

The Impact of a Dedicated Pharmacist to a Rehabilitation & Progressive Care Unit

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CSHP 2015 Objective 1.3: In 90% of hospitals, pharmacists manage medication therapy for inpatients with complex and high-risk medication regimens in collaboration with other members of the healthcare team.

Background: The role of clinical pharmacists in optimizing inpatients' use of medications has been well-recognized. North York General Hospital (NYGH) is a 336-bed community teaching hospital in Ontario. Similar to many other hospitals, clinical pharmacy services has not been allocated to all care areas due to limited resources. Of the sixteen inpatient care units at NYGH, one or more designated clinical pharmacists was assigned to twelve of these units. One unassigned area, was a 32-bed Rehabilitation/Progressive Care Unit (RPCU) where pharmacist service was provided as on demand basis via a pager. The RPCU was designed for patients who were in transition between an acute medical or surgical unit and an alternate level care facility. The patients in this unit have a mean age of 81 and the unit has the second highest number of dispensed doses of medications. The typical condition of the patients in the RPCU included post stroke, post orthopaedic surgery, chronic cardiac or pulmonary disease, diabetes, mood disorder and/ or cognitive impairment. By the nature of the advanced age and comorbidities of the patient population, all patients were deemed to be on complex and high-risk medication regimens warranting medication therapy management by a pharmacist. The hospital management performs periodic evaluation to identify areas where the quality, safety and efficiency of patient care can be improved. The RPCU was identified by the pharmacy leadership group where management of medication therapy by a designated pharmacist would be beneficial. Subsequently, a clinical pharmacist was assigned to the RPCU to assess the unit's operation and to design and implement strategies to help improve patient care.

Objective: To assess the impact on patient care of the RPCU by having a designated pharmacist assigned to the unit, who fully integrated the role to the patient-centered healthcare team model.

Methods: A 0.5 full-time equivalent pharmacist was assigned to the RPCU. Medication therapy management was undertaken for all patients, using the pharmaceutical care model. Additionally, the pharmacist was to assess the needs of the patients and invite suggestions from the healthcare team in order to tailor various clinical activities and initiatives to address their needs.

Results: In April 2012, the pharmacist assigned to RPCU started by attending the daily multidisciplinary rounds. The rounds provided opportunities for other healthcare team members to interact with the pharmacist and facilitate the identification of medication related issues. Along with a thorough medication review being conducted systematically for all patients within 4 days of transfer to the unit, many significant interventions were made to improve on patient care.

Two areas were identified where a pharmacist's systematic assessment and interventions could significantly impact patients' outcomes. The first area was in reducing unnecessary medication use in the RPCU patients. Minimizing unnecessary medications should help improve patient's safety, adherence, and reduce healthcare cost. A literature review was conducted to help design a process of assessing and identifying unnecessary drug therapy. In addition, the pharmacist worked closely with the physicians to resolve these drug therapy problems (DTPs).

Evaluation of the interventions related to reduction of medications performed during a 1-month period showed that the pharmacist was able to assess 85% of the 34 patients who were transferred to the RPCU. Twenty-five unnecessary or inappropriate drug therapies were identified in 8 (27.6 %) patients. The average time between identification and resolution of DTPs was 0.52 days. Ninety-two percent of the pharmacist's recommendations were accepted by the physicians. Interventions by the pharmacist resulted in fifteen drug orders being discontinued. Common classes of drugs identified to be unnecessary included anticoagulants, analgesics, replacement agents, psychotropic agents and anti-infective agents.

The second area identified was improving influenza vaccination rates. A pharmacist-led process of systematically screening patients was developed with the assistance of the infectious disease pharmacy practitioner. A check-list for screening eligible patients and thorough staff education were in place to ensure the team's endorsement on this initiative. In order to facilitate the process, the pharmacist performed the initial screening. The vaccination history was obtained as part of the patient interview performed at the time of transfer to the unit. For patients who were not vaccinated, education on the benefit of vaccination was provided prior to obtaining consent. A suggest order was then placed by the pharmacist after the consent had been obtained. When the pharmacist was not on duty, the nurses would facilitate consent from patients or their family. The pharmacist would follow up the next day with placing the required orders.

During a 2.5-month period 86 patients were screened. Of these, 49 patients were eligible for vaccination, 44 of which consented to receiving the vaccine. This represents a vaccine acceptance rate of 89% of all eligible patients. The initiative resulted in a more than five time increase in ordered and administered influenza vaccines, from 8 orders versus the 44 orders, on the unit compared to the same period prior to the initiative. Given the success of the vaccination pilot, the screening process was extended to the rest of the hospital as a pharmacist-driven initiative.

The integration of the pharmacist to the healthcare team on the RPCU had led to an increase in cross-disciplinary educational opportunities. Nursing educational sessions were provided more frequently on identified topics. The pharmacist was also included in an interprofessional education (IPE) submission titled "Caring for patients with Behavioural & Psychological symptoms of Dementia: An IPE Approach". The submission was accepted to represent the hospital at the University Health Network Centre for Interprofessional Education conference.

Conclusion: Increasing the extent of pharmacist coverage to RPCU at NYGH has clearly improved the management of drug therapies for patients with complex regimens in this unit. More specifically, there is a significant reduction in unnecessary medication use and an increased in influenza vaccination rate. Furthermore, the pharmacist role as an integrated member of the RPCU healthcare team has led to a more collaborative approach to patient care.