

# toxtidbits

THE MARYLAND POISON CENTER'S MONTHLY UPDATE.  
NEWS. ADVANCES. INFORMATION.

## 5 “Tox Tips” to help you manage your poisoned patients

1. Recognizing toxidromes (groups of signs and symptoms associated with certain classes of drugs and toxins) will help with the diagnosis when the history is unknown or unreliable. The common toxidromes include anticholinergic, cholinergic, opioid, sedative and sympathomimetic (stimulant). (See the accompanying chart describing these toxidromes).
2. Do not give flumazenil to an adult who has intentionally overdosed or misused benzodiazepines. A patient who chronically takes benzodiazepines is at risk for withdrawal and seizures if flumazenil is given to reverse benzodiazepine toxicity. Save flumazenil for toddlers with unintentional benzodiazepine ingestions.
3. Optimize the antidotal effect of intranasal naloxone by splitting the dose and giving half in each nostril (see the May 2012 ToxTidbits for more information). Also, intranasal naloxone may produce less intense opioid withdrawal symptoms compared to intravenous naloxone (Drug Deliv Transl Research 2013;3:63-74).
4. Know your toxscreen – Urine toxscreens usually test only for common drugs of abuse; many other drugs that can cause serious toxicity are not included. Keep in mind that there are many false positives as well as false negatives. Read more about toxscreens in an upcoming ToxTidbits.
5. How do you keep your patient from vomiting after giving acetylcysteine orally to treat an acetaminophen overdose? Try diluting the dose in juice or soda and give antiemetics. If the patient vomits the dose within an hour, the dose must be repeated or switch to intravenous acetylcysteine. And remember, if giving acetylcysteine IV, the bags must be given back-to-back, without interruption.



### Did you know?

**The best “Tox Tip” of all is to call the experts at the Maryland Poison Center about every poisoning and overdose!**

The pharmacists and nurses who answer your call have toxicology training and are nationally certified as specialists in poison information. We are here to help you manage your patients 24/7.

**POISON**  
**Help**  
**1-800-222-1222**

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## Toxidromes

Toxidrome	Presentation	Causative agents
<b>Anticholinergic</b>	Delirium, tachycardia, hyperthermia, mydriasis, warm and dry skin, flushed, urinary retention	Atropine, antihistamines, cyclic antidepressants, antipsychotics, scopolamine, jimson weed
<b>Cholinergic</b>	Diaphoresis, salivation, urination, lacrimation, miosis, bradycardia, bronchorrhea, fasciculations	Organophosphate and carbamate insecticides, pilocarpine, physostigmine, donepezil, nerve gases
<b>Opioid</b>	Sedation, respiratory depression, miosis, bradycardia, hypotension, hypothermia	Codeine, morphine, heroin, hydrocodone, oxycodone, fentanyl, methadone
<b>Sedative</b>	Sedation, respiratory depression, hypotension, bradycardia	Benzodiazepines, zolpidem, barbiturates, ethanol
<b>Sympathomimetic (stimulant)</b>	Agitation, delusions, psychosis, diaphoresis, mydriasis, tachycardia, hypertension, hyperthermia, seizures	Amphetamines, cocaine, caffeine, pseudoephedrine, synthetic cathinones ("bath salts")