## **GI/Nutrition**

Pancreatitis		
PowerPlan	Acute Pancreatitis Plan, Acute Pancreatitis Critical Care Plan, ED Pancreatitis Plan, GI Pancreatitis Labs Plan	
Presentation	Epigastric abd pain w/band-like pain to back, fever, N/V, ileus, jaundice/clay-colored stools	
Diagnostic Criteria	At least 2 out of 3: Abdominal pain (see above) + Amylase or lipase > 3 ULN, imaging compatible w/ pancreatitis (U/S, EUS, MRI/MRCP)	
Workup	Chem10, <b>amylase/lipase</b> (lipase rises earlier, elevated for longer, more specific), <b>lipids</b> , albumin, glucose, LFTs. ALT > 3x ULN has >95% PPV for gallstone pancreatitis	
Pathophys	Congenital anomalies (e.g. <b>choledochal cys</b> t, pancreatic divisum), infectious ( <b>mumps</b> , <b>mycoplasma</b> , coxsackie, influenza, salmonella, GNRs), drugs ( <b>valproic acid</b> , L-asparaginase, steroids), systemic dz ( <b>CF w/pancreatic sufficiency</b> , lupus, RA, HUS, Kawasaki, IBD), metabolic ( <b>hyperlipoproteinemia</b> , hyperCa, DM), EtOH and gallstones (less common), BAT (e.g. handlebar injury), genetic (SPINK1) 10% will have recurrence.	
Treatment	NPO (PO once no n/v), NS bolus(es), 1.5x mIVF (consider LR if Ca wnl), nausea control (Zofran), acid blockade (IV pantoprazole), pain control (morphine, ketorolac, acetaminophen)  Admit to ICP if obese, hypertriglycidemia, diabetic, severe abd pain, or difficulty performing reliable serial exams. ICU if HD unstable.	
Complications	SIRS, ARDS, Pseudocytst (RUQ US Abd), abscess, pleural effusion (CXR)	

Liver Enzymes			
Pattern	Lab Findings	Ddx	
Hepatocellular	↑ AST & ALT >> ↑ GGTP, alk phos, bilirubin	• Viral infxn (HepA, CMV, EBV, VSV, HSV)     • Meds/toxins     • Shock (LDH also high)     • Autoimmune hepatitis     • Steatosis     • Celiac Dx     • Hemochromatosis (↑ ferritin)     • A1AT     • Wilson's Dz (↓ ceruloplasmin)     • EtOH (2:1 AST: ALT)	
Cholestatic	↑ Alk-Phos, GGTP & Direct Bili >> AST, ALT	Bile duct obstruction/ abnormalities Infectious Hepatitis Cirrhosis Meds/toxins (anabolic steroids, amox/clauv, erythromycin, bactrim, TPN) PBC/PSC A1AT Alagille syndrome Inborn errors of metabolism	
Infiltrative	↑ Alk-Pho with nml bili (send GGT to determine if from liver or bone)	Granulomatous Dz (sarcoid, Tb) Amyloidosis HCC, mets to liver	