

scored less than 40 points in Barthel index, 35 patients (16.7%) recorded over 20 seconds in the timed up and go test, and 32 patients (15.2%) scored more than 4 points in GDS.

**Conclusions:** A multi-disciplinary (geriatric specialist, pharmacists, psychiatrists, physical and occupational therapists, nutritionists, social workers) team was need for complete geriatric assessment.

#### **P050**

##### **Analysis of a Cooperative Physician-Pharmacist Medication Therapy Management Service in Elderly Patients with Polypharmacy**

**Lin, Chih-Hsueh**<sup>1,2</sup>, Lin, Hsiang-Wen<sup>3</sup> Yu, I-Wen<sup>3</sup> Chang, Chin-Kan<sup>4</sup> Wu, Hsi-Chin<sup>5</sup> Hung, Jui Sung<sup>6</sup> Lin, Cheng-Chieh<sup>1</sup>

<sup>1</sup> Department Of FamilyMedicine, China Medical University Hospital; <sup>2</sup> PHD programe for aging, China Medical University; <sup>3</sup> Department of Pharmacy, China Medical University Hospital; <sup>4</sup> Department of rehabilitation, China Medical University Hospital; <sup>5</sup> Department of urology, China Medical University Hospital; <sup>6</sup> Department of cardiology, China Medical University Hospital

**Background:** The elderly are more susceptible to adverse outcomes due to aging, the potentials of multiple chronic illnesses, inappropriate polypharmacy and poor adherence to treatment. Given assessing and managing polypharmacy in the elderly patients can be an overwhelming task, it is important for health professionals and caregivers to understand the risks and benefits associated with medication use in elderly patients. It is also crucial to develop a cooperative physician-pharmacist (PP) model to facilitate appropriate medication use in the elderly. The primary goal of this project is to establish a cooperative PP medication therapy management (MTM) model for polypharmacy in the elderly.

**Methods:** A randomized, controlled intervention study was designed and implemented to recruit the elderly patients who were frequent health care users, possessed multiple chronic illnesses, and were polypharmacy. While patients in PP-MTM group received intensive, continuous, cooperative care and follow-up assessment for one year, the patients in the usual care (UC) group only received follow-up assessment for one year. The main assessment outcomes were health care utilization.

**Results:** Up to March 31st, 2010, 178 elderly patients in two groups were recruited, whereas 1,200 potential patients were approached to solicit

their intention of participation. Males were predominant (61.8%) and their mean age was 78.2±6.0 year-old. Eighty-seven patients were in the PP-MTM group, and 91 in the UC group. Except that the PP-MTM group had a higher proportion of diabetics than the UC group (46% vs 25%;  $p < 0.05$ ) at baseline, there were no statistically significant differences in age, sex, and chronic diseases between two groups. Over a one-year period up to December 31, 2010, the cost savings to the health system were NT\$3,183,814 in the PP-MTM group compared to the UC group.

**Conclusions:** Our study demonstrates that patients receiving PP-MTM service experienced lower total health expenditures. Further analysis is needed to assess the effect of PP-MTM services on clinical and humanistic outcomes.

#### **P051**

##### **Effects of Tele-Rehabilitation on Sitting Pressure Distribution in Subjects with Stroke**

**Lin, Kwan-Hwa**<sup>1</sup>, Tsai, Ren-Jei<sup>1, 2</sup> Chang, Yuan-Jen<sup>3</sup> Chen, Chin-Hsing<sup>4</sup> Yu, Shang-Ming<sup>5</sup>

<sup>1</sup> School And Graduate Institute Of Physical Therapy, National Taiwan University; <sup>2</sup> Cardinal Tien Hospital, New Taipei, Taiwan; <sup>3</sup> Institute of Biomedical Engineering and Material Science, Central Taiwan University of Science and Technology, Taichung, Taiwan.; <sup>4</sup> Management Information Systems, Central Taiwan University of Science and Technology, Taichung, Taiwan.; <sup>5</sup> Department of Nursing, Central Taiwan University of Science and Technology, Taichung, Taiwan

**Purpose:** The purpose of this study was to investigate the effects of telerehabilitation on pressure distribution in post-stroke residents living in long-term care facilities (LTCF).

**Methods:** Sixteen participants diagnosed as chronic stroke patients were recruited from LTCF and were randomly allocated into a telerehabilitation group (Tele) (n=8) and a control (Cont) group (n=8). Participants received 4 weeks telerehabilitation and conventional balance training respectively in each group (3 sessions/week, 40 minutes/session), and the pressure distribution was assessed before (pre-) and after intervention (post). The static sitting pressure distribution during 20 seconds static sitting was assessed by using a force-measuring plate (FDM-S, zebris Medical GmbH, Germany). Wilcoxon Rank test and Mann-Whitney U test were used to determine the significance of the differences between pre-post training and between groups, respectively. The alpha level was set at 0.05.