ACG Guidelines: Management of Acute Pancreatitis

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- Diagnosis of AP **established by 2 of 3**: 1) characteristic abdominal pain [epigastric, radiating to back], 2) serum amylase or lipase 3x ULN, OR 3) characteristic imaging findings.
- Most common causes of AP include **gallstones (40-70%)** and **alcohol use (25-35%).**

Recommendation 1: Transabdominal ultrasound in patients with AP should be used to evaluate biliary pancreatitis and a repeat US if the initial examination is inconclusive.

- Abdominal US to evaluate for cholelithiasis should be **performed on all patients** with AP.
- Identification of gallstones as etiology → prompt referral for cholecystectomy.

Recommendation 2: In patients with idiopathic AP (IAP), additional diagnostic evaluation with US, MRI, and/or EUS is recommended.

- IAP = no etiology established after labs (including lipid and calcium levels) and imaging (US and/or MRCP).
  - If no obvious etiology, repeat US and TG levels as an outpatient.
- Routine ERCP is **NOT** recommended → ↑ risk of iatrogenic pancreatitis.

Tenner, Scott MD, MPH, JD, FACG1; Vege, Santhi Swaroop MD, MACG2; Sheth, Sunil G. MD3; Sauer, Bryan MD, MSci, FACG4; Yang, Allison MD, MPH5; Conwell, Darwin L. MD, MSc, FACG6; Yadlapati, Rena H. MD, MHS, FACG7; Gardner, Timothy B. MD, FACG8. American College of Gastroenterology Guidelines: Management of Acute Pancreatitis. The American Journal of Gastroenterology 119(3):p 419-437, March 2024.

Recommendations 3-4: Moderately aggressive fluid resuscitation (1.5 mL/kg/hr) should be used in AP with additional boluses (10 mL/kg) as needed for hypovolemia. Lactated ringers >> normal saline.

- Pathophysiology: endothelial injury and increased vascular permeability → fluid shifts and third-spacing → ↓ **intravascular volume.**
- ↑ BUN indicates ↓ renal perfusion, which can be a marker for ↓ **pancreatic perfusion.**

Recommendation 5: Medical therapy is preferred over early (within the first 72 hours) ERCP in acute biliary pancreatitis WITHOUT evidence of cholangitis.

Post-ERCP Pancreatitis (PEP)

Recommendation 6-7: Rectal indomethacin is recommended in those patients with high risk of PEP. Pancreatic duct stents should be placed in these patients.

- Risk factors = patient factors (females, age <60), SOD, cannulation difficulty, pancreatic divisum, history of PEP
  - Operator factors = ↑ procedure time, repeated injection into PD

Recommendations 8: Prophylactic antibiotics should NOT be used in severe AP.

- SIRS in early AP may be indistinguishable from sepsis.
- Concomitant infections in severe AP = cholangitis, UTIs, infected pseudocysts, infected pancreatic necrosis.
  - If the above is suspected, ok to start antibiotics (i.e.: carbapenems, quinolones, cephalosporins, and metronidazole)
  - However, if BC are negative and no source of infection is found, 🛑 antibiotics.

AP = acute pancreatitis
BC = blood cultures
CT = computed tomography
EUS = endoscopic ultrasound
IAP = idiopathic AP
IN = infected necrosis
FNA = fine needle aspiration
MRI = magnetic resonance imaging
MRCP = magnetic resonance cholangio pancreatography
PN = pancreatic necrosis
PD = pancreatic duct
SOD = sphincter of Oddi dysfunction
SIRS = systemic inflammatory response
TG = triglycerides
UTI = urinary tract infection
ULN = upper limit of normal
US = ultrasound

Recommendation 9: Fine-needle aspiration (FNA) should not be used in suspected pancreatic necrosis.

- Current consensus = surgery should be performed on unstable infected necrosis.
  - If stable, 30-day of ABX first to allow for inflammatory reaction to become organized.
- FNA would not change the above: patients with IN either will improve OR become unstable → surgical intervention is based on clinical status rather than aspiration results.

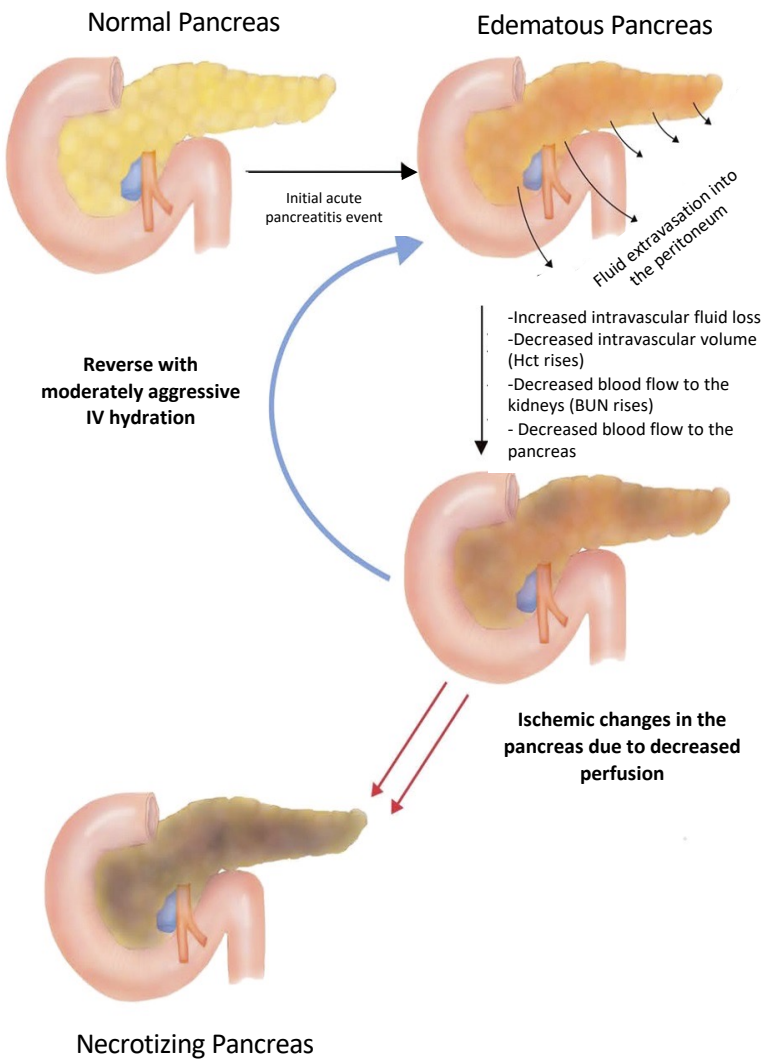
Recommendations 10-11: In patients with mild AP, oral feeding (within 24-48 hours) with a low-fat diet should be started.

- Traditional nothing-by-mouth approach and using a stepwise liquid to solid approach is now ***outdated***.
- For those with severe AP, timing on initiation of feeding remains controversial.
  - ➢ Currently, no evidence that early refeeding is beneficial.

Final Key Concepts on the Role of Surgery in AP

1. Patients with mild acute biliary pancreatitis should undergo cholecystectomy, **preferably before discharge.**
2. **Minimally invasive methods** >>> open surgery for debridement and necrosectomy in stable patients with symptomatic PN.
3. Delay intervention in stable patients with pancreatic necrosis (for at least 4 weeks) to allow for the wall of collection to mature.

Figure 1. Role of IV Hydration in AP



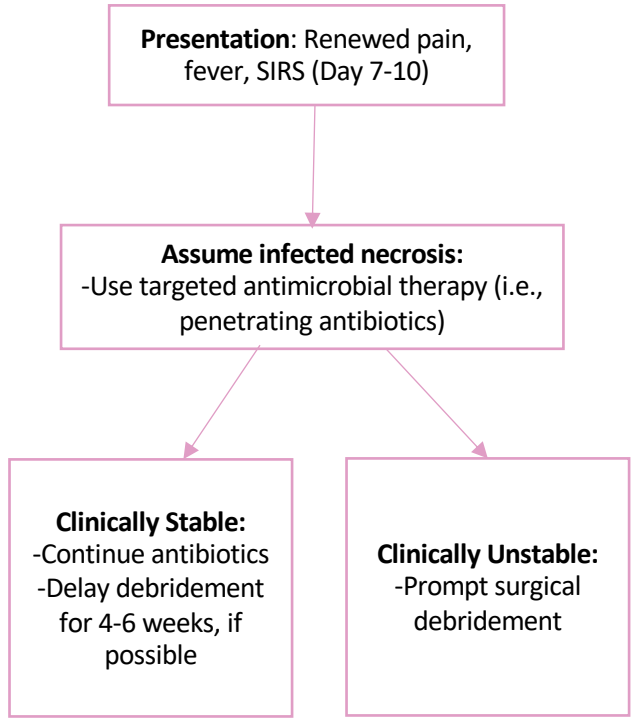


Figure 2. Suspected Infected Pancreatic Necrosis Management