Association Between Physician Volume and Hospitalization Costs for Patients with Stroke in Taiwan

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摘要

Abstract

Background and Purpose— Past studies consistently show an inverse relationship between physicians' surgical procedures/diagnoses volume and cost. There is little information available on this aspect of stroke care. We used nationwide population-based data to explore the association between physician case volume and costs per discharge for patients with stroke.

Methods— Data on all 83 748 hospitalizations for stroke in 2004, treated by 3757 physicians in Taiwan, from Taiwan's National Health Insurance Research Database, was analyzed using hierarchical linear regression modeling to explore associations between costs per discharge and physician case volume (one to 44 cases=low volume, 44 to 135=medium volume, 136 cases=high volume) adjusting for patient's age, gender, comorbidities, and stroke type; hospital ownership, teaching status, and geographic region; and physician demographics.

Results— Unadjusted mean cost per discharge was highest for patients treated by low-volume physicians, at NT $79 993 compared with NT $78 588 for medium-volume physicians and NT $43 942 for high-volume physicians ($P<0.001$). Adjusted for patient, hospital, and physician variables, low-volume physicians had a mean case cost of NT $27 729 higher than high-volume physicians ($P=0.001$) and NT $7761 higher than medium-volume physicians ($P=0.027$).

Conclusions— Our data confirm an inverse volume-cost relationship for stroke care in Taiwan. After adjusting for patient, hospital, and physician characteristics, the potential cost savings if all patients were treated or supervised by high-volume physicians could be 41.0% of the mean treatment cost incurred by low-volume physicians.