

Evaluation of methods measuring medication adherence in patients with polypharmacy

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Introduction

- Accurate measurement of medication adherence remains a major challenge in research and clinical practice, despite different methods being available.
- No gold standard for the evaluation of medication adherence is available.
- The best strategy enabling the measurement of medication adherence in patients with polypharmacy is a combined use of at least two evaluation methods.

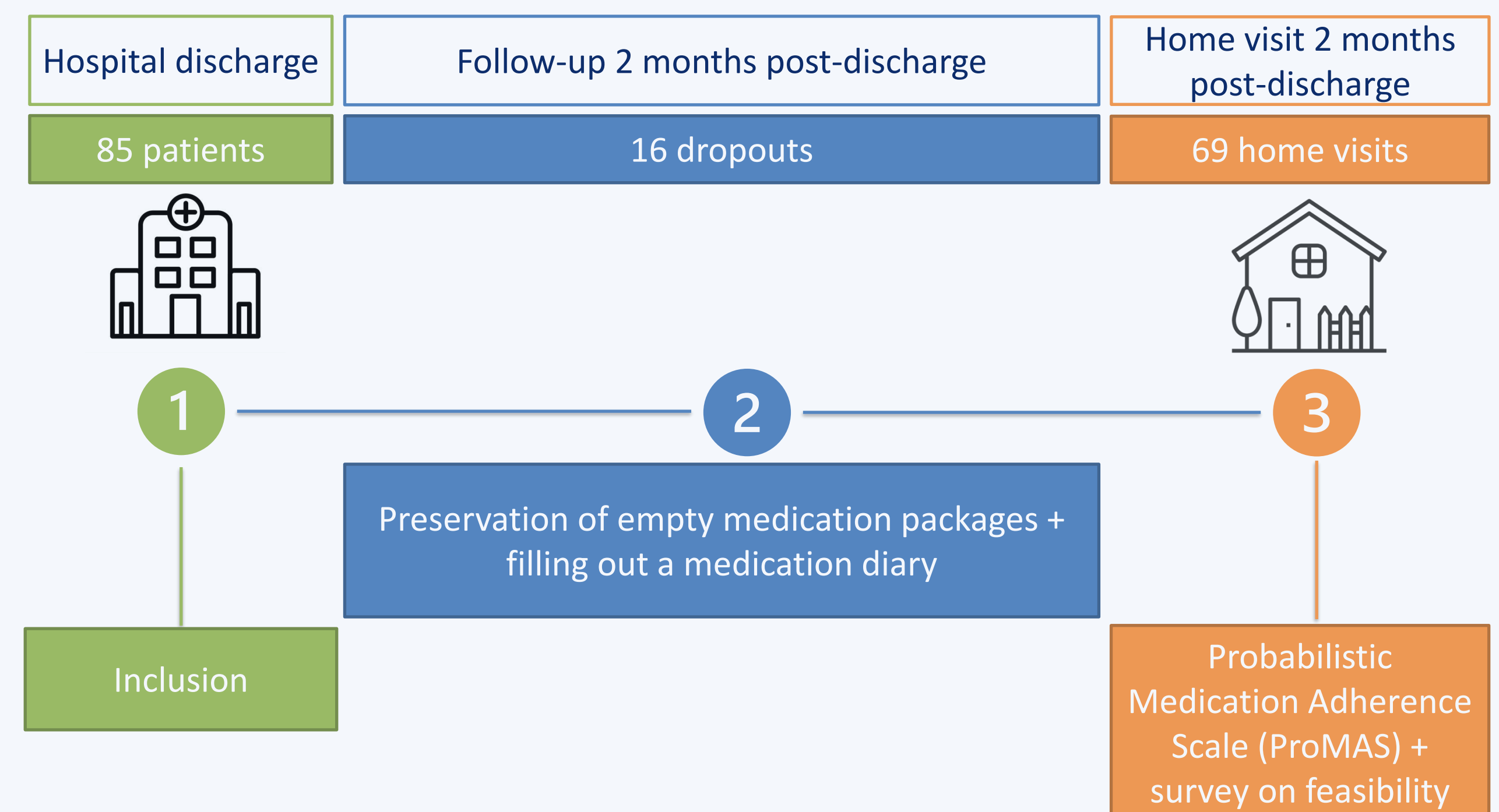
Research aim

- To evaluate the feasibility and validity of a combination of pill count, a medication diary and a questionnaire for assessment of medication adherence in patients with polypharmacy two months post-discharge.



Methodology

- Quantitative prospective study
- Patients with polypharmacy (≥ 5 medicines daily) who self-managed their medicines at home



Results

Sample characteristics (n=69)

Age in years, mean [range]	68.9 [43 – 86]
Sex (male) (%)	73
Education (%)	
No/primary education	10
Secondary education	52
Higher vocational education	19
Higher education (Bachelor, University)	19
Number of chronic medicines, mean [range]	9.8 [5 – 20]

Feasibility of methods in practice

- Most participants reported that preserving medication packages (91%), completing the medication diary (99%) and the ProMAS (99%) were no effort to them.
- Filling out the medication diary and the ProMAS was found to be easy for most participants, i.e., 88% and 99%.
- About 87% indicated that they would be willing to preserve medication packages once again. Only 19% would like to continue using the medication diary in the future.

Validity of methods

Table 1: Correlations between adherence measured by different methods

Adherence measured by	Pill count (mean percentage)	ProMAS	Medication diary (total number of problems)
Pill count (mean percentage)	1		
ProMAS	-0.333*	1	
Medication diary (total number of problems)	-0.168	-0.492**	1

* P = 0.005, ** p < 0.001

- Respectively 90%, 91% and 97% of the participants indicated that the medication diary, the pill count and the ProMAS correctly reflected how well the participant had taken his/her medication during a two-month period.
- The majority of participants indicated that the pill count most accurately reflected their medication adherence.

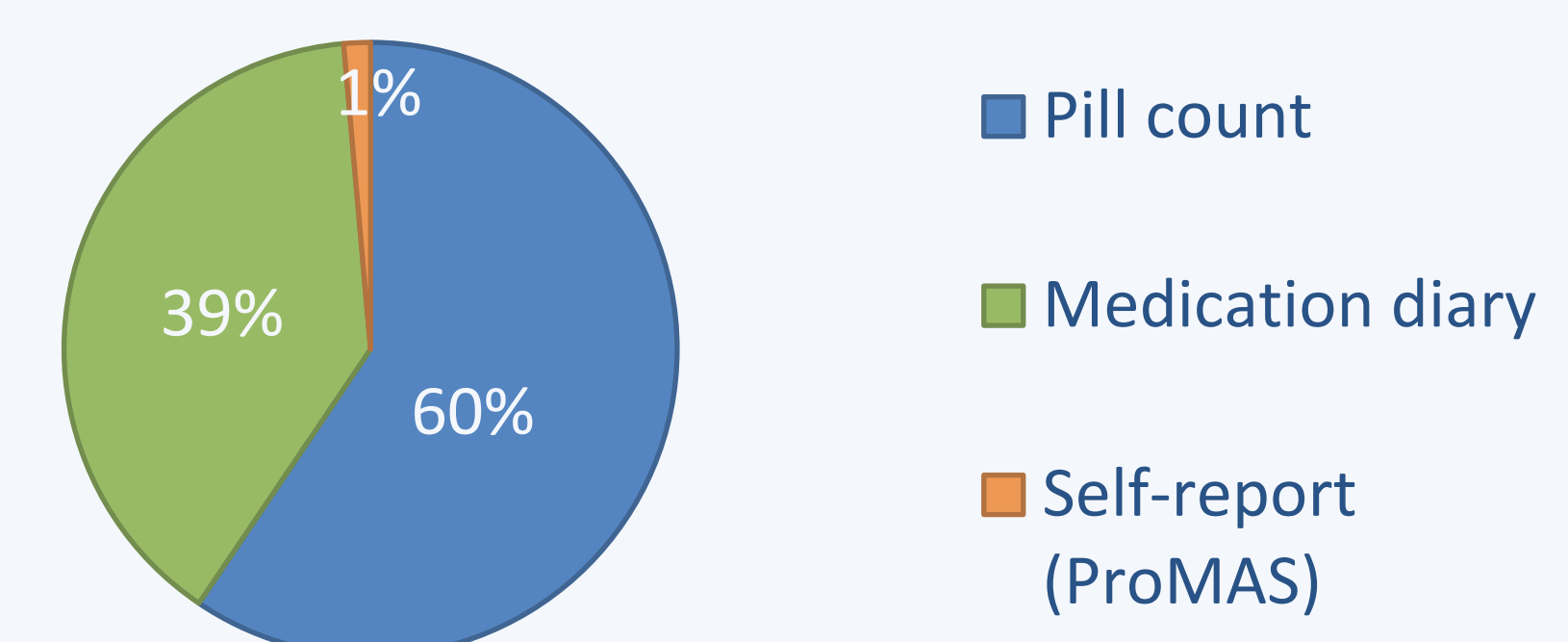


Figure 1: Correspondence between measurement results and actual medication adherence according to participants

Conclusion

- The combination of methods measuring medication adherence two months post-discharge seemed feasible in practice. In the longer term, daily completion of the diary may be too burdensome for patients.
- The different methods can complement each other. While a pill count can assess the extent to which a patient's actual medication use corresponds to the prescribed medication regimen, a self-report can provide additional information about adherence-related behaviours. Moreover, the medication diary has the potential to provide insight into daily patterns and problems contributing to non-adherence.

More information?

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