Competency Assessment of Pharmacy Staff on Handling Manual Outpatient Prescriptions & Dosage Mapping in United Christian Hospital

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Introduction
With the implementation of MOE in outpatient setting, pharmacy can automatically retrieve MOE prescriptions in the dispensing system, which minimizes transcription. Nevertheless, manual outpatient prescriptions are occasionally used and transcription of prescriptions is required. Dosage mapping of complicated MOE orders also have to be performed manually by pharmacy staff. Dispensing incidents involving wrong transcription and wrong dosage mapping are not uncommon. Competency of pharmacy staff on handling manual prescriptions and dosage mapping is crucial in preventing such incidents.

Objectives
To assess the competency of pharmacy staff in handling manual prescriptions & dosage mapping; to evaluate the results of the assessment & identify the areas of improvement

Methodology
A competency assessment was designed by two pharmacists responsible for medication safety. The key assessed areas included dosages involving multiple strengths & frequencies, step-up or down regimen, weekly dosing, manual calculation of dispensed quantity and dissolution of solid dosage form for small dose. Dispensers were required to transcribe 10 prescription orders to the dispensing system, while pharmacists and senior dispensers were required to check 20 prescription orders. Competency of a staff was classified into expert, advanced, intermediate, novice and fundamental awareness if he/she attained ≥90%, 89 – 80%, 79 – 70%, 69 – 60% & <60% respectively. Questions with <70% of candidates answered correctly were analyzed.

Result
The assessment was conducted over 4 weeks with participation from 40 dispensers, 8 senior dispensers and 34 pharmacists. Among the dispensers, 70%, 17.5%, 10% and 2.5% were considered as expert, advanced, intermediate and fundamental awareness respectively. Among the pharmacists and senior dispensers, 40.5%,
42.9%, 14.3% and 2.4% were expert, advanced, intermediate and novice respectively. After analyzing the results, areas of improvement were identified. They were: 1. strengthening the handling of complicated orders; 2. reinforcing the alignment of in-house dispensing practice; 3. reviewing and updating the in-house guideline of dissolution of solid dosage form; 4. providing additional training on dosage mapping to dispensers; 5. updating the list of look-alike medications and warning codes; and 6. improving the accuracy in calculating dispensed quantity. To conclude, the assessment was able to evaluate the competency of pharmacy staff on handling manual outpatient prescriptions and dosage mapping. It was also useful to identify the areas of improvement.