ACUTE PANCREATITIS (AP)

Diagnosis:

- **Definition:** Requires at least 2 of the following
  1) Abdominal pain not attributable to another cause or suggestive of AP
  2) Amylase or lipase ≥ 3x the upper limits of normal
  3) Imaging consistent with pancreatitis
- **Differential Diagnosis:** Peptic ulcer, gastritis, choledocholithiasis, cholecystitis, hepatitis, intestinal obstruction, hepatitis, IBD, splenomegaly

Key History to Review:

- History that is consistent with prior pancreatitis, pancreatic/biliary anatomical abnormalities, medications, systemic diseases, trauma, genetic conditions, metabolic disease, autoimmune diseases, hemolytic diseases increasing risk of gallstones
- Family history of pancreatitis or pancreatic cancer

Key Physical Exam Components:

- Eyes/Skin: possible scleral icterus/jaundice
- Abdomen: epigastric tenderness in older children (could be any location in younger children) with possible radiation to the neck or back, fussiness and vomiting (in infants or younger children)
  - May also have positive Murphy's sign (right upper quadrant pain on deep inhalation during palpation) which may suggest concomitant cholecystitis

Key Labs/Imaging:

- **Labs:** CBC, CMP, amylase, lipase, direct bilirubin, GGT, triglycerides, IgG subclasses if concern for autoimmune pancreatitis
- **Imaging:**
  - Ultrasound usually is first imaging test (no sedation, contrast, or radiation), providing details on biliary system and pancreas
    - The biliary tree should be evaluated for size and stones
  - If more imaging is required, consider abdominal CT with IV contrast (radiation, but fast) or an MRCP (no radiation, but may need sedation)
    - Both can better categorize parenchymal changes, but MRCP provides super ductal anatomy detail

Management Considerations:

- Patients are made NPO during the initial period, but may trial oral feeds once bowel sounds present and patient express interest, unless severe hypertriglyceridemia to reduce the risk for bacterial translocation
  - Feed enterally if patient is interested and no contraindications to enteral feeding are present
  - Enteral nutrition is preferred (typically jejunal feeds not necessary) over total parenteral nutrition which should be considered if patient has not resumed enteral feeds after 1 week

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- If concerned about dehydration, give crystalloid bolus of 10 to 20 mL/kg as clinically indicated
  - Give 1-1.5 times maintenance rate of IV fluids at least for the first 24 hours based on hydration status
- Monitor urine output, respiratory rate, and O2 saturation for under or over hydration
- Non-opioids (oral or IV) should be tried first, escalating to opioids as needed
- A course of steroids should be considered for those diagnosed with autoimmune pancreatitis
  - Gastric protection with acid suppression is strongly recommended while taking steroids
- Close follow up with a pediatric gastroenterologist after discharge is necessary to monitor for complications

Additional Notes/References:

https://doi.org/10.1016/j.pcl.2021.07.012
https://doi.org/10.1097/mpg.0000000000001715
https://doi.org/10.1097/MPG.0000000000002341