

## APPENDIX SI

### METHODS

A concurrent study was conducted to translate the Short Form Health Survey (SF-36) into Chinese. The first step was forward and backward translation conducted by two certified bilingual (English-Chinese) translators. The translated Chinese version underwent content review by an expert panel composed of 3 medical doctors and 6 rehabilitation therapists. All panel members had prior experience in carrying out validation of clinical assessments. The results of the panel review suggested changes to the following categories: "bowling or playing golf" was replaced with "brisk walking" (快步走, kuai bu zou); "several hundred yards" and "one hundred yards" were replaced with "1,000 m" (1000米, 1000 mi) and "100 m" (100米, 100 mi); "full of life," "down in the dumps," and "downhearted and depressed" were replaced with "enrichment" (生活充实, sheng huo chong shi), "very bad mood" (情绪非常不好, qing xu fei chang bu hao), and "low in mood" (情绪低落, qing xu di luo), respectively. All changes made to the original English version were based on the cultural relevance and familiarity of each term/descriptor among Chinese patients in mainland China who will use this assessment.

A field study was conducted on administering the Chinese version of the SF-36 to 377 post-stroke patients. These patients (35.5 % female) had a mean age of 60.8 years (SD 10.9) with a mean duration of 44.0 days since the first onset of stroke (SD 19.1). Re-testing was conducted a week later on 75 post-stroke patients randomly selected from those who participated

in the first test. Results of explorative factor analysis revealed an 8-factor solution (72.6% of total variance) which was comparable to the original English version. A forced two-factor solution indicated clustering of categories around the 8 factors comparable to those classified under physical and mental factors (61.3% of total variance). The internal consistency using Cronbach's  $\alpha$  ranged from 0.78 to 0.97 for 5 subscales, except 0.32 for general health, 0.67 for vitality, and 0.56 for social function. The relatively high internal consistency indices for the 5 factors yielded from this study were comparable to those reported for the English original version (S1, S2) and the moderate internal consistency indices for the 3 factors (general health, vitality, and social function) were comparable to those reported for the Taiwanese version of the SF-36 for stroke survivors (S3). Test-retest reliability using intra-class correlation was 0.67 to 0.88 for the 8 factor scores and 0.86 for the total score. Given the socio-cultural context of Chinese patients, the Chinese SF-36 has proven to be feasible for usage in China's clinical settings.

### SUPPLEMENTARY REFERENCES

- S1. Ware JJE. SF-36 health survey update. *Spine* 2000; 25: 3130–3139.
- S2. Jenkinson C, Stewart-Brown S, Petersen S, Paice C. Assessment of the SF-36 Version 2 in the United Kingdom. *J Epidemiol Commun H* 1999; 53: 46–50.
- S3. Lotus Shyu Y, Lu JR, Chen S. Psychometric testing of the SF-36 Taiwan version on older stroke patients. *J Clin Nurs* 2009; 18: 1451–1459.