



## Service Priorities and Programmes Electronic Presentations

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### **Multi-Dose Medication (MDM) Management Service Model in Residential Care Homes for the Elderly (RCHE): A Novel Automated Application in Hong Kong**

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#### **Introduction**

Multi-Dose Medication (MDM) Management refers to the use of automated drug dispensing and packaging machines to prepare multi-dose packs on the oral medications for patients according to their sequential times of administration. Studies indicated that the integration of MDM and Visiting Pharmacist Service (VPS) reduces medication related problems and eliminates errors associated with manual drug picking procedures. However, despite the affirmative influence on the both the efficiency and safety aspects by the Visiting Pharmacist coupled with the application of MDM service in the medication packing process and the electronic capturing of the drug administration process, the entire concept is still inchoate in Asia.

#### **Objectives**

1. To adopt an automated drug management system at RCHE to streamline the dispensing process
2. To minimize human errors in such a complicated manual drug management process
3. To improve drug safety of the RCHE residents especially those at risk such as memory impaired residents or patients with polypharmacy

#### **Methodology**

The Hong Kong Pharmaceutical Care Foundation (HKPCF) launched a pilot run of VPS management service model since 2010, and the electronic MDM drug administration process since 2015 to safeguard patient safety and drug management accuracy for RCHE in Hong Kong as an integrated operation model to ensure the appropriate medication use and medication safety at transitions of healthcare services. During the visits, the Visiting Pharmacist will assume the professional responsibility to

review the medication profiles for all Residents in the RCHEs, perform medication reconciliation, update and check Residents' medication records, supervise all medication related matters, identify possible causes leading to drug incidents to ensure that the Residents' medication profile is complete and appropriate so as to eliminate drug duplication or any unintended or inappropriate dosages leading to drug interactions and incidents.

### **Result**

Together with the MDM which is further supported by mobile device for electronic drug administration capturing and recording, the efficiency and accuracies of drug administration rounds would be further improved in the drug administration process by the health care workers in the RCHE. The initiative aims at providing a safe, efficient and sustainable automated medication management solution for the ageing population in Hong Kong along the continuum of care. With improvement of RCHE drug safety issues, it is expected the drug-related untoward events and medical admissions would be reduced, thereby alleviating the in-patient burden of the HA hospitals.

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