

# Case Study One

Miss F is a 24 year old female who presents to A&E with complaints of severe diarrhea. She states she has been having at least ten bowel movements per day. She describes them as watery, somewhat mucousy and in large amounts. She also states she has severe cramping with them.

In your examination Miss F is very thin, pale and has dry mucus membranes. She he no pmhx states she thought she just had the "flu" but became concerned when it did not clear up in a few days.

Vital signs are HR 100, RR 24, BP 90/60 T36.4 SP02 99% on room air

## What blood chemistries would you expect to be ordered?

Ms. S's blood chemistries were:

Na	130
CI	92
K	3.0
Cr	1.0
BUN	20

Write N for normal or A for abnormal next to each of the values.

What do these results suggest?

What do you do next?



### **Case Study Two**

Mr W is a 45 year old male who was admitted to your medical ward with AF via A&E at 1am. He has a history of high cholesterol, hypertension and type 2 diabetes. In A&E Mr T had a heart rate of 125 with no chest pain. His HR is now 67 in NSR and being admitted for observation on your ward.

You get a phone call from the lab at 3am stating that Mr W has a Troponin T of 68 ng/l.

## What would you do next?

When you go to assess Mr W, he looks clammy and is complaining of central crushing chest pain 8/10. You repeat his observations which show: HR 100 BP 165/74 RR24 Sp02 93% on Room air. Mr W is well perfused with a Cap Refil if 2 seconds.

What interventions are needed and what do you think has happened?



Mrs B is a 67 year old female admitted to your ward with nausea and vomiting.

She has a hx of lung cancer and had recent chemotherapy 7 days ago. Despite vomiting, Mrs B feels well but is unable to keep anything down and appears dehydrated and weak. On admission to the ward Mrs Bs routine bloods show Neutrophils 2 and White Cell Count 4.2. Mrs B has a PICC in her left arm, which she is receiving IV fluids through.

You come to look after Mrs B on her second day in hospital. You check her morning blood results, which show her WCC is 1.1, Neut 0.9 and CRP is 89.

Are these within normal ranges?

What are your next steps?

What interventions are needed and why might this have happened?



### Case Study Four

Miss L is a 29 year old female admitted to your ward awaiting surgery following a tibia and fibula fracture sustained during a moped accident. She has no past medical history and is normally fit and well.

Miss L has been NMB since midnight with IV hydration. You are starting your morning shift and receive a phone call from the lab that Miss L has a HB of 69.

## What are your next steps?

#### **Case Study Five**

Mr R is a 36 year old male admitted with chest pain following cocaine use 12 hrs ago with a positive Troponin of 25. His pmhx is gastritis, which he is on PPIs for.

Mr R is well perfused and his vital signs are HR117 BP125/73 RR18 T36.1 SP02 98% on room air. He appears well but is unhappy that several attempts of venepuncture were needed to obtain a blood sample.

Mr R has been on your ward for a few hours when you receive a call for the lab to state that his potassium is 7.2.

#### What are your next steps?

#### What could have caused this high potassium result?