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The Impact of Stroke Coordinators: A Review of Three Stroke Indicators

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Background

In 2008 New Jersey Stroke Coordinators Consortium (NJSCC), a formal network of stroke program coordinators from over 40 hospitals, was formed to provide a forum for supporting, mentoring stroke coordinators and sharing best practices, to improve stroke care state wide. At present, the membership has grown to over 60 NJ hospitals. The purpose of this study was to analyze the impact of NJSCC collaborative efforts on three selected quality indicators: Door to IV rt-PA in 60minutes, Dysphagia Screen and Stroke Education.

Accomplishing Goals

New Jersey Stroke Coordinators meet quarterly to address Quality Improvement, community outreach and staff education initiatives. Our objectives are to collaborate, strategize, and formulate action plans to address identified gaps in knowledge and barriers to providing evidences based stroke care across the state. The group identifies most challenging stroke performance indicators. Members share during meetings and via email different strategies and processes they have implemented in their respective stroke centers, to improve these performance measures. Over 5 years of the consortiums existence, we are evaluating the impact of our collaboration on three stroke indicators.

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Overall Data

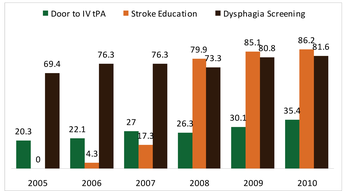

Table 1- Stroke Indicator Focus of Improvement

Stroke Data - 2011

Year	Door to IV tPA Mean	Stroke Education Mean	Dysphagia Screening Mean
2005	20.30	.00	69.40
2006	22.10	4.30	76.30
2007	27.00	17.30	76.30
2008	26.30	79.90	73.30
2009	30.10	85.10	80.80
2010	35.40	86.20	81.60

For each individual Stroke indicator, there are statistically significant differences in the scores among the six years

Stroke Data: One-Sample T-Test

	Test Value = 0					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Door to IV tPA	12.037	5	.000	26.86667	21.1292	32.6042
Stroke Education	2.629	5	.047	48.46667	1.0148	89.9185
Dysphagia Screening	40.785	5	.000	76.28333	71.4754	81.0913

Table 2- Stroke Quality Indicators in NJ hospitals

Results

The American Heart Association - Get with the Guidelines (GWTG) Outcomes Sciences Stroke Registry data base was used to abstract the trending in the selected indicators from 2005 through 2010, for all New Jersey (NJ) hospitals that utilize the GWTG database. A One-Sample T test was used to analyze the data to measure significance in improvement over the 6 years. Analysis of the data showed mostly an upward trend and improvement for NJ hospitals for the following indicators: Door to IV rt-PA in 60 Min, Dysphagia and Stroke Education (Table 1). As evidenced in Table 2, there is a statistically significant difference in the scores of all three indicators, over the 6 years of the consortium existence.

A limitation to this study is that not all member hospitals are currently utilizing the GWTG database. Few NJ institutions use either Quadra Med or home grown data bases and their data was not available to be included in the study.

Moving Forward...

The creation of systems of stroke care in New Jersey, and the development of the NJSCC, have positively impacted the quality of care stroke patients receive in the state. The strength of the consortium is the non-competitive attitude of members, which allows for knowledge translation, and exchange of initiatives to optimize stroke outcomes. Quarterly meetings provide the opportunity for the NJSCC to discuss best practices, review data and make recommendations for improvement. NJSCC collaborates with the New Jersey Department of Health and Human Services (NJDOHSS), EMS, and AHA /ASA to provide primary and secondary stroke prevention education and improve evidence-based stroke care to the population.

Recommendation for future studies include performing a state to state comparison and a national comparison of trending of these measures.

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