

Management of Acute and Chronic Pancreatitis

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The management of acute and acute on chronic pancreatitis in hospital and in the community remains a challenging clinical problem at the primary care level. Much of the confusion on this issue is due to a poor understanding of the pathophysiology of these two conditions. Management of the complications of acute (AP) and chronic (CP) continues to evolve.

Acute pancreatitis patients present to ER with acute abdominal pain, nausea, vomiting and are often volume depleted. Initial management involves aggressive volume resuscitation and pain control. These patients are at high risk for venous thrombotic events so DVT prophylaxis should be initiated in ER. Although there is controversy as to whether patients should receive very aggressive fluid resuscitation v aggressive volume, the typical fluid orders through ER are often inadequate. We typically suggest 250-300ml/hr of IV crystalloid for the first 12 h.

Traditional markers of volume depletion such as flat JVP or elevated serum creatinine and BUN are often unreliable or late markers of volume depletion. An elevated HGB or hematocrit is often an early indicator of impending renal deterioration.

Narcotic use for AP patients' needs to be carefully monitored. Wide range narcotic orders are not suggested particularly in the first 24 h when the clinical status of the patient can change rapidly and the patient is moving from ER to a general ward with decreasing nursing support.

Complications in the first 48-72 h are related to systemic inflammatory response (SIRS)

A number of validated prognostic scoring tools are available. The most commonly used are Ranson's Criteria and the BISAP score (see Appendix)

Attending physicians need to be aware of the rapidity of clinical deterioration especially respiratory depression in the first 24h

Enteral nutrition should be considered for any patient with severe pancreatitis by 72 h post admission. NG feeds with semi elemental formulas have been shown to be well tolerated

ERCP should be reserved for documented choledocholithiasis or high probability of stone based on clinical, biochemical and radiologic criteria.

Less invasive imaging modalities such as MRCP and EUS are preferred modalities if the clinical suspicion of CBD stones is low or moderate.

Acute on Chronic Pancreatitis tends to follow a more benign course in hospital with rapid response to analgesics.

SIRS is much less common in acute on chronic pancreatitis.

DVT prophylaxis is still recommended but thromboembolic events are less common

Nutritional support is rarely required due to rapid clinical improvement

The focus in these patients should be directed toward eliminating triggers for chronic pancreatitis (alcohol and smoking)

Complications of chronic pancreatitis include diabetes, steatorrhea (and fat soluble vitamin deficiency) and pancreatic cancer

There are no recommended screening strategies for pancreatic cancer

Ranson's Criteria

Admission

48h

Age >55
WBC > 16000
GLU > 11
LDH > 350
AST > 230

Fall in HCT > 10%
Increase in BUN >1.78
Calcium < 2 mmol
PCO2 < 60mmHg
BE >4
Fluid Sequestration >6L

Severe Pancreatitis with Score >2

Mortality with score less than or equal to 2 is 1%.

Mortality with score 3-6 is 15-40%.

Mortality with score >6 approaches 100%

Appendix 2

BISAP Score

BUN increase higher than 25mg/dl (8.92 mmol/L)

Impaired Mental Status

More than 2 SIRS criteria (T>38, HR >90, RR >20,pCO2<32, WBC>12)

Age>60

Pleural Effusions

Score	Predicted Mortality
0	< 1%
1	< 2%
2	2%
3	5-8%
4	13-19%
5	22-29%