

A RCT evaluating a pragmatic in-hospital service to increase the quality of discharge prescriptions

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Abstract

Objective: To improve discharge prescription quality and information transfer to improve posthospital care with a pragmatic in-hospital service.

Design: A single-centre, randomized controlled trial.

Setting: Internal medicine wards in a Swiss teaching hospital.

Participants: Adult patients discharged to their homes, 76 each in the intervention and control group.

Intervention: Medication reconciliation at discharge by a clinical pharmacist, a prescription check for formal flaws, interactions and missing therapy durations. Important information was annotated on the prescription.

Main Outcome Measures: At the time of medication dispensing, community pharmacy documented their pharmaceutical interventions when filling the prescription. A Poisson regression model was used to compare the number of interventions (primary outcome). The significance of the pharmaceutical interventions was categorized by the study team. Comparative analysis was used for the significance of interventions (secondary outcome).

Results: The community pharmacy staff performed 183 interventions in the control group, and 169 in the intervention group. The regression model revealed a relative risk for an intervention of 0.78 (95% CI 0.62–0.99, $p = 0.04$) in the intervention group. The rate of clinically significant interventions was lower in the intervention group than in the control group (72 of 169 (42%) vs. 108 of 183 (59%), $p < 0.01$), but more economically significant interventions were performed (98, 58% vs. 80, 44%, $p < 0.01$).

Conclusions: The pragmatic in-hospital service increased the quality of prescriptions. The intervention group had a lower risk for the need for pharmaceutical interventions, and clinically significant interventions were less frequent. Overall, our pragmatic approach showed promising results to optimize post-discharge care.

Published in : IJQHC (2019)

doi: 10.1093/intqhc/mzz043

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