Cochrane Database of Systematic Reviews - - Cochrane Review

Antibiotic treatment for Stenotrophomonas maltophilia in people with cystic fibrosis

Code: CD009249 **Year:** 2020 **Date:** 2012 - updated: 03 MAR 2020 **Author:** Amin R

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

Any randomized controlled trial of Stenotrophomonas maltophilia mono-infection or Stenotrophomonas maltophilia co-infection with Pseudomonas aeruginosa in either the setting of an acute pulmonary exacerbation or a chronic infection treated with suppressive antibiotic therapy

Participants

Adults and children (with all levels of disease severity) with a clinical diagnosis of CF, confirmed with sweat test or genetic testing or both, who have S. maltophilia isolated from respiratory specimens. If a clinical diagnosis of CF is not met, these patients will be excluded

Interventions

Antibiotic therapy used to treat S. maltophilia cultured in a respiratory tract specimen from people with CF. Antibiotic therapy will include oral, intravenous or inhaled antibiotics. Antibiotics to treat S. maltophilia vs no antibiotics to treat S. maltophilia or one antibiotic regimen vs another antibiotic regimen to treat S. maltophilia. S. maltophilia mono-infection and S. maltophilia co-infection with P. aeruginosa. The first setting will be antibiotics used to treat acute pulmonary exacerbations. The second setting will be the use of long-term antibiotics to treat S. maltophilia in CF as a suppressive treatment

Outcome measures

Primary outcomes 1. Lung function i) FEV1 ii) FVC iii) FEF25âˆ'75 2. Pulmonary exacerbations i) number of days until next exacerbation ii) length of hospital stay 3. Adverse events i) emergence of resistant organisms ii) other adverse events such as rashes, Stevens-Johnson type reactions, photosensitivity, tooth discolouration etc

Main results

We identified only one trial of antibiotic treatment of pulmonary exacerbations that included people with cystic fibrosis with Stenotrophomonas maltophilia. However, this trial had to be excluded because data was not available per pathogen.

Authors' conclusions

This review did not identify any evidence regarding the effectiveness of antibiotic treatment for Stenotrophomonas maltophilia in people with cystic fibrosis. Until such evidence becomes available, clinicians need to use their clinical judgement as to whether or not to treat Stenotrophomonas maltophilia infection in people with cystic fibrosis. Randomized clinical trials are needed to address these unanswered clinical questions.

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See also

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Keywords

Anti-Bacterial Agents; Bacterial Infections; Colonization; Exacerbation; Infection; pharmacological_intervention; Respiratory Tract Diseases; Respiratory Tract Infections; Stenotrophomonas Maltophilia;