

primary studies - published RCT

## **Comparison of piperacillin alone versus piperacillin plus tobramycin for treatment of respiratory infections in children with cystic fibrosis.**

**Code:** PM3393383

**Year:** 1988 **Date:** 1994

**Author:** McCarty JM

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

randomised study

### **Participants**

adult CF patients from the Brisbane region. To date, 12 patients aged 18-29 years have had 13 admissions. 5 patients were randomised to home therapy and returned home after 2-4 days in hospital.

### **Interventions**

home versus hospital IV therapy. Initial treatment was with ceftazidime 2g bd and tobramycin 4-6mg/kg in a single daily dose

### **Outcome measures**

Home visits were conducted by the researcher. All patients were monitored by lung function, 12-minute walk, renal function, aminoglycoside levels and weight. A quality of life questionnaire was administered on admission and after cessation of treatment. In addition, patients were asked which treatment option they preferred.

### **Main results**

All patients improved with treatment, 2 required a change in antibiotics after failure to respond initially. No patient on home treatment required hospital readmission. No adverse events or signs of antibiotic toxicity were noted. 9 out of 12 patients preferred home therapy. Lung function (expressed as percent change of mean predicted FEV1), improved by (mean\_SD). 1.76\_4.27% in the home group and 4.74\_8.85% in the hospital group. 12-minute walk distances improved by 4.2\_8.6% at home and 19.0\_22.1% in hospital. Weight in the home group increased by 0.69\_0.98kg compared to 0.54\_1.16kg in hospital. Quality of life after treatment at home improved by 21.1\_22.2 points, and 28.38\_12.29 after hospital treatment. There were no significant differences demonstrated between home and hospital therapy (unpaired t-test), however small sample size may contribute to type II error in these results. Patient recruitment continues

<http://dx.doi.org/10.1002/ppul.1950040403>

### **See also**

Pediatr Pulmonol. 1988;4(4):201-4.

### **Keywords**

Anti-Bacterial Agents; Home; Hospitalization; Hospital care; Intravenous; non pharmacological intervention - psycho-soc-edu-org; Bacterial Infections; Respiratory Tract Infections; Respiratory Tract Diseases; Infection; Ceftazidime; Tobramycin; Cephalosporins; Organization; Aminoglycosides;