

Alcohol screen	
Description	Screening for the presence of alcohols other than ethanol. In particular methanol, ethylene glycol and associated toxic metabolites.
Indication	Investigation of suspected poisoning from alcohols other than Ethanol. Often presenting with a metabolic acidosis with a raised anion gap.
Additional Info	The metabolism of methanol and ethylene glycol produces toxic metabolites (Methanol→ formic acid, Ethylene glycol→ glycolic, glyoxylic and oxalic acid) and can result in severe metabolic acidosis. As such treatment is aimed at blocking the metabolism of these alcohols either by using an alcohol dehydrogenase inhibitor (fomepizole) or by providing ethanol, which is preferentially metabolised by alcohol dehydrogenase to aldehyde and then metabolised further to acetic acid and carbon dioxide. Administering ethanol allows the renal excretion of the relatively non-toxic methanol and ethylene glycol parent compounds. In some cases haemodialysis is also performed.
Concurrent Tests	Prior to requesting an alcohol screen the following laboratory tests (available at RLUH) should be performed: U&E, Calcium profile, LFT, Glucose, Ethanol, Osmolality, Lactate, Ketones & arterial blood gases. Calculate osmolal gap and anion gap.
Dietary Requirements	N/A
Interpretation	Methanol/Ethylene glycol levels >500mg/L require haemodialysis Ethanol target range = 22-44mmol/L (100-200mg/dL)
Collection Conditions	F EDTA tube (Sarstedt yellow top).
Frequency of testing	As required.