

Clonidine and guanfacine overdose can cause significant CNS and CVS depression. Children are more susceptible to toxicity.

Toxicity / Risk Assessment

Effects correlate poorly with ingested dose

Ingestions >10 mcg/kg are associated with significant toxicity especially in children & adolescents

Ingestion >1-2 tablets is potentially life-threatening in a child

Onset of toxicity: within 2 hours, may be delayed in guanfacine exposure

Duration of toxicity may be prolonged with guanfacine exposure due to modified-release preparation

In massive ingestion, toxicity can last > 24 hours

Clinical features:

- CNS: drowsy, ataxia, miosis, coma
(the absence of miosis does not exclude exposure)
- CVS: bradycardia, ↓BP, AV block, brady-arrhythmias, postural hypotension, transient hypertension
- Respiratory: bradypnoea, apnoea
- Others: hypothermia may occur

Management: Primarily supportive. Intubation and ventilation may be required in severe toxicity

Decontamination: Activated charcoal (AC) is generally NOT indicated due to rapid onset of CNS depression.

AC can be administered via NG tube in patients requiring intubation following massive ingestion.

Bradycardia - treatment is rarely needed unless concurrent hypotension or reduced end-organ perfusion

Atropine: 0.6 mg IV boluses 5-minutely up to 3 doses (child 0.02 mg/kg boluses)

Bradycardia may outlast CNS depression and may persists up to 3 days (7 days with guanfacine exposure)

Hypotension

- Correct bradycardia as above, then fluid load: 10-20 mL/kg IV crystalloid

If cardiovascular compromise persists despite atropine and IV fluid, please discuss with a clinical toxicologist

Hypertension

- Usually transient and resolves spontaneously. No treatment is usually required.

Naloxone

- Naloxone is not considered as a routine part of the management of clonidine toxicity.

Disposition

- Discharge pending mental health assessment if asymptomatic and well (including no significant postural hypotension) 6 hours post ingestion (12 hours following exposure to guanfacine)
- Admit all symptomatic patients for at least 12 hours or until symptoms resolve
- Patients with severe CNS or CVS depression should be managed in HDU/ICU
- Exclude significant postural hypotension and ensure able to mobilise safely prior to discharge
- Advise the patient not to drive for at least 72 hours post exposure