CT Abdomen and Pelvis

CPT: 72192, 72193, 72194, 74150, 74160, 74170, 74176, 74177, 74178

1 Major Symptom or Complaint presented as primary indication

1.1 Abdominal angina (pain after eating for up to 3 hours)

1.1.1 Mesenteric Ischemia suspected

1.2 Abdominal distention (URGENT, approval should be issued without delay)

1.2.1 Bowel Obstruction suspected

1.2.2 Severe pain developing over a few hours (acute abdomen)

1.3 Ascites

1.3.1 Suspect malignant ascites based on peritoneal fluid analysis

1.3.1.1 Malignant cytology

1.3.1.2 Low SAAG and high protein level

1.3.2 Suspect malignant ascites based on Ultrasound findings

1.3.2.1 Internal echoes within the ascites

1.3.2.2 Loculated ascites

1.3.2.3 Tethered bowel loops along the posterior abdominal wall or other organs

1.4 Collapse

1.4.1 Shock: inadequate tissue perfusion with an inadequate cardiac output

1.5 Constipation

1.5.1 Prior studies including barium enema or endoscopy not diagnostic

1.6 Ectopic Pregnancy (Both)

1.6.1 Positive pregnancy test

1.6.2 Pelvic Ultrasound showing no intrauterine or tubal pregnancy

1.7 Fever

1.7.1 Abscess, appendicitis, diverticulitis suspected

1.7.2 Leukocytosis

1.7.3 Persistent abdominal or pelvic pain

1.7.4 Fever of Unknown Origin (fever >100.9 F / 38.3 C on several occasions over at least 3 weeks)

1.7.4.1 Uncertain diagnosis after extensive work-up (ALL)

1.7.4.1.1 Three Blood Cultures, negative

1.7.4.1.2 Urine culture, negative

1.7.4.1.3 Tuberculin skin test, nonreactive

1.7.4.1.4 HIV antibody assay and HIV viral load for patients at high risk

1.7.4.1.5 Chest x-ray, negative

1.7.4.2 No diagnosis after 3 outpatient visits or 3 days of hospitalization

1.8 Hematuria (gross or microscopic)

1.8.1 Not associated with a simple urinary tract infection

1.8.2 Persists despite treatment of urinary tract infection

1.9 Jaundice, painless (CT ABDOMEN ONLY)

1.9.1 Painless jaundice for more than 3 months with elevated bilirubin (direct bilirubin > 0.2 or total bilirubin > 1.9)

1.9.1.1 Unintentional weight loss

1.9.1.2 Anorexia

1.9.1.3 Fatigue

1.10 Leg Edema

1.10.1 Venous Doppler performed and excluded Deep Venous Thrombosis, Venous Insufficiency, or Varicose Veins

1.10.1.1 Unilateral Leg Swelling (ALL) (CT or CTA Pelvis)

1.10.1.1.1 No evidence of ruptured Baker’s cyst

1.10.1.1.2 No evidence of injury to the Gastrocnemius Muscle

1.10.1.1.3 Suspect pelvic venous compression/obstruction

1.10.1.2 Bilateral Leg Swelling (CT or CTA Abdomen & Pelvis)

1.10.1.2.1 No evidence of Reflex Sympathetic Dystrophy

1.10.1.2.2 Suspect Central Venous Obstruction (IVC)

1.11 Mass, confirmed by physical exam

1.11.1 New or enlarging soft tissue mass of the abdominal wall (not a Hernia)

1.11.1.1 Nondiagnostic Ultrasound exam or X-ray

1.11.2 New or enlarging palpable mass in the abdomen or pelvis

1.11.2.1 Pelvic Mass in a Female

1.11.2.1.1 Must have a nondiagnostic Pelvic ultrasound prior to CT or MRI

1.11.2.1.2 Should be evaluated by MRI if ultrasound is nondiagnostic (send for physician review if no contraindication to MRI is described such as pacemaker)

1.12 Night Sweats not associated with menopause (ALL)

1.12.1 Fever excluded as cause

1.12.2 Medications excluded as cause

1.12.3 Normal chest x-ray or CT

1.12.4 Normal CBC, TSH, and negative blood cultures

1.13 Numbness (dysesthesias) of the thigh not responded to NSAIDs treatment or injections

1.14 Pain

1.14.1 Persistent abdominal pain

1.14.1.1 Fever

1.14.1.2 Leukocytosis

1.14.1.3 Rebound tenderness

1.14.1.4 Guarding

1.14.1.5 Elevated lipase or amylase (greater than 3 times normal)

1.14.1.6 Abnormal abdominal x-ray (KUB) suggesting bowel obstruction

1.14.1.7 Known malignancy elsewhere and suspect metastases

1.14.2 Generalized abdominal pain

1.14.2.1 Abscess, known

1.14.2.1.1 Interval evaluation after treatment

1.14.2.1.2 Worsening clinical condition under treatment

1.14.2.2 Abscess or Infection, suspected

1.14.2.2.1 Fever

1.14.2.2.2 Leukocytosis

1.14.2.2.3 Mass

1.14.2.3 Aortic Aneurysm, repaired

1.14.2.3.1 New symptoms

1.14.2.3.2 Periodic follow up

1.14.2.4 Aortic Aneurysm, suspected

1.14.2.4.1 Abdominal or back pain

1.14.2.4.2 Aortic dilatation seen or suspected on prior imaging

1.14.2.4.3 Pulsatile abdominal mass with nondiagnostic ultrasound

1.14.2.4.4 History of first-degree relative with abdominal aortic aneurysm and nondiagnostic ultrasound

1.14.2.4.5 Male age 65-75 with a history of smoking

1.14.2.4.6 Marfan’s syndrome

1.14.2.4.7 Ehlers-Danlos syndrome

1.14.2.4.8 Turner’s syndrome

1.14.2.5 Constipation

1.14.2.5.1 Obtain history of prior studies, send for physician review

1.14.2.6 Ectopic Pregnancy (BOTH)

1.14.2.6.1 Positive pregnancy test

1.14.2.6.2 Pelvic ultrasound showing no intrauterine or tubal pregnancy

1.14.2.7 Gastritis or Gastroenteritis

1.14.2.7.1 Obtain history of prior studies, send for physician review

1.14.2.8 Inflammatory Bowel Disease, suspected (Crohn's Disease or Ulcerative Colitis)

1.14.2.8.1 Crohn's Disease

1.14.2.8.1.1 Abdominal pain and diarrhea for more than 6 weeks

1.14.2.8.1.2 Fever

1.14.2.8.1.3 Perianal fistula or fissure

1.14.2.8.1.4 Enterovesical fistula

1.14.2.8.1.5 Enterovaginal fistula

1.14.2.8.1.6 Enterocutaneous fistula

1.14.2.8.1.7 Children with unexplained anemia, growth failure, and abdominal pain

1.14.2.8.2 Ulcerative Colitis

1.14.2.8.2.1 Bloody mucoid stools

1.14.2.8.2.1.1 Diarrhea

1.14.2.8.2.1.2 Tenesmus

1.14.2.9 Irritable Bowel Syndrome (IBS- a diagnosis of exclusion)

1.14.2.9.1 Obtain history of prior studies, send for physician review

1.14.2.10 Ischemic Bowel

1.14.2.10.1 Systemic Lupus Erythematosus

1.14.2.10.2 Severe abdominal pain

1.14.2.10.3 Blood in stool

1.14.2.10.4 History of abdominal angina

1.14.2.10.5 Shock

1.14.2.11 Known malignancy elsewhere and suspect metastases

1.14.2.12 Metabolic Disorders

1.14.2.12.1 Obtain history of prior studies, send for physician review

1.14.2.13 Pancreatitis, known (CT ABDOMEN ONLY)

1.14.2.13.1 Suspected Pancreatic Pseudocyst (recurrent or chronic pancreatitis)

1.14.2.13.1.1 Back pain

1.14.2.13.1.2 Mass

1.14.2.13.1.3 Abdominal tenderness

1.14.2.13.1.4 Post trauma

1.14.2.13.1.5 Ultrasound nondiagnostic

1.14.2.13.1.6 Worsening under treatment

1.14.2.13.2 Worsening clinical situation

1.14.2.14 Pancreatitis, suspected (CT ABDOMEN ONLY)

1.14.2.14.1 Elevated amylase or lipase

1.14.2.15 Parasites

1.14.2.15.1 Obtain history of prior studies, send for physician review

1.14.2.16 Perforated Bowel or Viscus

1.14.2.16.1 Free air on other imaging

1.14.2.16.2 Rebound tenderness or guarding

1.14.2.16.3 Fever

1.14.2.17 Splenic Injury or rupture

1.14.2.17.1 Recent trauma

1.14.2.17.2 Splenomegaly, known

1.14.2.17.3 Lymphoma, known

1.14.2.18 Urinary Tract Infection

1.14.2.18.1 Obtain history of prior studies, send for physician review

1.14.2.19 Vascular Disease

1.14.2.19.1 Obtain history of prior studies, send for physician review

1.14.3 Epigastric or Upper Abdominal Pain

1.14.3.1 Abscess, known

1.14.3.1.1 Interval evaluation after treatment

1.14.3.1.2 Worsening under treatment

1.14.3.2 Abscess or Infection, suspected

1.14.3.2.1 Fever

1.14.3.2.2 Leukocytosis

1.14.3.2.3 Mass

1.14.3.3 Aortic Aneurysm, repaired

1.14.3.3.1 New symptoms

1.14.3.3.2 Periodic follow up

1.14.3.4 Aortic Aneurysm, suspected

1.14.3.4.1 Abdominal or back pain

1.14.3.4.2 Aortic dilatation seen or suspected on prior imaging

1.14.3.4.3 Pulsatile abdominal mass with nondiagnostic ultrasound

1.14.3.4.4 History of first-degree relative with abdominal aortic aneurysm and nondiagnostic ultrasound

1.14.3.4.5 Male age 65-75 with a history of smoking

1.14.3.4.6 Marfan’s syndrome

1.14.3.4.7 Ehlers-Danlos syndrome

1.14.3.4.8 Turner’s syndrome

1.14.3.5 Budd Chiari Syndrome (Occlusion of the Hepatic Veins) (CT ABDOMEN ONLY)

1.14.3.5.1 Rapidly progressive, severe upper abdominal pain

1.14.3.5.2 Ascites

1.14.3.5.3 Hepatomegaly

1.14.3.5.4 Elevated liver enzymes

1.14.3.6 Cholangitis (CT ABDOMEN ONLY)

1.14.3.6.1 Fever and chills

1.14.3.6.2 Jaundice

1.14.3.7 Cholecystitis (CT ABDOMEN ONLY)

- Obtain history of prior studies, send for physician review

1.14.3.8 Cholelithiasis (Gallstones) (CT ABDOMEN ONLY)

- Obtain history of prior studies, send for physician review

1.14.3.9 Gastric malignancy, known

1.14.3.10 Gastritis

1.14.3.10.1 Obtain history of prior studies, send for physician review

1.14.3.11 Gastroparesis

1.14.3.11.1 Obtain history of prior studies, send for physician review

1.14.3.12 Gastroesophageal Reflux

1.14.3.12.1 Obtain history of prior studies, send for physician review

1.14.3.13 Hernia and negative ultrasound

1.14.3.13.1 Abdominal pain or discomfort

1.14.3.13.1.1 Worsened by straining or lifting

1.14.3.13.1.2 Worsened by prolonged standing

1.14.3.13.2 Visible or palpable mass

1.14.3.13.2.1 More prominent in upright position

1.14.3.13.2.2 More prominent with Valsalva maneuver

1.14.3.13.3 Strangulation (ALL)

1.14.3.13.3.1 Colicky abdominal pain

1.14.3.13.3.2 Palpable mass

1.14.3.13.3.3 Signs of intestinal obstruction

1.14.3.13.4 After abdominal surgery with incisional pain associated with bulge or suspected defect

1.14.3.14 Ischemic Bowel

1.14.3.14.1 Systemic Lupus Erythematosus

1.14.3.14.2 Severe abdominal pain

1.14.3.14.3 Blood in stool

1.14.3.14.4 History of abdominal angina

1.14.3.14.5 Shock

1.14.3.15 Known malignancy elsewhere and suspect metastases

1.14.3.16 Malabsorption

1.14.3.16.1 Obtain history of prior studies, send for physician review

1.14.3.17 Myocardial Pathology

1.14.3.17.1 Obtain history of prior studies, send for physician review

1.14.3.18 Pancreatitis, known (CT ABDOMEN ONLY)

1.14.3.18.1 Suspected Pancreatic Pseudocyst (recurrent or chronic pancreatitis)

1.14.3.18.1.1 Back pain

1.14.3.18.1.2 Mass

1.14.3.18.1.3 Abdominal tenderness

1.14.3.18.1.4 Post trauma

1.14.3.18.1.5 Ultrasound nondiagnostic

1.14.3.18.1.6 Worsening under treatment

1.14.3.18.2 Worsening clinical situation

1.14.3.19 Pancreatitis, suspected (CT ABDOMEN ONLY)

1.14.3.19.1 Elevated amylase or lipase

1.14.3.20 Peptic Ulcer Disease

1.14.3.20.1 Obtain history of prior studies, send for physician review

1.14.4 Flank Pain/Renal Colic

1.14.4.1 Flank pain radiating to groin

1.14.4.2 Hematuria

1.14.4.3 History of prior stones

1.14.4.4 Hydronephrosis on other imaging

1.14.5 Right Upper Quadrant Pain

1.14.5.1 Abscess, known

1.14.5.1.1 Interval evaluation after treatment

1.14.5.1.2 Worsening under treatment

1.14.5.2 Abscess or Infection suspected

1.14.5.2.1 Fever

1.14.5.2.2 Leukocytosis

1.14.5.2.3 Mass

1.14.5.3 Aortic Aneurysm, repaired

1.14.5.3.1 New symptoms

1.14.5.3.2 Periodic follow up

1.14.5.4 Aortic Aneurysm, suspected

1.14.5.4.1 Abdominal or back pain

1.14.5.4.2 Aortic dilatation seen or suspected on prior imaging

1.14.5.4.3 Pulsatile abdominal mass with nondiagnostic ultrasound

1.14.5.4.4 History of first-degree relative with abdominal aortic aneurysm and nondiagnostic ultrasound

1.14.5.4.5 Male age 65-75 with a history of smoking

1.14.5.4.6 Marfan’s syndrome

1.14.5.4.7 Ehlers-Danlos syndrome

1.14.5.4.8 Turner’s syndrome

1.14.5.5 Appendicitis

1.14.5.5.1 Fever

1.14.5.5.2 Leukocytosis

1.14.5.5.3 Rebound tenderness or guarding

1.14.5.6 Budd Chiari Syndrome (Occlusion of the Hepatic Veins) (CT ABDOMEN ONLY)

1.14.5.6.1 Rapidly progressive, severe upper abdominal pain

1.14.5.6.2 Ascites

1.14.5.6.3 Hepatomegaly

1.14.5.6.4 Elevated liver enzymes

1.14.5.7 Cholangitis (TWO) (CT ABDOMEN ONLY)

1.14.5.7.1 Fever and chills

1.14.5.7.2 Jaundice

1.14.5.8 Cholecystitis (CT ABDOMEN ONLY)

1.14.5.8.1 Ultrasound or HIDA scan nondiagnostic

1.14.5.8.1.1 Positive Murphy's Sign

1.14.5.9 Cholelithiasis (Gallstones) (CT ABDOMEN ONLY)

1.14.5.9.1 Ultrasound or HIDA scan nondiagnostic

1.14.5.9.1.1 RUQ pain after meals

1.14.5.10 Hepatitis (CT ABDOMEN ONLY)

1.14.5.10.1 Obtain history of prior studies, send for physician review

1.14.5.11 Ischemic Bowel

1.14.5.11.1 Systemic Lupus Erythematosus

1.14.5.11.2 Severe abdominal pain

1.14.5.11.3 Blood in stool

1.14.5.11.4 History of abdominal angina

1.14.5.11.5 Shock

1.14.5.12 Liver, pancreatic, or biliary malignancy, known

1.14.5.13 Known malignancy elsewhere and suspect metastases

1.14.5.14 Pancreatitis, known (CT ABDOMEN ONLY)

1.14.5.14.1 Suspected Pseudocyst (recurrent or chronic pancreatitis)

1.14.5.14.1.1 Back pain

1.14.5.14.1.2 Mass

1.14.5.14.1.3 Abdominal tenderness

1.14.5.14.1.4 Post trauma

1.14.5.14.1.5 Ultrasound nondiagnostic

1.14.5.14.1.6 Worsening under treatment

1.14.5.14.2 Worsening clinical situation

1.14.5.15 Pancreatitis, suspected (CT ABDOMEN ONLY)

1.14.5.15.1 Elevated amylase or lipase

1.14.5.16 Peptic Ulcer Disease

1.14.5.16.1 Obtain history of prior studies, send for physician review

1.14.5.17 Pyelonephritis

1.14.5.17.1 Obtain history of prior studies, send for physician review

1.14.5.18 Urinary Calculi

1.14.5.18.1 Flank pain radiating to groin

1.14.5.18.2 Hematuria

1.14.5.18.3 History of prior stones

1.14.5.18.4 Hydronephrosis on other imaging

1.14.6 Right Lower Quadrant Pain

1.14.6.1 Abscess, known

1.14.6.1.1 Interval evaluation after treatment

1.14.6.1.2 Worsening under treatment

1.14.6.2 Abscess or Infection suspected

1.14.6.2.1 Fever

1.14.6.2.2 Leukocytosis

1.14.6.2.3 Mass

1.14.6.3 Aortic Aneurysm, repaired

1.14.6.3.1 New symptoms

1.14.6.3.2 Periodic follow up

1.14.6.4 Aortic Aneurysm, suspected

1.14.6.4.1 Abdominal or back pain

1.14.6.4.2 Aortic dilatation seen or suspected on prior imaging

1.14.6.4.3 Pulsatile abdominal mass with nondiagnostic ultrasound

1.14.6.4.4 History of first-degree relative with abdominal aortic aneurysm and nondiagnostic ultrasound

1.14.6.4.5 Male age 65-75 with a history of smoking

1.14.6.4.6 Marfan’s syndrome

1.14.6.4.7 Ehlers-Danlos syndrome

1.14.6.4.8 Turner’s syndrome

1.14.6.5 Appendicitis

1.14.6.5.1 Fever

1.14.6.5.2 Leukocytosis

1.14.6.5.3 Rebound tenderness or guarding

1.14.6.6 Colon cancer, known

1.14.6.7 Cystitis

1.14.6.7.1 Obtain history of prior studies, send for physician review

1.14.6.8 Diverticulitis

1.14.6.8.1 Leukocytosis

1.14.6.8.2 Fever

1.14.6.8.3 Known history of diverticular disease (diverticulosis)

1.14.6.9 Ectopic Pregnancy (BOTH)

1.14.6.9.1 Positive pregnancy test

1.14.6.9.2 Pelvic ultrasound showing no intrauterine or tubal pregnancy

1.14.6.10 Hernia and Negative Ultrasound

1.14.6.10.1 Abdominal pain or discomfort

1.14.6.10.1.1 Worsened by straining or lifting

1.14.6.10.1.2 Worsened by prolonged standing

1.14.6.10.2 Visible or palpable mass

1.14.6.10.2.1 More prominent in upright position

1.14.6.10.2.2 More prominent with Valsalva maneuver

1.14.6.10.3 Strangulation (ALL)

1.14.6.10.3.1 Colicky abdominal pain

1.14.6.10.3.2 Palpable mass

1.14.6.10.3.3 Signs of intestinal obstruction

1.14.6.10.4 After abdominal surgery with incisional pain associated with bulge or suspected defect

1.14.6.11 Inflammatory Bowel Disease, suspected (Crohn's Disease or Ulcerative Colitis)

1.14.6.11.1 Crohn's Disease

1.14.6.11.1.1 Abdominal pain and diarrhea for more than 6 weeks

1.14.6.11.1.2 Fever

1.14.6.11.1.3 Perianal fistula or fissure

1.14.6.11.1.4 Enterovesical fistula

1.14.6.11.1.5 Enterovaginal fistula

1.14.6.11.1.6 Enterocutaneous fistula

1.14.6.11.1.7 Children with unexplained anemia, growth failure, and abdominal pain

1.14.6.11.2 Ulcerative Colitis

1.14.6.11.2.1 Bloody mucoid stools

1.14.6.11.2.1.1 Diarrhea

1.14.6.11.2.1.2 Tenesmus

1.14.6.12 Irritable Bowel Syndrome (IBS- a diagnosis of exclusion)

1.14.6.12.1 Obtain history of prior studies, send for physician review

1.14.6.13 Ischemic Bowel

1.14.6.13.1 Systemic Lupus Erythematosus

1.14.6.13.2 Severe abdominal pain

1.14.6.13.3 Blood in stool

1.14.6.13.4 History of abdominal angina

1.14.6.13.5 Shock

1.14.6.14 Known malignancy elsewhere and suspect metastases

1.14.6.15 Prostatitis

1.14.6.15.1 Obtain history of prior studies, send for physician review

1.14.6.16 Testicular pathology

1.14.6.16.1 Obtain history of prior studies, send for physician review

1.14.6.17 Typhlitis (neutropenic enterocolitis/ inflammation of the cecum)

1.14.6.17.1 Immunocompromised patient (HIV, transplant recipient, patient on chemotherapy, elderly)

1.14.6.17.2 Abdominal distention

1.14.6.17.3 Fever

1.14.6.17.4 Nausea or vomiting

1.14.6.17.5 Diarrhea

1.14.6.18 Urinary Calculi

1.14.6.18.1 Flank pain radiating to groin

1.14.6.18.2 Hematuria

1.14.6.18.3 History of prior stones

1.14.7 Left Upper Quadrant Pain

1.14.7.1 Abscess, known

1.14.7.1.1 Interval evaluation after treatment

1.14.7.1.2 Worsening under treatment

1.14.7.2 Abscess or Infection, suspected

1.14.7.2.1 Fever

1.14.7.2.2 Leukocytosis

1.14.7.2.3 Mass

1.14.7.3 Aortic Aneurysm, repaired

1.14.7.3.1 New symptoms

1.14.7.3.2 Periodic follow up

1.14.7.4 Aortic Aneurysm, suspected

1.14.7.4.1 Abdominal or back pain

1.14.7.4.2 Aortic dilatation seen or suspected on prior imaging

1.14.7.4.3 Pulsatile abdominal mass with nondiagnostic ultrasound

1.14.7.4.4 History of first-degree relative with abdominal aortic aneurysm and nondiagnostic ultrasound

1.14.7.4.5 Male age 65-75 with a history of smoking

1.14.7.4.6 Marfan’s syndrome

1.14.7.4.7 Ehlers-Danlos syndrome

1.14.7.4.8 Turner’s syndrome

1.14.7.5 Diverticulitis

1.14.7.5.1 Leukocytosis

1.14.7.5.2 Fever

1.14.7.5.3 Known history of diverticular disease (diverticulosis)

1.14.7.6 Gastric malignancy, known

1.14.7.7 Gastritis

1.14.7.7.1 Obtain history of prior studies, send for physician review

1.14.7.8 Gastroparesis

1.14.7.8.1 Obtain history of prior studies, send for physician review

1.14.7.9 Gastroesophageal Reflux

1.14.7.9.1 Obtain history of prior studies, send for physician review

1.14.7.10 Ischemic Bowel

1.14.7.10.1 Systemic Lupus Erythematosus

1.14.7.10.2 Severe abdominal pain

1.14.7.10.3 Blood in stool

1.14.7.10.4 History of abdominal angina

1.14.7.10.5 Shock

1.14.7.11 Known malignancy elsewhere and suspect metastases

1.14.7.12 Pancreatitis, known (CT ABDOMEN ONLY)

1.14.7.12.1 Suspected Pancreatic Pseudocyst (recurrent or chronic pancreatitis)

1.14.7.12.1.1 Back pain

1.14.7.12.1.2 Mass

1.14.7.12.1.3 Abdominal tenderness

1.14.7.12.1.4 Post trauma

1.14.7.12.1.5 Ultrasound nondiagnostic

1.14.7.12.1.6 Worsening under treatment

1.14.7.12.2 Worsening clinical situation

1.14.7.13 Pancreatitis, suspected (CT ABDOMEN ONLY)

1.14.7.13.1 Elevated amylase or lipase

1.14.7.14 Peptic Ulcer Disease

1.14.7.14.1 Obtain history of prior studies, send for physician review

1.14.7.15 Splenomegaly

1.14.7.16 Splenic Injury or rupture

1.14.7.16.1 Recent trauma

1.14.7.16.2 Splenomegaly, known

1.14.7.16.3 Lymphoma, known

1.14.7.17 Urinary Calculi

1.14.7.17.1 Flank pain radiating to groin

1.14.7.17.2 Hematuria

1.14.7.17.3 History of prior stones

1.14.8 Left Lower Quadrant Pain

1.14.8.1 Abscess, known

1.14.8.1.1 Interval evaluation after treatment

1.14.8.1.2 Worsening under treatment

1.14.8.2 Abscess or Infection, suspected

1.14.8.2.1 Fever

1.14.8.2.2 Leukocytosis

1.14.8.2.3 Mass

1.14.8.3 Aortic Aneurysm, repaired

1.14.8.3.1 New symptoms

1.14.8.3.2 Periodic follow up

1.14.8.4 Aortic Aneurysm, suspected

1.14.8.4.1 Abdominal or back pain

1.14.8.4.2 Aortic dilatation seen or suspected on prior imaging

1.14.8.4.3 Pulsatile abdominal mass with nondiagnostic ultrasound

1.14.8.4.4 History of first-degree relative with abdominal aortic aneurysm and nondiagnostic ultrasound

1.14.8.4.5 Male age 65-75 with a history of smoking

1.14.8.4.6 Marfan’s syndrome

1.14.8.4.7 Ehlers-Danlos syndrome

1.14.8.4.8 Turner’s syndrome

1.14.8.5 Colon cancer, known

1.14.8.6 Diverticulitis

1.14.8.6.1 Leukocytosis

1.14.8.6.2 Fever

1.14.8.6.3 Known history of diverticular disease (diverticulosis)

1.14.8.7 Ectopic Pregnancy (BOTH)

1.14.8.7.1 Positive pregnancy test

1.14.8.7.2 Pelvic ultrasound showing no intrauterine or tubal pregnancy

1.14.8.8 Hernia and negative ultrasound

1.14.8.8.1 Abdominal pain or discomfort

1.14.8.8.1.1 Worsened by straining or lifting

1.14.8.8.1.2 Worsened by prolonged standing

1.14.8.8.2 Visible or palpable mass

1.14.8.8.2.1 More prominent in upright position

1.14.8.8.2.2 More prominent with Valsalva maneuver

1.14.8.8.3 Strangulation (ALL)

1.14.8.8.3.1 Colicky abdominal pain

1.14.8.8.3.2 Palpable mass

1.14.8.8.3.3 Signs of intestinal obstruction

1.14.8.8.4 After abdominal surgery with incisional pain associated with bulge or suspected defect

1.14.8.9 Inflammatory Bowel Disease, suspected (Crohn's Disease or Ulcerative Colitis)

1.14.8.9.1 Crohn's Disease

1.14.8.9.1.1 Abdominal pain and diarrhea for more than 6 weeks

1.14.8.9.1.2 Fever

1.14.8.9.1.3 Perianal fistula or fissure

1.14.8.9.1.4 Enterovesical fistula

1.14.8.9.1.5 Enterovaginal fistula

1.14.8.9.1.6 Enterocutaneous fistula

1.14.8.9.1.7 Children with unexplained anemia, growth failure, and abdominal pain

1.14.8.9.2 Ulcerative Colitis

1.14.8.9.2.1 Bloody mucoid stools

1.14.8.9.2.1.1 Diarrhea

1.14.8.9.2.1.2 Tenesmus

1.14.8.10 Irritable Bowel Syndrome (IBS- a diagnosis of exclusion)

1.14.8.10.1 Obtain history of prior studies, send for physician review

1.14.8.11 Ischemic Bowel

1.14.8.11.1 Systemic Lupus Erythematosus

1.14.8.11.2 Severe abdominal pain

1.14.8.11.3 Blood in stool

1.14.8.11.4 History of abdominal angina

1.14.8.11.5 Shock

1.14.8.12 Known malignancy elsewhere and suspect metastases

1.14.8.13 Prostatitis

1.14.8.13.1 Obtain history of prior studies, send for physician review

1.14.8.14 Testicular pathology

1.14.8.14.1 Obtain history of prior studies, send for physician review

1.14.8.15 Urinary Calculi

1.14.8.15.1 Flank pain radiating to groin

1.14.8.15.2 Hematuria

1.14.8.15.3 History of prior stones

1.14.9 Pelvic or Lower Abdominal Pain

1.14.9.1 Abscess, known

1.14.9.1.1 Interval evaluation after treatment

1.14.9.1.2 Worsening under treatment

1.14.9.2 Abscess or Infection suspected

1.14.9.2.1 Fever

1.14.9.2.2 Leukocytosis

1.14.9.2.3 Mass

1.14.9.3 Abdominal Distention

1.14.9.4 Appendicitis

1.14.9.4.1 Fever

1.14.9.4.2 Leukocytosis

1.14.9.4.3 Rebound tenderness or guarding

1.14.9.5 Colon cancer, known

1.14.9.6 Cystitis

1.14.9.6.1 Obtain history of prior studies, send for physician review

1.14.9.7 Diverticulitis

1.14.9.7.1 Leukocytosis

1.14.9.7.2 Fever

1.14.9.7.3 Known history of diverticular disease (diverticulosis)

1.14.9.8 Ectopic Pregnancy (BOTH)

1.14.9.8.1 Positive pregnancy test

1.14.9.8.2 Pelvic ultrasound showing no intrauterine or tubal pregnancy

1.14.9.9 Fever

1.14.9.10 Guarding

1.14.9.11 Hematuria

1.14.9.12 Hernia and Negative Ultrasound

1.14.9.12.1 Abdominal pain or discomfort

1.14.9.12.1.1 Worsened by straining or lifting

1.14.9.12.1.2 Worsened by prolonged standing

1.14.9.12.2 Visible or palpable mass

1.14.9.12.2.1 More prominent in upright position

1.14.9.12.2.2 More prominent with Valsalva maneuver

1.14.9.12.3 Strangulation (ALL)

1.14.9.12.3.1 Colicky abdominal pain

1.14.9.12.3.2 Palpable mass

1.14.9.12.3.3 Signs of intestinal obstruction

1.14.9.12.4 After abdominal surgery with incisional pain associated with bulge or suspected defect

1.14.9.13 Leukocytosis

1.14.9.14 Known malignancy elsewhere and suspect metastases

1.14.9.15 Rebound tenderness

1.14.9.16 Urinary Calculi

1.14.9.16.1 Flank pain radiating to groin

1.14.9.16.2 Hematuria

1.14.9.16.3 History of prior stones

1.15 Weight Loss (involuntary) of more than 5% body weight over 6 months

1.16 Vomiting after onset of pain

1.16.1 Appendicitis or Infection suspected

1.16.1.1 Abdominal pain

1.16.1.2 Fever

1.16.1.3 Leukocytosis

1.16.1.4 Mass

2 Working Diagnosis or Rule Out presented as primary indication

2.1 Abscess, suspected

2.1.1 Fever or chills

2.1.2 Leukocytosis

2.1.3 Rebound Tenderness or Guarding

2.1.4 Mass by physical exam or ultrasound

2.1.5 Purulent discharge

2.2 Aortic Aneurysm, suspected (Ultrasound is first study for screening; CT, CTA, MRI, or MRA should only be used if the aorta cannot be adequately visualized on ultrasound)

2.2.1 Abdominal or back pain

2.2.2 Aortic dilatation seen or suspected on prior imaging

2.2.3 Pulsatile abdominal mass with nondiagnostic ultrasound

2.2.4 History of first-degree relative with abdominal aortic aneurysm and nondiagnostic ultrasound

2.2.5 Male age 65-75 with a history of smoking

2.2.6 Marfan’s syndrome

2.2.7 Ehlers-Danlos syndrome

2.2.8 Turner’s syndrome

2.3 Aortic Aneurysm, rupture suspected

2.3.1 Acute onset of pain

2.3.2 Falling Blood Pressure

2.3.3 Shock

2.3.4 Pulsatile mass

2.4 Aortic Dissection, suspected (CTA preferred)

2.4.1 Unequal blood pressure in the arms

2.4.2 Rapid onset of ripping or tearing severe chest or upper back or abdominal pain

2.4.3 Syncope and chest pain

2.4.4 Shortness of breath

2.4.5 Stroke

2.4.6 Loss of pulses

2.4.7 New aortic insufficiency murmur

2.4.8 Marfan's syndrome

2.4.9 Recent aortic manipulation (such as catheter angiography)

2.4.10 Family history of aortic disease

2.4.11 Follow up of known dissection

2.4.11.1 1 month after repair

2.4.11.2 3 months after repair

2.4.11.3 6 months after repair

2.4.11.4 12 months after repair

2.4.11.5 Annually after 12 months

2.4.12 New symptoms after repair

2.5 Appendicitis (Ultrasound preferred initial study in children and pregnant women)

2.5.1 Acute Abdominal Pain – usually Right Lower Quadrant Pain

2.5.1.1 Fever

2.5.1.2 Leukocytosis

2.5.1.3 Rebound tenderness

2.6 Ascites

2.6.1 Suspect malignant ascites based on peritoneal fluid analysis

2.6.1.1 Malignant cytology

2.6.1.2 Low SAAG and high protein level

2.6.2 Suspect malignant ascites based on Ultrasound findings

2.6.2.1 Internal echoes within the ascites

2.6.2.2 Loculated ascites

2.6.2.3 Tethered bowel loops along the posterior abdominal wall or other organs

2.7 Bone Tumor of the Pelvis, primary or metastatic (x-ray required before CT); (CT Pelvis ONLY)

2.8 Bowel Obstruction (small or large bowel)

2.8.1 Abdominal distention on exam

2.8.2 Constipation or obstipation (no stool or gas for 24-48 hrs)

2.8.3 Loud, high pitched bowel sounds on exam

2.8.4 Colicky abdominal pain

2.8.5 Tympani

2.8.6 Abdominal mass

2.8.7 Persistent vomiting

2.8.8 Abdominal x-ray demonstrating or suggesting bowel obstruction

2.8.9 Incomplete or intermittent small bowel obstruction

2.9 Choledicolithiasis (Common Bile Duct Stones) (CT ABDOMEN ONLY)

2.9.1 MRCP preferred study (send for physician review)

2.10 Cirrhosis (CT ABDOMEN ONLY)

2.10.1 Screening for Liver Cancer (according to the National Comprehensive Cancer Network, Ultrasound and alph-fetoprotein levels (AFP) should be done every 6-12 months. Further imaging is dependent on the findings of these 2 tests)

2.10.1.1 Screening ultrasound detected liver mass/nodule/lesion

2.10.1.1.1 < 1 cm on ultrasound, image every 3-6 months for 2 years

2.10.1.1.2 1-2 cm, image every 3 months if stable in size

2.10.1.1.3 > 2 cm, biopsy and if nondiagnostic, repeat imaging if stable

2.10.1.2 Rising AFP with negative ultrasound

2.10.1.3 CT or MRI did not find a mass and rising AFP, repeat imaging every 3 months until a mass is confirmed

2.10.2 Planned TIPS (transjugular intrahepatic portosystemic shunt – relatively noninvasive procedure for portal hypertension)

2.11 Colitis

2.11.1 Crohn’s Disease (granulomatous colitis)

2.11.1.1 Abdominal pain and diarrhea for more than 6 weeks

2.11.1.2 Fever

2.11.1.3 Perianal fistula or fissure

2.11.1.4 Enterovesical fistula

2.11.1.5 Enterovaginal fistula

2.11.1.6 Enterocutaneous fistula

2.11.1.7 Children with unexplained anemia, growth failure, and abdominal pain

2.11.2 Infectious Colitis

2.11.3 Ischemic Colitis (CT or CTA)

2.11.3.1 Abdominal pain, tenderness, or cramping

2.11.3.2 Bloody stools (bright red or maroon-colored)

2.11.3.3 Urgency to move bowels

2.11.3.4 Diarrhea

2.11.4 Pseudomembranous Colitis

2.11.4.1 Recent chemotherapy or broad spectrum antibiotics

2.11.5 Ulcerative Colitis

2.11.5.1 Bloody mucoid stools

2.11.5.1.1 Diarrhea

2.11.5.1.2 Pain

2.11.5.1.3 Tenesmus

2.12 Congenital Anomalies of the Abdomen or Pelvis

2.13 Crohn's Disease, suspected (CT Enterography)

2.13.1 Abdominal pain and diarrhea for more than 6 weeks

2.13.2 Fever

2.13.3 Perianal fistula or fissure

2.13.4 Enterovesical fistula

2.13.5 Enterovaginal fistula

2.13.6 Enterocutaneous fistula

2.13.7 Children with unexplained anemia, growth failure, and abdominal pain

2.14 Cryptorchidism (undescended testicle)

2.14.1 MRI abdomen and pelvis are the preferred procedures; if MRI is contraindicated, then CT abdomen and pelvis

2.15 Diverticulitis (BOTH)

2.15.1 Lower abdominal pain, tenderness, or mass

2.15.2 Clinical Finding

2.15.2.1 Leukocytosis

2.15.2.2 Fever

2.15.2.3 Known History of diverticular disease (diverticulosis)

2.15.2.4 Rebound tenderness or Guarding

2.16 Fever of Unknown Origin (fever >100.9 F / 38.3 C on several occasions over at least 3 weeks)

2.16.1 Uncertain diagnosis after lab studies (ALL)

2.16.1.1 Three Blood Cultures, negative

2.16.1.2 Urine culture, negative

2.16.1.3 Tuberculin skin test, nonreactive

2.16.1.4 HIV antibody assay and HIV viral load for patients at high risk

2.16.1.5 Chest x-ray, negative

2.16.2 No diagnosis after 3 outpatient visits or 3 days of hospitalization

2.17 Fracture, suspected in Pelvis (CT Pelvis ONLY)

2.17.1 X-rays nondiagnostic

2.17.2 Normal x-ray but positive bone scan

2.17.3 Post radiation therapy to the pelvis with sacral or pubic pain

2.18 Hernia and Negative Ultrasound (Abdominal Hernia- CT Abdomen ONLY; Inguinal or Femoral Hernia- CT Pelvis ONLY)

2.18.1 Abdominal or Groin pain or discomfort

2.18.1.1 Worsened by straining or lifting

2.18.1.2 Worsened by prolonged standing

2.18.2 Visible or palpable mass

2.18.2.1 More prominent in upright position

2.18.2.2 More prominent with Valsalva maneuver

2.18.3 Strangulation (ALL)

2.18.3.1 Colicky abdominal pain

2.18.3.2 Palpable mass

2.18.3.3 Signs of intestinal obstruction

2.18.4 After abdominal surgery with incisional pain associated with bulge or suspected defect

2.19 Ischemic Bowel

2.19.1 Systemic lupus erythematous

2.19.2 Severe abdominal pain

2.19.3 History of abdominal angina

2.19.4 Blood in stool

2.19.5 Shock

2.20 Kidney or Ureteral Stones (Obstructive Uropathy/Renal Colic), suspected

2.20.1 Flank pain radiating to the groin

2.20.2 Hematuria

2.20.3 History of prior stones

2.20.4 Hydronephrosis on other imaging

2.21 Liver Mass/Nodule/Lesion seen on prior imaging (CT Abdomen ONLY)

2.21.1 Liver mass/nodule/lesion seen on ultrasound and finding was indeterminate (CT or MRI was recommended)

2.21.2 Follow up Liver mass/nodule/lesion seen on prior Liver Protocol CT (triphasic) or Dynamic Liver MRI

2.21.2.1 Follow up every 3 months if mass not characterized previously as benign hemangioma or cyst

2.22 Liver Cancer Screening in patient with Hepatitis B or C or known Cirrhosis (according to the National Comprehensive Cancer Network, Ultrasound and alpha-fetoprotein levels (AFP) should be done every 6-12 months. Further imaging is dependent on the findings of these 2 tests) (CT Abdomen ONLY)

2.22.1 Screening ultrasound detected liver mass/nodule/lesion

2.22.1.1 < 1 cm on ultrasound, image every 3-6 months for 2 years

2.22.1.2 1-2 cm, image every 3 months if stable in size

2.22.1.3 > 2 cm, biopsy and if nondiagnostic, repeat imaging if stable

2.22.2 Rising AFP with negative ultrasound

2.22.3 CT or MRI did not find a mass and rising AFP, repeat imaging every 3 months until a mass is confirmed

2.23 Liver metastases, suspected (BOTH) (CT Abdomen ONLY)

2.23.1 Known malignancy elsewhere

2.23.2 Clinical Findings (ONE)

2.23.2.1 Abnormal liver function tests and nondiagnostic ultrasound

2.23.2.2 Jaundice

2.23.2.3 Mass/nodule/lesion on ultrasound

2.24 Lumbosacral Plexopathy with a nondiagnostic MRI or CT of the lumbar spine (CT Pelvis ONLY)

2.24.1 Leg numbness or weakness in the distribution of more than one nerve root (radicular pain)

2.24.1.1 Failed conservative management

2.24.2 Fasciculations

2.24.3 Muscle atrophy

2.24.4 Pain, paresthesia, and sensory loss in the lateral aspect of the thigh (Meralgia Paresthetica)

2.24.4.1 Failed conservative management

2.24.5 Suspected pelvic mass with back pain radiating to the leg

2.24.6 History of pelvic radiation

2.24.6.1 Paresthesias

2.24.6.2 Sensory loss

2.24.6.3 Leg weakness

2.25 Meralgia Paresthetica (CT Pelvis ONLY)

2.25.1 Numbness or dysesthesia of the thigh not responding to NSAIDs treatment or injection

2.26 Mesenteric Ischemia (Vascular Insufficiency of the bowel) (BOTH)

2.26.1 Abdominal pain

2.26.2 Clinical Findings

2.26.2.1 Leukocytosis

2.26.2.2 Bloody stool, gross blood or occult

2.26.2.3 Nausea, vomiting, or diarrhea

2.26.2.4 History of abdominal angina (pain after eating for approximately 3 hours)

2.26.2.5 Shock

2.27 Metastatic Disease

2.27.1 Known metastatic disease

2.27.1.1 Surveillance (refer to Oncology Routines)

2.27.1.2 Change in condition (worsening clinical situation), suspect worsening metastatic disease

2.27.2 Malignancy elsewhere and suspect metastases

2.27.2.1 Symptomatic

2.27.2.1.1 Ascites

2.27.2.1.2 Bowel obstruction

2.27.2.1.3 Change in bladder or bowel habits

2.27.2.1.4 Hematuria

2.27.2.1.5 Hydronephrosis

2.27.2.1.6 New abdominal or pelvic mass

2.27.2.1.7 Abdominal or pelvic pain

2.27.2.1.8 Rectal or abnormal vaginal bleeding

2.27.2.2 Elevated tumor markers

2.27.3 Malignancy elsewhere and Initial Staging for metastatic disease (refer to Oncology Routines for Initial Staging)

2.28 Osteomyelitis, suspected in pelvic bones (CT Pelvis ONLY)

2.28.1 Pain or Fever

2.28.1.1 Elevated C Reactive Protein

2.28.1.2 Elevated Erythrocyte Sedimentation Rate

2.28.1.3 Fever

2.28.1.4 Leukocytosis

2.28.1.5 Positive Blood Cultures

2.29 Pancreatic Cancer, suspected (CT ABDOMEN ONLY)

2.29.1 Pancreatic mass on recent imaging and request for “Pancreatic Protocol”

2.29.2 Prior imaging demonstrating dilatation of the bile duct and/or pancreatic duct (US, ERCP, MRCP)

2.29.3 Painless Jaundice

2.29.4 Weight loss of greater than 5% of body weight in the past 6 months

2.29.5 Midepigastric pain which may radiate to the back

2.29.6 Elevated Tumor Markers

2.29.6.1 CA19-9 >35Ku/L

2.29.6.2 CEA >2.5 in nonsmoker

2.29.6.3 CEA >5.0 in smoker

2.30 Pancreatic Pseudocyst, suspected (BOTH) (CT ABDOMEN ONLY)

2.30.1 History

2.30.1.1 Acute pancreatitis with onset at least 4 weeks earlier

2.30.1.2 Pancreatitis secondary to trauma

2.30.1.3 Chronic Pancreatitis

2.30.2 Clinical Findings

2.30.2.1 Abdominal or Back pain

2.30.2.2 Abdominal Mass

2.30.2.3 Abdominal tenderness

2.30.2.4 Ultrasound nondiagnostic

2.30.2.5 Worsening under treatment

2.31 Pancreatitis, suspected (CT ABDOMEN ONLY)

2.31.1 Abdominal pain (upper abdomen, epigastric pain)

2.31.1.1 Elevated amylase or lipase

2.32 Pelvic Inflammatory Disease (CT Pelvis Only)

2.32.1 Nondiagnostic Ultrasound (One of BOTH)

2.32.1.1 Symptoms

2.32.1.1.1 Lower abdominal pain

2.32.1.1.2 Menstrual disturbance

2.32.1.1.3 Cervical and adnexal tenderness

2.32.1.2 Findings

2.32.1.2.1 Fever

2.32.1.2.2 Leukocytosis

2.32.1.2.3 Purulent cervical discharge

2.33 Peptic Ulcer Disease

2.33.1 Obtain history of prior studies, send for physician review

2.34 Pheochromocytoma or Paraganglioma, suspected

2.34.1 Elevated catecholamines

2.34.2 Fractionated serum metanephrines > 3-4 times normal

2.34.3 Elevated 24 hour urinary total metanephrine

2.34.4 Elevated vanellylmandelic acid (VMA)

2.34.5 Hypertension not responding to medical therapy

2.35 Preoperative for Transcatheter Aortic Valve Replacement (TAVR)

2.36 Pyelonephritis (Kidney Infection)

2.36.1 Symptoms not responding or worsening on antibiotics

2.36.1.1 Suspect perinephric abscess

2.36.1.2 Suspect nephrolithiasis or obstructive uropathy

2.36.1.2.1 Nondiagnostic Renal Ultrasound

2.37 Renal or Ureteral Stones (Obstructive Uropathy/Renal Colic), suspected

2.37.1 Flank pain radiating to the groin

2.37.2 Hematuria

2.37.3 History of prior stones

2.37.4 Hydronephrosis on other imaging

2.38 Small Bowel Tumor (CT Enterography)

2.39 Ulcerative Colitis

2.39.1 Bloody mucoid stools

2.39.1.1 Diarrhea

2.39.1.2 Pain

2.39.1.3 Tenesmus

2.40 Ureteral or Renal Stones (Obstructive Uropathy/Renal Colic), suspected

2.40.1 Flank pain radiating to the groin

2.40.2 Hematuria

2.40.3 History of prior stones

2.40.4 Hydronephrosis on other imaging

2.41 Urethral Diverticulum with a Nondiagnostic Ultrasound (MRI preferred; CT Pelvis ONLY)

2.41.1 Incontinence

2.41.2 Urinary frequency, urgency, burning on urination, dysuria

2.41.3 Dribbling, dyspareunia

3 Abnormal Physical Exam Finding presented as primary indication

3.1 Abdominal Distention (URGENT, approval should be issued without delay)

3.1.1 Bowel Obstruction suspected

3.1.2 Severe pain developing over a few hours (acute abdomen)

3.2 Abdominal Tenderness

3.2.1 Severe pain developing over a few hours (acute abdomen); (URGENT, approval should be issued without delay)

3.2.2 Abscess, Appendicitis, Diverticulitis or other infection suspected

3.2.2.1 Fever

3.2.2.2 Leukocytosis

3.2.2.3 Mass

3.3 Abnormal Bowel Sounds

3.3.1 Decreased Bowel Sounds

3.3.1.1 Severe pain developing over a few hours (acute abdomen); (URGENT, approval should be issued without delay)

3.3.2 High Pitched Bowel Sounds

3.3.2.1 Suspect small bowel obstruction

3.3.3 Borborygmus Bowel Sounds

3.3.3.1 Suspect small bowel obstruction

3.4 Falling blood pressure

3.4.1 Collapse, impending

3.4.2 Ruptured aneurysm suspected

3.5 Fever

3.5.1 Abscess, Appendicitis, Diverticulitis or other infection suspected

3.5.2 Persistent abdominal pain

3.6 Guarding

3.6.1 Abscess, Appendicitis, Diverticulitis or other infection suspected

3.6.2 Persistent abdominal pain

3.6.3 Fever

3.6.4 Leukocytosis

3.6.5 Mass

3.7 Hernia suspected on physical exam with a Nondiagnostic Ultrasound

3.7.1 Ventral Hernia (CT Abdomen)

3.7.2 Inguinal or Femoral Hernia (CT Pelvis)

3.8 Jaundice, painless (CT ABDOMEN ONLY)

3.9 Lumbosacral Plexopathy (CT Pelvis ONLY)

3.9.1 Gradual onset of radicular pain and weakness

3.10 Mass, new on physical exam

3.10.1 New or enlarging soft tissue mass of the abdominal wall (not a Hernia)

3.10.1.1 Nondiagnostic Ultrasound exam or X-ray

3.10.2 New or enlarging palpable mass in the abdomen or pelvis

3.10.2.1 Pelvic mass in a female

3.10.2.1.1 Must have a nondiagnostic Pelvic ultrasound prior to CT or MRI

3.10.2.1.2 Should be evaluated by MRI if ultrasound is nondiagnostic (send for physician review if no contraindication to MRI is described such as pacemaker)

3.11 Muscular rigidity

3.11.1 Abscess, Appendicitis, Diverticulitis or other infection suspected

3.11.2 Abdominal pain

3.11.3 Fever

3.11.4 Leukocytosis

3.11.5 Mass

3.12 Rebound Tenderness

3.12.1 Abscess, Appendicitis, Diverticulitis or other infection suspected

3.12.2 Persistent abdominal or pelvic pain

3.12.3 Fever

3.12.4 Leukocytosis

3.12.5 Mass

3.13 Rovsing's Sign (sign of appendicitis- touching the left lower quadrant causes increased pain in the right lower quadrant)

3.14 Shake Tenderness

3.14.1 Abscess, Appendicitis, Diverticulitis or other infection suspected

3.14.2 Abdominal pain

3.14.3 Fever

3.14.4 Leukocytosis

3.14.5 Mass

3.15 Splenomegaly

3.15.1 Left upper quadrant pain

3.15.2 Recent trauma and suspect rupture

3.16 Widening of the Abdominal Aorta by palpation, suspect Abdominal Aortic Aneurysm (AAA)

3.16.1 New finding

3.16.2 Condition worsening, new symptoms or findings

3.16.3 Routine follow up of known asymptomatic AAA

3.16.3.1 Aortic diameter 3.0 – 4.0 cm follow up once per year

3.16.3.2 Aortic diameter > 4.0 cm, follow up every 6 months

4 Abnormal Lab or Imaging presented as primary indication

4.1 Abdominal Aortic Aneurysm on prior imaging

4.2 Adrenal Mass seen on prior imaging (CT ABDOMEN ONLY)

4.2.1 Benign appearing < 4 cm adenoma or myelolipoma

4.2.1.1 Repeat scan 6-12 months after initial scan

4.2.1.1.1 No change in size or < 1cm increase in size, then no further imaging

4.2.1.1.2 Enlarging (>1cm increase in size in one year), repeat CT

4.2.2 Benign appearing 4-6 cm adenoma or myelolipoma

4.2.2.1 Repeat scan in 3-6 months

4.2.2.1.1 No change in size or < 1cm increase in size, repeat 6-12 months

4.2.2.1.2 Enlarging (>1cm increase in size in one year), no repeat imaging (see NCCN guidelines)

4.3 Aldosterone elevated, suspect Aldosteronoma or Primary Aldosteronism or Conn's Syndrome (CT ABDOMEN ONLY)

4.3.1 Hypertension that is drug resistant (need for >3 drugs)

4.3.2 Spontaneous (<3.5 mEq/L) or severe diuretic-induced (<3mEq/L) hypokalemia

4.3.3 Plasma aldosterone (ng/dL) to rennin ratio >10

4.3.4 24 hour urinary aldosterone excretion test >14µg/day

4.4 Amylase elevated (CT ABDOMEN ONLY)

4.4.1 Abdominal pain

4.5 Ascites

4.5.1 Suspect malignant ascites based on peritoneal fluid analysis

4.5.1.1 Malignant cytology

4.5.1.2 Low SAAG and high protein level

4.5.2 Suspect malignant ascites based on Ultrasound findings

4.5.2.1 Internal echoes within the ascites

4.5.2.2 Loculated ascites

4.5.2.3 Tethered bowel loops along the posterior abdominal wall or other organs

4.6 Bilirubin elevated (CT ABDOMEN ONLY)

4.7 Catecholamines elevated, suspect Pheochromocytoma or Paraganglioma

4.7.1 Elevated catecholamines

4.7.2 Fractionated serum metanephrines > 3-4 times normal

4.7.3 Elevated 24 hour urinary total metanephrine

4.7.4 Elevated vanellylmandelic acid (VMA)

4.7.5 Hypertension not responding to medical therapy

4.8 Choledicolithiasis (Common Bile Duct Stones) (CT ABDOMEN ONLY)

4.8.1 MRCP preferred study (send for physician review)

4.9 Cirrhosis (CT ABDOMEN ONLY)

4.9.1 Screening for Liver Cancer (according to the National Comprehensive Cancer Network, Ultrasound and alph-fetoprotein levels (AFP) should be done every 6-12 months. Further imaging is dependent on the findings of these 2 tests)

4.9.1.1 Screening ultrasound detected liver mass/nodule/lesion

4.9.1.1.1 < 1 cm on ultrasound, image every 3-6 months for 2 years

4.9.1.1.2 1-2 cm, image every 3 months if stable in size

4.9.1.1.3 > 2 cm, biopsy and if nondiagnostic, repeat imaging if stable

4.9.1.2 Rising AFP with negative ultrasound

4.9.1.3 CT or MRI did not find a mass and rising AFP, repeat imaging every 3 months until a mass is confirmed

4.9.2 Planned TIPS (transjugular intrahepatic portosystemic shunt – relatively noninvasive procedure for portal hypertension)

4.10 Fracture seen on other imaging

4.11 Free air on other imaging (pneumoperitoneum)

4.12 Hematuria

4.12.1 Not associated with a simple urinary tract infection

4.12.2 Persists despite treatment of urinary tract infection

4.13 Hepatitis B or C (CT Abdomen ONLY)

4.13.1 Prior to transplant

4.13.2 Screening for Liver Cancer (according to the National Comprehensive Cancer Network, Ultrasound and alph-fetoprotein levels (AFP) should be done every 6-12 months. Further imaging is dependent on the findings of these 2 tests)

4.13.2.1 Screening ultrasound detected liver mass/nodule/lesion

4.13.2.1.1 < 1 cm on ultrasound, image every 3-6 months for 2 years

4.13.2.1.2 1-2 cm, image every 3 months if stable in size

4.13.2.1.3 > 2 cm, biopsy and if nondiagnostic, repeat imaging if stable

4.13.2.2 Rising AFP with negative ultrasound

4.13.2.3 CT or MRI did not find a mass and rising AFP, repeat imaging every 3 months until a mass is confirmed

4.14 Hydronephrosis

4.14.1 Hematuria

4.14.2 Flank pain radiating to the groin

4.14.3 History of prior stones

4.14.4 Recurrent urinary tract infections

4.14.5 Suspect obstructing lesion

4.15 Leukocytosis (WBC >11,500/cu.mm)

4.15.1 Fever

4.15.2 Abscess, Appendicitis, Diverticulitis or other infection suspected

4.15.3 Abdominal or pelvic pain

4.16 Lipase elevated (CT ABDOMEN ONLY)

4.17 Liver Function Tests elevated and Nondiagnostic Ultrasound (CT ABDOMEN ONLY)

4.17.1 Direct bilirubin >0.2

4.17.2 Total bilirubin >1.9

4.17.3 Alkaline phosphatase >147 IU/L

4.17.4 Gamma GT or GGT >51 IU/L

4.17.5 AST >40 IU/L

4.17.6 ALT >56 IU/L

4.18 Liver Mass/Nodule/Lesion seen on prior imaging (CT Abdomen ONLY)

4.18.1 Liver mass/nodule/lesion seen on ultrasound and finding was indeterminate (CT or MRI was recommended)

4.18.2 Follow up Liver mass/nodule/lesion seen on prior Liver Protocol CT (triphasic) or Dynamic Liver MRI

4.18.2.1 Follow up every 3 months if mass not characterized previously as benign hemangioma or cyst

4.19 Kidney Mass (CT ABDOMEN ONLY)

4.19.1 Indeterminate complex cystic or solid mass detected on ultrasound

4.19.1.1 Cyst confirmed on prior imaging to be Bosniak class I cyst (simple cyst) or Bosniak class II cyst (<1 mm septations, fine calcifications within the septum or wall, <3 cm in diameter, or hyperdense cyst) – no further imaging is indicated

4.19.1.2 Bosniak Class IIF (multiple thin septum, septa thicker than hairline or slightly thick wall, calcification which may be thick) or Bosniak Class III Cyst (uniform wall thickening/nodularity, thick/irregular calcification, thick septa, contrast enhancement) on Prior CT or MRI (CT ABDOMEN)

4.19.1.2.1 CT every 6 months for 3 years, and if stable no further imaging

- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2845761/

4.20 Mass on prior imaging

4.20.1 New or enlarging abdominal or pelvic mass not characterized as Benign on prior imaging

4.20.1.1 Pelvic mass in a female must have a nondiagnostic ultrasound first and should then be evaluated by MRI (send for physician review if no contraindication to MRI is described such as pacemaker)

4.21 Metanephrine elevated, suspect Pheochromocytoma or Paraganglioma

4.21.1 Elevated catecholamines

4.21.2 Fractionated serum metanephrines > 3-4 times normal

4.21.3 Elevated 24 hour urinary total metanephrine

4.21.4 Elevated vanellylmandelic acid (VMA)

4.21.5 Hypertension not responding to medical therapy

4.22 Pancreatic Mass or Duct Dilatation (CT ABDOMEN ONLY)

4.22.1 Pancreatic mass on recent imaging and request for “Pancreatic Protocol”

4.22.2 Prior imaging with dilatation of the bile duct and/or pancreatic duct (US, ERCP, MRCP)

4.23 Splenomegaly (CT ABDOMEN ONLY)

4.23.1 Left upper quadrant pain

4.23.2 Recent trauma and suspect rupture

4.24 Vanellylmandelic acid (VMA) elevated, suspect Pheochromocytoma or Paraganglioma

4.24.1 Elevated catecholamines

4.24.2 Fractionated serum metanephrines > 3-4 times normal

4.24.3 Elevated 24 hour urinary total metanephrine

4.24.4 Elevated vanellylmandelic acid (VMA)

4.24.5 Hypertension not responding to medical therapy

5 Significant Prior Medical History presented as primary indication

5.1 Abdominal Aortic Aneurysm

5.1.1 Periodic follow-up of an asymptomatic known AAA (if there is an inadequate ultrasound and there has not been a surgical repair)

5.1.1.1 2.5-2.9 cm every 5 years

5.1.1.2 3.0-3.4 cm every 3 years

5.1.1.3 3.5-3.9 cm every year

5.1.1.4 4.0-4.4 cm every year

5.1.1.5 4.5-4.9 cm every 6 months

5.1.1.6 5.0-5.5 cm every 3-6 months

5.1.2 New onset of pain

5.1.3 Postoperative evaluation following repair including surgery or endovascular repair (stent graft) (CTA)

5.1.3.1 1 month after repair

5.1.3.2 3 months after repair

5.1.3.3 6 months after repair

5.1.3.4 Annually after repair

5.1.3.5 Suspicion of endoleak

5.1.3.6 New symptoms after repair

5.1.4 Planning for endovascular or surgical repair of documented aortic aneurysm

5.2 Abdominal Aneurysm (not Aortic)

5.2.1 Aneurysm of any other intra-abdominal artery detected on other imaging

5.3 Abscess

5.3.1 Follow up during or after treatment

5.3.1.1 Condition unimproved or worsening while on treatment

5.3.1.2 Routine follow-up study after treatment, including evaluation for removal of drain

5.3.1.3 Follow up after percutaneous drainage of intra-abdominal, retroperitoneal or pelvic abscess

5.4 Aortic Dissection

5.4.1 Follow up

5.4.1.1 1 month after repair

5.4.1.2 3 months after repair

5.4.1.3 6 months after repair

5.4.1.4 12 months after repair

5.4.1.5 Annually after 12 months

5.4.2 New symptoms after repair

5.5 Ascites

5.5.1 Suspect malignant ascites based on peritoneal fluid analysis

5.5.1.1 Malignant cytology

5.5.1.2 Low SAAG and high protein level

5.5.2 Suspect malignant ascites based on Ultrasound findings

5.5.2.1 Internal echoes within the ascites

5.5.2.2 Loculated ascites

5.5.2.3 Tethered bowel loops along the posterior abdominal wall or other organs

5.6 Cancer (Adrenal, Anal, Bladder, Bone, Breast, Carcinoid, Cervical, Cholangiocarcinoma, Colon, Endometrial, Esophageal, Gallbladder, Gastric, Liver, Lung, Lymphoma, Melanoma, Mesothelioma, Ovarian, Pancreatic, Pheochromocytoma, Prostate, Rectal, Renal Cell Cancer, Soft Tissue Sarcoma, Testicular, Uterine sarcoma)

5.6.1 Initial Staging

5.6.2 Interval follow up (surveillance- refer to Oncology Routines)

5.6.3 Restaging during treatment

5.6.4 Evaluate response to treatment

5.6.5 Treatment planning for Radiation Therapy

5.6.6 Worsening clinical picture

5.7 Cirrhosis (CT ABDOMEN ONLY)

5.7.1 Screening for Liver Cancer (according to the National Comprehensive Cancer Network, Ultrasound and alph-fetoprotein levels (AFP) should be done every 6-12 months. Further imaging is dependent on the findings of these 2 tests)

5.7.1.1 Screening ultrasound detected liver mass/nodule/lesion

5.7.1.1.1 < 1 cm on ultrasound, image every 3-6 months for 2 years

5.7.1.1.2 1-2 cm, image every 3 months if stable in size

5.7.1.1.3 > 2 cm, biopsy and if nondiagnostic, repeat imaging if stable

5.7.1.2 Rising AFP with negative ultrasound

5.7.1.3 CT or MRI did not find a mass and rising AFP, repeat imaging every 3 months until a mass is confirmed

5.7.2 Planned TIPS (transjugular intrahepatic portosystemic shunt – relatively noninvasive procedure for portal hypertension)

5.8 Crohn's Disease

5.8.1 Mass on abdominal, pelvic or rectal exam

5.8.2 Fever

5.8.3 Leukocytosis

5.8.4 Abdominal pain

5.8.5 Guarding

5.8.6 Rebound tenderness

5.8.7 Weight loss

5.8.8 Follow-up during or after treatment

5.8.8.1 Condition unimproved or worsening after treatment (drainage, antibiotics)

5.8.8.2 Condition unimproved or worsening after IV antibiotics for >1 week

5.8.8.3 Routine follow-up study after treatment, including evaluation for removal of drain

5.8.9 Fistula

5.8.10 Small bowel obstruction

5.8.11 Perianal fistula

5.8.12 Stricture or stenosis

5.8.13 Any evidence of clinical deterioration while on steroids or immunosuppressives

5.9 Hepatitis B or C (CT Abdomen ONLY)

5.9.1 Prior to transplant

5.9.2 Screening for Liver Cancer (according to the National Comprehensive Cancer Network, Ultrasound and alph-fetoprotein levels (AFP) should be done every 6-12 months. Further imaging is dependent on the findings of these 2 tests)

5.9.2.1 Screening ultrasound detected liver mass/nodule/lesion

5.9.2.1.1 < 1 cm on ultrasound, image every 3-6 months for 2 years

5.9.2.1.2 1-2 cm, image every 3 months if stable in size

5.9.2.1.3 > 2 cm, biopsy and if nondiagnostic, repeat imaging if stable

5.9.2.2 Rising AFP with negative ultrasound

5.9.2.3 CT or MRI did not find a mass and rising AFP, repeat imaging every 3 months until a mass is confirmed

5.10 Liver Mass/Nodule/Lesion (CT Abdomen ONLY)

5.10.1 Liver mass/nodule/lesion seen on ultrasound and finding was indeterminate (CT or MRI was recommended)

5.10.2 Follow up Liver mass/nodule/lesion seen on prior Liver Protocol CT (triphasic) or Dynamic Liver MRI

5.10.2.1 Follow up every 3 months if mass not characterized previously as benign hemangioma or cyst

5.11 Metastatic Disease

5.11.1 Known metastatic disease

5.11.1.1 Surveillance (refer to Oncology Routines)

5.11.1.2 Change in condition (worsening clinical situation), suspect worsening metastatic disease

5.11.2 Malignancy elsewhere and suspect metastases

5.11.2.1 Symptomatic

5.11.2.1.1 Ascites

5.11.2.1.2 Bowel obstruction

5.11.2.1.3 Change in bladder or bowel habits

5.11.2.1.4 Hematuria

5.11.2.1.5 Hydronephrosis

5.11.2.1.6 New abdominal or pelvic mass

5.11.2.1.7 Abdominal or pelvic pain

5.11.2.1.8 Rectal or abnormal vaginal bleeding

5.11.2.2 Elevated tumor markers

5.12 Osteomyelitis, known

5.12.1 Interval follow up during and after treatment

5.12.2 Preoperative evaluation

5.12.3 Worsening clinical situation

5.13 Pancreatic Cancer, known (CT ABDOMEN ONLY)

5.13.1 Follow up immediately following surgery

5.13.2 Following completion of chemotherapy

5.13.3 Every 3-6 months for 2 years

5.13.4 Annually after 2 years

5.14 Pancreatitis, known (CT ABDOMEN ONLY)

5.14.1 Hemodynamic instability

5.14.2 Falling hematocrit

5.14.3 Falling blood pressure

5.14.4 Fever

5.14.5 Leukocytosis

5.14.6 Leukopenia

5.14.7 Retroperitoneal air on prior CT

5.14.8 Positive blood culture

5.14.9 Signs of peritonitis (rebound, guarding or tenderness)

5.14.10 Poor oxygen saturation, signs of ARDS (adult respiratory distress syndrome)

5.14.11 Signs of renal failure (rising BUN and creatinine)

5.15 Pancreatic Pseudocyst, known (CT ABDOMEN ONLY)

5.15.1 Periodic evaluation for change in size

5.15.2 New or worsening clinical findings

5.15.2.1 Recurrent abdominal pain

5.15.2.2 Rising amylase or lipase

5.15.2.3 Fever

5.16 Chronic Pancreatitis (ALL) (CT ABDOMEN ONLY)

5.16.1 History of recurrent pancreatitis

5.16.2 Abdominal pain

5.16.3 No definitive diagnosis with Ultrasound or Endoscopic Ultrasound

5.17 Pheochromocytoma or Paraganglioma, known

5.17.1 Follow up after treatment

5.17.1.1 3-12 months after resection up to 1 year

5.17.1.2 6-12 months for 2nd and 3rd years

5.17.1.3 Annually for years 4-10

5.17.1.4 Rising blood pressure or serum markers (metanephrines, urine VMA)