OUTCOMES FOLLOWING ACUTE ISCHEMIC STROKE IN THE UNITED STATES: DOES RESIDENTIAL ZIP CODE MATTER?

Moderated Poster Contributions
Vascular Medicine Moderated Poster Theater, Poster Hall B1
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Session Title: Stroke and Carotid Artery Disease
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Background: We sought to analyze the impact of socioeconomic status (SES) on timely reperfusion and cost of hospitalization, in-hospital mortality, resultant disability requiring discharge to long-term acute care (LTAC) or extended care facility (ECF) following acute ischemic stroke (AIS).

Methods: We used the 2003-2011 Nationwide Inpatient Sample (NIS) database for this analysis. All admissions with a principal diagnosis of AIS were identified using ICD-9 codes. SES was assessed using median household income of the residential zip code for each patient.

Results: Over this 9-year period, 775905 discharges with AIS were analyzed. There was a progressive increase in the incidence of timely reperfusion (p<0.001), and a significant reduction in resultant disability requiring discharge to LTAC/ECF (p<0.001) across the SES quartiles (p < 0.001) (Fig 1a). We did not observe a significant difference in in-hospital mortality across the SES quartiles (p=0.22). Mean adjusted cost of hospitalization among quartiles 2, 3, and 4, as compared to quartile 1 was significantly higher by $621, $1238 and $2577, respectively (p<0.001). In addition, the disparity in the incidence of timely reperfusion across the SES categories has appeared to increase over the study duration (Fig 1b).

Conclusion: Patients residing in lower-SES zip codes had decreased timely reperfusion, decreased cost of hospitalization and increased resultant disability following AIS, as compared to patients residing in higher SES zip codes.

Panel A demonstrates the percent incidence and adjusted odds ratio for in-hospital mortality, timely reperfusion, and need for discharge to LTAC/ECF stratified by zip code based SES quartiles. All comparisons were drawn with respect to the lowest quartile. Panel B demonstrates the trend of timely reperfusion across the SES quartiles during the entire study duration (2003-2011).

Quartile 1: $1-37999.9, Quartile 2: $38000-47999.9,
Quartile 3: $48000-62999.9, Quartile 4: $63000