

Improving the Identification of Women at Increased Risk for Stroke in an Urban Medical Center

Wayne State University
School of Medicine



School of Medicine

Objectives

- To heighten the awareness of stroke risk
- To educate Primary Care Providers on stroke risk factors
- To demonstrate improvement in risk factor control from baseline to project completion
- To examine stroke literacy in our patient population

Methods

- Used EMR data to determine baseline metrics regarding percent of patients at risk for stroke on appropriate anti-platelet and/or anti-coagulant medications
- Women 40 years and older
- Study conducted at 3 inner city Detroit primary care clinics and 2 suburban primary care clinics
- Performed a series of educational interventions including live lectures and online modules
- Re-examined EMR data in the same 5 clinics after one year
- Performed stroke literacy survey

Results of Education

- A total of 1,815 patients (57% African American) were seen before the intervention and 2,617 one year later.
- 77% of patients had hypertension, 27% diabetes and 5.5% had a prior stroke or TIA.
- Hypertension (83% vs 63%) and diabetes (30% vs 15%) were more common in African American patients than Caucasian Patients ($p < 0.001$ for both).
- 56% 152/173 of women over 40 (58% African American) with prior stroke or TIA were on antiplatelet therapy before the intervention and 72.1% (44/61) of women with a prior stroke or TIA were on antiplatelet therapy after the intervention ($p < 0.05$).
- Other factors did not show improvement
- A higher percent of the patients in the GMAP, Rosa Parks and Med-Peds inner-city clinics received appropriate therapy than the two suburban Family Medicine clinics

Results of Survey

- 261 patients completed the stroke literacy survey .
- The brain was correctly identified as the site where a stroke occurs by 57.2%
- The heart and extremities were incorrectly identified by 10.7% and 11.4% respectively.
- Dysarthria was the best-recognized stroke symptom (82.1%), closely followed by numbness and paralysis of the extremities (78.8% and 75.1% respectively).
- Chest pain was incorrectly identified as a symptom of stroke by 37.5% of respondents.
- When asked whether “young people” have strokes, 66.7% (30/45) of those 50 years old and younger answered “True” compared to 37.5% (9/24) of those 80 and over ($p < 0.05$).

Conclusions

- Efforts to improve treatment of women at risk for stroke using education of providers was somewhat successful.
- Despite their proven value for secondary prevention, antiplatelet therapy and statins were underutilized.
- Strategies to intensify vascular disease prevention in high risk urban women and particularly women under 70 are needed.
- Patient awareness of stroke symptoms was generally good but awareness of stroke risk factors such as diabetes was suboptimal.
- This project established a template for integration of quality improvement projects between CME and GME and between disciplines at Wayne State University.