

EV0008

ePoster Viewing

Antimicrobials: antibiotic usage

Compliance with once-daily versus twice or thrice-daily administration of antibiotic regimens: a meta-analysis of randomized controlled trials

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Objective To investigate whether compliance of patients to antibiotic treatment is better when antibiotics are administered once than multiple times daily.

Methods We performed a systematic search in PubMed and Scopus databases. Only randomized controlled trials were considered eligible for inclusion. Compliance to antibiotic treatment was the outcome of the meta-analysis.

Results Twenty-six studies including 8246 patients with upper respiratory tract infections in the vast majority met the inclusion criteria. In total, higher compliance was found among patients treated with once-daily treatment than those receiving treatment twice, thrice or four times daily [5011 patients, RR=1.22 (95% CI, 1.11, 1.34)]. Adults receiving an antibiotic once-daily were more compliant than those receiving the same antibiotic multiple times daily [380 patients, RR=1.09 (95% CI, 1.02, 1.16)]. Likewise, children that received an antibiotic twice-daily were more compliant than those receiving the same antibiotic thrice-daily [2118 patients, RR=1.10 (95% CI, 1.02, 1.19)]. Higher compliance was also found among patients receiving an antibiotic once compared to those receiving an antibiotic of different class thrice or four times daily [395 patients, RR=1.20 (95% CI, 1.12, 1.28)]. The finding of better compliance with lower frequency daily was consistent regardless of the study design, and treatment duration.

Conclusion This meta-analysis showed that compliance to antibiotic treatment might be associated with higher when an antibiotic is administered once than multiple times daily for the treatment of specific infections and for specific classes of antibiotics.