Patient Care

Goals and Objectives

1) Stomach/Duodenum and Bariatric
2) Interpret the results of clinical evaluations (history, physical examination) performed on patients being assessed for
   a) Obesity surgery
   b) Treatment of
      i) adenocarcinoma of the stomach
      ii) GIST
      iii) Carcinoid
3) Optimize preoperative preparation of patients undergoing bariatric procedures by assessing patient risk,
   i) focusing on
   b) Pulmonary hypertension, coronary artery disease, and right heart failure
   c) Sleep apnea and hypoxemia/hypoventilation syndrome
   d) Associated hepatobiliary disease
      i. NAFLD
      ii. Gallstones
   e) VTE prophylaxis
   f) Infection prophylaxis
4) Interpret the results of postoperative patient monitoring after bariatric procedures, focusing on
   a) Fluids and electrolytes
   b) Pain management
   c) Oxygenation (continuous pulse oximetry)
5) Interpret the results of postoperative monitoring to identify complications after bariatric procedures, including
   a) Anastomotic leak (of gastrojejunostomy, jejunojejunostomy, or gastric remnant staple line)
   b) Bleeding (intraluminal versus intraabdominal)
   c) Acute gastric obstruction (band)
   d) VTE
   e) Soft tissue and deep infection
   f) Pneumonia

Gallbladder

1. Interpret the results of clinical evaluations (history, physical examination) performed on patients being evaluated for
   1. biliary colic
   2. biliary dyskinesia
   3. choledocholithiasis
2. Optimize preoperative preparation of patients undergoing biliary procedures by assessing patient risk.
3. Interpret the results of postoperative monitoring to manage patient recovery after biliary procedures.
4. Interpret the results of postoperative monitoring to identify complications after biliary procedures,
   including
   a. Bile leak
   b. Biliary stricture
c. Wound infection and deep infection

**Acute Abdomen**

1. Interpret the results of clinical evaluations (history, physical examination) performed on patients with acute abdominal pain, being evaluated for
   1. Appendicitis
   2. Pancreatitis
   3. Cholecystitis
   4. Small bowel obstruction
   5. Mesenteric or colonic ischemia
   6. Acute hernia
   7. Perforated viscus
2. Identify the optimal imaging and laboratory assessment of patients being evaluated for the above conditions.
3. Optimize preoperative preparation of patients undergoing emergency procedures for the above conditions, including
   1. Correction of volume and electrolyte deficits
   2. Antimicrobial therapy
   3. Management of coagulopathy
2. Interpret the results of postoperative monitoring to manage patient recovery after emergency procedures for the above conditions.
3. Interpret the results of postoperative monitoring to identify complications after emergency procedures for the above conditions including
   1. Intra-abdominal abscess after appendectomy, cholecystectomy, bowel resection
   2. Necrosis, pseudocyst formation or bleeding after pancreatectomy
   3. Ileus
   4. Anastomotic leak
   5. Bowel obstruction

**Complex and/or Reoperative Surgery (including ventral hernia, enterocutaneous fistulas)**

1. Interpret the results of clinical evaluations (history, physical examination) performed on patients being evaluated with the above conditions to prioritize initial management including
   1. Control of infection
   2. Volume and electrolyte resuscitation
   3. Nutritional support
2. Determine the optimal diagnostic approach to evaluate patients with the above clinical conditions to achieve the following goals
   1. Immediate need for assessment and control of infection
   2. Overall status assessment to identify
      i. the patient’s tolerance for the treatment options
      ii. the timing of definitive treatment
3. Use the results of the diagnostic imaging studies to determine the treatment options for the above clinical conditions.
4. Interpret the results of postoperative monitoring to manage patient recovery after procedures for the above conditions.
5. Interpret the results of postoperative monitoring to identify complications after procedures for the above conditions, including
1. Intra-abdominal abscess
2. Ileus
3. Anastomotic leak
4. Bowel obstruction

RESPONSIBILITIES & EXPECTATIONS

1. See all service and consult patients daily on rounds with the team to discuss status, formulate management plans and anticipate discharge planning

2. Review all patient imaging studies—not just the reports—with the team and a radiologist as appropriate, particularly studies performed at other facilities.

3. Use UCare Synopsis for patient tracking and sign-out.
4. Promptly notify the service chief resident and/or attending of changes in patient status as directed by
   1. The rules of the specific institution
   2. The rules of the residency training program
   3. The rules of the Red Surgery Service Manual, including
      i. any change in the level of care.
      ii. any patient who vomits more than once within 12 hours
      iii. any patient who requires more than one fluid bolus within 12 hours
      iv. any drop in hematocrit >3 units
      v. any patient with abnormally changed vital signs. The most common error is hypotension (SBP<90) mis-attributed to an epidural, when in fact the patient is bleeding.

MEDICAL KNOWLEDGE

GOALS & OBJECTIVES Stomach/Duodenum

1. describe the pathophysiology of peptic ulcer disease.
2. analyze the etiologic factors in the development of peptic ulcer disease, including the role of
   1. helicobacter pylori
   2. NSAIDS
   3. Antiplatelet agents
   4. Zollinger-Ellison syndrome
3. Describe and contrast the diagnostic tests available for helicobacter pylori.
4. Compare and contrast the diagnostic approaches for gastric and duodenal ulcers (upper GI series versus upper endoscopy).
5. Discuss the usefulness of biopsy to differentiate between benign and malignant gastric ulcers.

Bariatric

1. describe the 1991 NIH consensus criteria for surgical management of morbid obesity
2. discuss the impact of the following comorbidities of obesity, including the impact on the risk of bariatric procedures
   1. pulmonary hypertension
   2. CHF
3. coronary artery disease
4. sleep apnea
5. hypoxemia/hypoventilation syndrome
6. asthma
7. hyperlipidemia/hypercholesterolemia
8. diabetes/insulin resistance
9. venous stasis
10. GERD
11. DJD

3. Describe the benefits of bariatric surgery in terms of
   1. Weight loss
   2. Life expectancy
   3. Quality of life
   4. Resolution of comorbidities

**Gallbladder**

1. describe
2. describe

the prevalence and natural history of gallstones. the pathophysiology of gallstone formation.

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3. describe
4. describe

iv. acalculous cholecystitis

2. choledocholithiasis
   i. acute cholangitis
   ii. biliary pancreatitis
3. biliary dyskinesia

primary choledocholithiasis and differentiate this from cholelithiasis.

signs and symptoms of a. cholelithiasis

i. biliary colic
ii. acute cholecystitis
iii. chronic cholecystitis

5. describe
and associated vascular structures

the relevant normal and aberrant surgical anatomy of the biliary tree including triangle of Calot

6. compare the following treatment options for gallstones including indications, contraindications a. ERCP
   b. Cholecystectomy c. Cholecystostomy

**Acute Abdomen**
1. appendicitis
   1. describe the classic signs and symptoms of acute appendicitis
   2. contrast the signs and symptoms of classic appendicitis with the signs and symptoms of the most common conditions included in the differential diagnosis, including
      i. UTI
      ii. Renal colic
      iii. Gynecologic conditions (PID, TOA, ectopic pregnancy, endometriosis, ruptured luteal cyst)
      iv. Mesenteric lymphadenitis
      v. Peptic ulcer disease
      vi. Cecal diverticulitis or cancer
      vii. Sigmoid diverticulitis
e. describe
d. compare the methods of diagnostic evaluation, including indications for
   i. CT scan
   ii. Ultrasound
   iii. MR
   iv. diagnostic laparoscopy
e. describe
i. abscess

2. pancreatitis
   a. describe
   the natural history of appendicitis
   the complications of appendicitis
   ii. perforation
   iii. fistula
   iv. infertility
   v. phlegmon
   vi. chronic appendicitis
f. compare the following treatment options for appendicitis in terms of indications, contraindications, risks, benefits, possible complications
   i. antibiotics
   ii. appendectomy
      1. open vs lap
      2. immediate vs delayed
b. describe
the signs and symptoms and diagnostic criteria of acute pancreatitis

describe the surgical and radiologic anatomy of the pancreas
i. arterial supply
   ii. venous drainage
   iii. ductal anatomy including variants

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c. compare the etiologies of pancreatitis including
   i. alcoholic
   ii. biliary
   iii. iatrogenic
   iv. other (hypertriglyceridemia, hypercalcemia, PAN, medications, viruses)

4. describe
5. describe

the diagnostic evaluation of acute pancreatitis and prognostic scoring systems.

complications of acute pancreatitis i. SIRS
   ii. pseudocyst
   iii. pancreatic necrosis
   iv. retroperitoneal abscess

f. describe
i. fluid resuscitation

the initial management of patients with acute pancreatitis, with emphasis on

ii. nutrition
iii. indications for antibiotics
iv. monitoring for end-organ dysfunction/SIRS
v. indications for surgery

3. small bowel obstruction (SBO)
   1. describe the signs and symptoms of mechanical SBO
   2. differentiate
      i. SBO from adynamic ileus
      ii. Complete SBO from partial
      iii. Strangulated SBO from non-strangulated
   3. describe diagnostic evaluation of patients presenting with a SBO

4. Mesenteric or colon ischemia
   1. Describe the signs and symptoms of ischemic and/or infarcted bowel
   2. Describe the risk factors and clinical settings when mesenteric ischemia might occur

5. Acute hernia complications

a. Identify the findings that require emergency repair of a hernia
6. Perforated viscus
   a. Describe the differential diagnosis of abdominal free air.

**Complex and/or Reoperative Surgery (including ventral hernia, enterocutaneous fistulas)**

1. Ventral Hernias
   1. Differentiate a simple from a complex ventral hernia
   2. Analyze treatment options with respect to
      i. Laparoscopic vs open
      ii. Need for mesh reinforcement
      iii. Type of mesh used: prosthetic versus biologic
      iv. Separation of components

2. Enterocutaneous Fistulas
   1. Define a fistula and the common causes.
   2. Identify risk factors and factors that prevent fistula resolution

**RESPONSIBILITIES & EXPECTATIONS**

1. Prepare and present clinical patient histories at Red Surgery Conference.

**TECHNICAL SKILLS**

**GOALS & OBJECTIVES**

1. Competently tie one-handed and two-handed knots
2. Competently perform skin closure (at least 5)
3. Competently perform at least 3 inguinal herniorrhaphies
4. Second-assist at least 5 bariatric and foregut procedures
5. Competently place at least 5 laparoscopic ports

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6. Competently remove central lines
7. Competently remove drains
8. Competently perform at least 3 excisions of soft tissue masses

**RESPONSIBILITIES & EXPECTATIONS**

1. Routinely scrub in the operating room on service operating days.

**PRACTICE-BASED LEARNING AND IMPROVEMENT**

**GOALS & OBJECTIVES**

1. Participate in weekly service M&M conference.
2. Maintain a log of procedures performed and outcomes

**RESPONSIBILITIES & EXPECTATIONS**
1. meet with the faculty education representative at least three times during the rotation (beginning, midpoint, exit) to review goals & objectives.

**INTERPERSONAL & COMMUNICATION SKILLS**

**GOALS & OBJECTIVES**

1. maintain an appropriate balance with NPs with regard to delegation of duties and primary responsibility for patient care

**RESPONSIBILITIES & EXPECTATIONS**

1. See UCSF Common Goals & Objectives

**PROFESSIONALISM**

**GOALS & OBJECTIVES**

1. See UCSF Common Goals & Objectives
2. See Red Surgery Service Manual

**RESPONSIBILITIES & EXPECTATIONS**

1. enter workhours in E*Value by 9 AM daily

**SYSTEMS-BASED PRACTICE GOALS & OBJECTIVES**

1. coordinate patient care including discharge and transfer within the health care system

**RESPONSIBILITIES & EXPECTATIONS**

1. participate in the process of patient transfer to a lower level of care at least once
2. participate in the management of a patient through the discharge process
   1. appropriate documentation of care for the primary physician
   2. appropriate referral to local specialists for follow-up management of health issues that developed during the UCSF treatment