**WS9.5** Saline at lower tonicity in cystic fibrosis (SALTI-CF) trial – A randomised, controlled trial comparing 0.9% v 3% v 6% nebulised saline

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The ideal concentration of hypertonic saline (HS) in people with cystic fibrosis (CF) is unknown. Regular use of HS between 6−7% improves lung function [1,2], however these concentrations are not always tolerable [3]. Increasing HS concentration between 3−12% has a greater effect on mucus clearance, though also reduces tolerability [4]. Clinically, many CF patients report HS concentrations less than 6% to be more tolerable, yet the regular use of lower concentrations of HS has not been examined.

**Aims:** Evaluate the relative efficacy and tolerability of 0.9% v 3% v 6% saline nebulised twice daily with an eFlow® rapid.

**Methods:** Randomised, blinded, placebo-controlled, parallel-group, multi-centre study where subjects inhaled 4 mL of 0.9% or 3% or 6% saline twice daily for 16 weeks. Trial saline was taste-masked with 0.25 mg/mL quinine sulphate. Participants had confirmed CF, aged ≥6 years and FEV1 > 20% predicted. Participants were excluded if they were taking mannitol, had a recent pulmonary exacerbation and/or unstable lung function.

**Outcomes:** Primary outcome was FEV1. Secondary outcomes were: FVC and FEF25−75, quality of life, exercise capacity, acquisition or loss of bacterial organisms in expectorated sputum, tolerability of nebulised saline, pulmonary exacerbations and adverse events.

**Results:** 140 participants have enrolled and begun the study with the last participant due to complete the study in March 2013. Results will be presented at the 2013 European CF Conference for the first time.

**Reference(s)**


**WS9.6** Cystic fibrosis-related postural and baropodometric changes: A comparison with healthy individuals

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**Objectives:** Few studies have addressed the postural imbalance as a consequence of pulmonary and thoracic disorders in cystic fibrosis (CF). The aim of present study was to compare postural and baropodometric evaluations between CF and healthy children and adolescents.

**Methods:** We performed a cross-sectional study evaluating 34 children and adolescents with CF, aged 6 to 20 years, as well as 34 age, height and weight matched healthy control subjects. Patients were recruited in the CF outpatient service after anthropometric and lung function data were collected. Healthy individuals were selected from private and public schools after a respiratory health questionnaire was filled out. In both groups, individuals were submitted to postural evaluation trough digital photos in 3 different plans using the SAPO software and to dynamic and static baropodometric test using the Footwork software. Data was compared using a student t test. All parents or legal guardians signed a consent form prior to data collection. In total, 68 individuals (41.2% female) were studied with a mean age of 12.8 ± 3.3. Significant differences in the postural assessment were identified in the head inclination (p = 0.001), scapular inclination (p = 0.01), pelvic inclination (p = 0.001), cervical lordosis (p = 0.001), thoracic kyphosis (p = 0.05) and lateral thoracic distance (p = 0.002). No significant differences were found in the baropodometric analysis.

**Conclusion:** Our results show that CF children and adolescents present important postural abnormalities when compared to healthy individuals. Objective postural evaluation may help professionals to quantify, follow and treat postural disorders in these patients.