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# **Benzodiazepines for delirium (Review)**

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## [Intervention Review]

# Benzodiazepines for delirium

Edmund Lonergan<sup>1</sup>, Jay Luxenberg<sup>2</sup>, Almudena Areosa Sastre<sup>3</sup>

<sup>1</sup>Emeryville, CA, USA. <sup>2</sup>San Francisco, California, USA. <sup>3</sup>Madrid, Spain

Contact address: Edmund Lonergan, 4 Captain Drive, Apt 215, Emeryville, CA, 94608, USA. TEDLNRGN@aol.com.

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#### **ABSTRACT**

### **Background**

Delirium occurs in 30% of hospitalised patients and is associated with prolonged hospital stay and increased morbidity and mortality. The results of uncontrolled studies have been unclear, with some suggesting that benzodiazepines may be useful in controlling non-alcohol related delirium.

# **Objectives**

To determine the effectiveness and incidence of adverse effects of benzodiazapines in the treatment of non-alcohol withdrawal related delirium.

### **Search methods**

The trials were identified from a search of the Specialized Register of the Cochrane Dementia and Cognitive Improvement Group on 26 February 2008 using the search terms: (deliri\* or confusion) and (benzo\* or lorazepam," or "alprazolam" or "ativan" or diazepam or valium or chlordiazepam).

The CDCIG Specialized Register contains records from major health databases (including MEDLINE, EMBASE, CINAHL, PsycINFO, CENTRAL, LILACS) as well as many ongoing trial databases and grey literature sources.

# **Selection criteria**

Trials had to be unconfounded, randomized and with concealed allocation of subjects. Additionally, selected trials had to have assessed patients pre- and post-treatment. Where crossover design was present, only data from the first part of the trial were to be examined.

# **Data collection and analysis**

Two reviewers extracted data from included trials. Data were pooled where possible, and were to be analysed using appropriate statistical methods. Odd ratios or average differences were to be calculated. Only "intention to treat" data were to be included.

### **Main results**

Only one trial satisfying the selection criteria could be identified. In this trial, comparing the effect of the benzodiazepine, lorazepam, with dexmedetomidine, a selective alpha-2-adrenergic receptor agonist, on delirium among mechanically ventilated intensive care unit patients, dexmedetomidine treatment was associated with an increased number of delirium- and coma-free days compared with lorazepam treated patients (dexmedetomidine patients, average seven days; lorazepam patients, average three days; P = 0.01). One partially controlled study showed no advantage of a benzodiazepine (alprazolam) compared with neuroleptics in treating agitation associated with delirium, and another partially controlled study showed decreased effectiveness of a benzodiazepine (lorazepam), and increased adverse effects, compared with neuroleptics (haloperidol, chlorpromazine) for the treatment of acute confusion.



### **Authors' conclusions**

No adequately controlled trials could be found to support the use of benzodiazepines in the treatment of non-alcohol withdrawal related delirium among hospitalised patients, and at this time benzodiazepines cannot be recommended for the control of this condition. Because of the scarcity of trials with randomization of patients, placebo control, and adequate concealment of allocation of subjects, it is clear that further research is required to determine the role of benzodiazepines in the treatment of non-alcohol withdrawal related delirium.

# PLAIN LANGUAGE SUMMARY

# At this time, benzodiazepines cannot be recommended for the treatment of non-alcohol related delirium

A systematic review of benzodiazepine treatment of non-alcohol related delirium discovered very few trials (one randomized, controlled study of mechanically ventilated patients, and thus poorly reflective of delirious patients as a whole; and two partially controlled studies), the results of which indicate that at this time there is no evidence to support the use of benzodiazepines in the treatment of non-alcohol withdrawal related delirium among hospitalised patients.