

Obesity Inpatients in Taiwan: Characteristics and Medical Utilization Factors During 2005-2008

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Abstract

Purposes: This study was designed to identify obesity inpatient characteristics related to medical utilization and factors related to inpatient medical cost. **Methods:** This research used Taiwan National Health Insurance data on “inpatient expenditures by admissions (DD)” and “registry for contracted medical facilities (HOSB)” for the years 2005 through 2008. Researchers analyzed data using SPSS 18.0 software and defined obesity cases using ICD-9-CM N Code 278, 278.0, 278.00, 278.01 and 278.1. **Results:** Obese hospitalization cases identified included 7,814 cases, 3,542 and 4,272 of which were male and female (45.4% and 54.6%), respectively. Case ages averaged 39 years; had an average of 2.74 other diseases; had average medical expenditures of NT\$54,139; and had average hospital stays of 9.24 days. Most cases (male 44.7%, female 47.7%) received treatment at regional hospitals. The largest number of cases was registered in the surgery department, followed by cardiology, internal medicine, pediatrics, orthopedics and endocrinology. The most common chronic diseases diagnosed included hypertension ($n = 2,397$), diabetes ($n = 1,829$), hyperlipidemia ($n = 1,293$), and peripheral cardiovascular disease ($n = 576$). Factors found using multivariate logistic regression as associated with higher medical expenditures included being female (male: $OR = .751$), being an adult (18-30 years: $OR = 2.318$, 31-44 years: $OR = 1.943$, 45-64 years: $OR = 1.555$, over 65 years: $OR = 1.447$), having a catastrophic illness ($OR = 4.985$), seeking treatment at a medical center ($OR = 1.376$), registration in the surgery department ($OR = 4.741$), orthopedics department registration ($OR = 2.516$) or digestion surgical department ($OR = 4.824$), high number of co-morbidities ($OR = 1.221-2.414$), and surgeries, operations or treatments ($OR = 6.399$). The explanation of the overall model was 50.6%. **Conclusions:** This study found gender, age group, catastrophic illness, hospital type, medical department, hypertension, number of co-morbidities and surgeries, operations or treatments as factors significantly associated with medical utilization. Average medical costs for cases registered for surgery were higher, especially in the general surgery and digestive surgery departments. More co-morbidities associated positively with medical costs. The future prevalence of chronic diseases may rise due to the increased prevalence of obesity, which can be expected to affect medical utilization costs. Therefore, it is important to explore effective preventive strategies for high-risk groups, especially hypertension.

Key words: Obesity, medical utilization, national health insurance database.

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