

Leaders in Laboratory Medicine

# Guidelines for Laboratory Testing of Ethylene Glycol and Methanol



## Proven Ethylene Glycol (EG) Ingestion (Refer to Appendix 1)

The following protocol assumes that one initial EG level has been performed.

## No hemodialysis:

- Less than 3 mmol/L then no further analysis necessary.
- Greater than 3 mmol/L, treated with fomepizole or ethanol then repeat EG Q12h until level is less than 3 mmol, then no further EG levels necessary

### With hemodialysis:

- One level 2 hours before the end of dialysis cycle (duration of run to be determined by nephrologist).
- Once level is less than 3 mmol/L, no further EG levels necessary.

## Proven Methanol (MeOH) Ingestion (Refer to Appendix 1)

The following protocol assumes that one initial MeOH level has been performed.

### No hemodialysis:

- Less than 6 mmol/L then no further analysis necessary
- Greater than 6 mmol/L, treated with fomepizole or ethanol then repeat MeOH Q12h until level is less than 6 mmol/L, then no further MeOH levels necessary.

#### With hemodialysis:

- One level 2 hours before the end of dialysis cycle (duration of run to be determined by nephrologist).
- Once level is less than 6 mmol/L, no further MeOH levels necessary.

#### **Notes**

Requests for levels that do not fall within these guidelines are to be discussed between the clinical biochemist (403-944-3993) or general pathologist on call (403-860-1802) and the ordering physician. The laboratory is responsible for contacting the ordering physician.

#### References

- 1. Barceloux DG et al. American Academy of Clinical Toxicology practice guidelines on the treatment of methanol poisoning. J Toxicol Clin Toxicol 2002;40: 415-46.
- 2. Barceloux DG et al. American Academy of Clinical Toxicology practice guidelines on the treatment of ethylene glycol poisoning. J Toxicol Clin Toxicol 1999;37:537-60
- 3. Brent J. Fomepizole for methanol and ethylene glycol poisoning. N Engl J Med 2009;360:2216-2223
- 4. Brent J et al. Fomepizole for the treatment of ethylene glycol poisoning, N Engl J Med 1999;340:832-8.
- 5. Brent J et al. Fomepizole for the treatment of methanol poisoning. N Engl J Med 2001;344:424-9.



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## Appendix 1 Guidelines for Laboratory Testing of Ethylene Glycol and Methanol

#### Recommendations:

- •Do not post this guideline in your work area
- Attach this guideline to the patient's chart.

#### Disclaimer:

415-46.

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