Can Stroke Systems of Care Improve Measure Compliance and Outcomes Through Statewide Hospital Collaboration?

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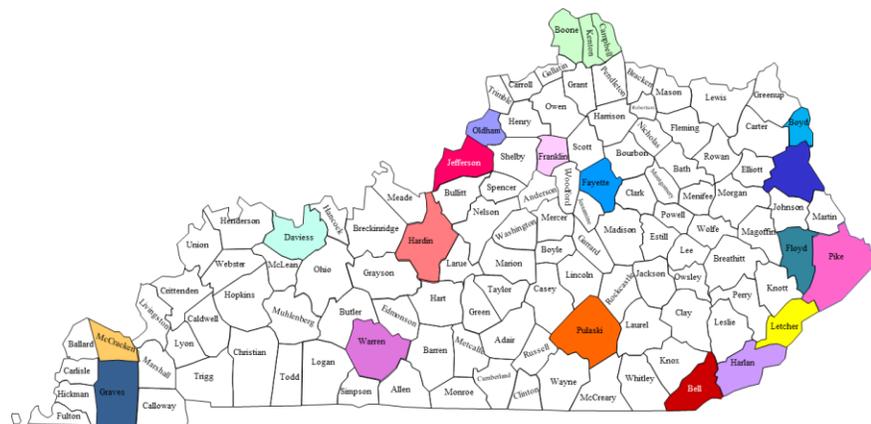
Background

The Stroke Encounter Quality Improvement Project (SEQIP) launched in 2009 as a statewide voluntary initiative and collaboration between the American Heart Association, the Kentucky Department for Public Health and 16 acute care hospitals interested in improving stroke care in their communities with the mission to advance acute stroke care and reduce disparities in Kentucky by:

- Establishing a network that encourages and supports collaboration
- Increasing access to stroke care by targeting underserved areas
- Providing opportunities to share resources related to program development and proficiency across the continuum of care
- Promoting quality outcomes and standardization of care through collegiality and use of evidence-based guidelines and research collaboration

Objective

The goal of this unfunded initiative (now in its tenth year) has been to increase adherence to evidence-based guidelines for stroke patients by implementing a unified statewide effort.

SEQIP Hospital Location by County

Outcomes

STROKE MEASURES	2009	2018	OR (CI)	p-value
IV tPA arrive by 2 hours, treat by 3 hours	59.60%	88.50%	5.219 (3.555, 7.702)	<0.0000001
IV tPA Arrived by 3.5 hours Treat by 4.5 hours	27.90%	66.00%	5.008 (3.964, 6.347)	<0.0000001
Dysphagia Screening	72.30%	93.00%	5.073 (4.522, 5.691)	<0.0000001
Stroke Education	65.00%	96.90%	16.79 (13.97, 20.29)	<0.0000001
Anticoagulation for Afib/Aflutter	92.00%	98.30%	5.006 (2.950, 8.723)	<0.0000001
LDL Documented	82.10%	95.10%	4.26 (3.701, 4.911)	<0.0000001
Rehabilitation Considered	93.50%	99.10%	7.569 (5.749, 10.06)	<0.0000001
Early Antithrombotic	94.80%	97.50%	2.153 (1.713, 2.707)	<0.0000001
Antithrombotic at Discharge	98.50%	99.60%	3.565 (2.290, 5.631)	<0.0000001
Smoking Cessation	98.50%	99.70%	4.841 (1.912, 13.620)	0.0003273
In Hospital Mortality	8.02%	5.39%	0.6528 (0.5712, 0.7460)	<0.0000001
Discharge Home Disposition	44.68%	49.80%	1.228 (1.148, 1.314)	<0.0000001

Methods

Get With The Guidelines-Stroke data was reviewed with the founding SEQIP hospitals and adherence to evidence-based guidelines was measured and analyzed over a 10-year period.

Results

SEQIP has grown to a network of 35 hospitals with 23 submitting data; patient records increased from 4358 (2008) to 10026 (2018); hospitals achieving Gold GWTG award status increased from 4 to 16; certified stroke centers grew from 4 to 32 decreasing geographic barriers to the nearest certified center; And, SEQIP hospitals achieved statistically significant improvement in all core stroke measures.

Conclusions

With deployment of strategically targeted action plans and expected accountability, competing hospitals can collaborate on a statewide level. Sharing of best practices across organizations can empower stroke teams to implement effective strategies within the confines of their resources to achieve collective goals.