

## Case Study: Pancreatitis

A 44 year old male patient has been admitted to the medical-surgical unit of the hospital for after seeking treatment for nausea, vomiting, and severe abdominal pain. The patient developed sudden and intense pain in the right upper quadrant the evening before and waited a few hours before seeking treatment. He has a history of substance abuse and has been in rehabilitation for both alcohol and stimulant abuse. He currently still uses both alcohol and methamphetamines, despite previous attempts of treatment at detoxification centers.

Upon admission, the patient is anxious and restless, complaining of severe pain that is unrelieved by pain medication. The nurse contacts the provider to ask for further orders for opioid medications to treat the pain. The provider also orders further diagnostic tests to confirm the cause of the patient's pain and symptoms as well as a **500mL bolus of Lactated Ringer's solution IV, followed by a regular rate of LR at 150 mL/hour. How long will this IV run at 150 mL/hour: 3.33 Hours or 3 hours and 20 minutes**

**Please answer questions completely and use references**

1. What types of diagnostic tests would most likely be ordered that could determine the cause of this type of abdominal pain? And why do you choose those diagnostic tests?

Chest/abdominal XR, Abdominal CT w/ and w/out contrast, and ultrasound. Visual of chest and organs inside for inflammation.

2. What laboratory tests would the provider most likely order? And why do you think certain labs tests would be chosen?

If a client has a Hx of alcohol and drug use it is important to check liver and kidney function. In this situation some tests that may be ordered include a liver panel, possible amylase and lipase, and regular blood work (CBC CMP). Even though the pain is in the RUQ it still doesn't hurt to check the pancreatic enzymes because they are close together.

3. What effects would the patient's history of drug and alcohol abuse have on his abdominal pain? What do you believe is the diagnosis for this patient and why?

This history may be the cause of the pain and may also be the exacerbating this episode of pain. I believe the diagnosis has a high chance of being cholecystitis or cirrhosis.

# After answering these question see next page:

The provide orders an abdominal ultrasound and several laboratory tests, including a CBC, CMP, Glucose, Serum amylase, and serum lipase. **The nurse is also given an order for IV fentanyl to be given prn every 4 hours for pain control. (What is wrong with this order?)** It doesn't tell us how much to give. After undergoing the ultrasound, the provider considers the patient may have acute pancreatitis caused by inflammation: there are several lesion noted on the pancreas that may have been caused by chronic alcohol use.

4. Based on the diagnosis of acute pancreatitis, what laboratory values would the nurse expect to see in this patient? What certain lab values would be abnormal and why? What are the labs that pertain to pancreatitis? Why are these labs abnormal with pancreatitis? Were you right in questions 1, 2 & 3 about labs, diagnostics and diagnosis?

Elevated liver enzymes possible Hx of gall stones, Elevated lipase and amylase, elevated glucose depending on when last drink was and how much alcohol is abused (since alcohol contains a lot of sugar). Possibly a high lactic acid since the liver also breaks down the same enzyme used to break down lactic acid. The labs already listed would be abnormal due to the alcohol abuse and drug use. I was mostly correct with questions one two and three.

5. Why is pain control such an important component of management of acute pancreatitis?

The pain from pancreatitis comes from the enzymes of the pancreas destroying the organ itself. The more damage it causes the more unlikely your body will be able to control its own glucose levels. Pain control is important for any disease or disorder because it can alter the way you think and function.

6. What are some other orders would the nurse expect from the provider?

Lactic acid, glucose, possible MRI for a more in-depth view of the organs to see if they are damaged. With chronic alcohol use dehydration usually accompanies, as well as electrolyte imbalance. A liter of normal saline is also likely to be ordered. Other nutrients such as potassium or magnesium sulfate may also be ordered.

7. What teaching should be done for this patient?

Teaching on how the amphetamines and alcohol effect the body. The nurse should also inform how the two substances affect each other. Alcohol and amphetamines counteract with each other canceling out the effects of one another. Although the effects are canceled the negative aspects may still occur. For further explanation the high he would get from the amphetamines would be reduced from the affects of the alcohol. Making the chance for alcohol intoxication much higher because he will not feel the effects of the alcohol and continue to drink more to get that effect. This may result in an overdose. Explaining to the patient that if he must do drugs and drink alcohol to do so responsibly; then do so one at a time preferably neither.

Answer all questions and drop into drop box  
labeled Clinical Drop box 3/26

References