Evidence Update

Other Infectious Diseases Series

June 2005

Should diazepam be given to people with tetanus?

Treating tetanus with diazepam appeared more effective than with phenobarbitone plus chlorpromazine.

Inclusion criteria

Studies:

Randomized and guasi-randomized controlled trials.

Participants:

Neonates, children, and adults admitted to hospital with clinically confirmed tetanus.

Intervention:

Intervention: intravenous, rectal or oral diazepam, in any dose or dose schedule.

Control: phenobarbitone, chlorpromazine, magnesium sulphate, pyridoxine, vecuronium, pancuronium; used alone or in combination, given parenterally or orally, in any dose or dose schedule.

Outcomes:

Primary: death; need for tracheostomy or artificial ventilation.

Secondary: time to control muscle spasms; length of hospital stay; adverse events.

Results

- Two trials of 134 children included. Allocation concealment was unclear in one trial, and inadequate in the second.
- Children treated with diazepam alone appeared more likely to survive than those treated with phenobarbitone and chlorpromazine given together (relative risk 0.36, 95% confidence interval 0.15 to 0.86).







Adapted from Okoromah CAN, Lesi FEA. Diazepam for treating tetanus. *The Cochrane Database of Systematic Reviews* 2004, Issue 1. Art. No.: CD003954.pub2. DOI: 10.1002/14651858.CD003954.pub2.

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Diazepam versus phenobarbitone-chlorpromazine for treating tetanus: patient deaths Diazepam for treating tetanus Comparison: 01 Diazepam alone versus phenobarbitone and chlorpromazine Outcome: 01 Deaths (in-hospital, all-cause) Relative Risk (Fixed) Study P+C Weight Diazepam alone Relative Risk (Fixed) 95% CI n/N 95% CI n/N (%) Hendrickse 1965 2/8 7/9 44.1 0.32 [0.09, 1.12] Tjoen 1970 3/33 9/38 55.9 0.38 [0.11, 1.30]

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Favours diazepam Favours others

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1000

0.36 [0.15, 0.86]

Authors' conclusions

Implications for practice:

Test for heterogeneity chi-square=0.04 df=1 p=0.8407 Test for overall effect=-2.30 p=0.02

Total (95% CI)

Data from two small trials suggests diazepam alone may result in fewer deaths than chlorpromazine and phenobarbitone given together.

Implications for research:

Well-designed trials evaluating the effects of drugs in tetanus are needed.

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