

Benzodiazepines: High Dose and Watchful Dosing — A Review of Safety and Guidelines

Drug

Benzodiazepines are a class of medications commonly used to treat anxiety disorders, but are also used for other indications. These other indications include panic disorder, insomnia, seizure disorders, skeletal muscle spasticity, and alcohol withdrawal. Benzodiazepines work by affecting a receptor in the brain; thereby, increasing the effects of GABA, a neurotransmitter, which decreases nerve activity in the brain.

Context

The relative safety and effectiveness of benzodiazepines has led to their widespread use. Fourteen members of the benzodiazepine family are available in Canada. Two benzodiazepines, clonazepam and diazepam, are classified by the World Health Organization as "essential drugs" that should be available in all countries for medical purposes. However, their use has also been associated with several side effects, including ataxia (loss of voluntary muscle control resulting in a lack of balance and coordination), dizziness, oversedation, anterograde amnesia (inability to create new memories), and dependence.

Issue

There is a need to balance the usefulness of benzodiazepines with the risk of side effects. A review of the safety and guidelines of high-dose benzodiazepines, and of "watchful dosing" — a dose, above which closer assessment and monitoring of patients is required — may help to strike that balance.

Methods

A limited literature search was conducted of key resources, and titles and abstracts of the retrieved publications were reviewed. Full-text publications were evaluated for final article selection according to predetermined selection criteria (population, intervention, comparator, outcomes, and study designs).

Key Messages

- No "watchful dose" for benzodiazepines was identified.
- Benzodiazepines may be used in higher than 10 mg diazepam-equivalent doses in some circumstances, but data were limited.

Based on three randomized controlled trials; two observational studies; and no health technology assessments, systematic reviews, meta-analyses, or evidence-based clinical guidelines.

Results

Of 348 citations, 20 potentially relevant articles were retrieved for a full-text review. No articles were identified from grey literature or handsearching. Of the 20 identified articles, five met the selection criteria and were included in this review.

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