# Transition of care: a set of pharmaceutical interventions improves hospital discharge prescriptions from an internal medicine ward

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## BACKGROUND

- Transitions between hospital and community setting can be a major issue and need improvements to ensure medication safety
- Discrepancies which happen after hospital discharge can lead to adverse medical events, increase the length of hospital stays or even lead to hospital readmissions
- Treatment changes occur for more than 95% of hospitalised patients, they can induce medication errors and decreases in medication safety

This study aimed to evaluate whether a set of pharmaceutical interventions to prepare hospital discharge, facilitates the transition of care, reduces interventions by community pharmacists and decreases the number of medication changes at different phases of the transition.

## METHODS

- **Where?** A 70-bed internal medicine department in a Swiss regional hospital
- **When?** October 2015 - March 2016 (6 months)
- **Who?** Control group: received usual care
  Intervention group : received a set of pharmaceutical interventions:
  - medication reconciliation at admission and discharge
  - medication review during hospital stay
  - patient education on discharge prescriptions
- **What?** The two groups were compared with regards to:
  - the number of community pharmacist interventions
  - the time spent by community pharmacists on hospital discharge prescriptions
  - the number of treatment changes during transition of care
  - the number of interventions per patient requiring phone calls to hospital physicians to clarify medication

## RESULTS

| | Control group | Intervention group | P-value |
|---|---|---|---|
| Number of patients | 64 | 54 | |
| Total number of interventions performed by community pharmacists on discharge prescriptions | 439 | 88 | |
| Number of interventions performed by community pharmacists per patient | 6.9 ± 3.5 | 1.6 ± 1.7 | < 0.0001 |
| Number of discharge prescriptions with no community pharmacist intervention | 0 | 14 | |
| Number of interventions on discharge prescriptions requiring a telephone call to the patient's hospital physician | 303 | 62 | |
| Number of interventions requiring a telephone call to the patient's hospital physician per patient (discharge prescription) | 4.8 ± 3.1 | 1.2 ± 1.4 | < 0.0001 |

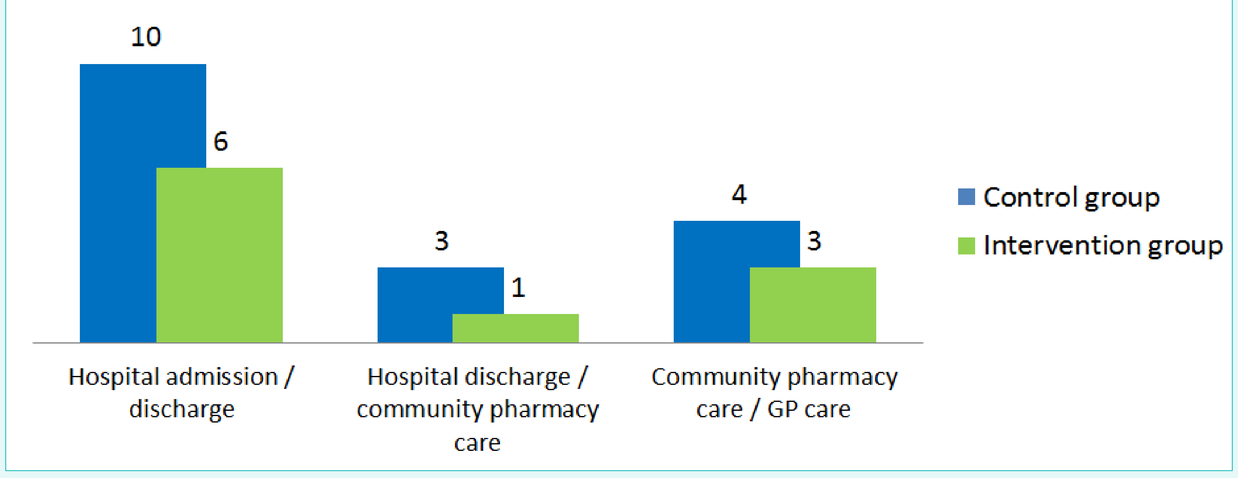


**Figure 1:** Number of treatment changes during transition of care

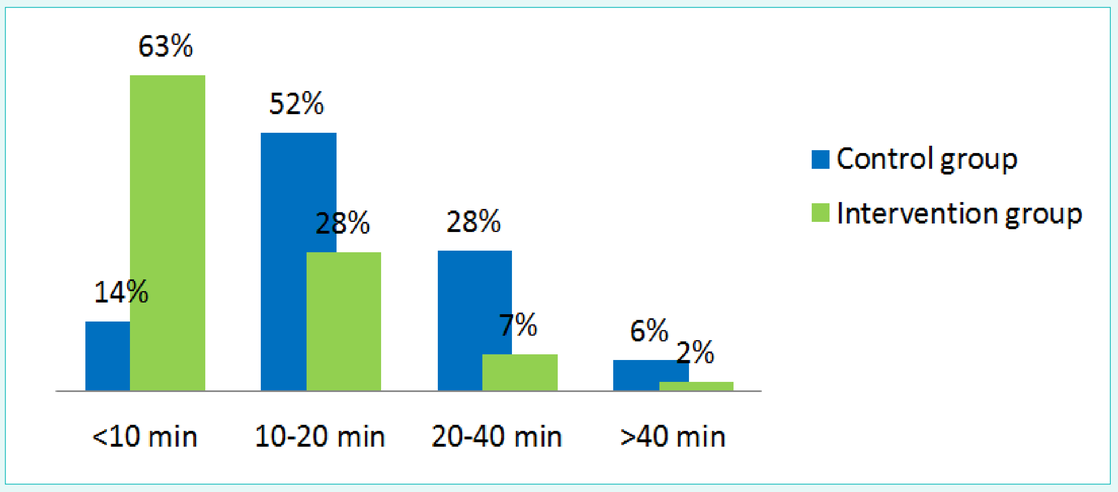


**Figure 2:** Time spent by community pharmacists dealing with discharge prescriptions

- **77% fewer interventions** from community pharmacists in the intervention versus the control group
- **75% fewer interventions** requiring telephone calls to patients' hospital physician in the intervention versus the control group
- **41% fewer medication changes** during transition of care in the intervention versus the control group

## CONCLUSIONS

- Pharmaceutical interventions carried out during a hospital stay and coordination between different healthcare professionals are significant elements in ensuring patients' medication safety
- Community pharmacists had to perform fewer interventions on discharge prescriptions after a set of pharmaceutical interventions performed during hospital stay
- Patients underwent significantly fewer medication changes in subsequent steps in the transition of care, thus improving continuity of care

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