Cochrane Database of Systematic Reviews - - Cochrane Review

Duration of intravenous antibiotic therapy in people with cystic fibrosis

Code: CD006682 **Year:** 2019 **Date:** 2011 - updated: 06 JAN 2019 **Author:** Plummer Amanda

Study design (if review, criteria of inclusion for studies)

Randomised and quasi-randomised controlled trials comparing different durations of intravenous antibiotic courses for acute respiratory exacerbations in people with CF, either with the same drugs at the same dosage, the same drugs at a different dosage or frequency or different antibiotics altogether, including studies with additional therapeutic agents.

Participants

People with CF, diagnosed clinically and by sweat or genetic testing, of all ages and all degrees of disease severity and who are being treated with intravenous antibiotics for a chest exacerbation.

Interventions

intravenous antibiotic therapy

Outcome measures

Primary outcomes: 1. Lung function: forced expiratory volume at one second (FEV1); forced vital capacity (FVC); expiratory flow from 25% to 75% of vital capacity (FEF25â¯75) 2. Change in sputum bacteriology (quantitative e.g. colonyforming units per ml, or qualitative e.g. type of bacteria, or both) 3. Adverse effects (e.g. allergic reactions, candidal infections)

Main results

No eligible trials were included.

Authors' conclusions

There are no clear guidelines on the optimum duration of intravenous antibiotic treatment. Duration of treatment is currently based on unit policies and response to treatment. Shorter duration of treatment should improve quality of life and adherence, result in a reduced incidence of drug reactions and be less costly. However, the shorter duration may not be sufficient to clear a chest infection and may result in an early recurrence of an exacerbation. This systematic review identifies the need for a multicentre, randomised controlled trial comparing different durations of intravenous antibiotic treatment as it has important clinical and financial implications. The currently ongoing STOP2 trial is expected to provide some guidance on these questions when published.

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See also

Abbott L, Plummer A, Hoo ZH, Wildman M. Duration of intravenous antibiotic therapy in people with cystic fibrosis. Cochrane Database of Systematic Reviews 2019, Issue 9. Art. No.: CD006682. DOI: 10.1002/14651858.CD006682.pub6.

Keywords

Anti-Bacterial Agents; Bacterial Infections; Drug Administration Schedule; Infection; Intravenous; pharmacological_intervention; Respiratory Tract Diseases; Respiratory Tract Infections; Exacerbation;