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Letter to Editor

Time to bring telestroke to stroke belt's hospitals

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Stroke is the fourth leading cause of mortality and first cause of adult morbidity in the US. The burden of stroke care in the US is about $68.9 billion for 2009 (1). The prevalence and burden of stroke do not distribute evenly in different regions. The southeastern states (Stroke Belt region) have the highest rate of stroke and mortality due to the stroke (2). Therefore, there is an urgent need for more effective policies and interventions in this region to address this issue.

Patients with acute ischemic stroke could be treated if they receive immediate attention and stroke care (3), which is sporadically offered by rural and community hospitals where usually neurologists were not available all the time. To address this issue, telestroke networks were mainly introduced for delivering the treatment to populations of underserved and rural areas. Telestroke has been shown to be a promising method for increasing access to lifesaving services for people who face geographical barriers to accessing stroke centers (4). Different studies show that telestroke services have the potential to improve the "door-to-needle time" for tissue Plasminogen Activator (tPA) as the gold standard for treatment of ischemic strokes (4). Reducing door-to-needle time is critical given that only half the US population is estimated to reside within one hour of a primary stroke center (6), and that administrating tPA is less common in hospitals located in rural and remote locations (7). Also, training, recruiting and supporting specialized stroke teams on site in most rural settings is not feasible (8).

Facing an aging population and inadequate number of neurologists, telestroke should be considered as a promising strategy for delivering critical time-sensitive interventions particularly in rural areas (9). As a result, the American Heart Association and American Stroke Association recommend the use of these services when an on-site assessment by a specialist is not available (5). However, high cost, lack of resources and hospital characteristics such as size are barriers to telestroke adoption and implementation(10). Recent studies identify the structure, market, and community characteristics of hospitals that implemented telestroke and compare these structural, market, and community characteristics with hospitals that are not providing telestroke (11,12). Using these new findings, it is time to hospitals at stroke Belt region to increase implementation of telestroke technologies and provide timely care to the patients.

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