



2 0 0 3 MISSOURI TEAM QUALITY AWARD RECIPIENT

EXTREME NEURO TEAM at Saint Luke's Hospital of Kansas City



PROFILE

Saint Luke's Hospital (SLH) of Kansas City is the metropolitan area's largest hospital with 582 beds, 2,416 employees and a staff of 461 physicians who provide 24-hour coverage in every health care discipline. SLH is a non-profit comprehensive teaching and referral health care organization. In addition, SLH is the tertiary care referral center of Saint Luke's Health System (SLHS). The Mid-America Brain and Stroke Institute (MABSI) of SLH was formed in 2001 to advance the practice of neuroscience and further the work of the nationally recognized stroke program established at SLH in 1993. The stroke program has realized many gains in the areas of diagnosis and treatment of acute stroke including the development of a clinical pathway to manage the care of stroke patients, acquisition of state-of-the-art diagnostic equipment; recruitment of interventional neuro radiologists; development of a referral network in the 100 miles surrounding Kansas City and improved financial performance.

OPPORTUNITY FOR IMPROVEMENT

Stroke was identified as a key health care issue for the community. No other hospitals in the Kansas City market have chosen to develop clinical expertise in the diagnosis and treatment of ischemic stroke, making this program a well-defined community need.

The facts about stroke:

- 750,000 new or recurrent strokes occur in the US every year
- Third leading cause of death
- Leading cause of adult disability
- 35-40% of strokes occur in people below the age of 65
- National ischemic stroke intervention rate is 2-3%

The Extreme Neuro team's primary goals were to develop a clinical program and associated clinical practices that achieve stroke

intervention rates "higher than anywhere else in the world" while assuring low rates for mortality and hemorrhage and to improve neurological function in stroke victims as measured by National Institute of Health Stroke Scores.

TEAM ACTIONS

In order to achieve its primary goal of increasing stroke intervention treatment, the Extreme Neuro team identified ways to get more patients with stroke symptoms to the stroke center within the intervention time window as well as to perform stroke intervention more efficiently while assuring safety.

Specific targeted actions included:

1. Providing education and ongoing communication to referring facilities using the Emergency Department stroke intervention protocols – providing treatment as early as possible.
2. Facilitating rapid access to stroke expertise and rapid transport for transfer utilizing the hospital's Doctor's One Call Transfer Program.
3. Education of the general public on the importance of seeking medical help immediately at the onset of stroke symptoms.
4. Expansion of the research agenda to incorporate additional devices that would further expand the intervention window to greater than 3 hours.

RESULTS

SLH has achieved a stroke intervention rate of 27%. This result far exceeds the national average of 2-3%, as well as the 2002 American Stroke Association goal of 20%. Results published in the June 2003 issue of Stroke reflect "best in class" level of performance. Saint Luke's has increased the number of clinical device and pharmaceutical trials they participate in, thus expanding the intervention window from 3 to 8 hours for patients that meet criteria. Other results include enhanced nursing recruitment, staff retention and pride as well as healthy financial performance. Unbelievable patient stories are being communicated in national and local news media.

FUTURE PLANS

The Extreme Neuro team plans to increase the number of referring hospitals in the regional network and assist top referring hospitals to achieve primary stroke center certification. Process improvements have been identified to reduce the "door to needle" cycle time from 1.5 hours to 1 hour. Other planned tactics include database enhancement and completion of Web site development, as well as improved customer satisfaction.

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