Three High Value Operational Improvements at a Large Academic Medical Center

Ditkoff, Jeffrey MD; Ziadeh, James MD; Kowalenko, Terry MD

Department of Emergency Medicine | Beaumont Hospital, Royal Oak, MI

INTRODUCTION

Many operational improvements have contributed greatly to our success in improving upon the major throughput measures recently adopted by CMS. This abstract highlights three of these that have had the greatest impact on the department. Royal Oak, Beaumont Emergency Department is an academic center with an Emergency Medicine Residency Program. Patient Volume is 120,000 patients/year. All process improvement was done using a Kaizen approach of engaging front-line workers in direct observation and implementation of improvement processes. Kaizen events were held two days per month to work on initiatives followed by 2 additional days to work on sustainability.

STRAIGHT-BACK TRIAGE

The first quality improvement was transitioning to a "straight-back" model of triage. For years, our department used a traditional model of triage where extensive patient information was gathered prior to bed assignment. This routinely led to the holding of up to 40 patients in the triage area. Door-to-doctor times were long, and this was considered a serious safety issue. Changing to a straight-back process eliminated the significant bottleneck at triage and reduced this process to simply obtaining vitals, chief complaint, and placing the patient in a bed. We re-deployed nurses that were originally stationed in triage to perform as a "resource" nurse in the patient areas and help complete the assessments and medication reconciliation that is required. The outcome of this was a reduction in median door-to-doctor time from 49 minutes to 20 minutes.

PRE-ADMISSION PROCESS

The next project was implementation of a pre-admission process which allows the physician to place an order to signify that the patient will likely be admitted. Immediately after seeing a patient, the physician may place a pre-admit order if the doctor believes that the patient will most likely be admitted. This generates an icon on the track-board prompting all necessary parties to begin working on the admission process. An insurance review can commence, bed management will begin to look for a bed, and inpatient PA's can begin reviewing orders. Then when the actual admission order is placed the patient is more rapidly sent to their destination. This process led to a reduction in admission order-time-to-departure time from 120 minutes down to 82 minutes.

STRAIGHT-TO-CT

Finally, we implemented a straight-to-CT policy for suspected strokes. It is highly recommended that patients receiving IPI have it infused within 60 minutes. This is an aggressive time frame and requires very efficient processes to obtain all necessary information prior to administration. We implemented a process whereby patients with neurological deficits concerning for stroke are brought directly back to a high acuity area. The physician briefly evaluates the patient just to ensure airway adequacy and appropriateness of head CT. Patient is then taken directly over to CT scanner. This greatly reduced our time to image acquisition for stroke patients from nearly 50 minutes to 30 minutes.