A 25 year old male is brought into the ED by his friend. He has been unwell on the night out and his friend state that "for a laugh they put something in his drink". He looks drunk but doesn't smell of alcohol. He is vomiting and slurring his speech. His friend says that they work in a garage and have been using antifreeze today.

What treatment options are available to you? (2) Ethanol 125-150ml as whisky, gin or vodka orally then IV (5% solution in dextrose) initially at 12g/hr Fomepizole

What investigations would you want to carry out and what would you be looking for? (4)

ABG for acidosis

U&E ATN and renal failure

Calcium for hypocalcaemia

Plasma ethylene glycol level for the obvious

ECG for arrhythmia

His ABG shows a raised anion gap metabolic acidosis with pH of 7.0 What would you give now? (1) Sodium bicarbonate to get ph > 7.2

Give 6 causes of metabolic acidosis with normal anion gap. (3)

Hyperalimentation, hyperventilation (chronic)

Addisons, acids e.g. HCl, acetazolamide

Renal tubular acidosis

Diarrhoea

Uterosigmoidosomy

Pancreatic fistula