Ensuring the accuracy of handling dangerous drugs and enhancing the efficiency of stocktaking by implementing a stocktake hand-over and storage systems in Princess Margaret Hospital Pharmacy

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Introduction
"Dangerous Drugs" refers to drugs or substances specified in Part I of the First Schedule of Dangerous Drugs Ordinance (Cap. 134). A stocktake hand-over system and transparent individual cabinets for DD storage was introduced in September 2012 to (1) ensure the accuracy and efficiency on handling DD (2) provide a clean and tidy storage environment and (3) strengthen the security level of DD storage.

Objectives
Following two years of implementation of the two systems in handling DD, this study evaluated the outcomes on the efficiency of stocktake counting and the impact of storage environment.

Methodology
Since September 2012, each DD item was stored in individual cabinets made of transparent acrylic materials and each cabinet was locked with tamper proof plastic seal. For every movement of DD from or into the cabinet, the pharmacist would record the transaction on a real-time log sheet, break the seal of its corresponding cabinet and ensure the accuracy of drug dispensing by matching the balance of the stock against the log-sheet. Cabinets with broken seals would be counterchecked by pharmacists during handover between two shifts. After handover, the involved cabinets were locked again with plastic seals. Each morning the balance of the log-sheet would be checked against the Dangerous Drugs Register to further ensure the correctness.

Result
With the use of individual transparent acrylic cabinets to clearly segregate different DD, and implementation of the handover system and real-time log sheet, the chance of misplacing DD dropped to zero and the accuracy of handling DD was ensured. The tidiness of the environment for storing DD was also greatly improved to facilitate quick identification of DD. As a result, efficiency in drug dispensing and stocktaking improved. It was calculated that the time spent on performing monthly stocktake of all DD items decreased dramatically by 61% from 90 minutes to 35 minutes. In conclusion, the newly designed DD stocktake hand-over and storage systems enhanced the accuracy of DD handling, provided a secure and tidy storage environment for DD and also improved the efficiency of DD stock counting.