

Quality program linked with faster stroke treatment and better outcomes

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A national quality improvement initiative focusing on quicker stroke treatment was associated with better stroke treatment and outcomes, according to a late-breaking science report presented at the American Stroke Association's International Stroke Conference 2014.

The study examined data from hospitals that have adopted the American Heart Association/ American Stroke Association's national quality initiative, Target: Stroke, which aims to increase the number of stroke [patients](#) treated with clot-busting drugs for [ischemic stroke](#) within 60 minutes or less after hospital arrival.

The only [treatment](#) approved by the U.S. Food and Drug Administration for stroke is tPA, or [tissue plasminogen activator](#), a drug injected intravenously to dissolve blood clots. As the benefit of tPA is highly time dependent, national guidelines recommend tPA treatment within 60 minutes or less of hospital arrival. Initiated nationwide in 2010, Target: Stroke provided 10 key strategies as well as tools to facilitate timely tPA administration, as well as additional approaches to improve [stroke care](#) and outcome.

This study found that the percentage of patients treated within the recommended timeframe increased from less than one-third before Target: StrokeSM to more than half afterwards. The Target: Stroke program goal of 50 percent or more of patients having door-to-needle times within 60 minutes was successfully achieved. In addition, the average time to treatment dropped by 15 minutes, from 74 to 59

minutes.

Faster treatment was associated with lower rates of complications, including death. Before Target: Stroke, 9.9 percent of stroke patients died in the hospital, compared to 8.3 percent of patients treated after the initiative started, a difference which was statistically significant. In addition, patients treated by Target: StrokeSM strategies were less likely to develop the complication of bleeding within the skull.

"These findings further reinforce the importance and clinical benefits of faster administration of intravenous tPA," said Gregg C. Fonarow, M.D., the Eliot Corday Professor of Cardiovascular Medicine and Science, and director of the Ahmanson-UCLA Cardiomyopathy Center at the David Geffen School of Medicine at the University of California, Los Angeles. "By showing that the timeliness of tPA administration can be improved at the national level, these findings also support further expansion of the Target: Stroke initiative."

Investigators analyzed data from 71,169 tPA-treated [stroke patients](#) at 1,029 hospitals participating in Target: Stroke. They compared the time to treatment and incidence of complications before implementation, from 2003 to 2009, to the post-implementation years, from 2010 to 2013.

Patients' average age was 72 years, and 50 percent were female. Almost three-quarters of patients were white, 14 percent were black and 6 percent were Hispanic. Follow-up was three years.

"Importantly, the significant improvement in treatment times was seen in both older and younger patients, and men and women; and was also seen in white, black and Hispanic patients," said Fonarow, a member of the AHA/ASA Target: Stroke Committee. "Reducing gender and racial disparity gaps in care and making sure all patients get the treatment they

need is an important focus of Target: Stroke and all our quality improvement programs."

Each year in the United States, stroke affects nearly 800,000 people. It's the fourth-leading cause of death and a leading cause of disability among U.S. adults. Survival depends upon prompt treatment to restore blood flow to the brain.

Most strokes can be prevented by modifying risk factors, including controlling high blood pressure, cholesterol, diabetes and obesity; avoiding cigarette smoking; following a healthy diet; and being physically active.

Provided by American Heart Association

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