



Poison HOTLINE

1-800-222-1222

(November) 2024



Did you know

Carbon monoxide (CO) is a colorless, odorless gas resulting from the incomplete burning of carbon-containing fuels. Some common sources of CO include:

- Oil, wood or gas furnaces; gas stoves or dryers.
- Space heaters, gas or oil water heaters.
- Gasoline-powered vehicles and tools.
- Charcoal grills and gas lanterns.

Early symptoms of CO poisoning, including **headache, nausea, tiredness and dizziness**, can **mimic the flu** or other illnesses. More significant poisoning symptoms also can include **drowsiness, confusion and heart irregularities**. Severe poisonings can cause **unconsciousness, brain damage, seizures**, and even **death**.

For advice or questions about CO, call **1-800-222-1222** anytime - day or night - to speak to one of our specialists.

Esketamine

Esketamine (Spravato®) is a nasal spray that has been approved by the FDA for treatment of major depressive disorder (MDD) in adults with treatment-resistant depression (TRD). TRD is when a person has had inadequate response to two or more oral antidepressants. Esketamine is used in conjunction with an oral antidepressant treatment.

Up to 33% of people with depression do not respond to multiple kinds of conventional antidepressants. In clinical trials, esketamine has been shown to reduce depression symptoms in a substantial number of patients with TRD, thus providing a better quality of life for themselves and their families.

Esketamine is the S(+) enantiomer of ketamine and is believed to work by stimulating glutamate (i.e., NMDA receptor antagonist). Esketamine is the active enantiomer and thus is more potent than racemic ketamine. Conventional antidepressants increase levels of naturally occurring chemicals such as serotonin, norepinephrine, and dopamine. Unlike other neurotransmitters, glutamate can bind to four different receptors. Glutamate is involved in more than 90% of all excitatory functions in the human brain. This allows glutamate to have a major presence and ability to stimulate and communicate with other nerve cells.

Esketamine administration is done in an outpatient setting under medical supervision. For the first two hours after administration, there is risk for sedation and dissociation in the patient. Esketamine treatment starts twice a week for the first four weeks. After the first four weeks, patients and their provider should discuss a treatment plan moving forward.

In an overdose situation, Esketamine can cause symptoms such as nausea, headache, hypertension, tachycardia, dizziness, and disassociation. The mainstay of treatment is good symptomatic and supportive care. Benzodiazepines are used for seizures and/or agitation. Long term ketamine or esketamine use has been associated with bladder irritation or hematuria – and these are treated through elimination of exposure.

Call the Iowa Poison Control Center 24/7 to discuss your patient with our specially trained nurses, pharmacists, and physicians.

*Kendra Duncan, RN, BSN, SPI
Specialist in Poison Information*



Hotline Editors: Dr. Dan McCabe, MD & Dr. Josh Trebach, MD

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