Code Stroke – Improve Response Times

The Problem

Timely treatment in the ED is critical for patients experiencing acute stroke symptoms and leads to improved outcomes. BIDMC is designated as a Primary Stroke Services Hospital by the Massachusetts Department of Public Health (DPH), and maintaining this designation requires BIDMC to meet specific time metrics for delivery of care to acute stroke patients in the ED.

Aim / Goal

The goal is to improve the timeliness and quality of care for patients presenting to the ED with symptoms of acute stroke. Success will be measured by meeting all DPH time targets for patients receiving treatment for acute stroke symptoms while in the ED.

The Code Stroke Analysis Team

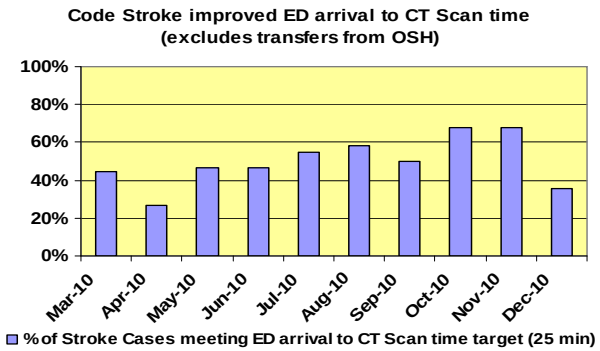
Neurology Stroke Services	Pathology
ED Physician and Nursing	Radiology
Inpatient Neurology Services	Health Care Quality

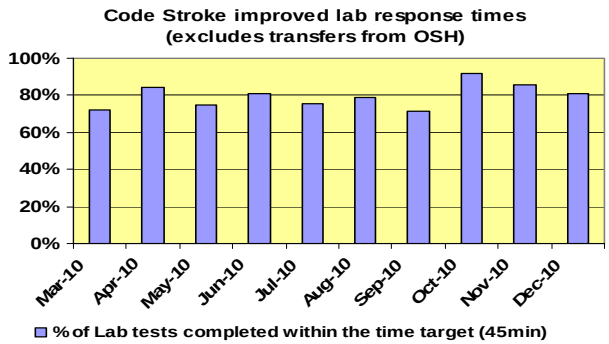
The Interventions

The team meets on a monthly basis to review stroke care performance data and to discuss opportunities for improvement.

- The team collects and monitors daily response times, and presents ideas via email and monthly meetings focusing on timeliness, efficiency and teamwork amongst the various departments
- Health Care Quality data analyst provides monthly data which identifies time targets met and not met by the respective departments.
- The Team reviews each case, identifies and implements potential solutions or process changes, and educates staff on necessary steps to ensure that improvements meet care delivery time targets.
- Graphic Data represents improvement in meeting time targets after the following interventions were completed in radiology and laboratory services:
  - ED Code stroke packet created and staff education
  - Using colored bags for lab draws that indicated code stroke patients
  - Educating ED staff to order CT immediately upon identifying Code Stroke patients
  - Emphasizing importance to ED and Neurology staff of getting patient to non-contrast CT prior to lab results.
  - Monitoring of lab processes by lab supervisor
  - Using electronic time stamps within radiology department
  - Training of radiology staff to record time of: patient arrival, patient entry into CT Scan and completion time of CT scan, as well as documentation of wet read by radiology staff, by QA nurse in Radiology
  - Monitoring Radiology staff documentation by QA Radiology Nurse
  - Continuous real time monitoring and reporting of time targets by Health Care Quality.

Improvement Over Time





Lessons Learned

- Importance of analyzing the data and understanding the root cause of the problem.
- Standardized clinical pathways can improve our ability to deliver appropriate and timely care to our patients.
- Unexpected challenges arise from omissions in planning or involving other groups in solution design and piloting.

Next Steps

- Continue current monthly process for case review and data analysis.
- BIDMC Primary Stroke Services will participate in Get With The Guidelines® which puts the expertise of the American Stroke Association to work for hospitals, helping to ensure that the care we provide to stroke patients is aligned with the latest scientific guidelines and provides a way to monitor our performance to identify areas for improvement.

Beth Israel Deaconess Medical Center | A teaching hospital of Harvard Medical School | The Silverman Institute For Healthcare Quality and Safety

For More Information Contact
Donna Martin, RN
Silverman Institute for HCQ and Safety
dmartin@bidmc.harvard.edu