

Medicine Guideline

Fomepizole for treatment of toxic alcohol poisoning

Areas where Protocol/Guideline applicable	Critical Care
Authorised Prescribers:	Clinical Toxicology
Indication for use	Poisoning with either methanol or ethylene glycol
Clinical condition	<p>Suspected toxic alcohol ingestion (methanol or ethylene glycol) AND two of the following criteria:</p> <ul style="list-style-type: none"> • pH < 7.3, • Bicarbonate <20 mmol/L, • Osmolar Gap >10 mosmol/L, • Oxalate crystals in urine.
Proposed Place in Therapy	<p>First line in children</p> <p>Second line in adult patients who cannot tolerate ethanol due to vomiting</p>
Adjunctive Therapy	<p><i>Methanol poisoning</i> – folinic acid 50 mg IV QID</p> <p><i>Ethylene glycol poisoning</i> – pyridoxine 50 mg IV QID & thiamine 100 mg QID</p>
Contra-indications	Hypersensitivity to fomepizole
Precautions	<p>Do not administer undiluted (venous irritation may occur)</p> <p>Monitor for adverse effects including allergic reactions (rare)</p> <p>Pregnancy (category B2)</p> <p>Ethanol intoxication: Measure ethanol concentration before administering fomepizole and omit loading dose if patient has a serum ethanol concentration more than 0.10 to 0.15 g/dL (22 to 33 mmol/L).</p>
Important Drug Interactions	<p>Ethanol blocks metabolism</p> <p>Fomepizole may alter exposure to drugs metabolised by the CYP enzymes.</p>
Dosage	<p>Loading dose 15 mg/kg, followed by 10 mg/kg IV every 12 hours for the first 48 hours, then increase to 15 mg/kg every 12 hours thereafter if still required.</p> <p>Omit loading dose if patient has ethanol intoxication – see 'Precautions'</p> <p>Dialysis:</p> <p>During Intermittent haemodialysis infuse 10 mg /kg every 4 hours, For CVVHD infuse 10 mg/kg every 8 hours</p>
Duration of therapy	Fomepizole treatment can be ceased once patient is commenced on haemodialysis and acid-base and osmolar gap improves (usually 12-24 hours).
Prescribing Instructions	Prescribe on the eMR via eFluids.
Administration	Using sterile technique, the appropriate dose of fomepizole should be drawn

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Instructions	from the vial with a syringe and injected into at least 100 mL of sterile 0.9% sodium chloride 0.9% or glucose 5%. Mix well. The entire contents of the resulting solution should be infused over 30 minutes.
Monitoring requirements	Vital signs, acid-base, osmolar and anion gap, haemodynamic status.
Management of Complications	Supportive care as required. Generally, very well tolerated.
Basis of Protocol/Guideline:	<ol style="list-style-type: none"> 1. e-Therapeutic Guideline. Toxic alcohol poisoning: methanol and ethylene glycol. Toxicology and Toxinology. August 2020 2. Austin Health. Fomepizole Guideline. Austin Clinical Toxicology Service. March 2021
Groups consulted in development of this guideline	

AUTHORISATION

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GOVERNANCE

Enactment date	November 2020
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