Cochrane Database of Systematic Reviews - - Cochrane Review

High frequency chest compression for ambulatory pulmonary physical therapy in patients with cystic fibrosis (Structured abstract)

Code: HTA-32014000282 **Year:** 2012 **Date:** 2016 - updated: 20 MAY 2018 **Author:** Pichon Riviere A

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

Randomised controlled trials (RCTs) and quasi-RCTs

Participants

Children and adults with CF and confirmed microbiologic evidence of S. aureus (MSSA strains only) in clinically relevant CF respiratory cultures at least three times over a 12-month period or more such that 50% of the cultures in a year are positive for MSSA prior to enrolment into the trial.

Interventions

Any combinations of topical, inhaled, oral or intravenous (IV) antimicrobials used with the objective of suppressive therapy for chronic infection with S. aureus compared with placebo or no treatment.

Outcome measures

Primary outcomes 1. Sputum clearance of S. aureus 2. Pulmonary function tests i) forced expiratory volume at one second (FEV1) per cent (%) predicted or litres ii) forced vital capacity (FVC) % predicted or litres iii) any other validated measures of pulmonary function 3. Adverse events i) emergence of resistant organisms ii) other adverse events such as rashes, Stevens-Johnson type reactions, photosensitivity, tooth discolouration etc. Secondary outcomes 1. Frequency of respiratory exacerbations 2. Hospital admissions secondary to respiratory exacerbation 3. School or work attendance 4. Quality of life (QoL) 5. Mortality 6. Nutritional parameters 7. Chest radiography scores 8. Days of IV antibiotics 9. New isolation of bacteria i) P. aeruginosa ii) MRSA iii) other

Main results

The searches identified 58 trials, but none were eligible for inclusion in the current version of this review.

Authors' conclusions

No randomised controlled trials were identified which met the inclusion criteria for this review. Although methicillinâ€•sensitive Staphylococcus aureus is an important and common cause of lung infection in people with cystic fibrosis, there is no agreement on how best to treat longâ€•term infection. The review highlights the need to organise wellâ€•designed trials that can provide evidence to support the best management strategy for chronic methicillinâ€•sensitive Staphylococcus aureus infection in people with cystic fibrosis.

http://www.iecs.org.ar/iecs-visor-publicacion.php?cod_publicacion=1503& amp;origen_publicacion=publicaciones

See also

Health Technology Assessment Database - Pichon Riviere A, Augustovski F, Garcia Marti S, Glujovsky D, Alcaraz A, Lopez A, Bardach A, Ciapponi A, Rey-Ares L. Compresor torácico de alta frecuencia para terapia física pulmonar ambulatoria en pacientes con fibrosis quística. [High frequency chest compression for ambulatory pulmonary physical therapy in patients with cystic fibrosis] Buenos Aires: Institute for Clinical Effectiveness and Health Policy (IECS). Informe de Respuesta Rápida N° 277. 2012

Keywords

Anti-Bacterial Agents; Bacterial Infections; Infection; pharmacological_intervention; Respiratory Tract Diseases; Respiratory Tract Infections; Staphylococcus aureus; Continuous; Inhalation OR nebulised; Intermittent; Intravenous; Oral; Ampicillin; carbenicillin; Cephalexin; Ciprofloxacin; Clavulanic Acid; clindamycin; Cloxacillin; Cotrimoxazole; Dicloxacillin; Erythromycin; flucloxacillin; Penicillins; Cephalosporins; Quinolones; Lincosamides; Sulfonamides; Macrolides;