# 腦血管病變住院病患直接醫療費用之相關因子探討

# The Impact Fators of Direct Medical Costs for Hospitalized Stroke Patients


## 中文摘要

腦血管疾病除佔台灣十大死因之第三位外，其所衍生之各種醫療相關支出亦造成患者及社會相當沉重的負擔。本研究旨在了解與比較腦血管病變在不同診斷別、病人特性、醫院特性、醫師特性及診療處置項目，其住院直接醫療費用之比率及差異性，並預測影響腦中風住院醫療成本之因子，期望本研究能協助未來健保局作合理之成本控制及醫療資源有效的分配。

本研究屬次級資料分析研究，依 2004 年財團法人國家衛生研究院全民健康保險學術研究資料庫之主診斷碼 ICD-9-CM 登錄為 430、431、434、436、437 之 83860 位腦血管病變病患為研究樣本，並以其中之醫事機構資料檔、專科醫師證書主檔、住院醫療費用清單明細檔及住院醫療費用醫令清單明細檔為主要資料來源。資料分析方法採 T-test、One-way ANOVA 及 Stepwise regression 迴歸分析。

本研究結果發現在不同診斷別、不同病患特性、不同醫院特性及不同醫師特性均會影響腦血管病變住院病患直接醫療費用及達統計上之顯著差異（$p < .0001$）。在住院直接醫療費用方面，以病房費為最高。本研究亦發現在疾病診斷別、病患特性、醫院特性及醫師特性均為影響住院直接醫療費用之變項（$R2= .63$, $p < .0001$），而其中以住院日數為最主要影響直接醫療費用之因子（$R2= .48$）。

本研究結果將可提供醫療決策者在制定醫療衛生政策時，能依據不同病患、醫院特性及醫師特性作合理之健保給付及醫療資源分配。

## 英文摘要

Stroke is not only the third leading cause of death in Taiwan, but also costly and burden to patients and the society. The purposes of this study were to understand and compare the differences in medical costs and ratios among different diagnoses, patient characteristics, hospital characteristics, doctor characteristics, and treatments and to predict the impact factors of direct medical costs for hospitalized stroke. The findings of this study can assist the National Health Insurance to control the medical expenses and to allocate resources effectively in the future.

The study was secondary analysis using existing data from the Taiwan National Health Insurance Research Database (NHIRD) in 2004. Study subjects were identified from the NHIRD by a principal diagnosis of stroke (ICD-9-CM codes 430, 431, 434, 436, 437) and only included inpatient medical benefits claims. As a result, a total of 83,860 cases was included in the study. Data were analyzed using T-test, One-way

ANOVA, and Stepwise regression analysis.

The results indicated that there was a significant difference between different diagnosis, patient characteristics, hospital characteristics, doctor characteristics, and treatments and direct medical costs ($p< .0001$). The costs of hospitalization were found as the highest costs compared to other cost variables. Stepwise regression analysis showed that different diagnosis,

patient characteristics, hospital characteristics, doctor characteristics, and treatment were found significantly associated with direct medical costs ($R2= .63$, $p< .0001$). Of these, length of hospital stay (LOS) was found the most statistically significant ($R2= .48$).

This findings of this study can provide as references to national health policy in decision-making and in resource allocations in accordance with different patients, hospital characteristics, and doctor characteristics.