Darryn Dunbar NR 899 Project Evaluation Reduction of ED LOS for Patients Requiring Admission to the Intensive Care Unit April 25, 2019

## **ABSTRACT**

Emergency department (ED) crowding is a growing public health concern in the United States. Crowding occurs when the demand for patient care exceeds the ability to provide those services within a reasonable timeframe. This mismatch impairs the provision of timely and safe care. Crowding often leads extended ED length of stay (LOS) and boarding in the ED. Boarding is the practice of caring for admitted inpatients in the ED until an inpatient bed becomes available.

Crowding is further exacerbated when critically ill patients present for care. Critically ill patients usurp many resources in the ED setting. The unstable nature of these patients predisposes them to unfavorable outcomes. Delays in assessment, care, and medication administration combined with an extended ED length of stay (LOS) further increases their risk. Because of this, every effort should be taken to expedite these patient's admission to the inpatient critical care setting.

A rapid cycle quality improvement project was implemented to evaluate the impact of an expedited handoff process between the ED and intensive care unit (ICU) over a three-month period. This resulted in an 88-minute reduction in ED LOS for this population (276 minutes pre vs. 188 minutes post) and reduced the percentage of boarder patients in the ED by 48% as well (33% pre vs. 17% post).

While other improvement efforts were simultaneously taking place in this organization, implementation of an expedited nursing handoff process between the ED and ICU showed a favorable improvement.