

Relationships between Length of Stay and Hospital Characteristics under the Case-Payment System in Taiwan: Using Data for Vaginal Delivery Patients

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Abstract

BACKGROUND: Case payment has been implemented since the beginning of Taiwan's National Health Insurance Program in 1995. This study selected patients undergoing a vaginal delivery to explore the relationships between maternal length of stay (LOS) and hospital characteristics under the case-payment system in Taiwan. **METHODS:** The National Health Insurance Research Database of 1999 from Taiwan's National Health Research Institutes was used in this study. In total, 5456 patients who underwent a vaginal delivery in 1999 meeting the selection criteria were drawn from the database. A multiple regression analysis was performed in which LOS was regressed against the variables of hospital level, hospital location, hospital ownership, and teaching status. **RESULTS:** The regression model indicated that hospital level, hospital ownership, and hospital location were significantly related to LOS after adjustment for patient age, principal procedure, and the presence of a secondary diagnosis. The LOS for patients undergoing a vaginal delivery in private hospitals was shorter than those in public and non-profit proprietary hospitals. Patients admitted to medical centers or regional hospitals were more likely to have a longer mean LOS in comparison with their counterparts admitted to district hospitals. The LOS for patients hospitalized in northern Taiwan tended to be significantly longer on average than those in central and southern Taiwan. **CONCLUSIONS:** This study demonstrates that wide variations in LOS exist among hospitals in Taiwan under the case-payment system. It is recommended that the Bureau of the National Health Insurance develop a national system to monitor certain hospitals that have an unusually short LOS.