Analysis of healthcare disparity in the delivery of stroke care in Southeast Texas Regional Advisory Council (SETRAC) registry.

Background: Disparities in care provisions can potentially affect outcomes in patients with acute ischemic stroke. South East Texas Regional Advisory Council (SETRAC) has representatives from the healthcare systems serving 6.7 Million diverse population. We analyzed the Get With The Guidelines® (GWTG)- Stroke registry between Q2 of 2015 to Q1 2023. to assess the impact of healthcare delivery in acute stroke care in rural or urban settings as determined by the zip codes of patient origin.

Hypothesis: We hypothesized that there is variability in healthcare provisions for acute ischemic stroke in the rural versus the urban settings and evaluated them through:

A) The proportion of patients receiving thrombolysis and those within 45 minutes
B) The proportion of patients receiving thrombectomy
C) The proportion of patients receiving therapy
D) Patient outcomes and discharge disposition

Methods: We analyzed the stroke care metrics of our regional centers from the Get With The Guidelines® (GWTG)- Stroke registry. We used zip codes of origin to classify patients into rural or urban as determined by the State of Texas Department of Health and Human Services (DHHS). Comparative analyses were performed for pre-specified variables to assess the impact of healthcare provision for acute stroke.

Results: A total of A patients with mean age D, E% women, with an average NIHSS stroke scale of H underwent acute stroke care between Q2 of 2015 to Q1 2023. B% of rural patients received thrombolysis compared to C% in urban. F% rural population was transported to receive thrombectomy as compared to G% in urban. Mean NIHSS for the rural population was I compared to J for urban, K for those who received thrombolysis in rural and L in urban areas, and M and N for thrombectomy respectively (p=?). Post thrombolysis mean NIHSS was O and P for rural and urban and Q and R for post thrombectomy. S % of patients received rehabilitation referral or support in the rural versus T in urban.

In conclusion, our analysis indicated a significant disparity in acute stroke care delivery in rural versus urban populations and has helped us identify future targets to improve healthcare delivery.

Data to collect:

1. Data under Urban and rural as determined by zip codes from DHHS: Each zone (urban versus rural)
    a. Total patients with acute ischemic stroke
    b. Demographics: Age, Gender, Race/ ethnicity
    c. Clinical:
        i. NIHSS
        ii. Percentage receiving thrombolysis
        iii. Percentage receiving thrombolysis within 45 minutes
        iv. Percentage receiving thrombectomy (transferred- for rural)
        v. NIHSS at discharge for thrombolysis
        vi. NIHSS at discharge for thrombectomy
        vii. Mortality (if any for thrombolysis and thrombectomy)
        viii. Referral to therapy
        ix. Discharge disposition