

Hospital Name:
Massachusetts General Hospital

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2006 ED Volume: 73,741
Growth from 2005: -3.2%
Total Staffed Hospital Beds: 902
Acute ED Beds: 11
Fast Track: Yes
Clinical Decision Unit: No

Problem to be Resolved:
Slow turnaround times for lab tests slowing down overall ED throughput

Key Words:

- Satellite laboratory kiosk
- Point-of-care testing

Lessons Learned:
A dedicated satellite lab within the ED has helped Massachusetts General Hospital decrease patient length of stay in the ED by reducing unnecessary waiting for lab results.

Reason for Change:

A process improvement team, made up of representatives from the ED, laboratory, and administration, was created at Massachusetts General Hospital to come up with solutions to problems relating to lab services. In particular, they felt that lab turnaround time directly contributed to problems with ED operations.

Implementation:

The process improvement team set goals for turnaround time for various lab tests, and realized that without performing these tests within the ED, they would not be able to accomplish these goals. The concept of point-of-care testing seemed to be the perfect solution. However, the process improvement team realized that it is not practical to train all ED clinicians to perform these tests bedside. Instead they needed a dedicated staff within the ED to provide this service.

Massachusetts General Hospital brought an ED satellite laboratory kiosk in to its ED to provide point-of-care testing for a limited number of tests. Specifically, the satellite lab can test for cardiac markers, urinalysis, urine pregnancy testing, and whole blood glucose testing. During a pilot program, the satellite lab was open Monday through Friday from 8:00 am to 5:00 pm. Its hours have since expanded.

Results/Impact:

The ED satellite laboratory kiosk has decreased lab test turnaround time by 51.5 minutes compared with central laboratory testing. This is a decrease of 87 percent. As a result of decreased test time, patient length of stay in the ED has decreased by an average of 41 minutes for each patient tested. Also, physician satisfaction has increased, as physicians do not have to wait as long for test results. Diversion hours have also steadily decreased since the satellite lab was put in place.