Efficacy and safety of pharmacological interventions for the treatment of the Alcohol Withdrawal Syndrome

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Authors' objectives

Background: Alcohol abuse and dependence represents a very serious health problem worldwide with major social, interpersonal and legal interpolations. Pharmacological treatments presently used are of uncertain effectiveness and there is even more doubt on the comparative effects and value for money. Objectives: To summarize Cochrane reviews that assess the effectiveness and safety of pharmacological interventions in the treatment of alcohol withdrawal. Methods: We searched the Cochrane Database of Systematic Reviews (30 November 2010). Two authors independently screened, extracted data, summarised key characteristics of the included reviews and assessed their quality using AMSTAR; the quality of the evidence was summarised according to the GRADE methodology. Main results: Five reviews, 114 studies, 7333 participants, satisfied criteria for inclusions. The outcomes considered were alcohol withdrawal seizures, adverse events and dropouts. Comparing the five treatments with placebo, benzodiazepines performed better for seizures, three studies, 324 participants, RR 0.16 (95% CI 0.04 to 0.69), moderate quality of evidence. Comparing each of the five treatments versus specific class of drugs, benzodiazepines performed better than antipsychotics for seizures, 4 studies, 633 participants, RR 0.24 (95% CI 0.07 to 0.88) high quality of the evidence. Comparing different benzodiazepines and anticonvulsants among themselves, 28 comparisons, results never reached statistical significance but chlordiazepoxide performed better. The quality of evidence was high for 3% of the results, moderate for 28%, low for 48% and very low for 20%. Authors' conclusions: Among the treatments considered, benzodiazepines showed a protective benefit against seizures, when compared to placebo and a potentially protective benefit for many outcomes when compared with antipsychotics. Nevertheless, no definite conclusions about the effectiveness and safety of benzodiazepines were possible, because of the heterogeneity of the trials both in interventions and in the assessment of outcomes. Data on potential harms are sparse and fragmented. Results do not provide sufficient evidence in favour of anticonvulsants for the treatment of AWS, but anticonvulsants seem to have limited side effects. There is also not enough evidence of effectiveness and safety of baclofen, because only one study consider this treatment and of GHB for which no strong differences were observed in the comparisons with placebo, benzodiazepines and anticonvulsants.


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