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Zana Alattar and Natasha Keric



Video content accompanies this article at <http://www.surgical.theclinics.com>.

Early primary assessment and abdominal examination can often be enough to triage the patient with abdominal pain into those with less severe underlying pathologic condition from those with more acute findings. A focused history of the patient can then allow the clinician to develop their differential diagnosis. Once the differential diagnoses are determined, diagnostic imaging and laboratory findings can help confirm the diagnosis and allow for expeditious treatment and intervention.

Resuscitation and Preparation of the Emergency General Surgery Patient	1061
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Brett Harden Waibel and Andrew James Kamien

Traditionally, the workflow surrounding a general surgery patient allows for a period of evaluation and optimization of underlying medical issues to allow for risk modification; however, in the emergency, this optimization period is largely condensed because of its time-dependent nature. Because the lack of optimization can lead to complications, the ability to rapidly resuscitate the patient, proceed to procedural intervention to control the situation, and manage common medical comorbidities is paramount. This article provides an overview on these subjects.

Thoracic Emergencies for the General Surgeon	1085
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Jane Zhao and Desmond M. D'Souza

In this review article, we aim to provide an overview of common and uncommon general surgery thoracic emergencies as well as basic thoracic anatomy, common diagnostic tests, and operative positioning and access considerations. We also describe specific thoracic procedures. We hope that this article simplifies some of the challenges associated with the management of thoracic emergencies.

Gastric, Duodenal, and Small Bowel Emergencies

1097

Brianna S. Williams, Teresa A. Huynh, and Ahmed Mahmoud

Gastric and small bowel emergencies are often seen in the emergency department and require rapid assessment and intervention as patients can deteriorate quickly. Some of the more frequently seen gastric emergencies include gastric volvulus and peptic ulcer disease, which can present with ischemia, strangulation, perforation, or severe bleeding. Swift diagnosis is crucial to ensuring the proper management whether that is endoscopic or with surgical exploration. Perforated peptic ulcers that are not contained will require surgical intervention, whereas bleeding ulcers can often be controlled with endoscopic interventions.

Bariatric Surgery Emergencies in Acute Care Surgery

1113

Kalyana C. Nandipati and Kristin C. Bremer

Patients who have undergone bariatric surgery present unique challenges in the acute care surgery setting. This review includes the presentation, workup, and management of most common bariatric surgery emergencies encountered by acute care surgery.

Management of Colonic Emergencies

1133

Haddon Pantel and Vikram B. Reddy

The etiology of colonic emergencies includes a wide-ranging and diverse set of pathologic conditions. Fortunately, for the surgeon treating a patient with one of these emergencies, the surgical management of these various causes is limited to choosing among proximal diversion, segmental colectomy with or without proximal diversion, or a total abdominal colectomy with end ileostomy (or rarely, an ileorectal anastomosis). The nuanced complexity in these situations usually revolves around the nonsurgical and/or endoscopic options and deciding when to proceed to the operating room.

Anorectal Emergencies

1153

Melissa K. Drezdzon and Carrie Y. Peterson

Anorectal emergencies are rare presentations of common anorectal disorders, and surgeons are often called on to assist in their diagnosis and management. Although most patients presenting with anorectal emergencies can be managed nonoperatively or with a bedside procedure, surgeons must also be able to identify surgical anorectal emergencies, such as gangrenous rectal prolapse. This article provides a review of pertinent anatomy; examination techniques; and workup, diagnosis, and management of common anorectal emergencies including thrombosed hemorrhoids, incarcerated hemorrhoids, anal fissure, anorectal abscess, rectal prolapse, and pilonidal abscess and unique situations including rectal foreign body and anorectal sexually transmitted infections.

Non-Traumatic Hepatobiliary Emergencies

1171

Christopher Decker and Dorothy Liu

Hepatobiliary emergencies typically present with a constellation of different symptoms including abdominal pain, fevers, nausea, vomiting.

jaundice, coagulopathy, and in some instances, encephalopathy. The differential can be broad and may include infectious, inflammatory, and even iatrogenic etiologies. Workup with appropriate lab and imaging studies can help discern between different pathologies and thus guide their management. Interventions can range broadly from conservative management with medical therapy to endoscopic options or surgery. This article explores the diagnostic workup and evaluation as well as the current therapeutic interventions for a variety of these nontraumatic hepatobiliary emergencies based on the most current literature.

Diabetic Soft Tissue Infections

1191

Christine Castater, Elliot Bishop, Adora Santos, Mari Freedberg, Phillip Kim, and Christopher Sciarretta

Diabetes is a systemic illness that can cause a broad range of physiologic effects. Infection rates and wound healing are both affected through multiple mechanisms. Other physiologic changes increase risk for wounds as well as complex soft tissue infections ranging from simple cellulitis to necrotizing soft tissue infections. Clinicians and surgeons need to have a low index of suspicion for severe infection in a patient presenting with diabetes, and even more so in patients with uncontrolled diabetes.

General Surgery During Pregnancy and Gynecologic Emergencies

1217

Raymond Traweck, Vivy Phan, Chad Griesbach, and Chad Hall

Nonobstetrical surgical emergencies can occur throughout pregnancy but are often difficult to diagnose due to the physiologic and anatomical changes that occur during pregnancy. Medical providers should have insight into these changes and be familiar with options for the diagnosis and management of common nonobstetrical surgical emergencies, such as appendicitis, cholecystitis, and small bowel obstruction. Surgeons should also be aware of obstetrical emergencies, such as ectopic pregnancy and severe vaginal bleeding, which may be life threatening to mother and the fetus. Intraoperatively, surgeons should be familiar with minimally invasive approaches for surgical diseases and special anesthetic considerations for pregnant patients.

Surgical Emergencies in Patients with Significant Comorbid Diseases

1231

Jacqueline Blank, Adam M. Shiroff, and Lewis J. Kaplan

Emergency surgery in patients with significant comorbidities benefits from a structured approach to preoperative evaluation, intra-operative intervention, and postoperative management. Providing goal concordant care is ideal using shared decision-making. When operation cannot achieve the patient's goal, non-operative therapy including Comfort Care is appropriate. When surgical therapy is offered, preoperative physiology-improving interventions are far fewer than in other phases. Reevaluation of clinical care progress helps define trajectory and inform goals of care. Palliative Care Medicine may be critical in supporting loved ones during a patient's critical illness. Outcome evaluation defines successful strategies and outline opportunities for improvement.

Optimization of Care for the Elderly Surgical Emergency Patient 1253

Rachel Lynne Warner, Nadia Iwanyshyn, Donald Johnson, and David J. Skarupa

Geriatric patients undergoing emergency surgery are at significantly higher risk for complications and death when compared with younger patients. Optimizing care for these patients requires a multidisciplinary team, special attention to physiologic changes and medication use, as well as targeted intervention to mitigate complications such as delirium, which can worsen overall outcomes. Frailty can be assessed preoperatively to identify patients at the highest risk for complications. Shared decision-making with both the family and patient during the consent process is integral to defining patient's goals of care in these high-risk situations.

Damage Control Surgery and Transfer in Emergency General Surgery 1269

Carlos A. Fernandez

Selective non traumatic emergency surgery patients are targets for damage control surgery (DCS) to prevent or treat abdominal compartment syndrome and the lethal triad. However, DCS is still a subject of controversy. As a concept, DCS describes a series of abbreviated surgical procedures to allow rapid source control of hemorrhage and contamination in patients with circulatory shock to allow resuscitation and stabilization in the intensive care unit followed by delayed return to the operating room for definitive surgical management once the patient becomes physiologic stable. If appropriately applied, the DCS morbidity and mortality can be significantly reduced.

Palliative Emergency General Surgery 1283

Gregory Schaefer, Daniel Regier, and Conley Stout

Acute care surgeons encounter patients experiencing surgical emergencies related to advanced malignancy, catastrophic vascular events, or associated with multisystem organ failure. The acute nature is a factor in establishing a relationship between surgeon, patient, and family. Surgeons must use effective communication skills, empathy, and a knowledge of legal and ethical foundations. Training in palliative care principles is limited in many medical school and residency curricula. We offer examples of clinical situations facing acute care surgeons and discuss evidence-based recommendations to facilitate successful treatment and outcomes.