



Service Priorities and Programmes
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Submitting author: Miss Wing Ki POON

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Patient Monitoring and Scheduling System (PMS) – Enhancing patient care and work efficiency

Poon WK, Yau CY, Poon WF, Lau M, Yue SY

Department of Occupational Therapy, Shatin Hospital

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Introduction

The Patient Monitoring and Scheduling System (PMS) was developed and launched to in-patient rehabilitation in Occupational Therapy Department (OTD) of Shatin Hospital (SH) in 2015. In 2017, the enhancement of PMS was extended to Geriatric Day Hospital (GDH) of SH. New functions include: (1) Prescribed activities and precautions are retrieved by scanning patient barcodes instead of using conventional paper activity cards. (2) A complete facelift demonstrates a clear patient profile of attendance, treatments and vital sign records. (3) Simplified barcode scanning workflow enhances efficiency of daily operation. (4) Patient's time slots are organized by PMS, which saves time by eliminating redundant steps with traditional names tags. (5) Therapist could assign patients to therapeutic groups through PMS. Therapeutic group statistics could be retrieved by PMS instead of manual counting.

Objectives

To compare the effect on quality and safety in patient care and work efficiency of staff by using PMS and traditional practice

Methodology

To evaluate quality and safety in patient care, data was collected for 3 months in using traditional method while another set of data was retrieved from PMS database. For evaluating staff efficiency, the operational time and steps were compared before and after the implementation of PMS. Five parameters were evaluated: (1) Accuracy of treatment delivery (2) Compliance of infection control and fall preventive measures (3) Efficacy of barcode scanning system (4) Efficiency of filing and clerical work (5) Efficiency of statistical analysis of therapeutic groups

Result

(1) Treatment accuracy improved from 97% to 100% in treatment delivery (2) In traditional practice, compliance of infection control measures was 77% and that of applying fall preventive measures was 73%. With PMS, compliances of taking those measures improved to 97% and 100% respectively (3) Number of transactions in barcode scanning during treatment was reduced by 25% (4) Operation time for filing

and clerical work was reduced from 45 mins to 30 mins (33%) (5) Retrieval of therapeutic group statistics reduced from 105 mins to 10 mins (90%) when compare with manual counting Apart from the effectiveness of PMS in enhancing accuracy, safety and efficiency in patient care, it also simplified workflow and improved efficiency of non-clinical operation.