Successful use of fomepizole during second trimester of pregnancy

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Case report:
A 26-year-old female, sixteen weeks pregnant, presented to the Emergency Department five hours after ingesting 200 mL of concentrated ethylene glycol.

Features
She presented with general malaise and was found to have a metabolic acidosis (pH 7.31, bicarbonate 10 mmol/L, pO2 16.0 kPa, pCO2 2.7 kPa, base excess -14.0 mmol/L). Admission blood results were not available to calculate the osmolar and anion gaps; subsequent results at approximately 4 hours post ingestion showed a normal anion gap of 12.2. Her plasma osmolarity, however, was 315 mOsm/kg, with a suggested osmolar gap of 32 mOsm/L. An ethylene glycol concentration of 2500 mg/L was later confirmed.

Discussion
There have been no studies on the safety of fomepizole in human pregnancy and therefore the risks posed to the foetus are unknown. Fomepizole has been used in pregnancy without reported adverse effects (Velez, 2003). NPIS may advise treating pregnant patients with fomepizole as opposed to ethanol which is contraindicated in pregnancy. In this case, it was suggested that if the osmolar gap was found to be raised, fomepizole should be administered, with consideration given for the role of haemodialysis. Ethanol was not recommended due the known teratogenic effects. Follow-up of the patient revealed that she was treated with an initial dose of 720mg of fomepizole and a further dose of 480mg 12 hours later. The patient made a complete recovery and was discharged on day four.

Conclusion
There were no adverse effects documented as result of either the ethylene glycol or the fomepizole. The pregnancy continued uneventfully to full term, no abnormalities or complications were noted. The baby required only a brief stay in the Special Care Baby Unit with mild hypothermia. In this case the recommendation of fomepizole during the second trimester of pregnancy apparently benefitted both mother and baby.

References

NPIS Cardiff wishes to acknowledge the contribution of NPIS Birmingham, Edinburgh and Newcastle in their cooperation with this project. © National Poisons Information Service, a service Commissioned by Public Health England (PHE), on behalf of the UK Health Departments. Many thanks to the United Kingdom Teratology Information Service for the use of their images.