BACKGROUND
Anticoagulation clinics offering medicine use review (MUR) enable individualised patient assessment to check and balance drug-related problems (DRPs). Patients on warfarin are ideal candidates for MUR due to treatment complexity.1

RESULTS
• 100 patients (56 male, 44 female, mean age 70.5 ±10.30 years) and taking a mean of 6 ±2.76 medications daily were assessed.
• Forty patients had an INR result which was out-of-range.
• The mean score in the warfarin knowledge test improved from 7 out of 12 pre-intervention, to 10 out of 12 post-intervention (p<0.05).
• A significant improvement in adherence was observed post-intervention, where the number of patients non-adherent to warfarin decreased from 25 to 11 (p<0.05). The total of 481 DRPs (mean 4.57 ±1.83 DRPs/patient) were identified, of which 40% were related to warfarin treatment (Figure 1).

CONCLUSION
The pharmacist-led MUR improved patient knowledge, adherence to treatment and INR control. The high proportion of implemented pharmacist recommendations demonstrate the contribution of the pharmacist intervention towards improving therapeutic outcomes. The willingness of patients to attend pharmacist-led MUR when implemented indicates the confidence of patients in clinical services offered by community pharmacists.

OBJECTIVES
• To develop and evaluate the impact of a pharmacist-led MUR service for patients on warfarin
• To assess patient knowledge, adherence and INR control
• To evaluate patient perception of the proposed service

METHOD

Objectives

Research tools

Patient recruitment

MUR (Medication reconciliation)

Follow-up

Data analysis

PHARMACIST-LED MEDICINE USE REVIEW FOR PATIENTS ON ANTICOAGULATION THERAPY

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METHOD

• A pre- and post-intervention questionnaire and an ‘Anticoagulation and medication profile’ were developed.
• Psychometric evaluation using a two-round Delphi technique for validation and test-retest method for reliability was performed.
• Following ethics approval, 100 patients were recruited from 6 community pharmacies by convenience sampling.
• Patients were invited to attend for a MUR and a follow-up session.
• Pre-intervention questionnaire was completed as a semi-structured interview to assess patient anticoagulation knowledge, warfarin adherence and patient perception of the proposed service. INR testing was performed with the CoaguChek’XS point-of-care testing device.

Objectives

• The patient’s medical history and medication history were documented.
• Medication reconciliation was carried out to identify any DRPs.
• Each DRP was classified according to the DOCUMENT² system and a clinical intervention was recommended.
• Patients were re-assessed after 2 months.
• Post-intervention questionnaire was completed to assess impact of the pharmacist intervention.
• Medication reconciliation was carried out to determine the degree of implementation of the clinical pharmacist’s recommendations by the physician, community pharmacist and/or patient.
• The Rosendaal linear interpolation method³ was used to estimate the Time in Therapeutic Range (TTR) of each patient.
• IBM SPSS Statistics 24 was used to analyse the data collected pre- and post-intervention to assess the impact of the pharmacist intervention.

RESULTS

• Eighty-four percent of the clinical pharmacist researcher’s recommendations were accepted by the physician, community pharmacist or patient.
• Ninety patients were willing to start attending a pharmacist-led MUR clinic, if the service is implemented routinely.
• Time in therapeutic range increased significantly from 69% to 80% post-intervention (p<0.05).

CONCLUSION

The pharmacist-led MUR improved patient knowledge, adherence to treatment and INR control. The high proportion of implemented pharmacist recommendations demonstrate the contribution of the pharmacist intervention towards improving therapeutic outcomes. The willingness of patients to attend pharmacist-led MUR when implemented indicates the confidence of patients in clinical services offered by community pharmacists.

References

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