

Hospital Name:
Mercy Medical Center

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2006 ED Volume: 52,844
Growth from 2005: unknown
Total Staffed Hospital Beds: 368
Acute ED Beds: 32
Fast Track: No
Clinical Decision Unit: No

Problem to be Resolved:
A need to speed up accurate
diagnosis of acute coronary
syndromes

Key Words:

- Point-of-care testing
- Cardiac care
- Lab
- ED throughput

Lessons Learned:
Essential to the successful use of
point-of-care testing is having
good coordination and
communication between the lab
staff and the point-of-care testing
site.

Reason for Change:

When Mercy Medical Center opened its Emergency Chest Pain Center, they recognized the importance of diagnosing cardiac diseases as quickly as possible, to expedite treatment. To attempt to reduce the time spent waiting for a diagnosis they first tried to open an on-site satellite laboratory. However, while costly, this did not seem to actually speed up diagnoses. Next Mercy tried a near-patient, qualitative whole blood test. Unfortunately, because this test was qualitative rather than quantitative, there was concern about its accuracy. Finally Mercy decided to use point-of-care testing that would give quantitative results for three measures of cardiac disease. These results have proven to be very accurate, comparable to those from the main lab.

Implementation:

Point-of-care testing simplifies the lab testing process because the tests can be performed in the ED. It was important to have lab staff involved from the start. At Mercy Medical Center, the lab staff helped with setting up and training ED staff to use this technology, and cooperation continues to be important for coordinating test results between the point-of-care test site and the main lab.

Initially some staff members may have been hesitant to embrace this new technology, as they feared that it might be difficult to use and subject to error if staff were not properly trained. Fortunately, the technology used does all of the testing, requiring little input from the operator. The machine will not print results unless it recognizes that the results are accurate.

Results/Impact:

Mercy Medical Center initially looked at point-of-care testing as a means of reducing the paper trail of lab tests and results in the ED. Performing point-of-care tests has also helped to provide care sooner for those patients needing immediate attention for suspected cardiac conditions, and thus improved turnaround time, average length of stay, and the LWBS rate. The ED has reduced the average amount of time from when a patient arrives at the facility to when test results are received from over an hour to less than 30 minutes. Mercy Medical Center has since become the first fully accredited chest pain center in the country.