

Pharmacist-Nursing Collaboration During Medication Administration Rounds

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Background

In KK Women's and Children's Hospital (KKH), pharmacists often receive phone calls regarding drug administration-related queries from nurses. While the passive intervention of pharmacists ensures patient safety, medication errors might have occurred undetected.

This pharmacy-nursing collaboration in medication administration rounds (MAR) was initiated to foster greater understanding between nurses and pharmacists, and to explore if the presence of a pharmacist during medication administration round will help improve patient care and safety.

Objectives

- 1. To evaluate the impact of pharmacist-nursing collaboration during MAR on patient-care, thereby improving patient safety through active intervention during medication administration.
- 2. To identify knowledge deficits, constraints and drug-related issues faced by nurses during MAR.
- 3. To gather nurses' feedback on the pharmacist-nursing collaboration in order to improve on future collaboration.

Methods

Pharmacists were assigned to participate in nursing MAR of 3 different wards for a month. Any interventions, near-misses or questions answered during the rounds were documented. Questionnaires were used prior to and post study to evaluate the nurses' perspectives and expectations of pharmacists during the rounds.

Results

Table 1: Number of interventions done by pharmacists

Ward	No. of intervention	No. of round- days	No. of intervention/day
55	5	21	0.23/day
56	8	22	0.36/day
43	41	22	1.86/day
Total	54	-	0.81/ward/day

As shown in table 1, there was an average of 0.81 pharmacistinitiated interventions per day per ward, with the most frequent (24/52, 44%) interventions pertaining to drug administration before or after food.

- In addition, a total of 53 queries from nurses were documented, with 12 queries related to determining the appropriate time interval between administering medications.
- 94% of the respondents (n=18/19) reported that pharmacists were knowledgeable, able to answer questions and provide constructive feedback.

- 77% (n=24/31) believed that the collaboration has developed their knowledge regarding drug use via educating on medication administration, indications and side effects of various medications, as well as screening of drug interactions.
- Overall, the collaboration between nurses and pharmacist was favorable one. Majority (n=22/31, 71%) of the nurses surveyed after the study felt that the pharmacist-nursing collaboration during MAR had met their expectations.



- Checking of dosage and route of administration of medications
- Educating and provision of drug information
- Resolving drug related queries or problems

Discussion

- Food-drug interactions and time interval needed between 2 medications were the 2 most common queries encountered.
- Nurses have also highlighted for greater presence of pharmacists in the wards, either by staying longer during medication administration rounds or to be stationed permanently in the wards.
- The presence of a pharmacist in addition to two nurses during MAR raises questions whether the role of a pharmacist is fully utilized in this setting, as a ward pharmacist is assigned to each ward daily to evaluate the appropriateness of the patient's medication management.
- Suggestions for future work:
 - Interventions collated from this project can spearhead teaching sessions to educate nurses on medications as well as to provide immediate feedback on areas of improvement.
 - Duration of the MAR can be collated to assist the assessment of cost-effectiveness of the MAR.

Conclusion

Pharmacists' participation during MAR had a positive impact on patient care. Majority of nurses were in favor of the pharmacist-nursing collaboration. However, practical issues such as manpower allocation and the cost-effectiveness of this collaboration need to be evaluated before routine implementation.

Acknowledgments:

- All KKH Pharmacists and ward 55, 56 and 43 staff nurses who participated in the MAR
- Sister Ng Chiew Mei and Staff Nurse Chow Poh Kit who contributed their input for the questionnaires
- Ms Oh Ching Ching for her guidance in the study

