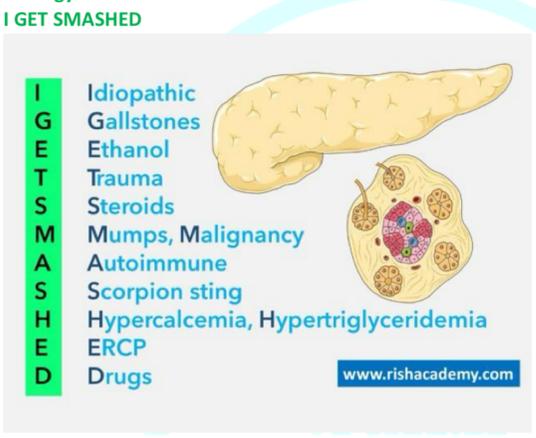


	Acute Pancreatitis	Chronic Pancreatitis				
Etiology	<p>I GET SMASHED</p>  <p>www.rishacademy.com</p>	<ol style="list-style-type: none"> 1. Alcohol, 70% 2. Idiopathic (including tropical), 20% 3. Other, 10% <ol style="list-style-type: none"> a. Hereditary b. Hyperparathyroidism c. Hypertriglyceridemia d. Autoimmune pancreatitis e. Obstruction f. Trauma g. Pancreas divisum 				
-:C.P	<ul style="list-style-type: none"> • Abdominal pain – Epigastric – Radiates to the back in Worse in supine position • Nausea and vomiting • Garding • Tachycardia, Tachypnea, Hypotension, Hyperthermia • Elevated Hematocrit & Pre renal azotemia (3rd spacing) • Cullen's sign >hg • Grey Turner's sign >hg • Fox sign >hg 	<ol style="list-style-type: none"> 1. Steady And Boring Pain 2. Not Colicky 3. Nausea Or Vomiting 4. Anorexia Is The Most Common 5. Malabsorption And Weight Loss > enzyme supplement 6. Diabetes >85-90% of pancreatic tissue is lost 				
Complications	<table border="1"> <tr> <td>Local</td> <td> <ol style="list-style-type: none"> 1. Phlegmon, Abscess, Pseudocyst, Ascites 2. Involvement of adjacent organs <ol style="list-style-type: none"> a. hemorrhage b. thrombosis, bowel infarction c. obstructive jaundice d. fistula formation e. mechanical obstruction </td> </tr> <tr> <td>Systemic</td> <td> <ol style="list-style-type: none"> 1. Pulmonary: pleural effusions, atelectasis, hypoxemia, ARDS. 2. Cardiovascular: myocardial depression, hemorrhage, hypovolemia 3. C. Metabolic: Hypocalcemia, hyperglycemia, Hyperlipidemia, coagulopathy 4. GI Hemorrhage 5. Renal 6. Hematologic 7. CNS 8. Fat necrosis </td> </tr> </table>	Local	<ol style="list-style-type: none"> 1. Phlegmon, Abscess, Pseudocyst, Ascites 2. Involvement of adjacent organs <ol style="list-style-type: none"> a. hemorrhage b. thrombosis, bowel infarction c. obstructive jaundice d. fistula formation e. mechanical obstruction 	Systemic	<ol style="list-style-type: none"> 1. Pulmonary: pleural effusions, atelectasis, hypoxemia, ARDS. 2. Cardiovascular: myocardial depression, hemorrhage, hypovolemia 3. C. Metabolic: Hypocalcemia, hyperglycemia, Hyperlipidemia, coagulopathy 4. GI Hemorrhage 5. Renal 6. Hematologic 7. CNS 8. Fat necrosis 	<ul style="list-style-type: none"> • Pseudocyst • Pancreatic Ascites • Pancreatic-Enteric Fistula • Head-of-Pancreas Mass • Splenic and Portal Vein Thrombosis
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Mx	<table border="1"> <tr> <td>Mild</td> <td> <ol style="list-style-type: none"> 1. Pancreatic rest 2. Supportive care <ol style="list-style-type: none"> a. fluid resuscitation b. watch BP and urine output c. Pain Control d. NG tubes and H2 blockers or PPIs are usually not helpful 3. Refeeding (usually 3 to 7 days) If: <ol style="list-style-type: none"> a. Bowel Sounds Present b. Patient Is Hungry c. Nearly Pain-free (Off IV Narcotics) d. Amylase & Lipase Not Very Useful </td> </tr> <tr> <td>Severe</td> <td> <ol style="list-style-type: none"> 1. Pancreatic Rest 2. Supportive Care. <ol style="list-style-type: none"> a. Fluid Resuscitation: may require 5-10 liters/day b. Careful Pulmonary & Renal Monitoring c. ICU d. Maintain Hematocrit Of 26-30% e. Pain Control f. PCA pump g. Correct Electrolyte Derangements (K⁺ , Ca⁺⁺ , Mg⁺⁺) 3. Contrasted CT scan at 48-72 hours 4. Prophylactic antibiotics if present 5. Nutritional support <ol style="list-style-type: none"> a. May be NPO for weeks 15 b. TPN </td> </tr> </table>	Mild	<ol style="list-style-type: none"> 1. Pancreatic rest 2. Supportive care <ol style="list-style-type: none"> a. fluid resuscitation b. watch BP and urine output c. Pain Control d. NG tubes and H2 blockers or PPIs are usually not helpful 3. Refeeding (usually 3 to 7 days) If: <ol style="list-style-type: none"> a. Bowel Sounds Present b. Patient Is Hungry c. Nearly Pain-free (Off IV Narcotics) d. Amylase & Lipase Not Very Useful 	Severe	<ol style="list-style-type: none"> 1. Pancreatic Rest 2. Supportive Care. <ol style="list-style-type: none"> a. Fluid Resuscitation: may require 5-10 liters/day b. Careful Pulmonary & Renal Monitoring c. ICU d. Maintain Hematocrit Of 26-30% e. Pain Control f. PCA pump g. Correct Electrolyte Derangements (K⁺ , Ca⁺⁺ , Mg⁺⁺) 3. Contrasted CT scan at 48-72 hours 4. Prophylactic antibiotics if present 5. Nutritional support <ol style="list-style-type: none"> a. May be NPO for weeks 15 b. TPN 	<ul style="list-style-type: none"> • Analgesia • Enzyme Therapy • Antisecretory Therapy • Neurolytic Therapy • Endoscopic Management(ERCP) • Surgical Therapy(open duct to jejunum/cealic block)
Mild	<ol style="list-style-type: none"> 1. Pancreatic rest 2. Supportive care <ol style="list-style-type: none"> a. fluid resuscitation b. watch BP and urine output c. Pain Control d. NG tubes and H2 blockers or PPIs are usually not helpful 3. Refeeding (usually 3 to 7 days) If: <ol style="list-style-type: none"> a. Bowel Sounds Present b. Patient Is Hungry c. Nearly Pain-free (Off IV Narcotics) d. Amylase & Lipase Not Very Useful 					
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Acute Pancreatitis

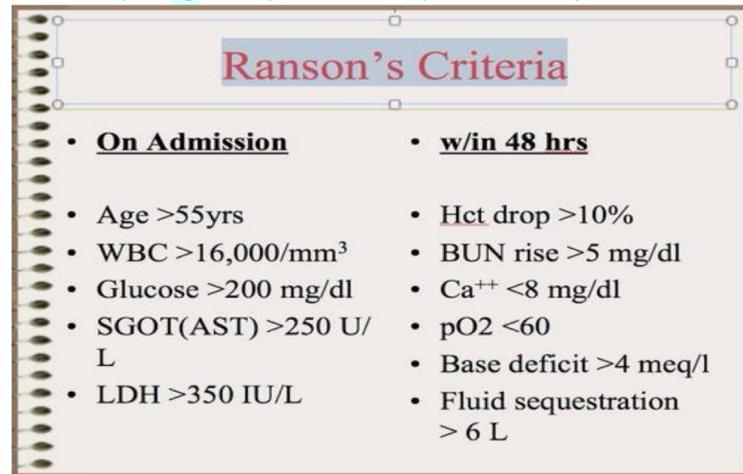
Labs

- 1 – serum amylase
 - Nonspecific
 - Returns to in 3-5 days
 - Normal amylase does not exclude pancreatitis
 - Level of elevation does not predict disease severity
- 2 – Urinary amylase
- 3 – P-amylase
- 4 – Serum Lipase (specific)
- 5 – CBC • Increased Hb
 - Thrombocytosis
 - Leukocytosis
- 6 – Liver Function Test
 - Serum Bilirubin elevated
 - Alkaline Phosphatase elevated
 - Aspartate Aminotransferase elevated

Severity assessment:-

- Criteria
- 1. Ranson (for gallstone pancreatitis)
- 2. APACHE-2
 - Biochemical Markers
 - Computed Tomography Scan

GA- LAW (Georgia Law) / C-HOBBS (Calvin Hobbs)



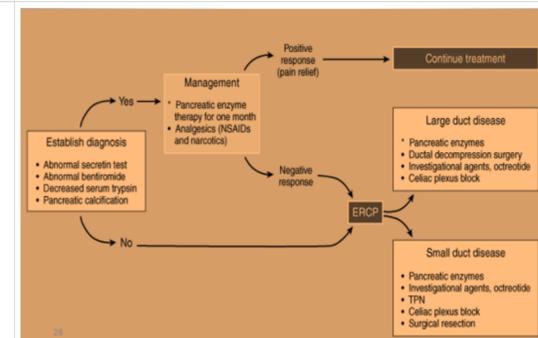
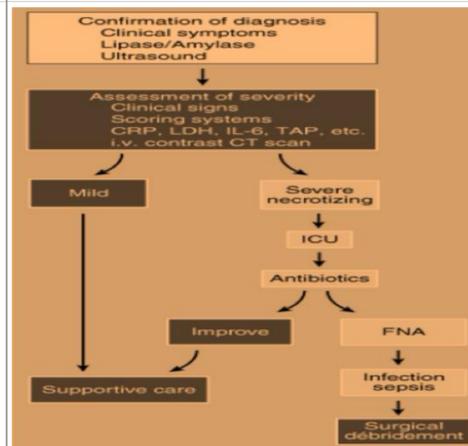
• 2>floor / 3>ICU / 5 > high mortality rate 90%

Chronic Pancreatitis

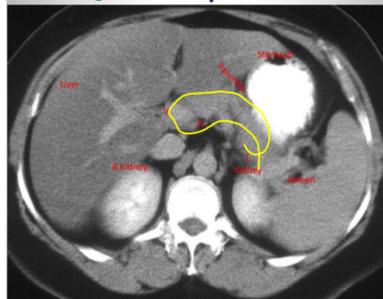
Tests for Chronic Pancreatitis

- I. Measurement of pancreatic products in blood
 - A. Enzymes
 - B. Pancreatic polypeptide
- II. Measurement of pancreatic exocrine secretion
 - A. Direct measurements
 1. Enzymes
 2. Bicarbonate
 - B. Indirect measurement
 1. Bentiromide test
 2. Schilling test
 3. Fecal fat, chymotrypsin, or elastase concentration
 4. [¹⁴C]-olein absorption
- III. Imaging techniques
 - A. Plain film radiography of abdomen
 - B. Ultrasonography
 - C. Computed tomography
 - D. Endoscopic retrograde cholangiopancreatography
 - E. Magnetic resonance cholangiopancreatography
 - F. Endoscopic ultrasonography

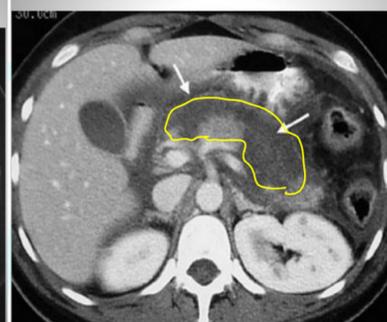
Management



CT scans of normal kidneys and pancreas



Pancreatic Necrosis



CT features

- The cardinal CT features of CP are pancreatic atrophy, calcifications, and main pancreatic duct dilation.

