Pharmacist Discharge Intervention Programme to Reduce Unplanned Hospital Use in Patients with Polypharmacy

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Introduction
Polypharmacy, referring to use of 5 or more medications, is a predictor of hospital admission. It has been estimated that preventable drug-related admissions accounted for 3 - 9% of all admissions. Previous studies found that pharmacist interventions could reduce unplanned admissions.

Objectives
1. To explore the role of pharmacist in medication review and discharge counselling for patients with polypharmacy.
2. To reduce unplanned hospital use through regimen optimization, patient empowerment and enhancing drug compliance.

Methodology
Pharmacist Discharge Intervention Programme was initiated in a sub-acute hospital targeting patients with polypharmacy. The programme included prescription review, compliance assessment, regimen counselling and empowering patients or caregivers on disease management. Eligible patients discharged 11:30 to 17:00 from a medical ward were counselled and those beyond designated time were recruited into control group. Unplanned hospital use (including visits to accident and emergency unit (A&E), admissions via A&E and admissions via clinic) 30 days post-discharge was analyzed as primary outcome in all subjects and subgroups of elderly, patients with or without participation in Cardiac Rehabilitation Programme (CRP).
**Result**

In an 11-month period 226 planned discharge patients were recruited from a medical ward, with 99 patients assigned to counselling group and 127 to control group. In total 51 drug-related problems were identified, 33 were prescribing problems and 18 were problems regarding patient drug administration. Physicians were contacted with 64% of recommendations accepted. Advice on drug administration was given directly to patients or caregivers. Unplanned hospital use was reduced in counselled group. A&E visits and admissions via clinic were significantly reduced in all counselled subjects, and subgroups of elderly patients or patients not participating CRP, but not patients in CRP.

**Conclusion:**
Pharmacist Discharge Intervention Programme identified drug-related problems with interventions given to physicians, patients and caregivers. The service reduced unplanned admissions via clinic and visits to A&E, especially in elderly and patients not participating in local Cardiac Rehabilitation Programme.