

# Case 11

You are an F2 working in the emergency department at General Hospital. Your consultant is Dr Bain.

Your bleep number is 9981

Patient name: Peter Lumley

Date of birth: 26<sup>th</sup> September 1990

Patient number: X908786534

Mr. Lumley has been brought to the emergency department by his partner, who has reported that he has been experiencing drowsiness and abdominal pain for the past six hours. These symptoms started this morning following a night of heavy drinking with his friends.

Mr. Lumley has a medical history of asthma, eczema, and type 1 diabetes mellitus.

His regular medications include Salbutamol (PRN), Lantus (OD) and NovoRapid (TDS).

On examination, the patient appears pale, with normal air entry in both lungs, but rapid and deep breathing. Heart sounds are I – II + 0, and his capillary refill time is prolonged at 4 seconds. Although his abdomen is mildly tender on palpation, there is no rebound or guarding. The patient is confused and drowsy, with a Glasgow Coma Scale (GCS) score of 13/15 (Eyes 3, Voice 4, Motor 6).

## Investigations

Pulse	115 beats per minute
Blood pressure	88/61 mmHg
Respiratory rate	22 breathes per minute
Oxygen saturations	99% (room air)
Temperature	36.5 degrees Celsius

Chest x-ray and routine blood tests pending.

Arterial blood gas results are below:

## Blood Gas

### Identification

Patient ID	X908786534
Date of Birth	26 <sup>th</sup> September 1990
Patient Last Name	Lumley
Patient First Name	Peter
FO2	21%
Sample Type	Arterial

### Blood Gas Values

pH	7.23	(7.35 – 7.45)
PO2	13.5	(11 – 13 kPa)
pCO2	2.7	(4.7 – 6.0 kPa)

### Acid Base Status

Bicarbonate	15	(22 – 26 mmol/L)
Base Excess	-11.1	(-2 to +2 mmol/L)

### Electrolyte Values

Sodium	123	(133–146 mmol/L)
Potassium	5.2	(3.5–5.3 mmol/L)
Chloride	83	(95-108 mmol/L)

### Metabolite Values

Glucose	22.7	(3.0-7.8 mmol/L)
Lactate	3.1	(0.5 – 2.2 mmol/L)

## Task

Please report and interpret the results of the arterial blood gas on hospital notepaper.

Make sure to include the most likely diagnosis and what the next steps in management should be.

