



Utah Hospital Roadmap for Resuming Elective Procedures

April 21, 2020

Introduction:

In response to the COVID-19 pandemic, the Centers for Medicare and Medicaid Services (CMS), the U.S. Surgeon General and many medical specialties such as the American College of Surgeons and the American Society of Anesthesiologists recommended interim cancellation of elective surgical procedures. On March 23, 2020, the Utah Department of Health issued a State Public Health Order restricting elective medical procedures, which will soon expire or be superseded. Physicians and healthcare organizations have responded appropriately and canceled non-essential cases across the country.

In light of the reduced number of COVID-19 hospitalizations in Utah, the Utah Hospital Association, through its Chief Medical Officer Group, developed protocols to resume procedures and surgeries in Utah's hospitals.

Many patients have had their needed, but not essential, surgeries postponed due to the pandemic. When the first wave of this pandemic is behind us, the pent-up patient demand for surgical and procedural care may be immense, and healthcare organizations, physicians and nurses must be prepared to meet this demand. Health system and facility readiness to resume elective surgery will occur in a coordinated fashion in Utah. The following is a list of principles and considerations to guide health systems, hospitals, ambulatory surgery centers, physicians, nurses and local facilities in their resumption of care in operating rooms and all procedural areas.

1. Timing for Reopening of Urgent, Time-Sensitive, and Elective Surgery

Principle: There should be a sustained flattening of new cases with indications of a flat to downward trend, as defined in 1.a., of new COVID-19 cases requiring hospitalization in Utah over 14 days, and the facility shall have appropriate number of intensive care unit (ICU) and non-ICU beds, personal protective equipment (PPE), ventilators and trained staff to treat all non-elective patients without resorting to a crisis standard of care.

Considerations: Facilities should evaluate the following before resuming elective surgery:

- a. Timing of resumption: There should be a sustained flat to decreasing trend of the number of new COVID-19 cases requiring hospitalization in the relevant geographic area over the previous 14 days before resumption of urgent and time sensitive surgical procedures.^{1,2,3,4}
- b. Any resumption should be authorized by the appropriate municipal, county and state health authorities. See appendix 1.
- c. Facilities in the state are safely able to treat all patients requiring hospitalization without resorting to crisis standards of care.
- d. Does the facility have appropriate number of ICU and non-ICU beds, PPE, ventilators, medications, anesthetics and all medical surgical supplies?
- e. Does the facility have access to adequate testing for the new volume of pre-surgery evaluations?
- f. Does the facility have appropriate procedural and surgical PPE for the protection of patients and staff?
- g. Does the facility have available numbers of trained and educated staff appropriate to the planned surgical procedures, patient population and facility resources? Given the known evidence supporting health care worker fatigue and the impact of stress, can the facilities

perform planned procedures without compromising patient safety or staff safety and well-being?

Figure 1: Utah Hospital Association Chief Medical Officer Group Guidance

Color-Coded surgery and procedure guidance. For additional guidance see latest documents from the Centers for Medicare and Medicaid Services and the Centers for Disease Control and Prevention.				
	COVID GREEN Normal virus risk, except for high-risk individuals	COVID YELLOW Low risk, except for high-risk individuals	COVID ORANGE Moderate risk, except for high-risk individuals	COVID RED High risk for all individuals
 Surgery and Procedures	Outpatient and inpatient surgery / procedures proceed when immune status is known, or pre-procedure COVID-19 testing is performed. Postpone COVID-19 suspected and positive patients if not time-sensitive and risk of delay is low.	Surgery / procedures proceed for low risk patients only if COVID-19 testing capacity and supplies are available and statewide critical resources have not surpassed conventional levels. New cases of COVID-19 requiring hospitalization are flat or decreasing on average over the previous 14 days. Patient needs and acuity drive prioritization when resources are limited. Postpone COVID-19 positive patients if not time-sensitive and risk of delay is low.	Perform emergent and urgent, time-sensitive surgery / procedures that require a hospital stay if delay will result in an increased risk of patient harm or death. Outpatient surgery / procedures proceed for low risk patients only if COVID-19 testing capacity and supplies are available and statewide critical resources have not surpassed conventional levels. New cases of COVID-19 requiring hospitalization are flat or decreasing on average over the previous 14 days. Patient needs and acuity drive prioritization when resources are limited. Postpone COVID-19 positive patients if not time-sensitive and risk of delay is low.	Perform emergent and urgent surgery / procedures with rapid COVID-19 testing where available, and some time-sensitive surgery / procedures where a delay will result in increased risk of patient harm or death. Patient needs and acuity drives prioritization of time-sensitive surgery and accounts for state-wide critical resource capacity.

2. COVID-19 Testing within a Facility

Principle: Facilities should use available testing to protect staff and patient safety whenever possible and should implement a policy addressing requirements and frequency for patient and staff testing.

- a. **Considerations:** Facility COVID-19 testing policies should account for: Availability, accuracy and current evidence regarding tests, including turnaround time for test results
- b. Frequency and timing of patient testing (all/selective).
 - 1. Patient testing policy should include accuracy and timing considerations to provide useful preoperative information as to COVID-19 status of surgical patients, particularly in areas of residual community transmission.
 - 2. If such testing is not available, consider a policy that addresses evidence-based infection prevention techniques, access control, workflow and distancing processes to create a safe environment in which elective surgery can occur. If there is uncertainty about patients' COVID-19 status, PPE appropriate for the clinical tasks should be provided for the surgical team.
- c. Indications and availability for health care worker testing.
- d. How a facility will respond to COVID-19 positive worker, COVID-19 positive patient (identified preoperative, identified postoperative), "person under investigation" (PUI) worker, PUI patient.

3. Personal Protective Equipment

Principle: Facilities should not resume elective surgical procedures until they have adequate PPE and medical surgical supplies appropriate to the number and type of procedures to be performed.

Considerations: Facility policies for PPE should account for the following:

- a. Adequacy of available PPE, including

1. Supplies required for an increase in COVID-19 cases
2. Improving sourcing and reliability of the supply chain to prepare for a potential second wave of COVID-19 cases.
- b. Staff training on and proper use of PPE according to non-crisis level evidence-based standards of care.
- c. Policies for the conservation of PPE should be developed (e.g., intubation teams) as well as policies for any extended use or reuse of PPE per CDC and FDA guidance.

4. Case Prioritization and Scheduling

Principle: Facilities should establish a prioritization policy committee consisting of surgery, anesthesia and nursing leadership to develop a prioritization strategy appropriate to the immediate patient needs.

Considerations: Prioritization policy committee strategy decisions should address case scheduling and prioritization and should account for the following:

- a. List of previously cancelled and postponed cases.
- b. Use of an objective priority scoring system which may include MeNTS scoring, CMS guidelines, objective review by peer surgery committees, or other scoring systems.
- c. Specialties' prioritization (cancer, organ transplants, cardiac, trauma).^{5,6}
- d. Strategy for allotting daytime "OR/procedural time" (e.g., block time, prioritization of case type [i.e., potential cancer, living related organ transplants, etc.]).
- e. Identification of essential health care professionals and medical device representatives per procedure.
- f. Strategy for phased opening of operating rooms.
 1. Identify capacity goal prior to resuming (e.g., 25% vs. 50%).
 2. Outpatient/ambulatory cases start surgery first followed by inpatient surgeries after a 14-day period to observe the impact on COVID-19 case trend.
 3. All operating rooms simultaneously – will require more personnel and material.
- g. Strategy for increasing "OR/procedural time" availability (e.g., extended hours before weekends).
- h. Issues associated with increased OR/procedural volume.
 1. Ensure primary personnel availability commensurate with increased volume and hours (e.g., surgery, anesthesia, nursing, housekeeping, engineering, sterile processing, etc.).
 2. Ensure adjunct personnel availability (e.g., pathology, radiology, etc.).
 3. Ensure supply availability for planned procedures (e.g., anesthesia drugs, procedure-related medications, sutures, disposable and non-disposable surgical instruments).
 4. Ensure adequate availability of inpatient hospital beds, intensive care beds, ventilators, and staffing for the expected postoperative care.
 5. Ensure availability of post-acute care beds for patients who will need this level of care
 6. New staff training.
- i. Review of statewide system coordination
 1. The UHA CMO Group will meet weekly to review status of the pandemic across the state, patient safety key, health care worker safety, trends in new cases, PPE supply, and test supply and outcomes.
 2. If there is an increase in COVID-19 cases over a period of 5-7 days, then prioritization and scheduling will return to restrictions indicated by guidance from Utah Leads Together and the UHA CMO Group (green-yellow-orange-red).

5. Post-COVID-19 Issues for the Five Phases of Surgical Care

Principle: Facilities should adopt policies addressing care issues specific to COVID-19 and the postponement of surgical scheduling.

Considerations:

Facility policies should consider the following when adopting policies specific to COVID-19 and the postponement of surgical scheduling:

- a. Phase I: Preoperative

1. Guideline for preoperative assessment process.
 - Patient readiness for surgery can be coordinated by anesthesiology-led preoperative assessment services.
2. Guideline for timing of re-assessing patient health status.
 - Special attention and re-evaluation are needed if patient has had COVID-19-related illness.
 - A recent history and physical examination within 30 days per Centers for Medicare and Medicaid Services (CMS) requirement is necessary for all patients. This will verify that there has been no significant interim change in patient's health status.
 - Consider use of telemedicine as well as nurse practitioners and physician assistants for components of the preoperative patient evaluation.
 - Some face-to-face components can be scheduled on day of procedure, particularly for healthier patients.
 - Surgery and anesthesia consents per facility policy and state requirements.
 - Laboratory testing and radiologic imaging procedures should be determined by patient indications and procedure needs. We recommend, as available, COVID-19 rapid testing for emergent and urgent patients and PCR based COVID-19 tests for patients with less urgent and time-sensitive medical conditions. Repeat testing without indications is discouraged.
 - Assess preoperative patient education classes vs. remote instructions
3. Advanced directive discussion with surgeon, especially patients who are older adults, frail or post-COVID-19.
4. Assess for need for post-acute care (PAC) facility stay and address before procedure (e.g., rehabilitation, skilled nursing facility).
- b. Phase II: Immediate Preoperative
 1. Guideline for pre-procedure interval evaluation since COVID-19-related postponement.
 2. Assess need for revision of nursing, anesthesia, surgery checklists regarding COVID-19.
- c. Phase III: Intraoperative
 1. Assess need for revision of pre-anesthetic and pre-surgical timeout components.
 2. Guideline for who is present during intubation and extubation.
 3. Guideline for PPE use.
 4. Guideline for presence of nonessential personnel including students.
- d. Phase IV: Postoperative
 1. Adhere to standardized care protocols for reliability considering potential different personnel. Standardized protocols optimize length of stay efficiency and decrease complications (e.g., ERAS).
- e. Phase V: Post Discharge Care Planning
 1. PAC facility availability.
 2. PAC facility safety (COVID-19, non-COVID-19 issues).
 3. Home setting: Ideally patients should be discharged home and not to a nursing home as higher rates of COVID-19 may exist in these facilities.

6. Collection and Management of Data

Principle: Facilities should reevaluate and reassess policies and procedures frequently, based on COVID-19 related data, resources, testing and other clinical information.

Considerations: Facilities should collect and utilize relevant facility data, enhanced by data from local authorities and government agencies as available:

- a. COVID-19 numbers (testing, positives, availability of inpatient and ICU beds, intubated, OR/procedural cases, new cases, deaths, health care worker positives, location, tracking, isolation and quarantine policy).
- b. Facility bed, PPE, ICU, ventilator availability.
- c. Quality of care metrics (mortality, complications, readmission, errors, near misses, other – especially in context of increased volume).

7. COVID-related Safety and Risk Mitigation surrounding Second Wave

Principle: Facilities should have and implement a social distancing policy for staff, patients and patient visitors in non-restricted areas in the facility which meets then-current local and national recommendations for community isolation practices.

Considerations:

- a. Each facility's social distancing policy should account for:
 1. Then-current local and national recommendations.
 2. The number of persons that can accompany the procedural patient to the facility.
 3. Whether visitors in periprocedural areas should be further restricted.

8. Additional COVID-19 Related Issues

- a. Healthcare worker well-being: post-traumatic stress, work hours, including trainees and students if applicable.
- b. Patient messaging and communication.
- d. Case scheduling process.
- e. Facility and OR/procedural safety for patients.
- f. Preoperative testing process.
 1. For COVID-19-positive patients.
 2. For non-COVID-19-positive patients.
 3. Environmental cleaning.
- g. Prior to implementing the start-up of any invasive procedure, all areas should be terminally cleaned according to evidence-based information.
- h. In all areas along five phases of care (e.g. clinic, preoperative and OR/procedural areas, workrooms, pathology-frozen, recovery room, patient areas, ICU, ventilators, scopes, sterile processing, etc.):
 1. Regulatory issues (The Joint Commission, CMS, CDC).
 2. Operating/procedural rooms must meet engineering and Facility Guideline Institute standards for air exchanges.
 3. Re-engineering, testing, and cleaning as needed of anesthesia machines returned from COVID-19 and non-COVID ICU use.

Endnotes:

1. <https://www.aei.org/research-products/report/national-coronavirus-response-a-road-map-to-reopening/>
2. <https://www.wsj.com/podcasts/the-journal/dr-anthony-fauci-on-how-life-returns-to-normal/>
3. <https://covid19.healthdata.org/united-states-of-america/illinois>
4. <https://penn-chime.phl.io>
5. <https://www.facs.org/COVID-19/clinical-guidance/triage>
6. https://www.facs.org/-/media/files/covid19/guidance_for_triage_of_nonemergent_surgical_procedures.ashx

7. <https://www.aha.org/system/files/media/file/2020/04/roadmap-from-aha-others-for-safely-resuming-elective-surgery-as-covid-19-curve-flattens.pdf>

Appendix 1

Figure 6: Industry Summary of Color-Coded Health Guidance

Initial recommendations of Economic Response Task Force

Select Industry	High Risk	Moderate Risk	Low Risk	New Normal Risk
General Employer Guidelines	Employers exercise extreme caution, with employees working remotely, evaluating workforce concerns, and enacting strategies to minimize economic impact. Businesses that necessitate on-site work should monitor workforce for symptoms and well-being.	Employers exercise extreme caution, with employees working remotely, evaluating workforce concerns, and enacting strategies to minimize economic impact. Businesses that necessitate on-site work should monitor workforce for symptoms and well-being.	Employers encourage flexible working arrangements (rotating shifts, remote, etc.). Comply with distancing guidelines. Increased cleaning regimen of high-touch areas. Monitor employees for symptoms and well-being.	All businesses are open and operating under stricter hygiene and cleaning regimen. Monitoring health of workforce and customers.
Restaurants & Food Service	No dine-in service and extreme caution taken in food prep. Physical distancing maintained. Curbside pickup, takeout, and delivery only. Contactless payment encouraged. Create safe environment for staff.	Takeout/delivery options preferable. Dine-in services allowed with extreme precaution. Follow strict guidelines for physical distancing and staff monitoring. Contactless payment encouraged. Create safe environment for staff.	Dine-in services allowed with precaution. Follow strict guidelines for physical distancing and staff monitoring. Create safe environment for staff.	Dine-in restaurants operating under proper safety precautions for staff & customers.
Retail (Including grocery stores & pharmacies)	Essential retail (e.g. grocery) create safe environment for customers & staff w/ frequent reminders on distancing and hygiene. Monitor patrons and employees for symptoms. Employees wear face coverings.	Create safe environment for customers & staff w/ frequent reminders on distancing and hygiene. Monitor employees for symptoms. Employees wear face coverings.	Exercise discernment, establishing principles for safe environment & public trust. Monitor employees for symptoms and encourage face coverings.	Operate under heightened hygiene & cleaning standards. Monitor employees for symptoms.
Hotel, Tourism, & Accommodations	Limited operations. Take extreme precaution for staff & guests.	Take precautions with shared spaces, w/ increased cleaning regimen. Self-serve buffets closed. Employees wear face coverings.	Businesses take precautions with shared spaces. Increased cleaning regimen	Industry open w/ precautions for staff & guests.
Events & Entertainment	In-person operation of this industry is allowable under strict social-distancing restrictions, increased cleaning regimen and group size must allow for all distancing guidelines to be followed within each event venue.	In-person operation of this industry is allowable with strict social-distancing requirements and increased cleaning regimen. Operational protocols in place to ensure safe distancing restrictions are met.	In-person operation of this industry is allowable with strict social-distancing requirements and increased cleaning regimen. Operational protocols in place to ensure safe distancing restrictions are met.	Large groups allowed. Mass gatherings follow proper safety procedures & precautions for monitoring symptoms.
Personal Services	Extreme limitations	Operate under strict hygiene protocols. Service provider & customer must wear face coverings. Meticulous monitoring of symptoms.	Operate under strict hygiene protocols. Service provider & customer must wear face coverings. Meticulous monitoring of symptoms.	Industry open with strict hygiene regimen and symptom monitoring.
Home Repair	Strict hygiene & reduced group interactions. Monitor symptoms of staff.	Strict hygiene & reduced group interactions. Monitor symptoms of staff.	Strict hygiene. Monitor symptoms of staff.	Increased hygiene.
Gyms	Fitness centers & gyms are closed.	Fitness centers & gyms are recommended to be closed. If open, fitness & gyms should follow space & cleaning guidance.	Fitness centers & gyms open with specific space and cleaning supply guidance.	Gyms open with some cleaning supply guidance.
Construction/ Manufacturing	Strict hygiene & reduced group interactions. Monitor symptoms of staff.	Strict hygiene & reduced group interactions. Monitor symptoms of staff.	Strict hygiene. Monitor symptoms of staff.	Increased hygiene.
Day Care	Enhanced cleaning and distancing protocols. No symptomatic children.	Enhanced cleaning and distancing protocols. No symptomatic children.	Enhanced cleaning & distancing protocols. No symptomatic children.	Enhanced cleaning. No symptomatic children.

Source: Utah Governor's Office of Management Budget and Utah Department of Health

For detailed industry-specific guidelines, visit coronavirus.utah.gov.