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#### Conference Abstract

## Applications for the iPad in an Integrated Care and Discharge Support Programme for older patients in Hong Kong

Elsie Hui

Joyce SW Leung

Rosanna KM Wong

Louis YK Tse

Maria WS Tang

Philip KT Li

Correspondence to: Elsie Hui, Hong Kong, E-mail: huie @ha.org.hk

### **Abstract**

Introduction: the Integrated Care and Discharge Support (ICDS) Programme was introduced in January 2011, targeting older patients discharged from acute medical wards in a major teaching hospital in the north-eastern part of Hong Kong. The catchment area has a population 0.7 million, of which 11% or 77,000 are aged over 65 years. A statistical model that predicts the early (28-day) unplanned readmission rate in older patients is applied daily to all acute medical admissions. Those predicted to have > 20% chance of readmission will be assessed by a Link Nurse who will formulate discharge plans and assign services accordingly to individual patients' needs. These include case management, community nursing, home and personal care provided by social services and rehabilitation at the Geriatric Day Hospital. The above services are not mutually exclusive, and patients will spend on average 8 weeks in the ICDS programme. Patients with a moderate predicted risk of readmission of 30 to 40% will be offered 8 one-hour home visits by a Case Manager, who will provide comprehensive assessment, education focusing on chronic disease management and carer training.

**Objective:** A pilot study was conducted to examine the use of iPad in the ICDS in 2 of the major components of the programme: discharge planning and case management. Assessment items were standardized and patient recruitment and follow-up attendances were recorded in an electronic health record. For the case managers, additional education material focusing on chronic disease management was loaded on to the iPads.

**Methodology:** iPads were issued to the Link Nurses and Case Managers with preloaded electronic health records (e-forms) specially designed for the ICDS programme. The Link Nurse was responsible for opening newly recruited case files and conducting a comprehensive needs assessment. Case Managers documented home visits using templates designed for generic use

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as well as special chronic diseases, such as diabetes, chronic obstructive airways disease and heart failure.

The programme recorded the number of visits made and finally the closure of the case after about 8 weeks. The data was saved to the Hong Kong Hospital Authority's (HKHA) Clinical Management System which contained the complete health record, and could be accessed instantly by other authorized users, mainly healthcare professionals. Administrators could access the records to monitor outcomes such as unplanned readmission and healthcare utilization. An additional application of the iPad during home visits was for patient education, carer training and provision of resource materials, e.g. catalogues.

**Results:** The average time required to complete a Discharge Planning or Home Visit record was 15 minutes. To date, 2000 cases have successfully completed the ICDS programme with their clinical notes documented using the e-forms. The plan is to extend the pilot to another hospital in the region, and later across the whole of Hong Kong.

**Conclusion:** The use of standardized electronic forms on the iPad is a feasible means for improving the quality and efficiency of documentation and patient care in an integrated care model targeting high risk elderly patients recently discharged from hospital.

### **Keywords:**

ipad, electronic health record, discharge support, older patients

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