

“A prospective study of cognitive, nutritional, and functional decline associated with hospitalization in older Taiwanese patient”

PI: Cheryl Chia-Hui Chen (National Taiwan University)

Role: Co-principal investigator

National Science Council of Taiwan: 08/01/2005-07/31/2006

Numerous studies have shown that most markers of cognition, nutrition, and function deteriorate steadily during hospitalization and such deteriorations significantly affect clinical outcomes. Cognitive, nutritional, and functional decline as a result of hospitalization is common, dynamic, and costly in both economic and human terms. It, however, is not an evitable outcome of acute illness and aging. The aim of this one-year prospective study is to examine the independent and interactive effects of acute illness on the course and magnitude of cognitive, nutritional, and functional decline in older Taiwanese patients.

Specifically, two research questions will be answered: 1) What is the course and trajectory of cognitive, nutritional, and functional status longitudinally; before discharge, 3 month post index hospitalization, and 6 months post index hospitalization? 2) What is the impact of personal physical factors (demographics, comorbidities, medication, oral health, and baseline cognitive, nutritional and functional status), psychosocial factors (presence of social support and depressive symptoms), and treatment-related factors (cost of care, length of stay, admission diagnosis, NPO days, and feeding factors) in predicting the occurrence and magnitude of cognitive, nutritional, and functional decline over six-month of follow-up?

Based on the power analysis, an estimation of 200 hospitalized patients aged 65 years and older will be recruited consecutively from four randomly selected medical/surgical units in a 2500-bed tertiary medical center. Face-to-face assessments will be conducted with standardized measures by trained research nurses in three data collection points. Subjects with severe cognitive impairment will be excluded, since the study design involves use of self-reported questions. Scoring less than 20 in the Chinese Mini-Mental State Exam (MMSE) at baseline will meet this exclusion criterion.

Data will be analyzed by the SAS statistical package version 8. Data will be checked for completeness prior to entry and double-entered to ensure the accuracy. Due to the exploratory nature of the study, test statistics significant at $p \leq 0.05$ will be reported. Descriptive, logistic regression, and repeated measure analysis will be performed to

answer these raised research questions. The findings will serve as an evidence base in developing the target intervention aims to prevent the cognitive, nutritional, and functional decline in older Taiwanese patients.

Key words: Aged, Hospitalization, Cognitive Status, Nutritional Status, Functional Status