

Emergency Department Asthma: Compliance with an Evidence-based Management Algorithm

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Abstract

Background: Recent surveys in emergency medicine departments show inadequacies in many aspects of acute asthma management. **Objective:** The objective of this study was to evaluate the adherence to management algorithm for acute asthma in the emergency department which focused on evidence-based treatment steps rather than documentation and patient classification. **Methods:** A retrospective audit of consecutive adult patients with acute exacerbations of asthma in the emergency medicine department of a university hospital managed in the context of a clinical algorithm. **Results:** We collated information from 344 episodes of acute asthma (94% of total) over a 4-month period. The first-line treatment was nebulised bronchodilators in 97%, combination of salbutamol and ipratropium bromide in 93% and the combination in recommended dosages in 87%. Systemic corticosteroid treatment was administered to 82% of patients. A further course of systemic corticosteroid was prescribed at discharge for 94% of patients. Overall, 93% of patients received some form of systemic corticosteroid treatment. The admission rate was 35.2%, and was significantly higher in women and the elderly. Of those who were admitted, 46.2% received ≥ 3 nebulised treatments and 69% received intravenous hydrocortisone. **Conclusions:** In the management of acute asthma, we found excellent compliance with specific treatment steps based upon clinical evidence. However, adherence to second-line treatment was less satisfactory. Nevertheless, whenever second-line treatment was complied with, reasonable outcomes were achieved. It may be more appropriate to emphasise evidence-based treatment rather than extensive documentation.

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