ENHANCE-ASU: a program to enhance utilization of Acute Stroke Unit
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Introduction
Meta-analysis shows that patients being managed in Acute Stroke Unit (ASU) have lower stroke-related morbidity and mortality irrespective of stroke subtypes, age and stroke severity. ASU has been established in North District Hospital since March 2003 and has bed capacity of 12. In the past, stroke patients were directly admitted to ASU through Emergency Department only. However, many patients suffering from stroke were not admitted to ASU because of uncertainty in diagnosis of stroke and misdiagnosis. Those patients were mainly admitted to medical wards. According to statistics in 2010, the proportion of patients ever treated in NDH-ASU (one of the key performance index of stroke in Hospital Authority) was around 40% only compared with 64% in overall HA hospitals.

Objectives
This program (ENHANCE-ASU) aims at increasing the proportion of patients ever treated in NDH-ASU by utilizing ASU bed efficiently.

Methodology
ENHANCE-ASU has been implemented in NDH since June 2011. For patients admitted to medical wards because of acute stroke, doctors can write down “book ASU bed” on progress note. Then, medical ward nurses can contact ASU nurses by phone to book ASU bed. ASU nurse coordinators will contact medical ward nurses for patient transfer when ASU bed available. A stroke nurse has been available in NDH since Oct 2012 who screens patients in medical wards and suitable stroke patients are transferred to ASU. A pre-test and post-test design was performed to compare the outcome (proportion of patients ever treated in ASU). Study period was selected from Jan 2010 to May 2011 and Oct 2011 to Dec 2012 because ASU was temporarily closed between late Aug 2011 and early Sept 2011 because of ward renovation.

Result
From Jan 2010 to May 2011 (before ENHANCE-ASU), the mean monthly proportion of patients ever treated in ASU was only 38.3% (range: 24-50%). Between Oct 2011 and Dec 2012 (after ENHANCE-ASU), the mean monthly proportion of patients ever treated in ASU increased significantly to 50% (range: 43-57%). (t-test, p value <
Conclusion: Implementation of ENHANCE-ASU demonstrated significant increase in the proportion of patients ever treated in ASU.