

Revision and Implementation of a Clinical Pathway for Asthma Care in a Pediatric Emergency Department

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Abstract

Introduction: Prompt administration of albuterol and corticosteroids reduces hospital admissions in patients who present to emergency departments with asthma exacerbations. Similarly, clinical pathways lead to reductions in time to treatment and admission rates for many common diseases. This project sought to update and implement a collaborative clinical pathway for the management of asthma exacerbations in a pediatric emergency department (ED) to improve patient outcomes.

Methods: A interdisciplinary workgroup was formed to conduct the protocol revisions. The workgroup reviewed pertinent literature, published pediatric asthma protocols, and an internal retrospective chart review on the current asthma protocol to establish goals for the protocol revision. The workgroup utilized a step-by-step approach to individually review and update each component of the existing protocol with special attention placed on the inclusion and exclusion criteria, the asthma scoring system, the use of metered-dose inhalers, and the time to administration of corticosteroids and albuterol.

Results: The workgroup addressed the primary concerns discussed prior to initiation of the project. A new asthma scoring system was adopted. Inclusion and exclusion criteria were maintained to ensure treatment for all pediatric patients. Metered-dose inhalers were extensively implemented into the protocol for mild and moderate asthma exacerbations. The clinical pathway was updated to ensure prompt admission of corticosteroids and albuterol treatments. The workgroup planned out next steps for protocol acceptance, provider education, and protocol implementation.

Conclusion: Implementation of a clinical asthma pathway in the ED using a multidisciplinary approach allowed for the identification of multiple practice improvement and efficient workflow opportunities. The workgroup successfully revised the protocol with an updated asthma scoring system, increased use of albuterol metered-dose inhalers, and decrease the time to administration of medications. Future studies are needed to evaluate the effects of the clinical pathway on patient outcomes in the ED.