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From: Ron Kirschner, MD, Medical Director
To: ALL HEALTH CARE PROFESSIONALS
Subject: Bupropion ingestions due to therapeutic error
Date: 3/11/22

- Bupropion is the drug most frequently associated with seizures in overdose.
- Compared with SSRIs, there is a greater risk of serious outcome following intentional ingestion.
- The risk of adverse effects from accidental erroneous doses has been less well documented.
- A recent retrospective study by Beuhler et al examined this scenario in 637 adults who inadvertently took extra bupropion doses of various amounts.
- Half of the patients (50.1%) had no effect and 45.5% had minor effects.
- Four patients had seizures with a median onset time of 7 hours (range 2-21.5 h).
- Some patients had other effects such as tachycardia or a subjective feeling of shakiness, but these were not predictive of seizure.
- The authors conclude that the overall risk of seizure from bupropion ingestion of up to 900 mg due to adult therapeutic error is just under 1%.
- They recommend that disposition decisions consider factors such as comorbidities, home support situation, and distance from health care facilities.

References

Beuhler MC. Adverse effects associated with bupropion therapeutic errors in adults reported to four US Poison Centers. *Clin Toxicol* 2021; DOI 10.1080/15563650.2021.2002353.

Overberg A. Toxicity of bupropion overdose compared with selective serotonin reuptake inhibitors. *Pediatrics* 2019; 144: e20182295.

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