Using Bed Ahead to Improve Utilization in a Progressive Care Unit

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Emergency Department (ED) overcrowding is a serious problem that is exacerbated by ED boarding. ED boarding occurs when hospitals do not have enough inpatients beds for admitted patients. Bed assignments are one variable that impacts ED overcrowding, but the process of assigning beds is challenging and complex. Ultimately, ED overcrowding leads to increased patient mortality rates and poor patient care. This is especially critical when patients in the ED require Progressive Care Unit (PCU) care. The purpose of this project was to develop and implement an evidenced-based bed ahead process that ensured patients in the ED needing a PCU level of care were assigned a bed with minimal ED boarding time. The Patient Flow Managers (PFMs) collaborated with PCU charge registered nurses to identify patients that could be DUDed (Downgrade, Upgrade, Discharge) from the PCU. The theoretical framework used for this project was the Iowa Model with a quantitative pretest-posttest design. This project was conducted at a public tertiary hospital located in Los Angeles, California. The sample for this project included all adults (age 18-99+) who were admitted to the PCU from the ED. The bed request to bed occupy time and PCU Length of Stay (LOS) were compared pre- and post-implementation. Data was gathered using Teletracking® a bed management software program used to monitor for trends in the bed ahead process. The mean bed-request-to-bed-occupy-time was 582 minutes post-implementation. The mean was greater by 285 minutes compared to the pre-implementation data. Pre-implementation PCU LOS was 2.5 days and post-implementation remained at 2.5 days. In evaluating and improving the project, staff shortage and increased bed closures in the PCU were noted to be contributing factors that increased the mean bed-request-to-bed-occupy-time. As a result of the project, there has been a change in practice and heightened awareness in how PFMs view bed demand and capacity. Increased communication between the PFMs and nurses in the PCU helped identify and moved patients out of the PCU.

Keywords: Patient Flow, Patient Throughput, Bed Ahead, ED Overcrowding, and Bed Assignment.