Society of Gynecologic Oncology

Surgical Considerations for Gynecologic Oncologists During the COVID-19 Pandemic

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The COVID-19 pandemic has created unique challenges to providing timely care for our patients. These challenges are particularly distressing for patients with a cancer diagnosis and for providers who care for them. At this time, circumstances vary broadly by region and by hospital depending on COVID-19 prevalence, case mix, hospital type and available resources. For this reason, practice guidelines must be individualized and will vary by location. Special consideration is necessary to evaluate the appropriateness of procedural interventions, recognizing the significant resources they require (i.e., equipment, space and staff). The purpose of this document is to highlight considerations in gynecologic oncology surgical practice that all clinicians and hospitals must plan for.

1. How is surgical urgency determined for gynecologic cancer cases?

- Indication for surgery is classified as elective/non-urgent, semi-urgent, and urgent/emergent.
- The Elective Surgery Acuity Scale (ESAS), modified here for gynecologic oncology procedures, may assist surgeons with general procedural classification and prioritization (Table 1). Most gynecologic oncology procedural indications will fall into a Tier 3a/b (semi-urgent) category:

Table 1: Modified Elective Surgery Acuity Scale (ESAS)

Tiers/ Description	Definition	Locations	Examples	Action
Tier 1a*	**Low acuity surgery/healthy patient** Outpatient surgery Not life threatening illness	Ambulatory surgical center (ASC) Hospital with low/no COVID- 19 census	Surgery for benign-appearing ovarian cysts Hysterectomy for menorrhagia without anemia	Postpone surgery or perform at ASC
Tier 1b*	**Low acuity surgery/unhealthy patient**	ASC Hospital with low/no COVID-19 census		Postpone surgery or perform at ASC
Tier 2a*	**Intermediate acuity surgery/healthy patient** Not life threatening but potential for future morbidity and mortality. May require in-hospital stay	ASC in select cases Hospital with low/no COVID-19 census	Hysterectomy for pre-cancerous conditions or low risk endometrial cancer	Postpone surgery or consider ASC
Tier 2b*	**Intermediate acuity surgery/unhealthy patient**	ASC Hospital with low/no COVID-19 census		Postpone surgery if possible or consider ASC
Tier 3a*	**High acuity surgery/healthy patient** Potentially life threatening or patient is highly symptomatic Requires in-hospital stay	Hospital	Surgery for most cancers Resection of masses resulting in significant end-organ damage or quality of life impairment	Do not postpone
Tier 3b	**High acuity surgery/unhealthy patient**	Hospital		Do not postpone

***If high COVID-19 census for any tier, case prioritization may change.**

- Accurate triage is critical to preserving resources and protecting staff and patients. Just as we consider the risks and benefits of any therapeutic intervention, we must now consider the potential exposure of patients and staff to COVID-19 as a genuine risk.
- While definitions will vary by institution, a diagnosis of cancer in most cases does not represent an urgent/emergent indication. However, the American College of Surgeons (ACS) and the Centers for Medicare and Medicaid Services have categorized most gynecologic cancer cases as semi-urgent (i.e., non-elective) surgeries, second only to trauma cases and surgical emergencies in their importance. **The ACS further opines that if cancer cases are significantly delayed, this could result in significant patient harm.**
- Broad decisions regarding proceeding with semi-urgent and non-urgent surgeries must be made locally at the state health department and hospital system levels.
- When surgery is an option, clinicians should engage in informed consent and shared decision making with their patients, with attention to counseling patients about the risks of surgical delay versus in hospital COVID-19 exposure. Documentation of this counseling in the surgical consent or consultation note is recommended. Clinicians should inform patients that decisions regarding cancer surgery are consensus-based and determined based on 1) local/projected resources, 2) COVID-19 prevalence, 3) patient and tumor characteristics and 4) expected outcomes from delays.
- Consider the following guidelines for specific procedural prioritization (Table 2):

Table 2: Guidelines for Emergent, Semi-Urgent and Non-Urgent Gynecologic Oncology Surgeries

URGENT/EMERGENT Immediate	SEMI-URGENT TIER 3A/3B 1–4 weeks	NON-URGENT TIER 2A/2B >4–12 weeks
• Viscus perforation • Closed-loop bowel or colonic obstruction • Incarcerated hernia with gynecologic tumor • Vaginal, uterine or pelvic hemorrhage • Molar pregnancy • Pelvic mass with torsion or causing urinary or intestinal obstruction *CRS = cytoreductive surgery *PEG = percutaneous gastrostomy surgery *VAIN=vaginal intra-epithelial neoplasia *VIN=vulvar intraepithelial neoplasia *CIN=cervical intraepithelial neoplasia *CAH/EIN=complex atypical hyperplasia/ endometrial intra-epithelial neoplasia	• Establishment of cancer diagnosis when high suspicion exists (e.g., diagnostic laparoscopy, D&C Hysteroscopy etc.) • Grade 1 endometrial cancer when hormonal therapy is contra-indicated or not possible • High grade uterine cancers, all stages (e.g., epithelial and sarcoma histotypes) • Cervical and vulvar cancers—surgery with curative intent • Cervical and vaginal malignancies requiring radiation applicators • Cervical AIS or inadequate colposcopy and concern for invasive cancer • Advanced ovarian cancer, particularly interval CRS • Abdominopelvic masses concerning for malignancy • Symptomatic gynecologic cancer in pregnancy requiring surgery • Patients with recurrent disease without non-surgical options • Symptomatic patients with inoperable primary or recurrent cancer requiring palliative cancer procedures (e.g., diverting colostomy, venting PEG tubes, but not including exenteration) • Moderate-severe anemia requiring repeated transfusion • Consider postponing total pelvic exenteration during the COVID-19 pandemic	• Risk reducing surgery for genetic predisposition to gynecologic cancer • Benign-appearing ovarian cysts/masses • Hysterectomy for benign disease • VAIN/VIN 2-3 • CIN 2-3 • CAH/EIN; Grade 1 endometrial cancer when hormonal therapy is not contraindicated • Completion surgery for early-stage ovarian cancer • Recurrent cancer requiring palliative resection

- Since the COVID-19 pandemic, blood donation shortages are evident nationwide. Therefore, surgeons and health care systems must consider the local availability of blood products in their surgery scheduling protocols. Care providers in good health should also consider donating blood and encourage others to do so as well.
- If a hospital elects to temporarily suspend non-urgent and semi-urgent surgical indications, gynecologic oncologists should be prepared to delay most patients with a cancer diagnosis. This does not imply that our patients and our work are not important; it simply acknowledges the reality that we must preserve the capability of treating truly urgent indications in regions with relatively low resources or high COVID-19 burdens.
- Non-surgical management of select lower-risk cancers may be appropriate in some cases. Suggestions regarding non-surgical management of gynecologic malignancies when surgical options are unavailable or contraindicated are found in the March 23, 2020, SGO COVID-19 Communiqué: Gynecologic Oncology Considerations during the COVID-19 Pandemic
- Consider proceeding with surgery when non-surgical management has been optimized and failed, or when delaying surgery may result in prolonged hospitalization, readmission or greater morbidity.

2. What is an acceptable delay for patients with a cancer diagnosis?

- From a psychologic perspective, no delay is acceptable.
- From an oncologic perspective, up to 3–8 week delays may be reasonable for select cancer cases if risks of COVID-19 exposure are deemed high enough to limit scheduling for urgent indications. Consider referral to regional colleagues, if feasible and safe, to continue surgical treatment of semi-urgent patients.
- While data are quite limited and subject to considerable confounding, existing investigations provide some reassurance to patients and providers.
- If semi-urgent cases are no longer permitted at a provider's institution, patients requesting appointments should be carefully triaged to identify patients who have impending conditions justifying expedited intervention.
- Notably, it is vital to recognize that patients with advanced or high-grade cancer conditions who are significantly delayed may develop worsening symptoms or disease progression and become urgent cases. Thus, when possible, a provider should re-evaluate patients at no greater than every 2–4 week intervals.
- Finally, it is critical to begin prioritizing patients now who have the most to gain from an operation once full services are restored. Providers should consider prioritizing women with tumors that are likely to be highly curable, including apparent early-stage, low and high grade cancers, as well as those with advanced gynecologic malignancies who require surgery or with symptoms necessitating surgical palliation.

3. In what patient populations should surgeons proceed with caution?

- Whenever possible, avoid operating on known COVID-19 positive patients or those with flu-like symptoms and unknown COVID-19 status, unless the case is emergent/urgent.
- Patients who are >65-years-old or those who are immune compromised or with comorbidities such as uncontrolled diabetes, cardiovascular disease or chronic pulmonary disease may be at greater risk of serious illness from COVID-19. Surgery should be considered in these populations only when a significant delay would result in a greater risk of patient harm or threat to life.
- Patients with cancer undergoing hospitalization or chemotherapy/radiation treatment may be at a greater risk of COVID-19 infection, according to a recent JAMA Oncology report. Notably, the majority of infected patients in this study had lung cancer and there were no patients with gynecologic cancer.

4. What other strategies can gynecologic oncology surgeons employ to protect themselves and their patients?

- There is no more important intervention than social distancing, both inside and outside of the workplace, to lessen the impact of COVID-19 on our country's health. When not engaged in essential, on-site clinical or institutional duties, consider working from home.
- Optimize virtual patient encounters through telehealth, including select new patient surgical consults.
- Universally screen patients prior to clinical visits and surgery for known symptoms of COVID-19.
- When resources are available, consider preoperative COVID-19 testing of all patients undergoing surgery. In the future, serologic testing may improve our ability to detect recent exposure or identify those who have recovered.
- Use personal protective equipment (PPE) per institutional/professional society recommendations.
- To maintain the smallest possible inpatient footprint and reduce over-utilization of PPE and COVID-19 exposure risks, pursue same day surgical discharges whenever possible.

References:

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Disclaimer: This document is produced by the **COVID-19 Task Force** and dispatched in a rapidly evolving environment with enormous variation depending on time and location. They are not to be construed as hard and fast practice guidelines, but temporary considerations during the COVID-19 emergency crisis. For more information:

- **COVID-19 Resources**
- **SGO COVID-19 Listserv**
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