

71-year-old male with abdominal pain, bloating, nausea, vomiting and constipation

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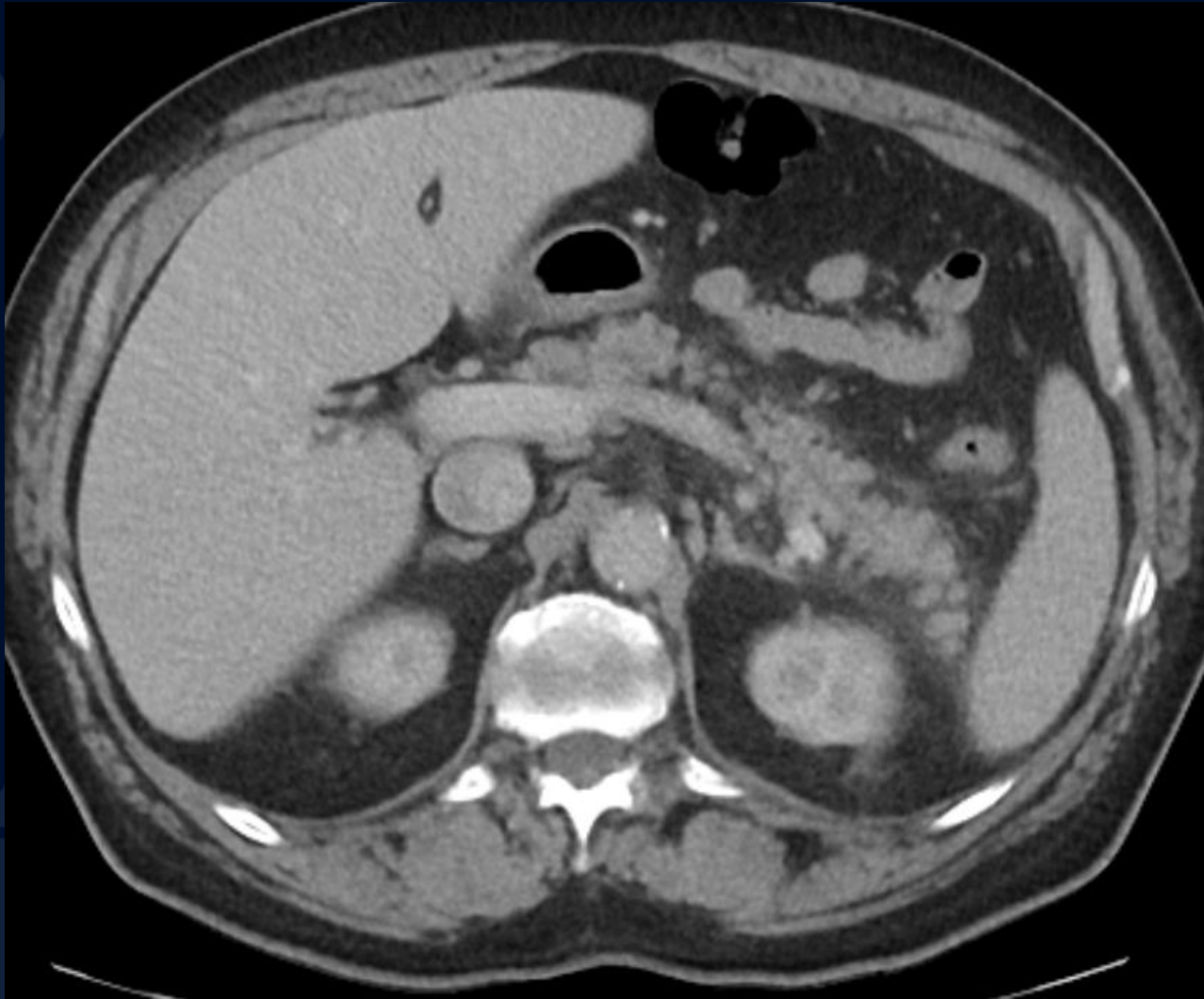
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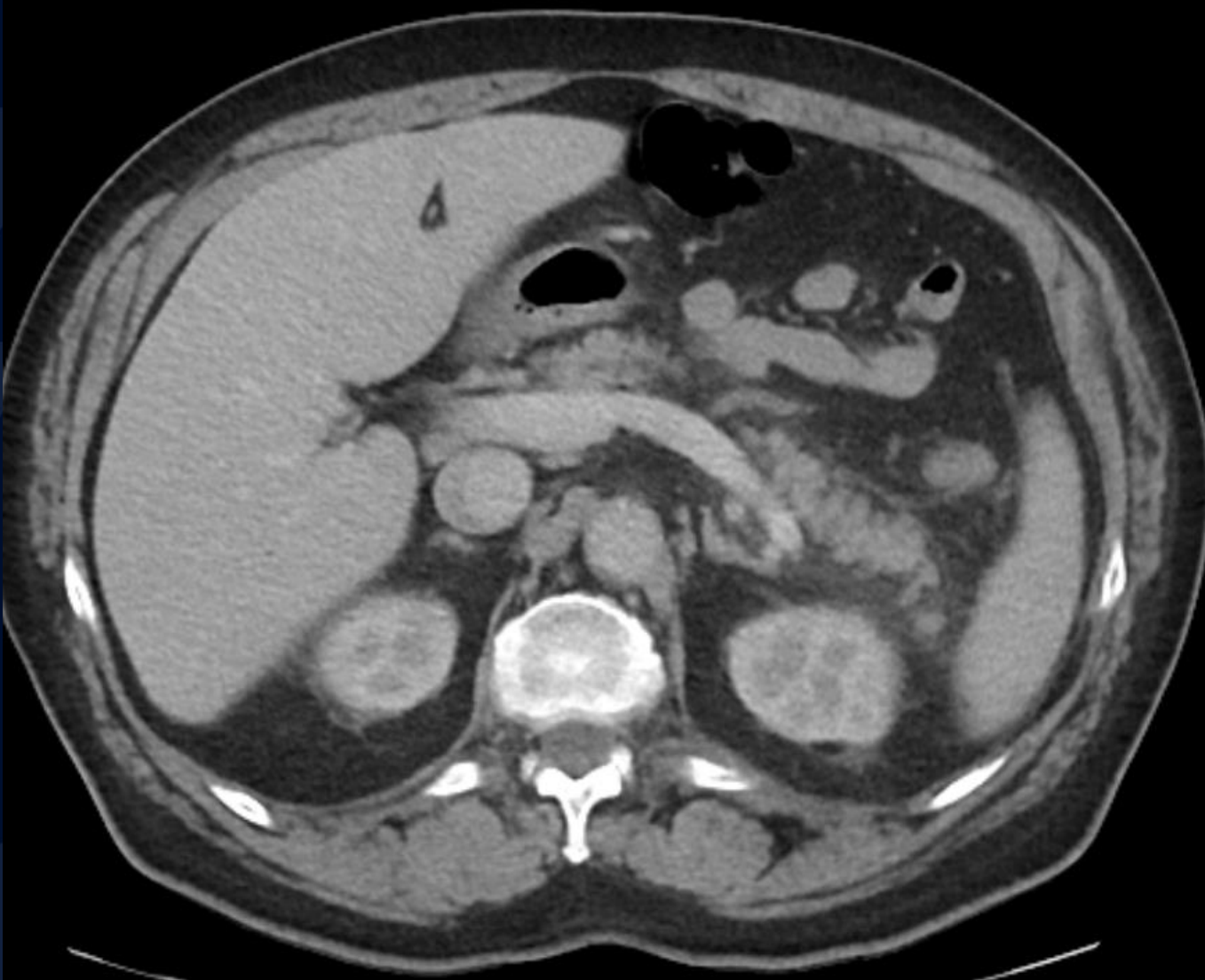
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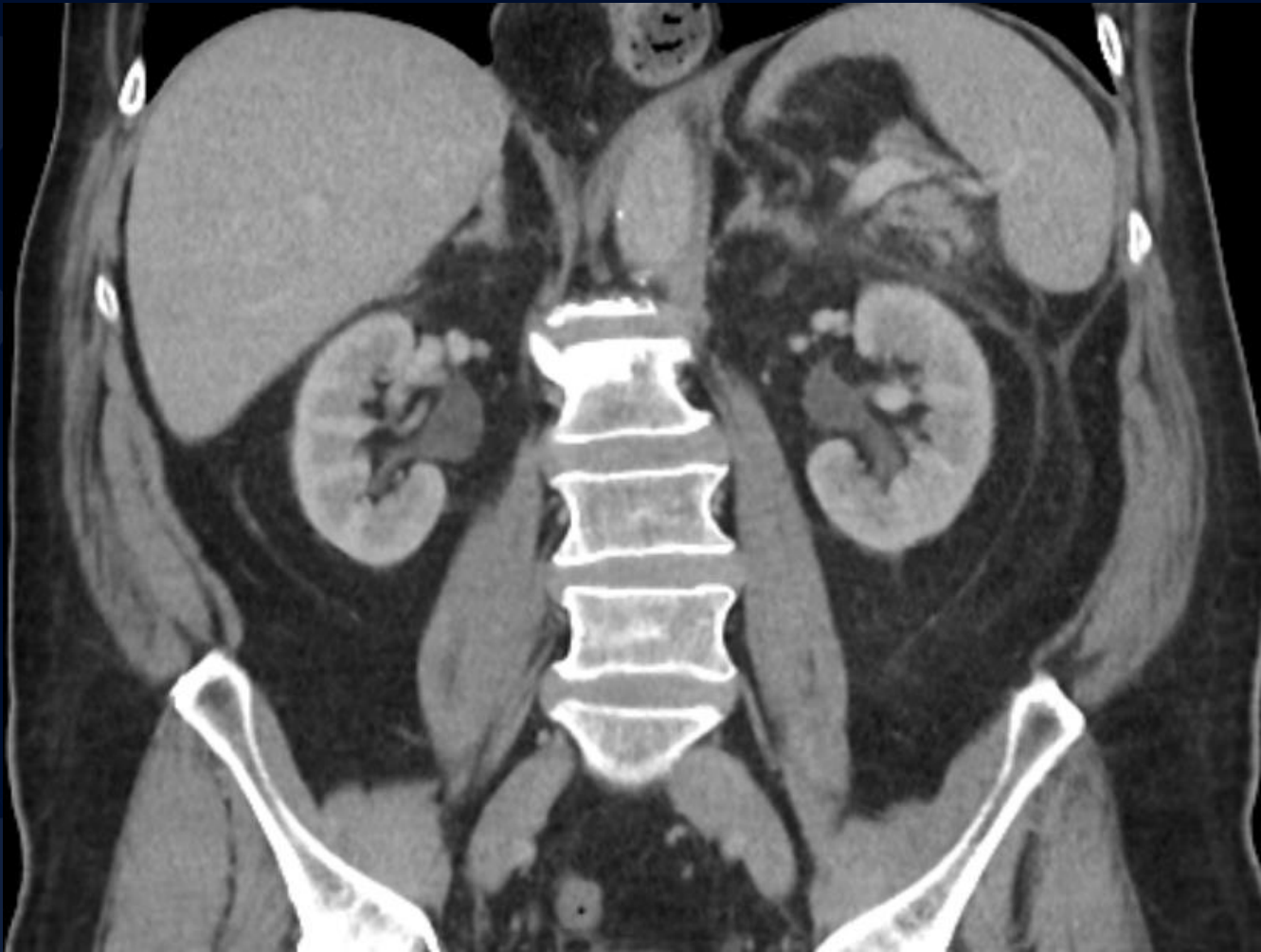
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Patient also noted to have a history of alcoholism and the following lab results:

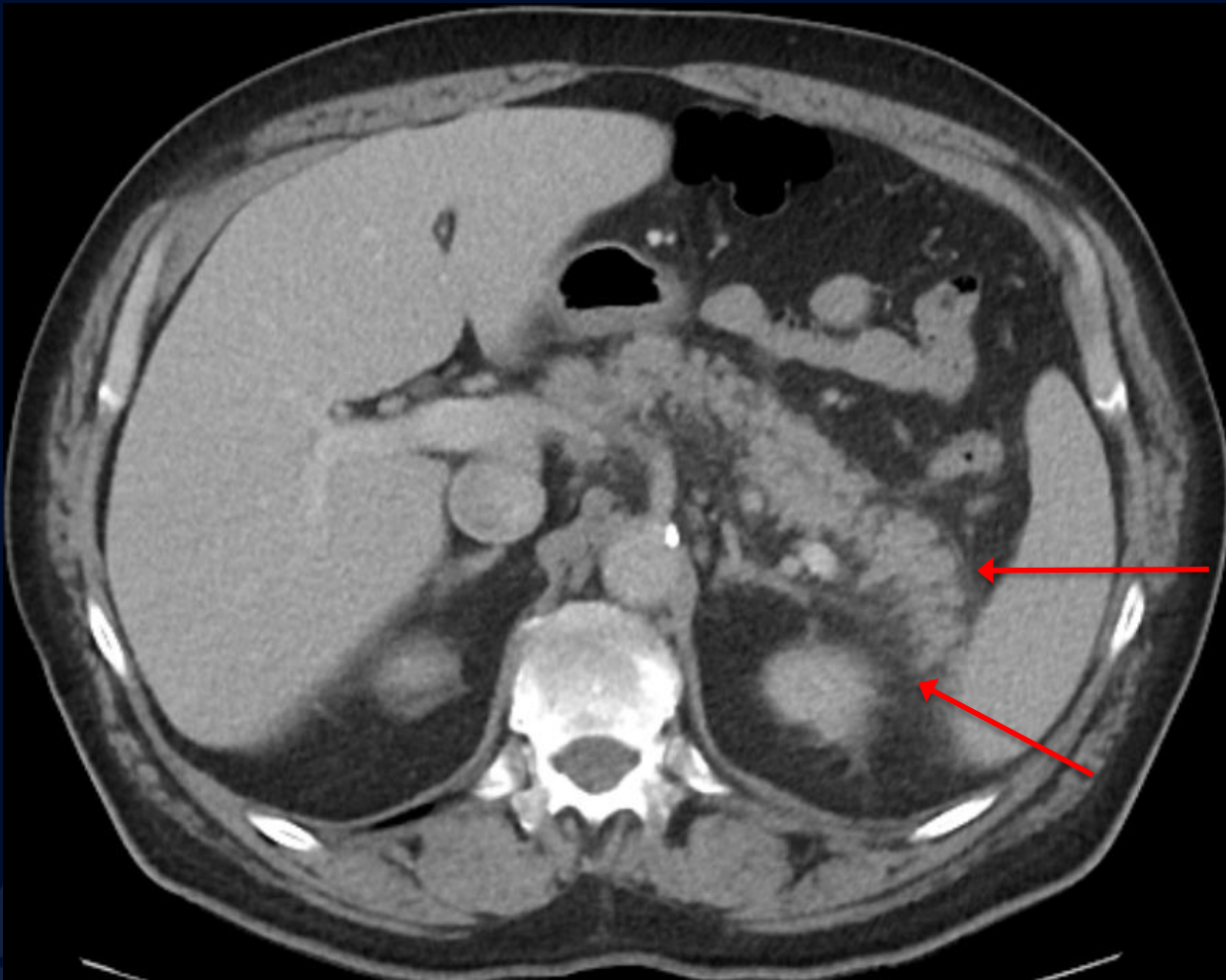
* Lipase = 101 (normal 8-51)

* WBC = 11.5 (normal 4.5-11)

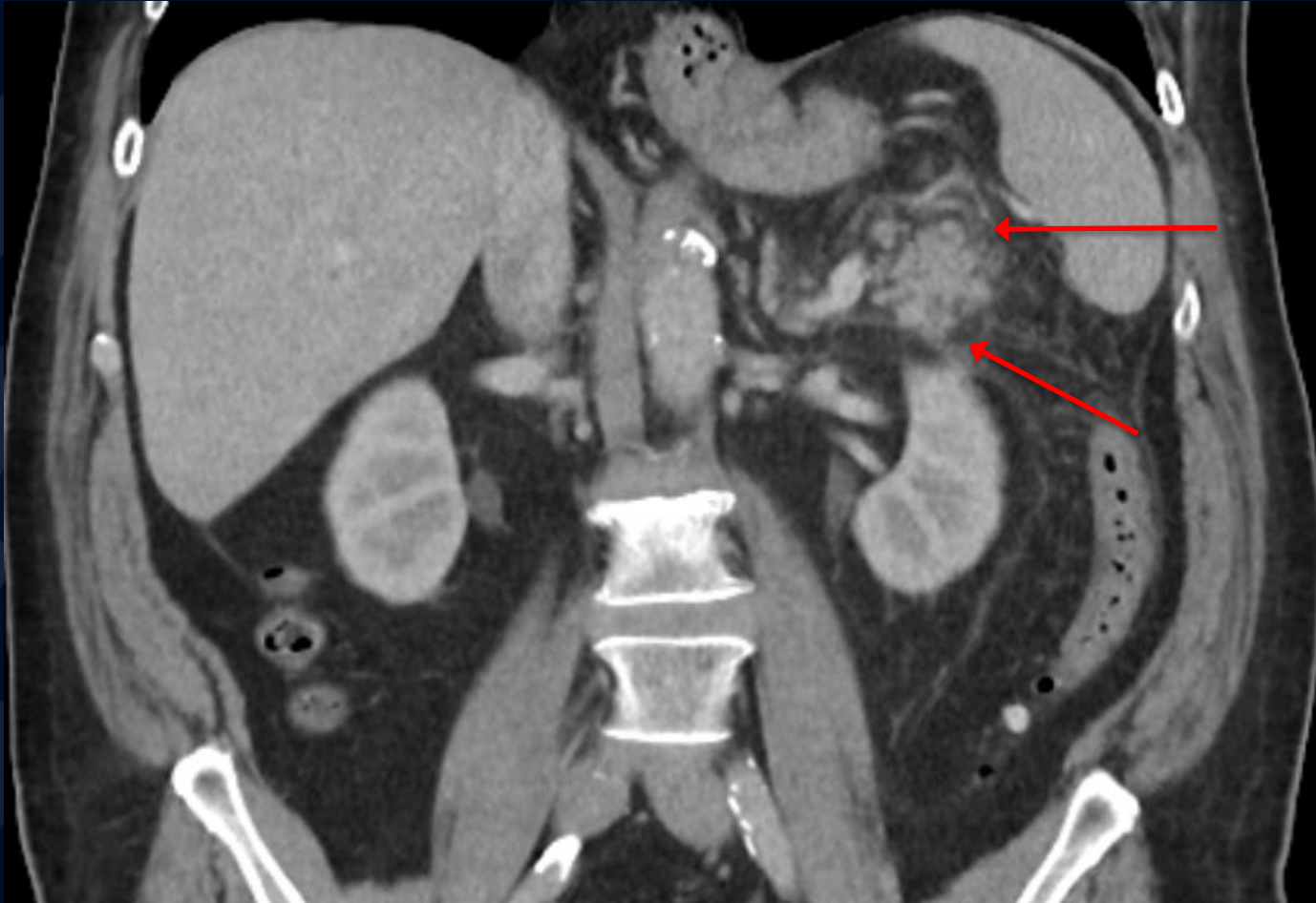
A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. It features detailed vein patterns and a lobed edge.

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Acute pancreatitis
(likely in the setting of
chronic alcoholism)



Axial CECT image demonstrates peripancreatic stranding typical of acute pancreatitis (arrows).



Coronal CECT image demonstrates peripancreatic stranding typical of acute pancreatitis (arrows).

Background

- Pancreatitis refers to inflammation of the pancreas
- There are many causes of pancreatitis
- A helpful mnemonic to remember them is “GET_SMASHED”
 - Gallstones (40-70%), Ethanol (25-35%), Trauma, Steroids, Mumps/Malignancy/Metabolic, Autoimmune, Scorpion bite, Hyperlipidemia, ERCP/Emboli, Drugs
 - Also can be Idiopathic (15-25%)
- Pathophysiology involves obstruction of pancreatic ducts and pancreatic enzyme activation resulting in inflammation, interstitial edema and swelling
 - Can eventually progress to necrosis and/or hemorrhage

Diagnosis

- Diagnosis is often made clinically
 - Present with severe, acute onset epigastric pain that radiates to the back
 - Leaning forward relieves pain, leaning back exacerbates pain
 - Labs usually will show elevated amylase and/or lipase levels
- Imaging can help if diagnosis is unclear
 - Imaging can assess severity, look for complications and identify underlying causes
 - IV contrast-enhanced CT is best, usually dual phase (arterial and portal venous)
- Imaging may be normal in mild cases
- Findings suggestive of pancreatitis include:
 - parenchymal enlargement, density changes from edema, blurring of pancreatic margins from inflammation and adjacent fat stranding
 - Evidence of necrosis (lack of parenchymal enhancement), infection (+/- gas), abscess (circumscribed fluid collection) or hemorrhage (high-attenuation fluid) indicate more advanced disease

Management

- Prognosis depends on disease severity and how soon it is treated
- Treatment is supportive, including:
 - IV fluids, pain control and correcting any electrolyte/metabolic abnormalities
 - Most patients recover in 3-7 days
- Patients with severe disease require more intensive monitoring, especially if organ failure or other complications are present
 - Patients should receive enteral nutrition via NJ tube, and parenteral nutrition only if necessary
 - Patients with suspected infected necrosis should receive empiric antibiotic therapy; if unsuccessful, or if patient is unstable, pancreatic debridement may be needed
 - Gallstone pancreatitis should be treated with urgent ERCP; cholecystectomy should be delayed until after recovery from pancreatitis
 - Ranson's Criteria and BISAP Score can be used to estimate mortality of patients admitted with pancreatitis

References

- 1) <https://radiopaedia.org/articles/acute-pancreatitis?lang=us>
- 2) Vege SS. Etiology of acute pancreatitis. Whitcomb DC and Grover S, ed. UpToDate. Waltham, MA: UpToDate Inc. <https://www.uptodate.com> (Accessed on 5/13/19)
- 3) Vege SS. Clinical manifestations and diagnosis of acute pancreatitis. Whitcomb DC and Grover S, ed. UpToDate. Waltham, MA: UpToDate Inc. <https://www.uptodate.com> (Accessed on 5/13/19)
- 4) Vege SS. Management of acute pancreatitis. Whitcomb DC and Grover S, ed. UpToDate. Waltham, MA: UpToDate Inc. <https://www.uptodate.com> (Accessed on 5/13/19)