaluation and response to newly relevant clinical information ([Appendix 1: Policy and Procedure/Daily Leadership Checklist](#)).

Resources

[Joint Statement \(ACS, ASA, AORN, AHA\) on Resuming Elective Surgery](#)

[American College of Surgeons Resources](#)

[CDC Universal Masking in Health Care Facilities](#)

[Clinical Leadership and Governance](#)

Epidemiologic, screening and surveillance considerations

As mentioned, COVID-19 will persist in the U.S. into 2021 even with preventive measures such as social distancing or “shelter-in-place” advisories. Ideally, ESS should be resumed when infection rates are very low, implied by an $R_0 < 1$ (R_0 — the reproduction number; formally, the average number of secondary cases an infected person would cause in a completely susceptible population and used by epidemiologists to describe the intensity of an infectious disease outbreak). We recognize that organizations may resume ESS prior to this epidemiologic benchmark. Regardless of triggers to restart ESS, organizations must work closely with their infectious disease experts, epidemiologists and public health departments to establish a mechanism for accurately monitoring community infection rates, hospitalizations, ICU bed occupancy, and ventilator usage in their communities in addition to their own hospitals.

There is evidence that surgical outcomes are worse in patients with active COVID-19 infection. This relationship is especially problematic in patients who are older and/or frail. In essence, COVID-19 is a surgical risk factor. If community infection rates are high, then its presence in surgical patients is more likely. Hospital and surgical leadership will need to assess the extent and trend of infections in order to manage surgical quality. They will need to be conversant in the availability and accuracy of testing measures including serologic examinations in order to determine the best screening protocols for surgical patients. These challenges highlight the need for surgical leadership to engage with others who follow these topics closely to best manage their population of surgical patients.

It is well-known that people may be infected, yet asymptomatic. We advocate for patient testing prior to procedures. As mentioned, patients who are infected

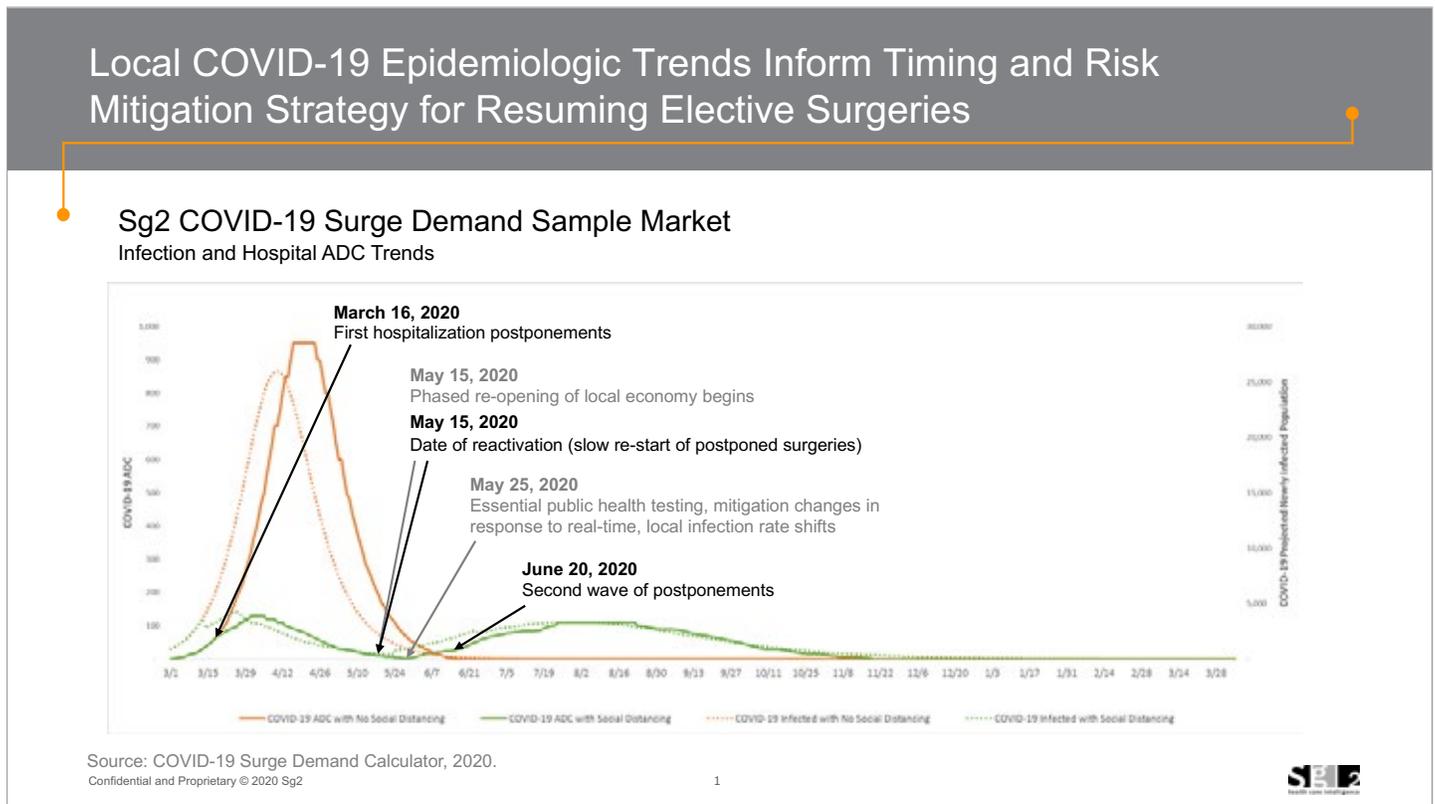
and undergo a major procedure are at significant risk for adverse outcomes. We believe every effort should be made to know the infection status of any patient entering the hospital and prevent infected patients from entering a health care facility unless necessary to treat advanced infection or other emergent medical issues. We recognize that optimal testing methodology is not currently entirely clear. However, we believe that testing is likely to improve and accordingly, we believe that point-of-care testing or testing in close proximity to procedures is the most prudent course of risk management.

Organizations should also address surveillance for health care personnel. This may range from daily temperature checks upon entering the facility to periodic testing for virus to serologic testing for antibodies or combinations

thereof. Resources and availability of testing are naturally a significant consideration. However, to assure both the public and providers themselves, a robust program of surveillance should be established in concert with infectious diseases experts.

Importantly, we anticipate that secondary surges will occur especially as restrictions are lifted. Organizations will benefit from having modeling capabilities so that they can better anticipate secondary surges and the associated health care requirements related to increases in infection rates. It is quite possible that leaders will have to reduce or even suspend ESS in the future depending on the magnitude of secondary surges. We have provided an illustration of the primary and secondary surge in a community to highlight this challenge (Figure 1).

Figure 1. Epidemiologic modeling to inform ESS resumption and management



Abbreviations: ADC = average daily census; ESS = electively scheduled surgery and procedures.

Clinical prioritization

Suspension or reduction in ESS has resulted in significant backlogs of procedures. As ESS is resumed, there are likely to be capacity constraints in many organizations. There may also be constraints in supplies such as PPE or pharmaceuticals. Again, hospital and surgical leadership must establish a mechanism to identify constrained resources and their utilization upon resuming ESS both to provide safety for patients and providers and to prepare for a secondary surge in infections.

Given likely resource constraints, we support clinical prioritization of patients so that procedures can be accomplished first for those patients with the most critical and/or time-sensitive needs. There are several models that may be useful to assist clinical leadership in making these decisions (see the resources at right for

two examples). As this is a new process for organizations, broad clinical leadership is critical to reaching consensus on a prioritization strategy and its implementation.

Resources

[MeNTS Criteria \(University of Chicago\)](#)

[MeNTS Worksheet Example](#)

Patient engagement and preoperative evaluation

The surgical preoperative consultation could occur virtually depending on the patient's needs and organization's capabilities. If a virtual visit is not possible then an in-person visit with appropriate precautions needs to be facilitated. Many same-day surgery units currently do contact patients or their family members preoperatively with a phone call. For patients who need additional preoperative medical evaluation by medical subspecialists or anesthesia personnel, virtual visits should be considered when possible and feasible given the patient's needs. If the patient does need to have an in-person evaluation or diagnostic test, the precautions listed in the guidelines and this document should be followed.

The team should also predetermine and ensure that arrangements have been made for any post-procedural services whether they be home health, durable medical equipment or transfers to a post-acute location to ensure these resources have capacity prior to proceeding with surgery.

At any time, patient education and engagement are attributes of "best practices" in health care. In the context of the COVID-19 crisis, it is even more compelling. It is vital that the health care industry understand the importance of consumer trust in any strategy toward resumption of elective surgeries and procedures during a pandemic era. Health care providers who can effectively

communicate information about the disease, testing and treatment options not only help reduce uncertainty, but also promote equity in disadvantaged populations since data suggests that African Americans are at increased risk of morbidity and mortality. Additionally, only 12% of the adult population has proficient health literacy.¹ Concepts such as "false positive" and "false negative" and "risk" are confusing to those who don't work in health care.

Even though there are a lot of uncertainties around COVID-19, one of the most certain and beneficial "treatments" that providers can offer is to ensure patients understand what is being communicated to them. The most effective tool to accomplish this is the use of teach-back. Once a concept is introduced, providers should ask the patient to repeat back what he/she said to ensure that they have correctly heard and understood the message. By taking the time to ensure understanding, trust is further cemented between patients and providers. More broadly, this approach fosters the development of shared decision-making (SDM), which is a critical component of facilitating trust between patients and providers. Again, SDM is a well-established facet of best practice and takes on added importance in this era. The keys to SDM include:

1. Introduce choice
2. Describe option
3. Explore preferences and make decisions

¹ U.S. Department of Education. Literacy in everyday life: Results from the 2003 National Assessment of Adult Literacy. National Center for Education Statistics. April 2007. Accessed May 5, 2020. <https://nces.ed.gov/Pubs2007/2007480.pdf>

Understanding the stress many patients may be under and the presence of complicating social determinants of health like low formal education, poverty, housing and/or food insecurity, the language used in conversation and in any patient handouts should be understandable at a fifth-grade level.

Additionally, one of the common complaints patients have when they interact with various personnel in a health care facility is a variant of, “Everyone is saying something different.” Although health care workers can understand these nuances, patients will not. Therefore, we recommend that:

Organizations must ensure that providers and staff are completely aware of all data, information, precautions and actions that are taken to promote the safety of providers and patients. There must be an informed, unified and coherent message. Having periodic huddles with important concepts that need to be communicated, including any updated information about COVID-19, can ensure that everyone is hearing the same information on every shift so that there is more coherence and standardization about the information that is being delivered.

The important point is that COVID-19 is an additional, significant risk factor that should be directly addressed in the context of the original indication for surgery. SDM provides a sound basis for patients making the best decisions and cementing trust between patients and providers. Organizations have a critical role to enable providers to utilize SDM effectively. We also believe that organizations that follow these principles can develop a competitive advantage by promoting patient engagement and shared decision-making.

Lastly, for organizations that have a Patient and Family Advisory Council (PFAC), it would be beneficial to reactivate your council virtually to hear from the consumer directly on issues concerning patient and family engagement and to receive feedback on how you plan to mitigate barriers.

Resource

[Patient Informed Consent](#)

Perioperative processes

The impact of local social isolation strategies as reflected in the R_0 (spread rate) of COVID-19, the ability to test for COVID-19 and antibody testing will all have varying impacts on different options in each of the following process steps. We advocate for universal precautions to maintain patient and staff safety. As with all elective procedures, routine patient preoperative screening measures for infections should be followed. As health care leaders and providers, we have the opportunity and obligation to model safe behavior both for our patients and workforce. If we advocate for practices in public, we should be even more conscious of demonstrating those practices in our work environment.

Setting expectations for safety, productivity and disruptive behavior—After the current moratorium on elective procedures many physicians will want to get back to work as quickly and as productively as in the pre-COVID-19 pandemic environment. Based on the scientific information available, expectations will need to be reset. For the safety of patients, staff and physicians, capacity and throughput will most likely be diminished from the pre-pandemic benchmarks. The need for testing, donning and doffing of PPE, new cleaning procedures and social

distancing requirements will impact productivity. They will also impact physical capacity so that the number of operating rooms opened each day will be fewer than normal and the number of procedures in those rooms will also be less due to longer turnover times. Leaders should communicate that behaviors that seek to circumvent safe practices for patients and staff will not be tolerated. While everyone would like to get back to normal, disruptive behaviors should not complicate an already stressful environment. Medical staff leaders and executive teams will need to hold themselves, staff and physicians accountable for mitigating disruptive behavior.

Scheduling—Procedural booking processes should be modified to include prioritization rank, COVID-19 status, immune status of the patient and, if ASA III or greater, a list of the comorbidities related to that status. Procedural booking forms should inquire about compromised immune status of patients either from co-existing disease or medications. Comorbidity lists would facilitate proper placement of the patient after discharge from the postanesthesia care unit (PACU). Case preference card verification with additional instrument or supply requests should be completed. Any additional essential personnel

(e.g., assistants, medical device representatives and/or trainees) needed to complete the procedure should be addressed. Anticipated postoperative disposition can help determine optimal location and time of the surgery.

Preparedness—Each day the multidisciplinary perioperative leadership team should assess system capabilities to perform elective procedures that day and look ahead to potential impacts on cases to be performed in the next 72 hours. Factors to be considered are listed in the appendix.

Patient preparation areas, preoperative holding and PACU—Given the impact of social distancing, physical capacity of each of these areas may be negatively impacted. Workflow design of the preoperative areas needs to be assessed to maximize the use of the preoperative bed area and throughput to the operating room with consideration on how to maximize the throughput for each operating room. New or creative workflow patterns could be created.

Introduction of social distancing in the PACU may be limited by space. If the PACU area is large enough to accommodate social distancing, extra personnel could be scheduled to manage potential bottlenecks, either from unexpected delayed recovery or discharge. Appropriate and timely evaluation of recovery and discharge from the PACU will be important to maintain throughput.

Intraoperative considerations—Leadership should address the expectation and accountability of staff, invited ancillary personnel and physicians to follow operating and procedure room traffic patterns and the allocation of PPE. If additional, unexpected items are needed during a procedure, a process should be determined to ensure acquisition of necessary items while minimizing operating room traffic.

Room turnover and cleaning—It is likely that the time to turn a room will be increased due to donning and doffing of PPE by staff in between cases and cleaning and disinfecting processes that may include terminal cleaning following the care of patients based on the infection control risk assessment and infection control guidelines followed. Downtime may be considered for operating/procedural room air exchanges as the organization considers universal precautions and that all methods of airway management are a potential for aerosol-generating viral particles.

Resources

[PPE Donning and Doffing Checklist](#)

[Aerosol-Generating Procedure Concerns](#)

[FAQ on Anesthesia Machine Use, Protection, and Decontamination During the COVID-19 Pandemic](#)

Appendix 1. Policy and procedure/daily leadership checklist

Location policy and procedures checklist

- Preoperative checklists
- Time-out procedure and checklist
- Facility cleaning
- Operating room cleaning
- Anesthesia machine cleaning and supplies
- Social distancing accommodations in the waiting room and perioperative flow
- Patient, physician and staff COVID-19 testing processes
- PPE requirements
- Patient allocation
- Scheduling
- Same-day surgery or outpatient procedure patient considerations
 - Discharge instructions
 - Accompanying adult caregiver disposition
 - Ride home
 - Pediatric patient flow

Daily procedural preparedness checklist

- Staffing
- Blood availability
- Supplies
- ICU and inpatient bed availability
- Ventilator availability
- Isolation needs and availability
- Assessment of procedural cancellations based on rooms and the schedule
- Local epidemiology trends
- Emergent case needs
- PPE supplies

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