# Factors of Prolonged Hospital Stay in Acute Stroke – A Mission of Stroke Care Unit in Taiwan

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Stroke, the leading cause of neurological death, is also one of the causes of prolonged hospital stay (PHS) in Taiwan. Except chronic disability, stroke imposed considerable physical and socioeconomic burden. Economic burden of stroke has direct, indirect and intangible components. The direct cost of stroke is largely determined by the length of initial hospital stay. The prolonged hospital stay (PHS) is associated with increased cost and is related to complications such as nosocomial infections, immobility, pressure sores, deep vein thrombosis and other conditions. Using Taiwan's National Health Institute medical claims data, Lee et al examined the magnitude and associated factors for PHS in acute stroke[1]. The results showed that there was 10.4% with PHS, but they accounted for 38.9% of the total person-hospital days and 47.8% of the total in-hospital medical expenses. PHS was significantly related to surgical operation, physical dependency, infections, speech/swallowing disorders, female gender, stroke types, number of comorbidities, and aging. The authors concluded that an organized, multidisciplinary team work should be established early in patients with acute stroke to reduce the functional disability, prevent complications and decrease the PHS.

It is mandatory that establishment of an integrated and affordable stroke unit in the hospital may be a policy priority to improving the acute stroke care in Taiwan. Recently, the National Institute of Health is encouraging the establishment of the stroke center in most of the teaching hospitals in Taiwan. But does it have the same meaning for stroke center and stroke care unit? Stroke center is only a mark of the hospital and stroke care unit is a designated ward area in the hospital where a dedicated multidisciplinary stroke care team focuses its expertise. There may be enough stroke expertise in a stroke center but they may put the acute stroke cases in the general wards with conventional care. Evans et al showed that differences in management and complications between the stroke unit and general wards differ, even when specialist support is provided[2]. There was more favorable outcome seen in patients on stroke units than those on general wards[3,4,5]. It has been shown that stroke care units (SCU) provide improved patient outcomes reducing mortality and morbidity by about 20% compared with conventional care[6]. SCUs are cost-effective and provide information important to policymakers concerned with stroke care in the hospital and associated resource allocation decisions[7].

There was no any data mentioning the SCU in Lee's report. They had a result of unexplained inversely increasing PHS in the medical centers in Taipei region where might have more SCU services[1]. They had con-

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cluded that the important mission was to establish the stroke team for acute stroke care in the hospital. So it was recommended that more data about the acute stroke care of SCUs in the teaching hospitals of Taiwan should be recruited in the future studies, hopefully from the data bank of Taiwan Stroke Registry.

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