Title: Clinical asthma score as a predictor for hospital admissions and duration of stay in children presenting with acute asthma to a paediatric emergency department

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Body: Background Asthma is the most common chronic disease of childhood with increasing rates of hospitalisation worldwide. Various clinical asthma severity scores have been developed as tools to assist clinicians in assessing children presenting with an acute exacerbation of asthma. Aims Assess usefulness of clinical asthma score (CAS), as a predictor of need for admission and duration of hospital stay in children who presented to emergency department (ED) with an acute exacerbation of asthma. CAS score used in the study was a modification of Woods- Downes asthma score 1. Method A CAS was completed for all children aged 2 to 16 years with asthma who presented to our ED over a 15-week period, facility with 35 000 attendances per year. Retrospective review of hospital records done for details of admission and length of stay (LOS) Results Total 223 children were included in the study. Mean age was 61.6 months. CAS values were grouped into three categories: mild (0-4), moderate (5-8) and severe (9-12). Significant difference in admission rates between the three groups (p=<.001) seen. Similarly, significant difference in admission rates between individual CAS values (p=<.001) seen. Average LOS was 32.8 hours. No correlation between CAS value and duration of stay in hours (p=0.6) was seen. Conclusions CAS is a useful tool in assessing the need for admission in children presenting to ED with acute exacerbation of asthma. However not useful in predicting duration of hospital stay following admission. Reference A clinical scoring system for the diagnosis of respiratory failure. Wood, DW, Downes, JJ, Lecks HI. AM J Dis Child 1972;123:227-228.