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From: Ron Kirschner, MD, Medical Director
To: ALL HEALTH CARE PROFESSIONALS
Subject: Fomepizole for acetaminophen poisoning

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- Fomepizole is commonly used to treat ingestions of toxic alcohols by inhibiting their metabolism.
- It also inhibits production of the toxic acetaminophen (APAP) metabolite N-acetyl-p-benzoquinone imine (NAPQI), and by a separate pathway, reduces APAP mitochondrial toxicity.
- These mechanisms have been demonstrated in animal models; there are no controlled studies in humans.
- Fomepizole appears to have a very low side effect profile.
- Acetylcysteine remains the treatment of choice for patients with APAP poisoning.
- Case reports suggest that in patients with severe toxicity, use of fomepizole as adjunctive therapy may
  offer additional benefit.
- There are no generally accepted criteria for fomepizole use in APAP poisoning. We suggest that it be considered in patients with 1) [APAP] > 300 mcg/mL, 2) severe acidosis, 3) fulminant hepatic failure.
- Dosing should be the same as is used for toxic alcohols (15 mg/kg over 30 minutes followed by 10 mg/kg q12 h). In most cases only 1-2 doses are needed.
- We encourage you to call and discuss your patients so that we can provide more case-specific individualized recommendations.

## Reference

Link SL. Fomepizole as an adjunct in acetylcysteine treated acetaminophen overdose patients: a case series. *Clin Toxicol* 2021 https://doi.org/10.1080/15563650.2021.1996591

Our certified specialists in poison information and physician toxicologists are available 24 hours a day to answer your questions.