

**The Evaluation of Asthma Prevention and Educational Strategies Amongst Doctors  
Working in the Emergency Department**

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## **ABSTRACT**

**Background:** Exacerbations of acute asthma are frequent presentations to the Emergency Department (ED) and contribute to ED overcrowding and healthcare cost. The purpose of this study was to evaluate whether ED clinicians are implementing secondary asthma prevention measures prior to discharging patients after an acute asthma exacerbation and also to determine whether ED clinicians are able to correctly demonstrate how to use an asthma metered dose inhaler (MDI) device.

**Methods:** Consenting doctors employed at four EDs situated in the Gauteng province of South Africa were asked to complete a questionnaire and thereafter demonstrate the technique of using an MDI device. Collected data was described using frequency and percentage.

**Results:** Eighty-six doctors were included in the study. Of these, 18 (20.9%) routinely checked that inhaler technique was correct, 50 (58.1%) routinely enquired regarding adherence to their asthma treatment, 8 (9.3%) routinely informed patients of the side effects of asthma medication, 16 (18.6%) routinely provided patients with a written asthma action plan, 7 (8.1%) routinely evaluated for the presence of concurrent allergic rhinitis and 53 (61.6%) routinely counselled patients regarding smoking cessation. With regards to correctly demonstrating how to use an MDI device, only 23 (26.74%) participants performed all eight steps correctly.

**Conclusion:** This study indicates that secondary asthma prevention measures are not adequately addressed by clinicians prior to discharging patients from the ED after an acute asthma attack. It is recommended that ED clinicians are educated with regards to the importance of these measures.

**Keywords:** asthma; acute asthma exacerbation; secondary prevention; MDI technique; ED revisit; ED overcrowding