

## Haloperidol (Haldol®) Use in Toxicology

Imagine this... A patient presents to the emergency department with a history of Tylenol® PM overdose. She is wildly agitated with dilated pupils, flushed skin, dry mucous membranes, and minimal bowel sounds. You want to give her something to calm her down and have two options in front of you, haloperidol and lorazepam. Which do you choose?

All too often haloperidol is given to agitated or psychotic patients with a history of overdose. Many times it works and calms the patient down successfully, but what happens when the patient starts seizing?

Haloperidol can lower the seizure threshold. Therefore, if a patient is suspected of overdosing on a substance that can also lower the seizure threshold (Table 1), haloperidol should be avoided. Benzodiazepines, usually lorazepam or diazepam, are alternatives. They are effective for sedation and have also shown benefit in patients with psychoses and alcohol withdrawal. Benzodiazepines are recommended for all toxin-induced seizures.

**Table 1: Common toxins that can induce seizures and agitation in overdose**

|                             |                                 |
|-----------------------------|---------------------------------|
| Aspirin                     | Tramadol (Ultram®, Ultracet™)   |
| Tricyclic antidepressants   | Bupropion (Wellbutrin®, Zyban®) |
| Diphenhydramine (Benadryl®) | Amphetamines                    |
| Cocaine                     | Venlafaxine (Effexor®)          |

Haloperidol has anticholinergic effects that can compound the effects of other drugs that possess anticholinergic effects and lead to increased agitation. Haloperidol interferes with the hypothalamic-pituitary axis and heat dissipation mechanisms. The administration of haloperidol to a patient suffering from the anticholinergic toxidrome can lead to significant hyperthermia. Haloperidol can also cause dystonic reactions.

The Maryland Poison Center is available 24-7 to answer all questions and assist in the management of all poisoned patients. Call **1-800-222-1222** to reach one of our certified specialists in poison information.

*Bryan D. Hayes, PharmD, Clinical Toxicology Fellow*

### ***DID YOU KNOW THAT... the Maryland Poison Center (MPC) handled more than 3,600 cases in 2006 that were considered therapeutic errors?***

Therapeutic errors account for more than 11% of calls to the MPC each year. Nationally in 2006, there were 244,511 therapeutic error cases reported to poison centers. Thirty two of those cases had fatal outcomes. The most common reasons for therapeutic errors include inadvertently taking double doses, taking/giving an incorrect dose, taking someone else's medicine, doses taken too close together, incorrect dosing route, and confused units of measure.



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If you do not wish to receive faxes or emails from the Maryland Poison Center, call 410.706.7604 or circle your fax number and fax this back to 410.706.7184. Supported by Maryland Department of Health and Mental Hygiene

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