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*primary studies - published RCT*

## **A short-term comparison of two methods of sputum expectoration in cystic fibrosis.**

**Code:** PM15065835

**Year:** 2004 **Date:** 2004

**Author:** Chatham K

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

randomized trial

### **Participants**

Twenty adults with CF

### **Interventions**

Receive, on alternate days, either standardised physiotherapy (SP) for 30 min, comprising postural drainage and the active cycle of breathing technique, or a series of resistive inspiratory manoeuvres (RIM) at 80% of their maximum sustained inspiratory pressure developed between residual volume and total lung capacity during the first 4 days of the treatment of an exacerbation of respiratory symptoms

### **Outcome measures**

Expectorated sputum was collected during and for 30 min after each treatment and weighed. Total protein, immunoreactive interleukin (IL)-8 and human neutrophil elastase (HNE) concentrations, and the amount of each component expectorated, were determined.

### **Main results**

Compared with SP, RIM increased sputum weight two-fold, independent of treatment order or day. The concentrations of protein, IL-8 and HNE in sputum were similar for both treatments, while the quantity expectorated was greater with RIM treatment.

### **Authors' conclusions**

Short-term resistive inspiratory manoeuvres treatment was more effective at clearing sputum and inflammatory mediators than standardised physiotherapy.

<http://dx.doi.org/10.1183/09031936.04.00084904>

### **See also**

Eur Respir J. 2004 Mar;23(3):435-9.

### **Keywords**

Adult; pharmacological\_intervention; Postural Drainage; Airway clearance technique; Chest physiotherapy; non pharmacological intervention - devices OR physiotherapy;