

# Service Priorities and Programmes Electronic Presentations

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#### Effective screening tool to predict hospital readmission

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#### Introduction

An effective discharge planning system in reducing avoidable hospital readmission is important to improve patient's health and enhance the function of healthcare system. An effective screening tool to predict hospital readmission is one of the important components in the discharge planning system.

## **Objectives**

The purpose of this study was to develop and evaluate the screening tool to be used at the acute admission phase including the identification of "at risk" patients for hospital readmission and comprehensive post-discharge support.

#### Methodology

The pilot study of screening tool which was developed from a systematic literature review and expert conference was conducted from Feb to Mar 2012. On the basis of literature review and expert conference, 7 screening items were identified as potential determinants of readmission: (1) Change of Activity of Daily Living, (2) Ambulatory Category, (3) Mental/Emotional, (4) Fall Risk, (5) Medications, (6) Social Support, and (7) Care Support and they was incorporated into standard Hospital Authority Initial Assessment form to be tested its applicability and impact on clinical management in 4 medical wards of Queen Elizabeth Hospital. Any one of seven screening items was hit would be identified as "high risk" for readmission and post-discharge support. The medical record review by doctors and nurses would be used as a gold standard to validate the screening tool.

#### Result

The screening tool was applied in a total of 484 patients during the study period. We randomly selected 100 patient medical records for the review but 3 medical records were not available during the review period; therefore, 97 patient medical records were reviewed. Three medical doctors and three nurses were invited to be reviewers to examine the appropriateness of filling the screening tool, completeness of screening form, and whether it was the high risk readmission case. The reviews showed that the appropriateness in filling 7 items in the screening tool was in a range of 70.1% to 92.8% whereas the completeness was in a range of 77.3% to 89.7%.

Among 97 medical records, 85 patients aged > 60. Screening tool identified 42.4% (36/85) as "high risk" readmission case while 27.1% (23/85) was identified as "high risk" with HARRPE score ≥0.2. The findings showed that seven screening items could be successful in identifying "high risk" readmission case which was important component of effective discharge planning and planning post-discharge support at the acute phase of admission.