Healthcare Innovations
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The Impact of a Pharmacist in the Gynaecology Pre-admission Clinic

Authors & Affiliations
Eloise Glover [1], Stephanie Hoy [1], Noor Al-Adhami [1], Narlean Towner [2]
1.RBWH Pharmacy Dept.,
2.RBWH Gynaecology Outpatient Dept.

Background
The preadmission clinic (PAC) pharmacist provides a paramount service to improve opportunities for safe medication prescribing. By taking a medication history as early as the PAC, the pharmacist can provide a clear plan for medications in the peri-operative period and reduce time taken by both medical and pharmacy staff to address medication-related interventions upon hospital admission. The Royal Brisbane and Women's Hospital (RBWH) Gynecology PAC currently functions without a dedicated pharmacist. Aiming to test feasibility for a dedicated PAC pharmacist, the authors conducted a pilot observational study on the impact made on time and number of interventions by a PAC pharmacist in this busy metropolitan tertiary outpatient department.

Method
This was a pilot single-centre prospective observational audit conducted between February 23rd to March 16th 2021 (3 weeks) at the RBWH. The cohort included female adult patients (age ≥ 18 years old) attending the Gynaecology outpatient department PAC prior to elective surgical admission. We excluded ward patients who did not have an elective surgery performed, and PAC patients who were not deemed high risk as per the triage tool used. The control group were patients not seen by a pharmacist during their PAC appointment. The intervention group were patients seen by a pharmacist during or before their PAC appointment. Both patient groups were reviewed by a ward pharmacist upon hospital admission. The PAC pharmacist identified high-risk patients to review in clinic using a triage tool. A full medication/allergy history, identification of any medication-related issues and interventions made (risk-rated as low, moderate, and high), and time taken to perform these tasks in PAC and the ward were documented for each patient. Descriptive statistics were used to compare findings between the two groups.

Results
A total of 25 patients were included, 7 of which were previously seen by the pharmacist in PAC (intervention group), and 18 patients were not (control group). A total of 33 interventions were made on the ward in the control group vs 16 in the intervention group. Fewer high-risk interventions were made on the ward if patients had been seen previously by PAC pharmacist (67 % high-risk interventions made in the control group vs 41 % in the intervention group) (see figure 1 and 2).

Interventions Made (risk-rated) - Intervention Group

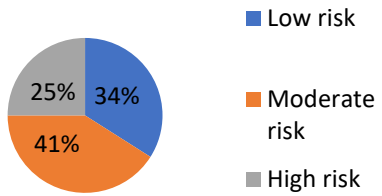

Figure 1

Interventions Made (risk-rated) - Control Group

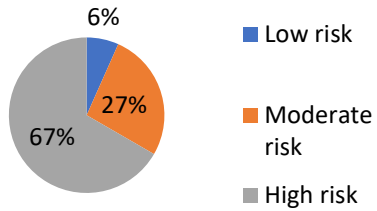

Figure 2

The mean time taken for the PAC pharmacist to review patients in clinic was 29 minutes. The mean time taken for the ward pharmacist to complete medication activities was 20 minutes in the control group vs 5 minutes in the intervention group (see figure 3).

Conclusions
The authors' findings support the notion that a dedicated PAC pharmacist in the RBWH Gynecology Outpatient Department provides benefits in patient safety by minimizing the number *and* severity of medication-related errors. There have been a total of 16 surgery cancellations for Gynecology patients at the RBWH in the past 12 months. Of these, 25% of cancellations were due to medications not being appropriately withheld prior to surgery. By placing a dedicated pharmacist in the Gynecology PAC these unwanted surgery cancellations may have been prevented.

This pro-active approach to healthcare not only provides patient safety benefits, but this study has also shown a significant time-saving benefit for the ward pharmacist, and a presumed reduction in time spent by medical and nursing staff addressing medication-related issues in both the PAC and ward settings.

This pilot study achieves its intention of providing proof of principle but is statistically underpowered. A larger study spanning over months to a year would likely find a significant difference in number of high-risk interventions made on the ward due to early capture in the PAC, as well as the money and man-hours saved by the PAC pharmacist. Another future prospect, although beyond the scope of this study, is considering allowing the PAC pharmacist to undertake prescribing credentialing to assist with prescribing of medications on the inpatient chart at the PAC appointment, further reducing workload for medical officers.

Average time taken (min) for ward pharmacist to complete medication-related activities

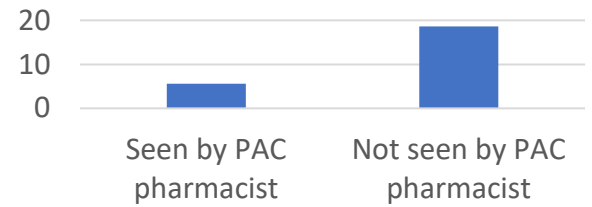

Figure 3

Testimonial
A staff satisfaction survey conducted after the study also showed the pharmacy service was well received by other PAC staff, with comments including; "(the) pharmacy input has significantly helped with patient safety in regard to medications and plans regarding ceasing medications prior to theatre" and "It would be extremely beneficial for implementation of a regular pharmacist in PAC. Cannot recommend enough!"