

# Emergency Department Nursing Protocol Orders

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## **Introduction/Background**

ED crowding is a multi-factorial problem caused by increasing patient volumes with a lack of inpatient capacity, shortages of staff, long turnaround times for diagnostic results, and limited geographic space in the ED<sup>1</sup>. Prior studies have evaluated strategies for improving the “front end” operations of the ED to improve cost, quality, and operational efficiencies<sup>2</sup>. Nurse-initiated protocol orders prior to physician evaluation may reduce overcrowding by increasing ED patient throughput<sup>1</sup>.

## **Methods**

We convened a multidisciplinary group of ED nursing and physician leaders to validate content for nurse-initiated order panels to initiate care for cohorts of patients with specific chief complaints at ED triage. After validation by billing and compliance, we built these order panels into the electronic health record. In this preliminary quality improvement study, we evaluated a total 7,649 adult encounters at six community ED’s within the network over nearly two weeks after implementation. Patient demographics and operational metrics were compared between encounters where a nurse-initiated protocol was used versus when it was not.

## **Results**

Nurse-initiated protocol orders were used in 8.4% of all encounters. They were used more frequently in women compared to men (62.6% vs 37.4%), and in encounters with Emergency Severity Index (ESI) 2 and 3 (medium to urgent severity). When triage protocol orders were placed, the time from ED arrival to first physician assignment was longer by approximately 40 minutes (108 min vs 67.6 min). Encounters where the protocols were used had longer overall ED lengths of stay (443 min vs. 304 min) and longer times between first physician assignment to first ED disposition decision (330 min vs. 201 min). Neither finding was statistically significant.

## **Discussion/Conclusion**

Nurse-initiated protocol orders placed in ED triage are a potential mechanism to reduce ED overcrowding by improving patient throughput. In this pilot evaluation, we found robust use of these protocols after less than two weeks of deployment. Longer operational metrics may be explained by the more frequent use of these protocols at times of high ED crowding. Future steps include analyzing a larger sample, and accounting for variability in ED census volumes to better interpret the differences in operational metrics.

## **References**

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