

## Do Not Overlook Bupropion Misuse

A recent case report by Noe et al<sup>1</sup> described a young man who endorsed bupropion misuse by insufflation and presented with mania following an overdose. This case highlights the need to increase awareness about bupropion misuse.<sup>1</sup> Medications with misuse potential include gabapentinoids, anticholinergics, antipsychotics, and antidepressants.<sup>2</sup> Bupropion misuse is gaining popularity and is of growing concern.<sup>2,3</sup> Bupropion is approved for the treatment of major depressive disorder, seasonal affective disorder, and smoking cessation.<sup>2</sup> It is sometimes preferred over selective serotonin reuptake inhibitors due to lack of sexual dysfunction and its weight-neutral profile.<sup>4</sup> It is also used off label for attention-deficit disorder.<sup>5</sup> Since most misusers will seek a prescription, prescribers must be aware of its misuse potential and related complications.<sup>6</sup>

Prescribers can suspect bupropion misuse in patients who insist on a bupropion prescription or seek out multiple prescribers.<sup>4</sup> Red flags of misuse include euphoria, excess energy, insomnia, and previous illicit drug use.<sup>4</sup> Physical clues manifest as nonhealing skin ulcers, damage to nostrils, and new-onset unexplained seizures.<sup>3,4</sup> In the United States, young males are at particular risk to misuse bupropion.<sup>7</sup> Street names such as “wellies,” “dubs,” “welbys,” and “barnies” may exhibit regional variations with highest prevalence

in California, New England, Utah, and New Mexico.<sup>2,5</sup> Oral bupropion undergoes extensive first-pass hepatic metabolism, which is why recreational users prefer nasal insufflation or injection due to immediate absorption and higher plasma levels, leading to euphoria.<sup>8</sup> The effect of bupropion when insufflated resembles the effects of cocaine with less intensity,<sup>8</sup> hence the term *poor person's cocaine* as described by Noe and colleagues.<sup>1</sup>

Parenteral routes make toxic effects more likely due to increased serum concentration.<sup>5</sup> These patients are more frequently admitted to critical care compared to other routes.<sup>5</sup> The main undesirable effects are dose-dependent seizures, usually present at a median dose of about 4.4 g.<sup>9</sup> In terms of cardiovascular effects, bupropion overdose can cause QRS and corrected QT interval prolongation, potentially leading to ventricular dysrhythmias and cardiovascular collapse.<sup>4</sup>

Careful documentation and tracking of bupropion prescriptions is important to identify potential misuse. From a public health perspective, adding bupropion to state prescription monitoring programs could help identify misuse.<sup>6</sup> In the meantime, prescribers should be aware of the misuse potential of this medication and screen appropriately. Further research is needed to identify the epidemiologic and clinical impact of a poor person's cocaine in high-risk populations.

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## Article Information

**Published Online:** April 30, 2024.  
<https://doi.org/10.4088/PCC.23lr03685>

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*Prim Care Companion CNS Disord* 2024;26(2):  
23lr03685

**Submitted:** December 16, 2023; accepted January 19,  
2024.

**To Cite:** Kaur J, Modesto-Lowe V, León-Barriera R.  
Do not overlook bupropion misuse.  
*Prim Care Companion CNS Disord*. 2024;26(2):  
23lr03685.

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**Relevant Financial Relationships:** None.

**Funding/Support:** None.