

## THE IMPACT OF A CLINIC BASED PHARMACIST ON PRESCRIBING PRACTICE IN A TRANSPLANT OUTPATIENT DEPARTMENT

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**PROBLEM:** A clinic-based pharmacist was recently introduced to the Oxford Transplant Centre out-patient department to facilitate the introduction of a medication home delivery service. The pharmacist is available throughout clinic for advice, to conduct medication reviews, and to screen clinically all home delivery prescriptions. The pharmacist has access to the patient, medical notes and laboratory results. There has been no formal assessment of the impact of such a service on prescribing practice and how this compares to the previous practice of prescriptions being clinically screened in the hospital pharmacy where there is limited access to patients and other resources.

**PURPOSE:** To investigate the impact of a clinic-based pharmacist on medication prescribing in the Oxford Transplant Centre out-patient department and how this compared to the traditional dispensary-based service.

**DESIGN:** All prescribing interventions made within clinic over a 4-month period were monitored and recorded. This allowed the majority of patients (85%) attending the clinic to be seen at least once by the pharmacist. Details recorded included; prescriber, nature of intervention, pharmacological category involved, brief description of intervention. Each item was categorised according to which stage of the screening process the intervention would first have been made. These four stages were: a) with just the prescription; b) with the medical notes; c) with laboratory results; d) with the patient present. The interventions were stratified in terms of clinical significance by a multidisciplinary panel.

**FINDINGS:** There were 2289 consultations between a patient and a prescriber. The pharmacist saw 630 different patients in 972 consultations. There was a large number (592) of pharmacist-initiated interventions including the prevention of 317 prescribing errors; 41% of consultations led to at least one pharmacist initiated intervention. The multidisciplinary panel classified 77% of interventions as clinically significant (minor = 20%, moderate = 49%, severe = 8%). A dispensary-based pharmacist would have identified only 5% of the clinically significant interventions. Clinically significant interventions were less likely to occur following a prescription from a consultant than any other group. Twenty-three percent of interventions related to a drug being prescribed without a dose (141) and 14% (90) with an incorrect dose. Immunosuppression was the pharmacological class most frequently associated with an intervention (21%, n=125).

**CONCLUSION:** The introduction of a clinic-based pharmacist has led to a clinically significant improvement in prescribing practice and has contributed to the national target for a reduction in medication errors. During an average clinic, the pharmacist prevented 5 errors, initiated 4 other interventions, and responded to 4 questions.

**RELEVANCE:** A reduction in drug-related errors is a national target for the NHS. In transplant clinics, the medication is particularly complex and prone to error or sub-optimal practice, especially amongst inexperienced prescribers. Having a pharmacist in the clinic to review medication intercepted a large number of errors and led to other clinically significant interventions that would not have been possible in a hospital dispensary.