



Poison HOTLINE

April 2014



Have you ever wanted to provide feedback to the poison center regarding things we are doing well or areas in which we can improve our service to you, the health care provider? Well, now you can, through an anonymous Health Care Provider Satisfaction Survey that is on our website. We really want to hear from you, so please take a few minutes to complete our on-line survey. Your responses will help us evaluate and improve our services to health care providers in Iowa. Click [here](#) to go to our website and the link to the HCP satisfaction survey is at the bottom of the column on the left. Thank You!

www.iowapoisson.org/health-care-providers/

CLONIDINE

Clonidine is a centrally acting alpha-2 adrenergic receptor agonist. By stimulating the alpha-2 receptors in the brain, it decreases sympathetic outflow leading to a decrease in blood pressure. Clonidine is FDA-approved for treating hypertension in adults and attention deficit hyperactivity disorder (ADHD) in children. Clonidine is used "off-label" for other medical conditions, including ethanol and opiate withdrawal.

In overdose, clonidine acts not only as an alpha-2 agonist but can also act as an alpha-1 adrenergic agonist. The alpha-1 agonist effect causes an increase heart rate and blood pressure. In a significant clonidine overdose, the patient can initially present with transient tachycardia and hypertension (the alpha-1 agonist effects) and later develop serious bradycardia and hypotension (the alpha-2 agonist effects). Other symptoms seen in clonidine overdose include CNS depression, respiratory depression and miosis.

Other medications are structurally related to clonidine and can produce the same effects in overdose. These include guanfacine (an alpha-2 agonist used to treat hypertension and ADHD) and the imidazoline ophthalmic / nasal decongestants oxymetazoline (the active ingredient in Afrin® nasal spray) and tetrahydrozoline (the active ingredient in Visine® eye drops).

Clonidine and guanfacine can be very dangerous, especially in small children. Ingestion of as little as 0.1 mg of clonidine has caused toxicity in children, and toddlers have become symptomatic after chewing on a used clonidine patch. As little as 1 mg of guanfacine has caused CNS and respiratory depression in young children. Children have also developed toxicity from ingesting small amounts of oxymetazoline and tetrahydrozoline.

Treatment is symptomatic and supportive. Treatment is usually not necessary for the transient hypertension and tachycardia unless there is evidence of end-organ dysfunction. Mild bradycardia may not need treatment, but atropine can be given for severe bradycardia. Patients with severe bradycardia and hypotension not responding to IV fluids and atropine may require norepinephrine. Intubation may be needed for significant CNS and/or respiratory depression. For treatment advice concerning clonidine, contact the IPCC at **1-800-222-1222**.

*Sue Ringling, RN, CSPI
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POISON
Help
1-800-222-1222

The logo for Poison Help, featuring the word "POISON" in a bold, black, sans-serif font above the word "Help" in a larger, bold, black, sans-serif font. To the right of the word "Help" is a red pill bottle with a white skull and crossbones symbol on its label. Below the word "Help" is the phone number "1-800-222-1222" in a bold, black, sans-serif font.

Post and share this edition of **Poison Hotline** with your colleagues. Send comments or questions to Poison Hotline, 712-234-8775 (fax) or Tammy.Noble@UnityPoint.org. To subscribe or unsubscribe from this distribution list, contact the IPCC education office at 712-279-3717. Read past issues of **Poison Hotline** at www.iowapoisson.org.