

Effect of medication reconciliation at hospital admission on 30-day returns to hospital: a randomized clinical trial^a R-IPR-3



Ceschi A.^{1,2,3,4}, Nosedà R.¹, Pironi M.^{1,5}, Lazzeri N.^{1,5}, Eberhardt-Gianella O.^{1,5}, Imelli S.^{1,5}, Ghidossi S.^{1,5}, Bruni S.⁶, Pagnamenta A.^{2,7,8}, Ferrari P.^{3,9,10}

BACKGROUND

The aim of the study was to assess the impact of medication reconciliation (MedRec) at hospital admission on patient-centered health care outcomes.

PRIMARY OUTCOME

Composite post-discharge health care use (unplanned all-cause hospital readmissions and emergency department visits) within 30 days after discharge from the hospitalization.



METHODS

Parallel group, open-label, randomized controlled trial with centralized randomization

1702 patients included (720 ♂, 982 ♀)



836 Control

Standard physician-acquired medication history



866 Intervention

Best Possible Medication History (pharmacy assistant) + Medication Reconciliation (clinical pharmacist)

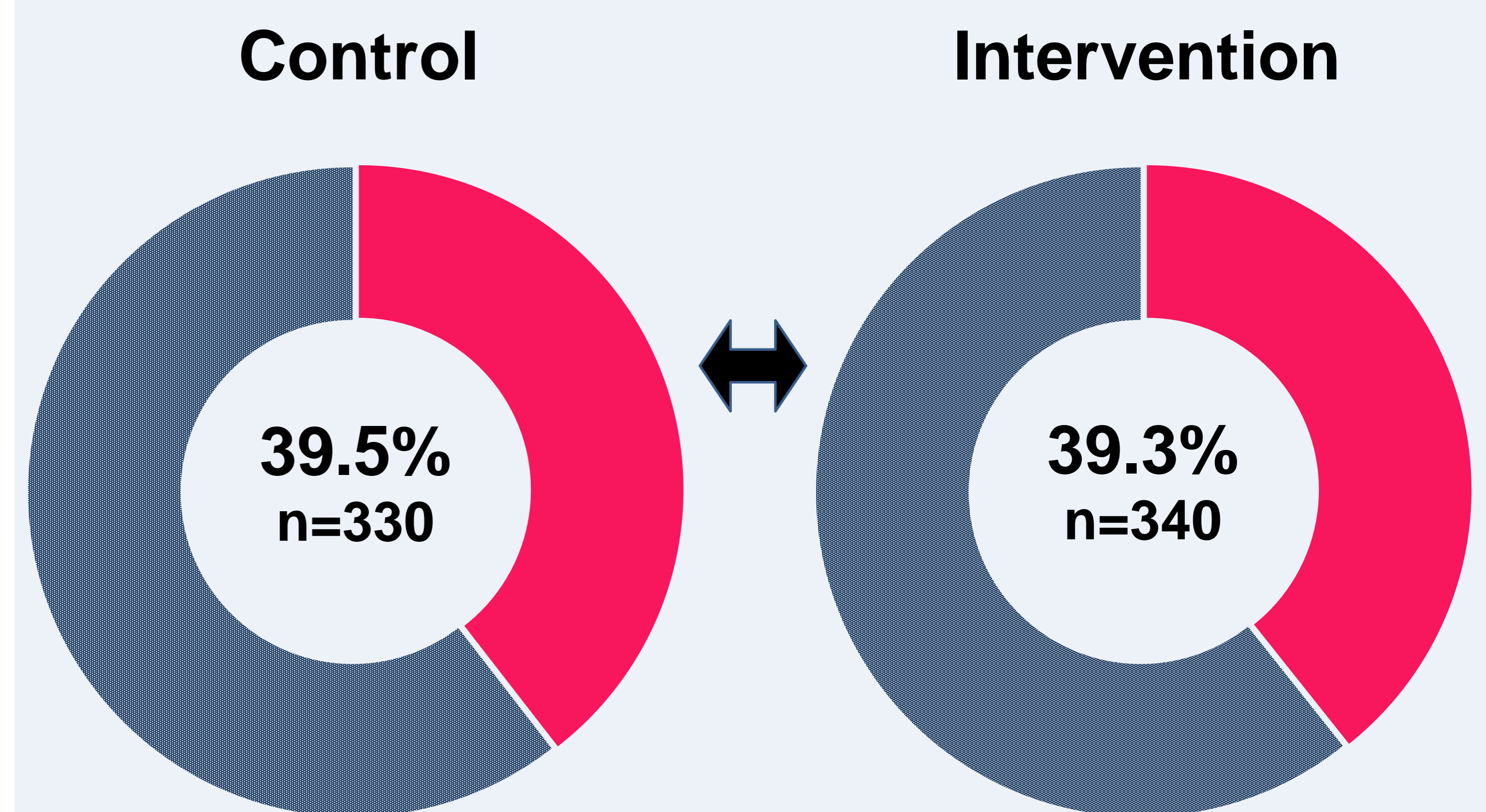
Population: Adults ≥ 85 years and/or with > 10 medications, median age **86 years** (IQR 79-89)

Duration: 14.5 months (Nov 2018 – Jan 2020)

Location: 2 regional teaching hospitals in Ticino

RESULTS

No statistically significant difference in unplanned all-cause hospital readmissions and emergency department visits



96% patients with ≥ 1 medication discrepancies

6.54 drug discrepancies/patient (min 0 – max 22)

Most frequent discrepancies: **drug omission** (68.3% patients in chronic treatment)

55 min (IQR 40-70) for MedRec

CONCLUSIONS

This study suggests that a structured MedRec at hospital admission had no impact on post-discharge health care use in the study population. The age and polymorbidity of the patients and the intervention limited only at admission might have played a role. Further studies in a different population and/or including MedRec at discharge are warranted to better understand the impact of MedRec in patient safety.

a. *JAMA Netw Open.* 2021 Sep 1;4(9):e2124672

1. Division of Clinical Pharmacology and Toxicology, Institute of Pharmacological Sciences of Southern Switzerland, Ente Ospedaliero Cantonale, CH, 2. Clinical Trial Unit, Ente Ospedaliero Cantonale, CH, 3. Faculty of Biomedical Sciences, Università della Svizzera italiana, CH, 4. Department of Clinical Pharmacology and Toxicology, University Hospital Zurich, CH, 5. Hospital Pharmacy Service, Institute of Pharmacological Sciences of Southern Switzerland, Ente Ospedaliero Cantonale, CH, 6. Department of Information and Communications Technology, Ente Ospedaliero Cantonale, CH, 7. Department of Intensive Care, Ente Ospedaliero Cantonale, CH, 8. Division of Pneumology, University of Geneva, CH, 9. Department of Nephrology, Ente Ospedaliero Cantonale, CH, 10. Prince of Wales Hospital Clinical School, University of New South Wales, Australia

