

# STROKE CARE

## Where we've been...

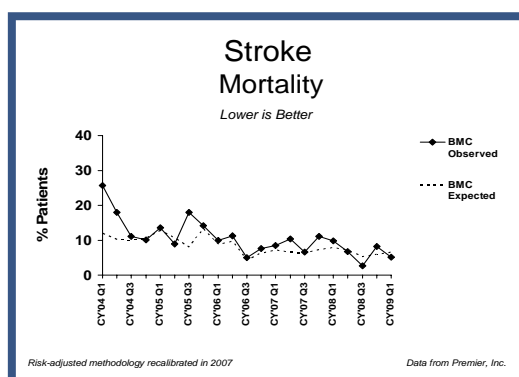
Over 600 patients each year are admitted to Baystate Health (BH) facilities for evaluation and treatment of ischemic stroke. Multidisciplinary management and coordination are key factors that help patients return to their optimal function. Successful treatment begins with early and rapid identification of the etiology of the stroke, administration of thrombolytics if appropriate, prevention of acute complications, and formation of a rehabilitation plan, and concludes with an appropriate treatment plan aimed at preventing recurrent stroke.

In 2004, the Massachusetts Department of Public Health identified gaps in care of patients with stroke, and to narrow those gaps, formalized the care of patients with stroke by developing and promoting the concept of a designated Primary Stroke Center (PSC). This designation is built on the premise that stroke teams can effectively and efficiently care for the stroke population. The BH Stroke Teams review the care provided for opportunities or gaps on which to focus their efforts. Interventions include localizing and implementing standardized clinical practice guidelines from evidence-based recommendations, and measuring progress against statewide/national benchmarks. The teams continuously monitor quality indicators which include hospital-acquired complications, such as DVT or pneumonia, mortality, length of stay, antithrombotics at discharge, lipid measurement and treatment, and smoking cessation counseling. Since all three BH hospitals are designated as PSCs, emphasis has been on screening and administering tPA for acute ischemic stroke, consistent assessment of the patient using the National Institutes of Health (NIH) Stroke Scale, DVT prophylaxis, bedside swallowing evaluation, use of antithrombotic therapy within the first 24 hours and at discharge, and early rehabilitation consultation.

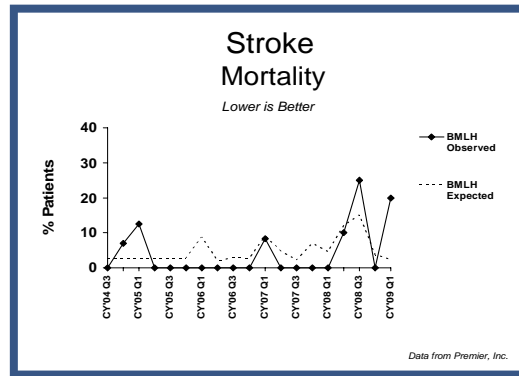
## Where we are now...

**BAYSTATE HEALTH AMBULANCE** BHA provides a standardized neurological assessment to facilitate early identification and notification to the emergency department, along with the timely transport of patients who may be potential tPA candidates. Administration of this “clot-busting” medication can restore or greatly reduce neurological impairment if given within appropriate time parameters.

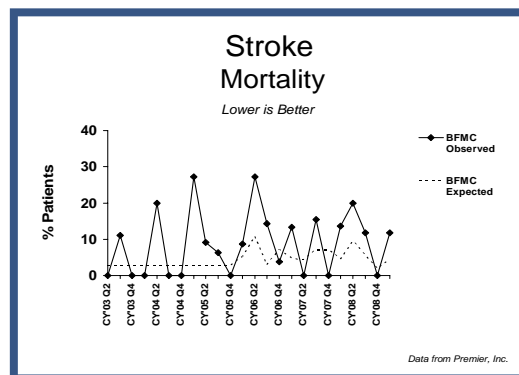
**BAYSTATE MEDICAL CENTER** BMC has worked with the Centers for Disease Control (CDC) as a Coverdell hospital since 2002 to determine the feasibility and usefulness of a national stroke registry. This work served as a testing ground and helped to drive the national focus on improving stroke care. BMC was designated as a Primary Stroke Center in December 2004. Currently, the use of antithrombotic drugs at discharge, such as aspirin, clopidogrel and warfarin, is at 100%, exceeding the national benchmark (99.7%). Other prevention strategies, such as smoking cessation counseling (100%) and DVT prophylaxis within 24 hours (100%), are at or above the national benchmarks. There have also been notable increases in the number of patients who are screened and receive tPA (100% of eligible patients), and more than 90% of eligible patients received tPA within 180 minutes of symptom onset. Additionally, a sustained increase in the completion of lipid profile and management has been noted. Analysis of the mortality rate has revealed many patients with a very high severity of illness; however, stroke mortality has decreased overall since we began our focused work, and currently is lower than expected. BMC received an American Heart Association/American Stroke Association Achievement award for reliably providing evidence-based recommendations and treatments to patients with stroke.



**BAYSTATE MARY LANE HOSPITAL** BMLH received Primary Stroke Center designation by the Massachusetts Department of Public Health in late 2005, and participated in the Coverdell Stroke Registry in 2007. The BMLH Stroke Team meets regularly to review data and improve systems and processes. The use of Telemedicine (technology that allows clinicians to remotely examine and interview patients) to determine the appropriate plan of care has been a key component of rapid identification and treatment of patients potentially eligible for tPA, as well as beginning early treatment of patients presenting with stroke symptoms.



**BAYSTATE FRANKLIN MEDICAL CENTER** Through the efforts of a multidisciplinary team, BFMC received Primary Stroke Center designation in July 2005, and participated in the Coverdell Stroke Registry in 2007. The BFMC Stroke Team regularly reviews data to improve processes and is an active member of the statewide collaborative working to improve stroke care. BFMC works closely with BMC to provide neurology consultation for patients, which has helped to meet our patients' needs for swift evaluation. BFMC has also focused on patient and community education, providing patient and family education in the ED and in the Health Sciences Library during blood pressure screening events, and to the community through newsletters, billboards and senior class presentations. BFMC received an American Heart Association/American Stroke Association Achievement award for reliably providing evidence-based recommendations and treatments to patients with stroke.



***Where we are going...***

Patients with stroke benefit from a coordinated, multidisciplinary approach to care. Quality of care remains high, and areas identified for further improvement include early screening and use of thrombolytics, appropriate diagnostic selection, use of thrombolytics, and lipid measurement and management, with emphasis on patient education. In keeping with the BH Neurosciences Clinical Strategic Plan, work is underway to develop a neurovascular interventional service that aligns with the BH vision to provide comprehensive stroke care. Continued focus on patient and community education and outreach at all three BH facilities will help to promote early recognition of stroke and help ensure prompt arrival to emergency departments.