

primary studies - published RCT

## Lung deposition of inhaled tobramycin with eFlow rapid/LC Plus jet nebuliser in healthy and cystic fibrosis subjects.

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

single-dose, open-label, two-way crossover study

### Participants

13 participants aged 18 - 65 years. 7 with CF with chronic PsA infection and FEV1 equal to or above 25% predicted. 6 healthy volunteers with FEV1 equal to or over 80% predicted and BMI within  $\pm 25\%$  of ideal.

### Interventions

subjects were randomised to receive tobramycin via eFlow rapid or LC Plus jet nebuliser.

### Outcome measures

Drug deposition in the lung using gamma scintigraphic imaging, nebulisation times, pharmacokinetics, and safety were evaluated.

### Main results

In CF patients, whole-lung deposition was 40% less with the eFlow rapid compared with LC Plus nebulisers (8.9  $\pm$  0.8%, and 15.1  $\pm$  6.0%,  $p > 0.05$ ). Nebulisation time was shorter with eFlow rapid compared to LC Plus (7.0min versus 20.0min,  $p$

### Authors' conclusions

eFlow rapid reduces the nebulisation time of tobramycin and can potentially improve compliance in patients with CF.

<http://dx.doi.org/10.1016/j.jcf.2010.08.019>

### See also

J Cyst Fibros. 2011 Jan;10(1):9-14.

### Keywords

Adolescent; Adult; Aged; Anti-Bacterial Agents; Inhalation OR nebulised; nebuliser; non pharmacological intervention - devices OR physiotherapy; pharmacological\_intervention; Tobramycin; Bacterial Infections; Respiratory Tract Infections; Respiratory Tract Diseases; Infection; Aminoglycosides;