EVALUATING THE BENEFITS WITH TELECARE AMONG RESIDENTS IN NURSING HOMES IN TAIWAN

Hsieh SC1, Chang WY1, Huang KC1, Hsiao J2, Chen SC3, Hung ST1, Tang CH1
1Taichung Medical University, Taipai, Taiwan; 2Hsiao-Chung-Cheng-Hospital, Taipai, Taiwan; 3Taipei County Hospital, Taipai, Taiwan.

OBJECTIVES: The skyrocketing cost of health care is a crucial issue in Taiwan. This study aimed to evaluate a demonstrative project launched in 2008 whether a telecare management program (T-Care) via internet-based medical tele-consulting, tele-physiological monitoring and health education services, could reduce medical utilization by patients with chronic cardiovascular disease or diabetes mellitus.

METHODS: Study subjects were 102 patients residing in two nursing homes located in Keelung City and Taipai County, Taiwan. These residents received telecare management services from a district hospital in Taipai County during 2008. National Health Insurance (NHI) claims data in 2007 and 2008 were gathered on medical utilization. The pre- and post-intervention effects were examined by comparing monthly utilization on inpatient care, outpatient care, emergency rooms care using Two-Part models. Unscheduled medical services were defined as utilization of emergency care or inpatient care.

RESULTS: Significant decreases were found in the monthly probability of seeking any outpatient visit (92.1 vs. 85.6, P = 0.0035), but decrease in the monthly probability of seeking any emergency care or any inpatient care were not significant. For users of each type of care, decreases in number of monthly hospitalizations (1.13 vs. 1.10, P = 0.0097) and number of monthly emergency room visits (1.25 vs. 1.11, P = 0.0547) were found, but decreases in outpatient visits was not significant. Decreases in the total unscheduled NHI resource costs were found (14,548 vs. 14,403). The estimated total annual savings from unscheduled medical services for the study subjects were estimated to be NT$177,627/US$ = 31.91 NTS in 2008.

CONCLUSIONS: T-Care may reduce medical costs in patients residing in the nursing homes with reduced rates of readmission to the hospital. Larger clinical trials with larger sample size and controls are warranted to determine the benefits of the T-care.

THE IMPACT OF METABOLIC SYNDROME ON QUALITY OF LIFE AND RESOURCE USE IN CHINA AND THE UNITED STATES

DiBonaventura MD1, Liu GC2, Wagner JS1, Stankus A3
1Kantar Health, New York, NY, USA; 2Peking University, Beijing, China; 3Kantar Health, Princeton, NJ, USA.

OBJECTIVES: The objective of this study was to better understand the health outcomes of patients with metabolic syndrome in China and the United States.

METHODS: This study utilized data from two large, cross-sectional, Internet-based surveys: the 2009 US and 2009 China National Health and Wellness Surveys (NHWS). Patients were defined as having metabolic syndrome if they met three of the following conditions: having a body mass index greater or equal to 30, a diagnosis of high cholesterol, hypertension, or diabetes. Patients who met these criteria were then compared those with who did not (controls) on health-related quality of life (physical component summary (PCS) scores of the SF-12v2), the number of emergency room visits (ER) visits in the last 6 months, and the number of hospitalizations in the last 6 months, controlling for demographics (country, age, gender, ethnicity, income, education) and patient characteristics (BMI and Charlson comorbidity index).

RESULTS: A total of 133,687 patients (13.6%) in the United States and 79 patients (0.01%) in China were classified as having metabolic syndrome. After controlling for demographics and patient characteristics, those with metabolic syndrome reported significantly lower levels of PCS relative to controls (Madj = 43.4 vs. 48.0, P < 0.0001). This effect was maintained among those in the United States and across both countries, controlling for patients reported significantly more ER visits than metabolic syndrome patients (β = 0.01, P = 0.02). However, this effect was largely due to the effect observed in the United States. Metabolic syndrome patients reported significantly more ER visits than controls in China (Madj = 4.12 vs. 0.41, P < 0.0001). CONCLUSIONS: While patients in the United States were more likely to have metabolic syndrome relative to China, quality of life effects were similar in the two countries and there was a significantly greater disparity in ER visits between metabolic syndrome patients and controls in China than the United States.

PATTERN OF LIPID MODIFYING AGENTS PRESCRIPTION AMONG CLUSTERS OF PHYSICIAN IN A THAI TEACHING HOSPITAL, FISCAL YEAR 2009

Kamjanon S, Ongkhodhpanikul P, Pattanaprapus O
Ramathibodi Hospital, Mahidol University, Bangkok, Thailand.

OBJECTIVES: Lipid modifying agents (7.63% of total drug expenditure in 2009) were prescribed by several specialists in a Thai teaching hospital. Cluster analysis was applied to group prescribing physicians by drug clusters. Pattern of behavior among clusters were studied. METHODS: Data of drugs in Anatomical Therapeutic Chemical class C10 (lipid modifying agents) were retrieved from a hospital database, and unidentified physician records (1758 from 205,964) were deleted. Drug cost for each prescribing physician was the summation of C10 drug issued multiplied by unit cost at selling price. Drug costs for each physician were then grouped by hierarchically clustered. Pattern of prescribed drug among clusters was analyzed after classifying lipid lowering agents into four types i.e., brand statins, brand non-statin, generic statins, and generic non-statin. RESULTS: Prescribing physicians were grouped into 4 clusters; one gynecologist in the first; two internists in the second; four internists, one family medicine doctor, one gynecologist in the third and the rest in the fourth cluster. Pattern of C10 drugs was 76.2% brand statins, 19.1% brand non-statin, 3.3% generic statins, and 1.4% non-statin. In the first cluster, 97.3% of the 13.3 million Baht was from brand statins. For the second cluster, 91.5 and 9.8 million Baht was each prescribed by two doctors with 65.7% from brand statins and 32.2% from brand non-statin. Distribution of drug type in the third cluster was similar to that in the fourth. However, average drug expenditure was higher in the third cluster than the fourth (6.11 million vs. 4.14 million Baht) via internet-based. PATTERNS of prescribing behavior of lipid modifying agents can be identified through cluster analysis of prescription database. The result can be helpful for the further study of factors accountable for marked deviation from common patterns.