

Table 0: Description of Grading System for Anatomic Severity of Disease in Emergency

Grade	Description
Grade I	Local disease confined to the organ with minimal abnormality
Grade II	Local disease confined to the organ with severe abnormality
Grade III	Local extension beyond the organ
Grade IV	Regional extension beyond the organ
Grade V	Widespread extension beyond the organ

Table 1: Universal Grading System for Eight Emergent General Surgical Diseases

Grade	AAST Disease Grade Description	Breast Infections	Esophageal Preforation	Infectious Colitis	Pelvic Inflammatory Disease
I	Local disease Confined to the organ Minimal abnormality	Cellulitis	Mucosal tear	Mucosal disease	Inflammation of the cervix
II	Local disease Confined to the organ Severe abnormality	Simple abscess (without loculations, not involving the nipple/areolar complex)	Full thickness tear with minimal inflammation	Localized colon wall thickening or pseudomembranes or dilation	Purulent cervical drainage
III	Local extension beyond the organ	Complex abscess (i.e. loculations, involving nipple/areolar complex, axillary lymphadenopathy)	Full thickness tear with localized abscess	Diffuse colon wall thickening or dilation, or coalescing pseudomembranes	Inflammation of the tubes, ovaries, and/or entire uterus
IV	Regional extension beyond the organ	Breast abscess with suppurative ipsilateral lymphadenopathy, thrombophlebitis, lymphangitis	Esophageal wall necrosis	Localized colonic necrosis, with or without perforation	Tubo-ovarian abscess, pyometra
V	Widespread extension beyond the organ	Erosion into the chest wall or necrotizing fasciitis	Empyema, peritonitis, mediastinitis	Diffuse transmural colonic necrosis, with or without perforation	Generalized pelvic and peritoneal suppuration

Table 1: (Continued)

Grade	AAST Disease Grade Description	Perirectal Abscess	Pleural Space Infection	Soft Tissue Infection	Surgical Site Infection
I	Local disease Confined to the organ Minimal abnormality	Perianal abscess	Localized, infected retained hemothorax or pleural effusion	Cellulitis	Infection involving skin only
II	Local disease Confined to the organ Severe abnormality	Intersphincteric abscess or ischiorectal abscess	Generalized, infected retained hemothorax or pleural effusion	Superficial necrosis OR liquefaction	Infection involving subcutaneous tissue
III	Beyond the organ Locally extension	Horseshoe abscess or extrasphincteric abscess	Multiple, loculated effusions or hemothorax	Subcutaneous abscess	Infection involving fascia or muscle layer
IV	Beyond the organ Regional extension	Supralevator abscess	Organizing collection with restricted lung expansion	Deep space abscess	Infection involving body cavity/deep space that was opened or manipulated during the surgery
V	Beyond the organ Widespread extension	Necrotizing soft tissue infection of the perineum, buttocks (Fournier's gangrene)	Mediastinal, diaphragm, or chest wall infection or necrosis	Myonecrosis, fasciitis	Involvement of body cavity/deep space away from the site that was opened or manipulated during the surgery

Table 2: Grading for Eight Gastrointestinal Conditions Commonly Encountered in Emergency General Surgery

Grade	AAST Disease Grade Description	Appendicitis	Perforated Peptic Ulcer (Gastric or Duodenal)	Acute Diverticulitis of Colon	Acute Cholecystitis
I	Local disease Confined to the organ Minimal abnormality	Acutely inflamed appendix, intact	Micro-perforation without peritonitis	Colonic inflammation	Acute cholecystitis
II	Local disease Confined to the organ Severe abnormality	Gangrenous appendix, intact	Contained perforation with localized peritonitis	Colon microperforation or pericolic phlegmon without abscess	Gall bladder empyema or gangrenous cholecystitis or emphysematous cholecystitis
III	Local extension beyond the organ	Perforated appendix with local contamination	Perforation with localized peritonitis and localized fluid collection in lesser sac or right upper quadrant	Localized pericolic abscess	Gall bladder perforation with local contamination
IV	Regional extension beyond the organ	Perforated appendix with periappendiceal phlegmon or abscess	Free perforation with peritonitis	Distant abscesses	Gall bladder perforation with pericholecystic abscess or gastrointestinal fistula
V	Widespread extension beyond the organ	Perforated appendix with generalized peritonitis	Perforation with duodenal destruction ± penetration into adjacent organs and generalized peritonitis	Free colonic perforation with generalized peritonitis	Gall bladder perforation with generalized peritonitis

Table 2: (Continued)

Grade	AAST Disease Grade Description	Intestinal Obstruction – Small and Large Bowel	Arterial Ischemic Bowel	Hernias (Internal or Abdominal Wall)	Acute Pancreatitis
I	Local disease Confined to the organ Minimal abnormality	Partial obstruction	Ischemia without tissue loss	Reducible	Acute edematous pancreatitis
II	Local disease Confined to the organ Severe abnormality	Complete obstruction, without bowel ischemia	Ischemia with mucosal ulceration only, without transmural infarction	Incarcerated without bowel ischemia	Phlegmon OR peripancreatic fluid collection OR hemorrhage
III	Beyond the organ Locally extension	Complete obstruction, bowel ischemic but viable	Segmental transmural infarction without perforation	Incarcerated with bowel ischemic but viable	Sterile necrosis
IV	Beyond the organ Regional extension	Complete obstruction with gangrenous bowel OR perforation with local spillage	Segmental transmural infarction with perforation	Incarcerated with gangrenous bowel OR perforation with local spillage	Infected necrosis OR abscess
V	Beyond the organ Widespread extension	Perforation with diffuse peritoneal contamination	Pan-intestinal infarction	Incarcerated with perforation and diffuse peritoneal contamination	Extra-pancreatic extension of necrosis involving adjacent organs, such as colonic necrosis