



## Abstract

---

### **Can the inhaled mannitol challenge test be successfully used to improve asthma management in the general practice setting?**

**James Turton, John Brannan, Nicholas Glasgow and Marjan Kljakovic.**

#### **Objectives:**

Literature suggests sub-optimal asthma control is found in people attending general practice. Symptoms and lung function do not always predict the outcome of inhaled corticosteroid therapy, as both can improve rapidly despite measured airway hyper-responsiveness and airway inflammation. This study pilots a different approach to asthma care in an effort to achieve optimal control of asthma.

#### **Methods:**

This study is a pilot in which asthmatics were recruited from a general practice in Canberra. The practice database identified adult asthmatics who had been prescribed inhaled corticosteroids. Subjects were invited to participate by mail, and qualified to join the study if they met all entry criteria including lung function of  $FEV1 \geq 70\%$  of predicted. The study required three clinic visits each six weeks apart. The protocol allowed dose adjustment of inhaled corticosteroids depending on the response to the inhaled mannitol challenge.

#### **Results:**

Invitations were mailed to a total of 147 patients of whom 27 responded. This gave a recruitment response rate of 18%. Of the responders, 21 were screened for eligibility with only 14 being enrolled into the study. It is interesting to note that 7 of the 21 subjects screened (33%) were excluded on the basis of poor lung function.

The results of the 14 subjects who have completed the protocol will be presented in this paper.

#### **Discussion:**

Recruiting asthmatic subjects from general practice by mail is problematic. The number of respondents who had to be excluded because of poor lung function limited the study. In addition, some of the participants were found not to have asthma on the basis of spirometry as well as mannitol testing.

#### **Implications for practice:**

We found the use of the inhaled mannitol challenge test to be feasible and acceptable to patients in general practice. Preliminary data suggests that there have been improvements in asthma control.