



100+years

AMERICAN COLLEGE OF SURGEONS

*Inspiring Quality:
Highest Standards, Better Outcomes*

COVID 19: Elective Case Triage Guidelines for Surgical Care

Emergency General Surgery

Revised 12/8/2020

These guidelines are meant to provide advice for surgeons and to serve the best interests of patients based on estimates of risk for *average* patients (in terms of clinical condition, patient health, hospital resource availability) and are meant to be considered for patients presenting with general surgical emergencies during this pandemic. For patients who are known to be COVID-19 positive or at high clinical suspicion for COVID infection, non-operative management is preferred, if feasible and safe for the patient. If operation is required in these patients then appropriate PPE should be utilized and precautions taken to protect the health care team.

- The American College of Surgeons has a tremendous amount of respect and trust in the judgment and commitment of our Fellows. The information provided should not be considered rigid guidelines, and are not intended to supplant clinical judgment. Nor is the information intended to impede the development of consensus regarding institutional and local approaches to treatment guidelines. There is a great deal of uncertainty around this evolving pandemic and a large amount of regional variability. In this fluid and variable environment, information changes rapidly.
- It is very likely that the strategies outlined in this document may change as our understanding of unique challenges that COVID-19 poses within each country, state, and health care environment evolves.

Guiding Principles

- The goal is to provide timely surgical care to patients presenting with urgent and emergent surgical conditions while optimizing patient care resources (e.g., hospital and intensive care unit beds, personal protective equipment, ventilators) and preserving the health of caregivers.
- There is no substitute for sound surgical judgement

- Procedures and operations should be performed if delaying the procedure or operation is likely to prolong the hospital stay, increase the likelihood of later hospital admission, or cause harm to the patient.
- Patients who have failed attempts at medical management of a surgical condition should be considered for surgery to decrease the future use of resources
- Multidisciplinary shared decisions regarding surgical scheduling should be made in the context of available institutional resources that will be variable and rapidly evolving.
<https://www.facs.org/covid-19/clinical-guidance/review-committee>

Specific Conditions to Consider

Acute Hemorrhoidal Thrombosis/Necrosis

Most acute hemorrhoidal conditions can be managed non-operatively based on the judgment of the surgeon. Where possible, management under local anesthesia in an outpatient setting may be appropriate. Emergency surgical procedures should generally be reserved for significant bleeding and severe disease or disease unresponsive to non-operative measures.

Perianal or Perirectal Abscess

Perianal abscesses that are superficial and localized may be managed with incision and drainage with local anesthesia based on the surgeon's usual indications. Incision and drainage of larger perirectal abscesses in the operating room should not be delayed in order to ensure adequate initial drainage, prevent extension of the disease to an invasive infection and shorten hospital stay. If the operating room is not available percutaneous drainage should be considered as an alternative and temporizing measure.

Soft Tissue Infections

Superficial and localized abscesses may be managed with incision and drainage with local anesthesia. Incision and drainage in the operating room of larger abscesses or those with an intra-muscular component is preferred to ensure adequate initial drainage and shorten hospital stay. Patients with concern for necrotizing soft tissue infections should proceed with emergent debridement.

Acute Pancreatitis with Necrosis

Antimicrobial therapy should be used if infected necrosis is confirmed. The "step up" approach is recommended which includes: percutaneous drainage, endoscopic debridement or by interventional radiologic techniques (note that I/R techniques may be preferred in COVID positive patients due to risk of aerosolization with endoscopy), followed by laparoscopic or open operative drainage if no other option available.

Van Santvoort HC, Besselink MG, Bakker OJ, et al. A step-up approach or open necrosectomy for necrotizing pancreatitis. *N Engl J Med*. 2010;362:1491-1502.

<https://www.nejm.org/doi/full/10.1056/nejmoa0908821>

Pneumoperitoneum, Intestinal Ischemia, Intestinal Obstruction

Patients presenting with suspected bowel perforation, intestinal ischemia, closed loop obstruction, or obstruction secondary to incarcerated hernia should proceed with emergent surgery. Non-operative management of small bowel obstruction secondary to adhesions should follow usual practice.

Appendicitis, Uncomplicated

There is high-quality evidence that most patients with appendicitis can be managed with antibiotics instead of appendectomy (69 percent overall avoid appendectomy by 90 days, 75 percent of those without appendicolith, and 59 percent of those with appendicolith). Based on the surgeon's judgment, patient preferences, and local resources (e.g., hospital staff, bed, and PPE supply availability) antibiotics are an acceptable first-line treatment, with appendectomy offered for those with worsening or recurrent symptoms. Length of time in the hospital setting was similar between treatments, but nearly half of patients receiving antibiotics were not admitted to the hospital. Antibiotics resulted in more 90-day emergency room visits and hospitalizations. Antibiotics were associated with a higher risk of complications in those with an appendicolith.

CODA Collaborative, Flum DR, Davidson GH, et al. A Randomized Trial Comparing Antibiotics with Appendectomy for Appendicitis. *N Engl J Med*. 2020;383(20):1907-1919. [doi:10.1056/NEJMoa2014320](https://doi.org/10.1056/NEJMoa2014320)

Frazer RC, Abernathy SW, Davis M, Hendricks JC, Isbell TV, Regner JL, Smith RW. Outpatient laparoscopic appendectomy should be the standard of care for uncomplicated appendicitis. *J Trauma Acute Care Surg*. 2014 Jan;76(1):79-83. [doi: 10.1097/TA.0b013e3182ab0d42](https://doi.org/10.1097/TA.0b013e3182ab0d42)

Mahida JB, Lodwick DL, Macion KM, et al. High failure rate of nonoperative management of acute appendicitis with an appendicolith in children. *J Pediatr Surg*. 2016;51(6):908-911. <https://doi.org/10.1016/j.jpedsurg.2016.02.056>

Appendicitis, Complicated

Complicated appendicitis can be managed per usual practice. In brief, all patients should receive IV antibiotics until clinically improving, followed by transition to PO antibiotics. Patients with a defined abscess should undergo percutaneous drainage. Patients with evidence of perforation may be managed with percutaneous drainage or operation based on patient condition. Patients who fail non-operative management should proceed to surgery expeditiously.

Symptomatic Cholelithiasis

Patients with symptomatic cholelithiasis and chronic cholecystitis should have their pain managed. If this is feasible, surgery should be delayed and performed electively. For patients with crescendo symptoms, and for those with pain refractory to medical management, consider laparoscopic cholecystectomy.

Choledocholithiasis

Patients with choledocholithiasis without signs of cholangitis may be managed expectantly. For those with larger stones, and those who fail to spontaneously pass their stone, an ERCP with sphincterotomy, followed by elective cholecystectomy in a delayed fashion is appropriate. Note that appropriate precautions should be taken for ERCP in patients with COVID-19 infection as it should be considered an aerosolizing procedure.

Acute Cholecystitis

Healthy patients with acute cholecystitis should undergo laparoscopic cholecystectomy to minimize hospital stay. If the patient is too high risk for surgery or an operating room is not available then consider IV antibiotics. Patients who fail to clinically improve on antibiotics, and those with signs of sepsis should undergo percutaneous cholecystostomy in addition to the administration of IV antibiotics

Cholangitis

Patients with ascending cholangitis often respond to broad spectrum antibiotics and appropriate resuscitation. For patients that fail to clinically improve and those with sepsis, ERCP and sphincterotomy are indicated. If there is a concern for concomitant cholecystitis, percutaneous cholecystostomy may be appropriate. Note that appropriate precautions should be taken for ERCP in patients with COVID-19 infection as it should be considered an aerosolizing procedure. Cholecystectomy should be performed in a delayed fashion.

Diverticulitis

Uncomplicated diverticulitis can be managed with usual care which includes IV antibiotics with transition to PO antibiotics. Patients who present with purulent or feculent peritonitis with diffuse pneumoperitoneum should undergo surgery. Hinchey class 1 and 2 diverticulitis should be managed with percutaneous drainage in addition to antimicrobial therapy. Patients with phlegmon may be successfully managed with antibiotics, with percutaneous drainage reserved for subsequent abscess development. Patients who fail non-operative management should proceed to surgery expeditiously