

Quality Improvement Initiative for Anaphylaxis Treatment in a Pediatric Emergency Department

Purpose: To evaluate the quality and effectiveness of a clinical pathway for anaphylaxis treatment in a pediatric emergency department (ED). Clinical pathway for anaphylaxis was last updated at St. Christopher's Hospital for Children in June 2022. This research project analyzed data from 18 months before and after clinical update.

Methods: Retrospective chart review of electronic medical records from ED encounters at the St. Christopher's Hospital for Children. Data is collected from January 1, 2021, to December 31, 2023. Before intervention defined as January 1, 2021, to June 30, 2022, and between the dates of July 1, 2022, through December 31, 2023, was considered after the intervention. Patients studied had IDC-10 diagnosis codes of anaphylaxis.

Results: In the ED during the study period, there were 822 total encounters for anaphylaxis. There were 337 total encounters before the intervention. Of these patients 256 were discharged from the ED. 60 (18%) of patients were admitted before intervention. After the intervention, there were 485 total encounters. 382 of these patients were discharged from the ED. 80 (21%) patients were admitted after intervention. Secondary outcomes including time to discharge, emergency severity index (ESI) scores, and 72-hour revisits were also assessed.

Conclusion: Overall, there is not a significant difference in ED disposition after an update of anaphylaxis guidelines. Of note, most pediatric patients were discharged from the ED. This study provides foundational knowledge of anaphylaxis treatment in a pediatric emergency department. Based on this data a prospective quality improvement project could enhance treatment and management of anaphylaxis at St. Christopher's Hospital for Children.