FACTORS RELATED TO LONGER HOSPITAL STAY AFTER FIRST-EVER ISCHEMIC STROKE

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OBJECTIVES: To assess factors influencing acute hospitalization for patients with first-ever ischemic stroke in Taiwan.

METHODS: Data were prospectively collected from 360 first-ever ischemic stroke patients consecutively admitted to a medical center within 48 hours after symptom onset. Longer stay was defined as length of stay (LOS) >7 days after admission in department of neurology for acute care. The association between demographic characteristics or clinical variables and LOS was examined using multivariate logistic regression analysis. Discrimination of the model was assessed by the area under the curve (receiver operating characteristic curve), and calibration was assessed using goodness of fit test. RESULTS: Patients (58% male) had mean age 64.9±12.7 years (range, 18 to 93) years. Median National Institutes of Health Stroke Scale (NIHSS) score at admission was 6 (25th to 75th percentile, 3 to 12), median modified Barthel Index (MBI); on a scale of 0 to 20) at admission was 12 (25th to 75th percentile, 5 to 16). The LOS was >7 days in 169 (47%) patients. Male sex (odds ratio [OR], 1.7; 95% CI, 1.0 to 2.8), baseline NIHSS score ≥15 (versus 0–6) (OR, 2.9; 95% CI, 1.5 to 5.7), baseline NIHSS score ≥16 (versus 0–6) (OR, 3.1; 95% CI, 1.3 to 7.4), baseline MBI ≥12 (OR, 0.5; 95% CI, 0.3 to 1.0), and small vessel occlusive subtype (OR, 0.35; 95% CI, 0.2 to 0.6) were independent predictors of longer stay. Goodness-of-fit test (Hosmer-Lemeshow test) was not significant (P = 0.49), indicating adequate fitness. The model’s discrimination was adequate with an under the curve area (receiver operating characteristic curve) of 0.776. CONCLUSIONS: The impact of stroke severity need to be understood to manager LOS. Early supported discharge planning would probably reduce the LOS in acute hospitalization of this group of first-ever ischemic stroke patients.

DO PATIENTS WITH ATRIAL FIBRILLATION RECEIVE APPROPRIATE STROKE PREVENTION THERAPY IN PRACTICE?

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OBJECTIVES: Clinical practice guidelines and several clinical trials support the use of warfarin for stroke prevention in most patients with atrial fibrillation (AF). Warfarin should not be used in cases where contraindications exist or the risk of stroke is low. It is not clear what proportion of are there patients at risk of stroke and without contraindications do not receive warfarin in practice. METHODS: A MEDLINE search was conducted (1966–2001) using the MeSH terms anticoagulants, AF, warfarin and cerebrovascular disorder (prevention and control). Practice-based studies reporting the proportion of patients eligible to receive warfarin (i.e., no contraindications to thromboprophylaxis and at moderate or high risk of stroke) who actually received warfarin for stroke prevention in AF were retrieved. RESULTS: Twenty-one practice-based studies were found, of which 3 were excluded because the patient population or centre/setting significantly varied from the other identified studies. Approximately 47–89% of patients enrolled in the remaining 18 studies were eligible for stroke prevention. Only 15–64% of eligible patients received warfarin and 15–56% did not receive any form of stroke prevention therapy at all (i.e., no warfarin or antiplatelet agent). CONCLUSIONS: Despite the publication of multiple clinical trials and practice guidelines supporting the use of warfarin for stroke prevention in AF, many eligible patients do not receive appropriate preventive therapy, and therefore remain at increased risk of stroke. Reasons for the sub-optimal use of warfarin for stroke prevention in AF require further research.

MANDARIN VERSION OF STROKE IMPACT SCALE: ADAPTATION AND VALIDATION

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OBJECTIVES: To assess the properties of the Mandarin version of the Stoke Impact Scale (SIS) versions 3.0, developed by Pamela W. Duncan et al. METHODS: The SIS, a stroke-specific outcome measure, assesses 8 domains: strength (4 items), memory (7 items), emotion (9 items), communication (7 items), activities of daily living/instrumental activities of daily living (ADL/IADL) (10 items), mobility (9 items), hand function (5 items), and participation (8 items). SIS was translated and back-translated
THE METHODOLOGY BEHIND A PROSPECTIVE, OBSERVATIONAL STUDY OF THE ECONOMIC BURDEN OF ISCHEMIC STROKE

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OBJECTIVES: To present steps involved in launching the first national, prospective study determining resource utilization and direct (hospitalization, rehabilitation, outpatient, community care) and indirect (lost productivity, caregiver) costs of managing ischemic stroke in the first 6-months post-stroke.

METHODS: A prospective, observational study was designed. A cohort (N = 200) of ischemic stroke patients will be recruited in a consensive manner by stroke centres across Canada. Ethics approvals will be obtained and a minimum of one neurologist and one study coordinator per centre will participate to identify eligible patients, obtain informed consent, and interview patients. Three sets of questionnaires (baseline, 3-months, and 6-months) will be completed. Questionnaires include clinical and drug histories, stroke severity, disability, resource utilization, depression and utility. Patients will also complete diaries to quantify indirect costs. A pilot study will be conducted to evaluate the study tools. Data collected will be entered electronically via a secure website. RESULTS: Ten stroke centres across Canada (Ottawa, Toronto, Calgary, Montreal, Quebec City, Edmonton, Vancouver, Halifax, Saint John and Thunder Bay) will each recruit 20 eligible ischemic stroke patients into this study. Inclusion criteria such as age, language, neuroimaging evidence and non-interventional clinical trial involvement have been defined in order for the study to be launched on September 26, 2005 (with a 3-month recruitment period) and end July 2006. The primary analysis will provide an overall estimate of costs per ischemic stroke patient. Sub-analyses for atrial fibrillation and severity will also be conducted. CONCLUSIONS: The BURST study will be the first Canadian study that will determine the resource utilization and overall costs of treating ischemic stroke in both acute and post-acute settings with participation from tertiary-based and community-based stroke centres. The economic data collected will be critical for future stroke care funding systems.

THE USE OF MULTI-CRITERIA DECISION METHODS IN HEALTH CARE. WHICH METHOD IS MOST SUITABLE FOR HEALTHY AND COGNITIVELY IMPAIRED POPULATION?

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OBJECTIVES: To select the best multi-criteria decision making method for use with cognitively impaired patients. Population. A convenience sample of 28 subjects, 12 healthy and 16 cognitively impaired. METHODS: Based on a literature review, 5 multicriteria methods were chosen for comparison: Kepner-tregoe analysis (KTA), simple multi attribute rating technique (SMART), SMART using swing weights (SWING), Analytic Hierarchy Process (AHP) and Conjoint Analysis (CA). Four attributes of treatment were identified (impact, duration, and end-result of treatment and associated risks). Subjects were asked to rank and rate the importance of these attributes with each method. The order of methods was randomized and the total length of the interview was restricted to one hour. Some subjects therefore did not use all methods. Subjects were interviewed either once (n = 14) or twice (n = 14). RESULTS: The highest percentages of rank reversals were found between CA and other methods (55–62%). The lowest percentage of rank reversals was between KTA and SMART (18%). The percentage of rank reversals was significantly higher in impaired population (An average of 54% compared to 36% in unimpaired population). When comparing actual weights, AHP and SMART correlate highly with all other methods except CA. CONCLUSIONS: The high percentages of rank reversals and low correlation between this method and other. Also, the design of the survey might have influenced CA weights and ranking.