

Evaluation of Acute Abdominal Pain in Adults



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Introduction

- Abdominal pain is a common presentation to healthcare services
- Approximately half of all acute surgical admission are due to abdominal pain

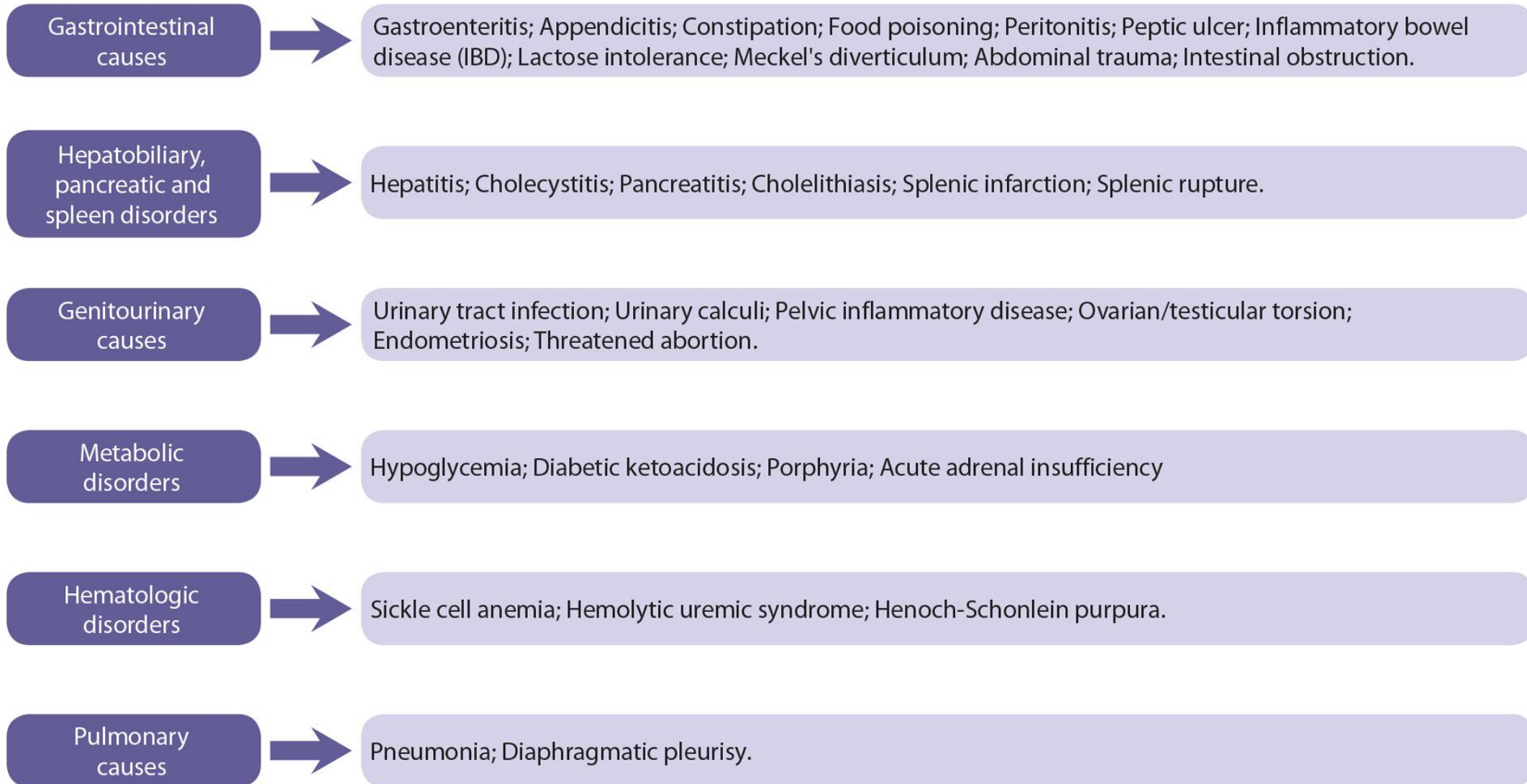
SOCRATES

- **S – Site** : Where is the pain located? (e.g., Epigastric, RUQ, LLQ, periumbilical).
- **O – Onset** : Did it start suddenly (e.g., perforation, rupture, torsion) or gradually (e.g., inflammation, infection)?
- **C – Character** : What does it feel like? (e.g., sharp, stabbing, dull, crampy, burning).
- **R – Radiation** : Does it move anywhere? (e.g., back pain in pancreatitis, shoulder tip pain in ruptured ectopic pregnancy).

SOCRATES

- **A - Associated Symptoms** : Any other symptoms? (e.g., fever, vomiting, diarrhea, constipation, vaginal bleeding, urinary symptoms).
- **T - Time Course** : How has the pain changed since it started? Is it constant or intermittent?
- **E - Exacerbating/Relieving Factors**: What makes it better or worse? (e.g., eating, moving, lying still, defecation).
- **S – Severity** : How bad is the pain (e.g., on a scale of 1-10)

Figure 1: Common causes of acute abdominal pain based on the systems involved



1. Falch C, Vicente D, Häberle H, et al. Treatment of acute abdominal pain in the emergency room: a systematic review of the literature. Eur J Pain. 2014;18(7):902-13.

LOCATION of PAIN

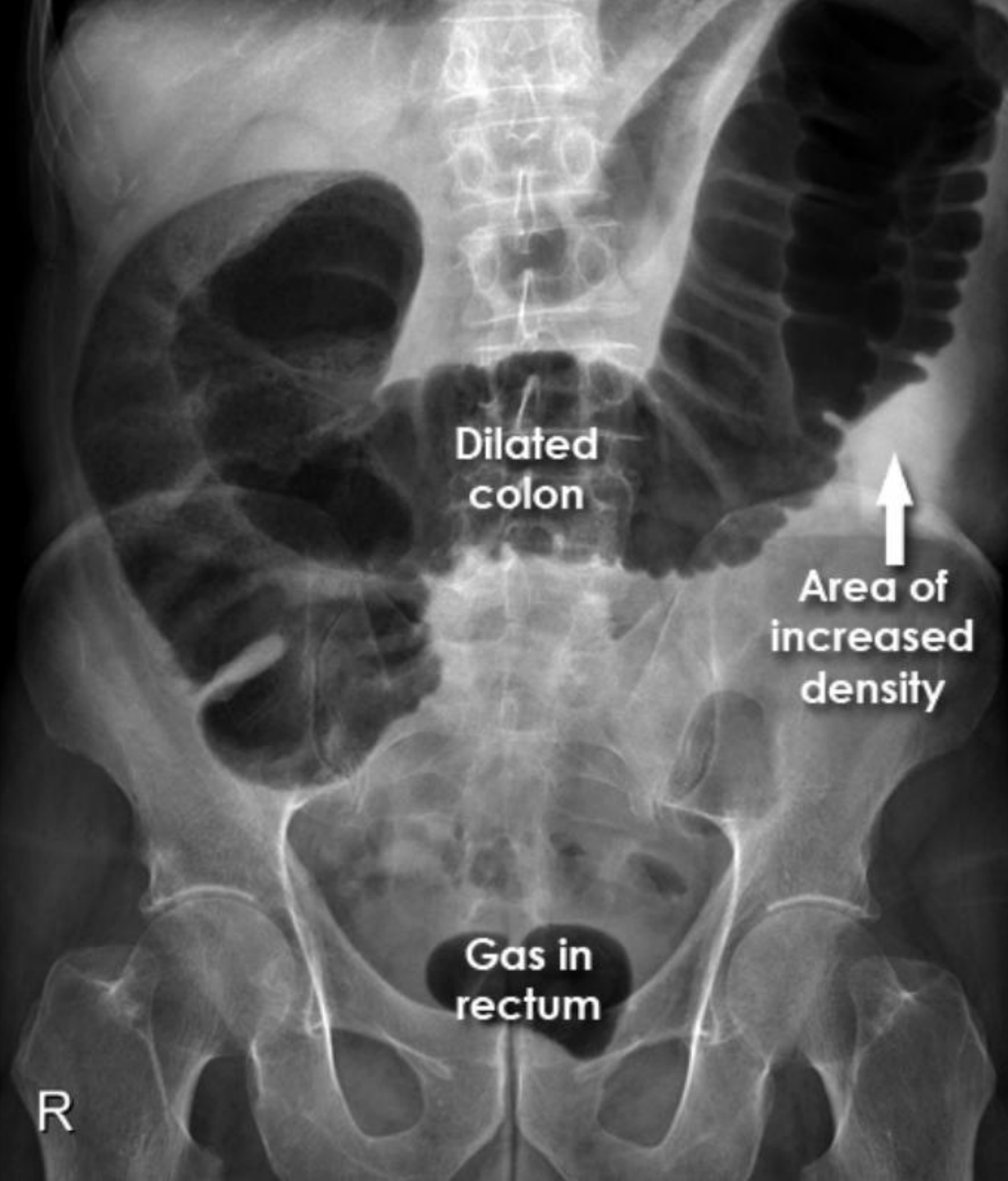
Figure 3: Differential diagnosis of abdominal pain according to anatomical site of pain

Right hypochondrium <ul style="list-style-type: none">• Biliary: cholecystitis, cholelithiasis, cholangitis• Colonic: colitis, diverticulitis• Hepatic: abscess, hepatitis, mass• Pulmonary: pneumonia, embolus• Kidney: nephrolithiasis, pyelonephritis	Epigastric <ul style="list-style-type: none">• Biliary: cholecystitis, cholelithiasis, cholangitis• Cardiac: myocardial infarction, pericarditis• Gastroesophageal: esophagitis, gastritis, peptic ulcer• Pancreatic: mass, pancreatitis	Left hypochondrium <ul style="list-style-type: none">• Cardiac: angina, myocardial infarction, pericarditis• Gastroesophageal: esophagitis, gastritis, peptic ulcer• Pancreatic: mass, pancreatitis• Kidney: nephrolithiasis, pyelonephritis• Vascular: aortic dissection, mesenteric ischemia
Right lumbar <ul style="list-style-type: none">• Kidney: pyelonephritis, infarction, abscess• Ureter: stone, hydronephrosis	Periumbilical <ul style="list-style-type: none">• Colonic: early appendicitis• Gastroesophageal: esophagitis, gastritis, peptic ulcer• Small bowel: Small-bowel mass or obstruction• Vascular: aortic dissection, mesenteric ischemia	Left lumbar <ul style="list-style-type: none">• Kidney: pyelonephritis, infarction, abscess• Ureter: stone, hydronephrosis• Spleen: abscess, rupture, splenomegaly
Right iliac fossa <ul style="list-style-type: none">• Colonic: appendicitis, colitis, diverticulitis, IBD, IBS• Gynecologic: ectopic pregnancy, fibroids, ovarian mass, torsion, PID• Kidney: nephrolithiasis, pyelonephritis	Hypogastrum <ul style="list-style-type: none">• Colonic: diverticulitis, colitis• Bladder: cystitis, acute urine retention• Gynecologic: ectopic pregnancy	Left iliac fossa <ul style="list-style-type: none">• Colonic: colitis, diverticulitis, IBD, IBS• Gynecologic: ectopic pregnancy, fibroids, ovarian mass, torsion, PID• Kidney: nephrolithiasis, pyelonephritis



การอ่านฟิล์ม

- **Dilated Bowel**
- **Distribution**
- **Haustral Markings**
- **Point of obstruction**
- **Complete or partial**
- **Complication**



Dilated
colon

↑
Area of
increased
density

Gas in
rectum

R



Coffee-Bean COL166-R68U



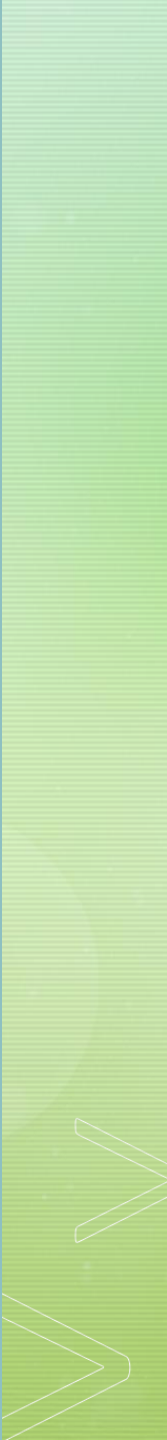
Distended air-filled loop of sigmoid colon extending from the pelvis



Sigmoid Volvulus



Causes of Large Bowel Obstruction

- Colorectal Cancer
 - Volvulus
 - Diverticular Disease
 - Fecal Impaction
 - Other Causes
- 



Cause of SBO

- **Postoperative Adhesions (70 %)**
- **Hernias**
- **Tumors/Malignancy**

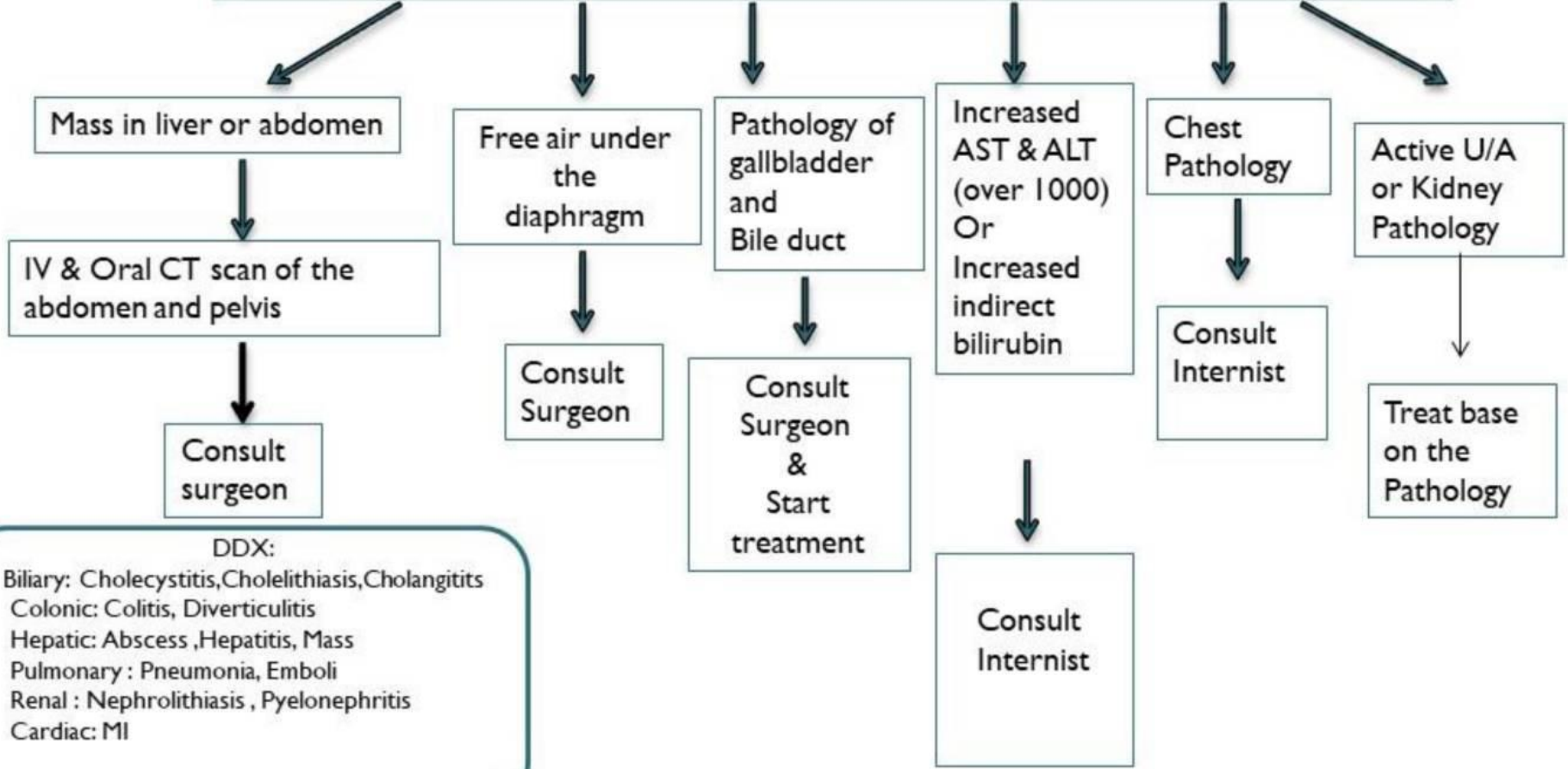


Bowel ileus

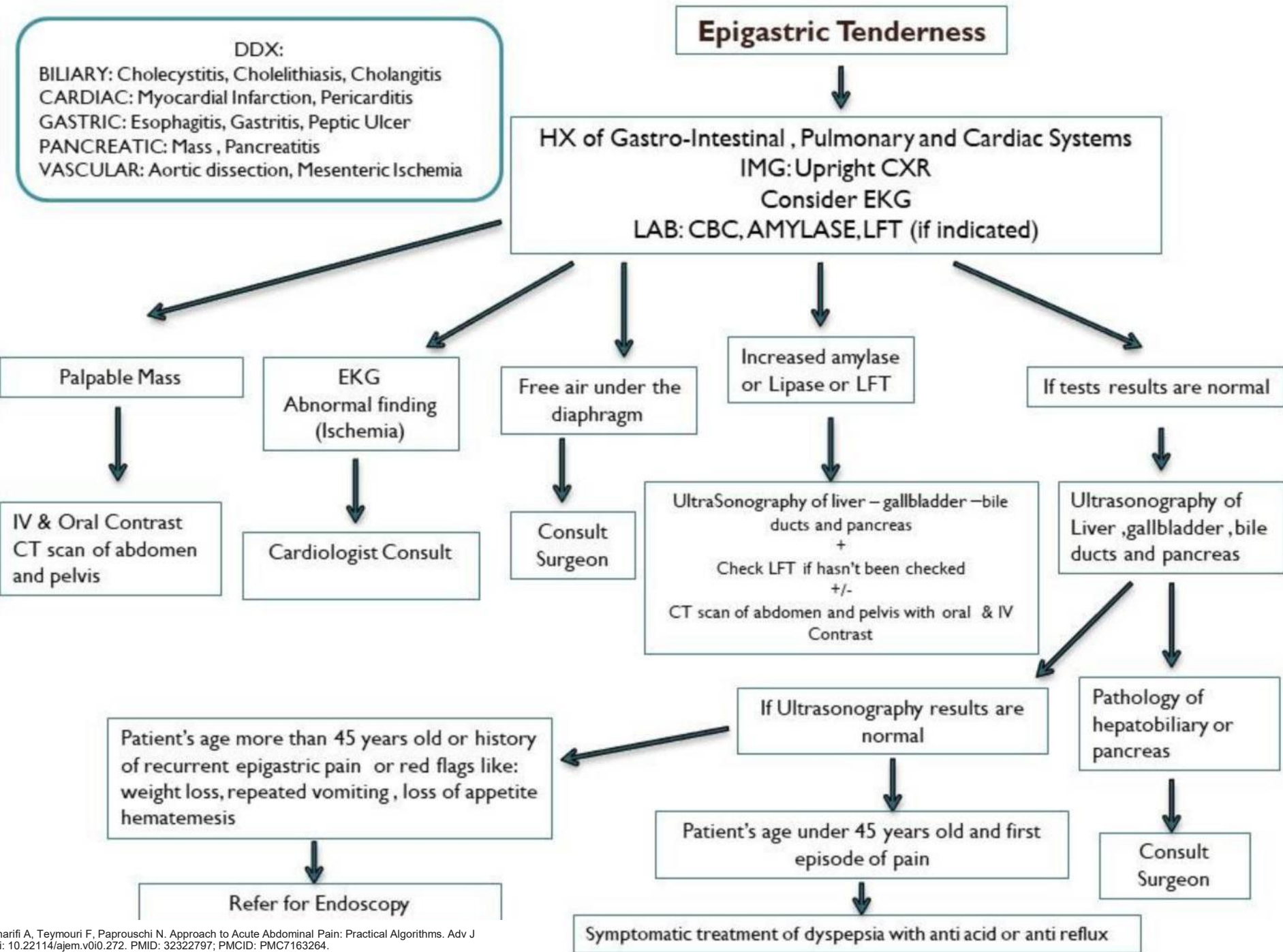
- Drugs, e.g. opioids
- Metabolic e.g. hyponatremia , hypomagnesemia
- Sepsis
- abdominal trauma or post abdominal surgery
- myocardial infarction / congestive heart failure
- head injury or neurosurgery

Right Upper Quadrant Tenderness

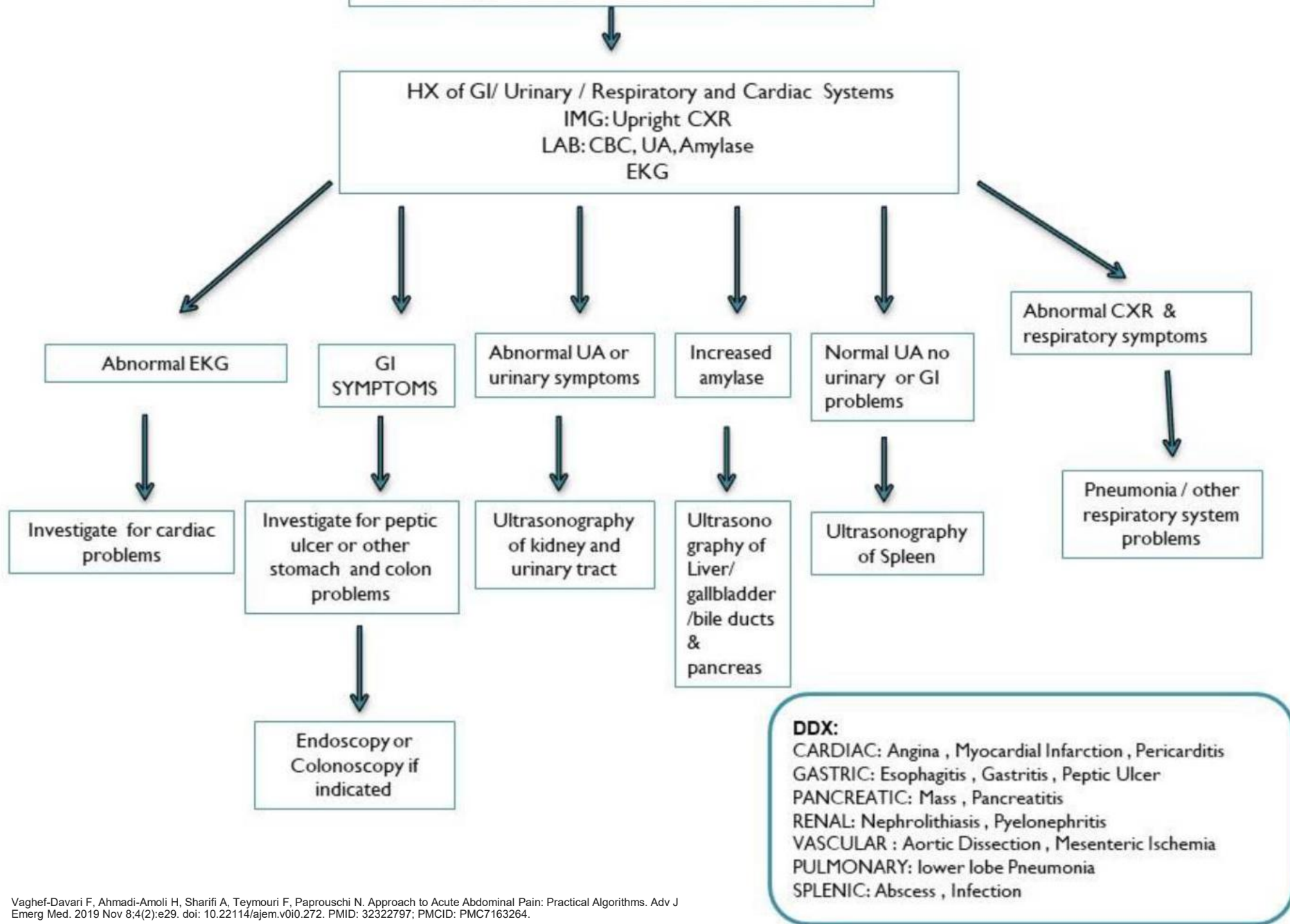
HX of GI , Urinary ,Pulmonary and Cardiac Systems
Imaging : Upright CXR
Consider EKG
LAB: CBC ,UA , LFT,Amylase / Lipase
Sonography of liver ,gallbladder , bile ducts & pancreas
Sonography of kidney,urinary tract(if urinary symptoms or flanks tenderness exist)

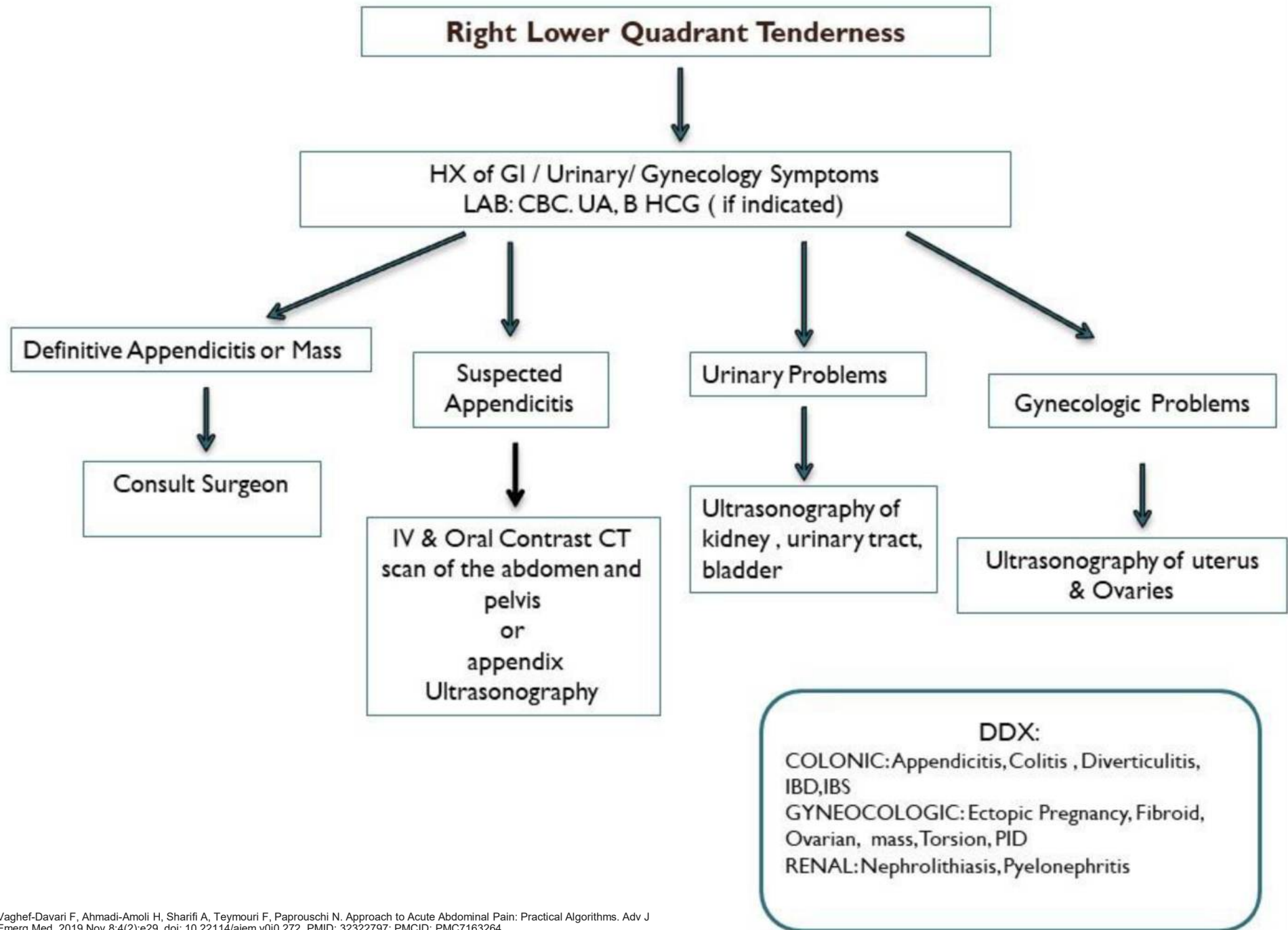


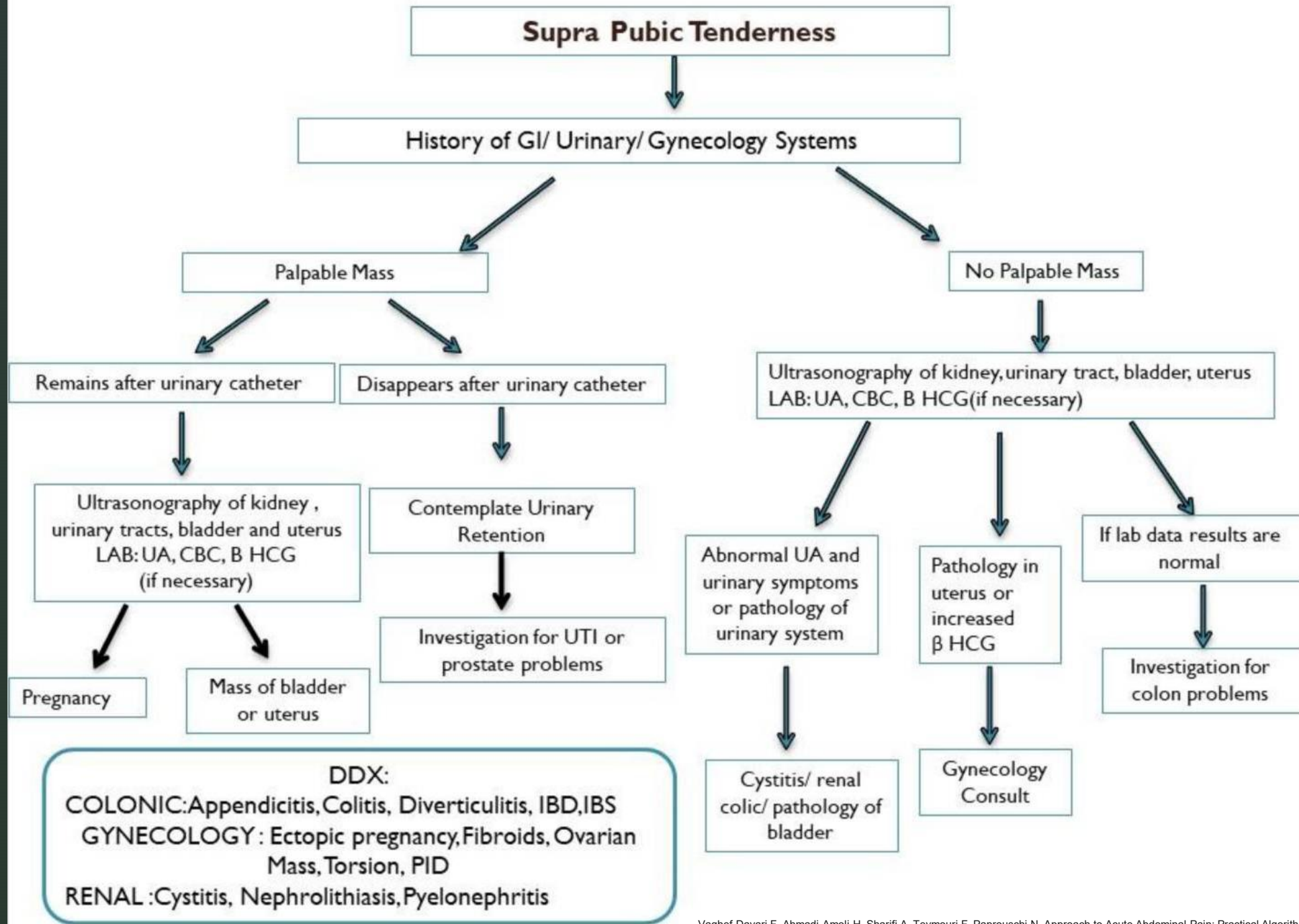
DDX:
Biliary: Cholecystitis,Cholelithiasis,Cholangitis
Colonic: Colitis, Diverticulitis
Hepatic: Abscess ,Hepatitis, Mass
Pulmonary : Pneumonia, Emboli
Renal : Nephrolithiasis , Pyelonephritis
Cardiac: MI



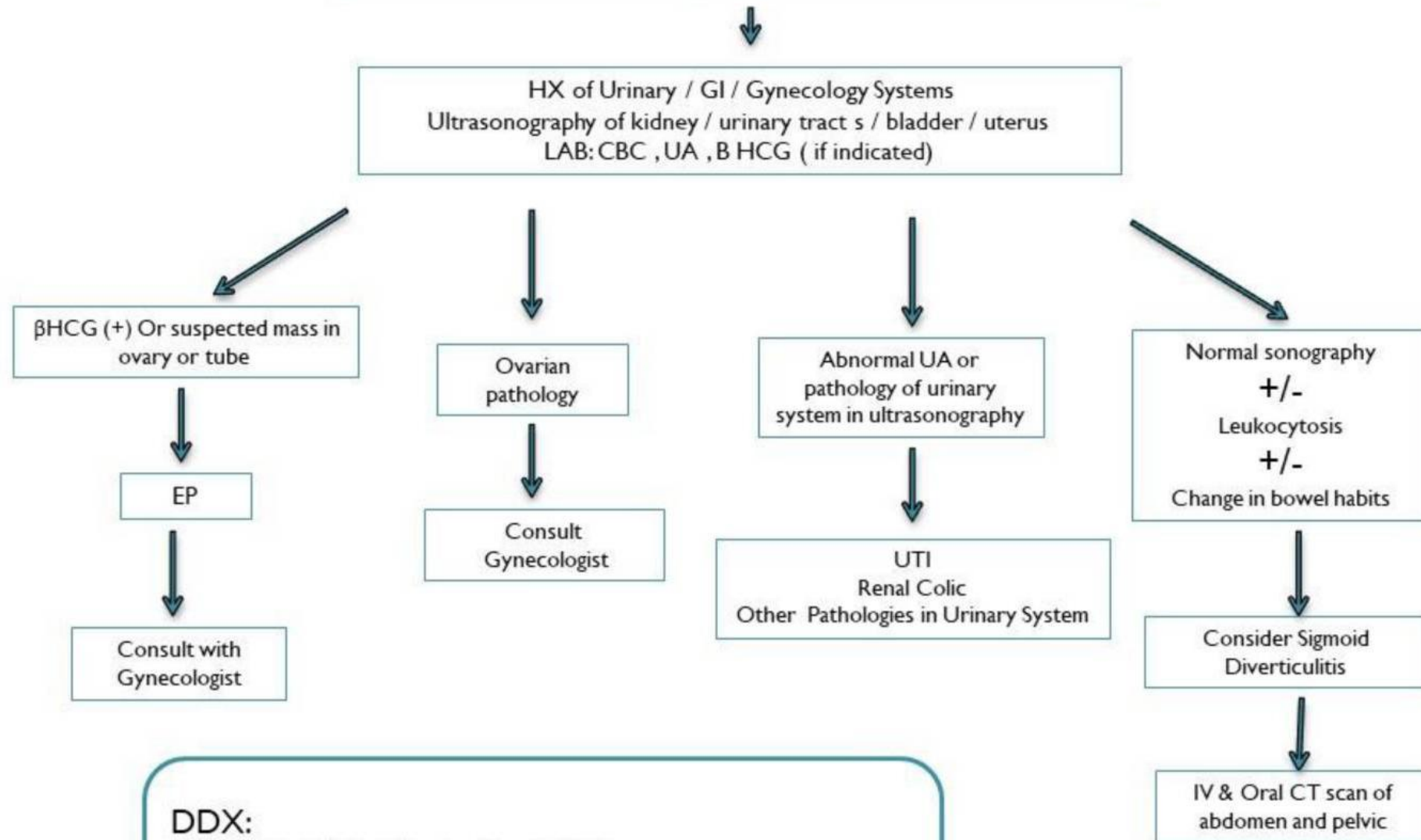
Left Upper Quadrant Tenderness







Left Lower Quadrant Tenderness

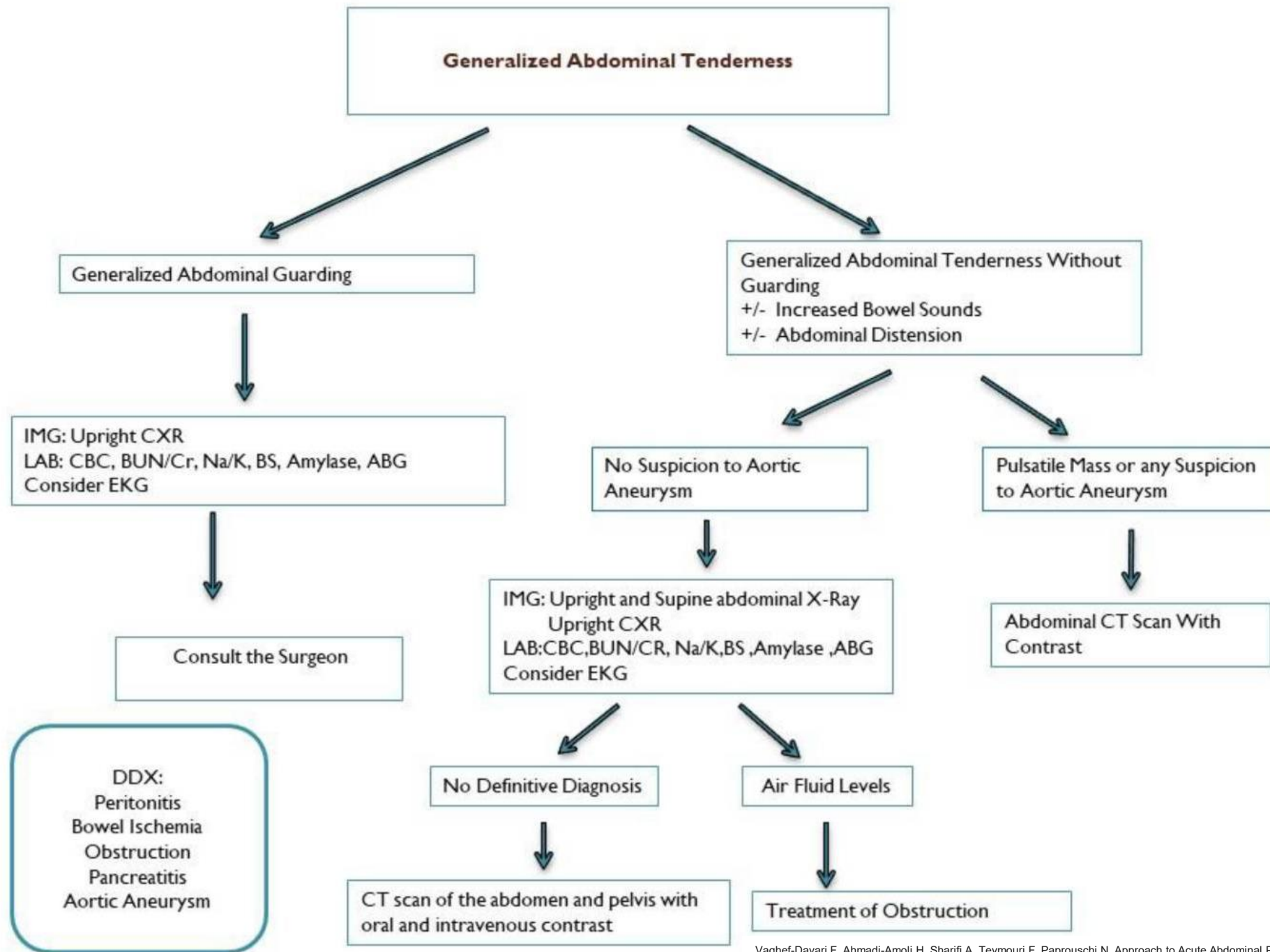


DDX:

COLONIC: Colitis , Diverticulitis , IBD, IBS

GYNECOLOGIC : Ectopic pregnancy, Fibroids , Ovarian Mass, Torsion , PID

RENAL : Nephrolithiasis , Pyelonephritis





Take home message

- Complete medical history and physical examination.
- Hospitalize your patient or consult your surgeon if you're unsure.
- Preoperative is very important.