

Hospital Name:

Boston Medical Center

Address:

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Boston, MA 02118

Contact:

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2006 ED Volume: 128,005
Growth from 2005: 2.9%
Total Staffed Hospital Beds: 483
Acute ED Beds: 30
Fast Track: No
Clinical Decision Unit: No

Problem to be Resolved:

Long ALOS in the ED

Key Words:

- Surgery smoothing
- Rapid Cycle Testing
- Throughput
- Inpatient admissions

Lessons Learned:

Teamwork is essential for success. It is impossible to maximize the potential of the ED unless the whole hospital is working together as a unified entity towards a common goal. Also, rather than looking for one major change to fix all of the hospital's problems, a series of small changes can have a substantial impact.

Reason for Change:

Boston Medical Center (BMC) was one of 10 hospitals to receive a grant from the Robert Wood Johnson Foundation to participate in the Urgent Matters project, and then was one of four to receive additional funding for a special demonstration project. The Urgent Matters Project is an initiative that helped hospitals throughout the country improve throughput in their EDs to eliminate overcrowding and improve access to emergency care. Participating in this project provided BMC with the means to make changes to improve their throughput.

Implementation:

The hospital used rapid cycle testing to try out a series of small changes which altogether were responsible for significant improvement. The rapid cycle testing method was desirable because it is flexible and allows for changes to be initiated quickly with minimal financial risk. BMC was able to build on successful results to achieve organizational buy-in because it was comforting to know that if something didn't work, the change was not permanent.

BMC's management identified the process of getting admissions out of the ED as the biggest impediment to efficient flow in the ED, as well as the largest single fixable impediment. The problem seemed to be particularly bad around the middle of each week, when the intensive care unit would generally be backed-up. To address this problem, BMC worked on smoothing the surgery schedule. Elective surgeries were scheduled more evenly throughout the week, with surgeons only booking the operating room when a surgery was scheduled, rather than for large, fixed blocks of time each week. This smooth scheduling helped decrease the backlog in the ICU, which facilitated patient flow from the ED.

Results/Impact:

Smoothing elective surgeries has helped for better flow out of the ED, and has also meant that fewer elective surgeries have needed to be cancelled or delayed to accommodate urgent cases.

Average ED throughput decreased from 4.5 hours to 3.75 hours, which has effectively saved 525 hours per week. Diversion decreased by 20 percent in the year following the implementation of these changes. Reducing diversion has been very important financially, as the hospital estimates that for each hour on diversion, the hospital loses an average of two admissions, which translates into approximately \$20,000 in forgone revenue.