



Poison HOTLINE

1-800-222-1222

February 2019



Did you know

The IPCC recommends checking an acetaminophen (APAP) level on any intentional overdose. The APAP level should be drawn at least 4 hours from the time of ingestion and then plotted on the Rumack-Matthew nomogram. The nomogram is used to assess potential liver toxicity **ONLY** for a single, acute ingestion with a known time of ingestion. Plasma acetaminophen concentrations obtained *earlier* than 4 hours post ingestion are unreliable since absorption and distribution of APAP are not complete before 4 hours.

Caution is always advised when determining times of ingestion and if there is any doubt, a repeat APAP level should always be obtained.

Vilazodone

Vilazodone (Viibryd) is a selective serotonin reuptake inhibitor (SSRI) and a partial agonist of 5HT-1A (serotonin-1A) receptors. While the exact mechanism of its antidepressant effect is not completely known, vilazodone is thought to enhance serotonergic activity via selective inhibition of serotonin reuptake. The partial agonist of 5HT-1A makes this particular drug unique and this uniqueness has the potential to make it more dangerous in an overdose.

SSRI medications, as their name indicates, allow more serotonin to stay available in the brain after it has been released by the neurons. With most SSRI's it can take 2-3 weeks to have any effect on depression. Vilazodone's partial agonist action on the 5HT-1A receptor allow concentration of serotonin to increase more rapidly. This theoretically allows vilazodone's anti-depressant effects to begin more quickly compared to other SSRIs, but this has not yet been proven in clinical studies.

Because of its mechanism of action, vilazodone may be more toxic in children. One tablet may produce symptoms in children and children are at a greater risk for serotonin syndrome, based on the mg/kg dose of vilazodone. The hallmarks of serotonin syndrome are: (1) mental status changes, (2) neuromuscular abnormalities such as hyper-reflexia or clonus, (3) autonomic instability, e.g. hypertension, tachycardia and (4) hyperthermia. In children less than 6 years old the lowest dose to produce the moderate effects of agitation, tachycardia, irritability, drowsiness, lethargy, muscle rigidity and vomiting was 5 mg. The lowest dose to produce the serious symptoms of coma, ataxia, single and multiple seizures, hallucinations, delusions was 10 mg.

Early identification and treatment of serotonin syndrome is key to minimizing serious outcomes. Treatment is symptomatic and supportive. Control agitation and confusion with aggressive benzodiazepine administration. Hyperthermia needs aggressive active cooling measures, and controlling muscle hyperactivity with either benzodiazepines, with or without non-depolarizing paralytics. For agitation, clonus or hyperthermia not responsive to the measures mentioned above, consider adding cyproheptadine, a first generation H-1 blocker with nonspecific serotonin antagonism. Wide complex dysrhythmias need to be treated with serum alkalization.

Thomas Esslinger, RN, CSPI
Certified Specialist in Poison Information

POISON
Help
1-800-222-1222

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

Hotline Editor: Deputy Editor: Edward Bottei, MD

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.iowapoison.org.