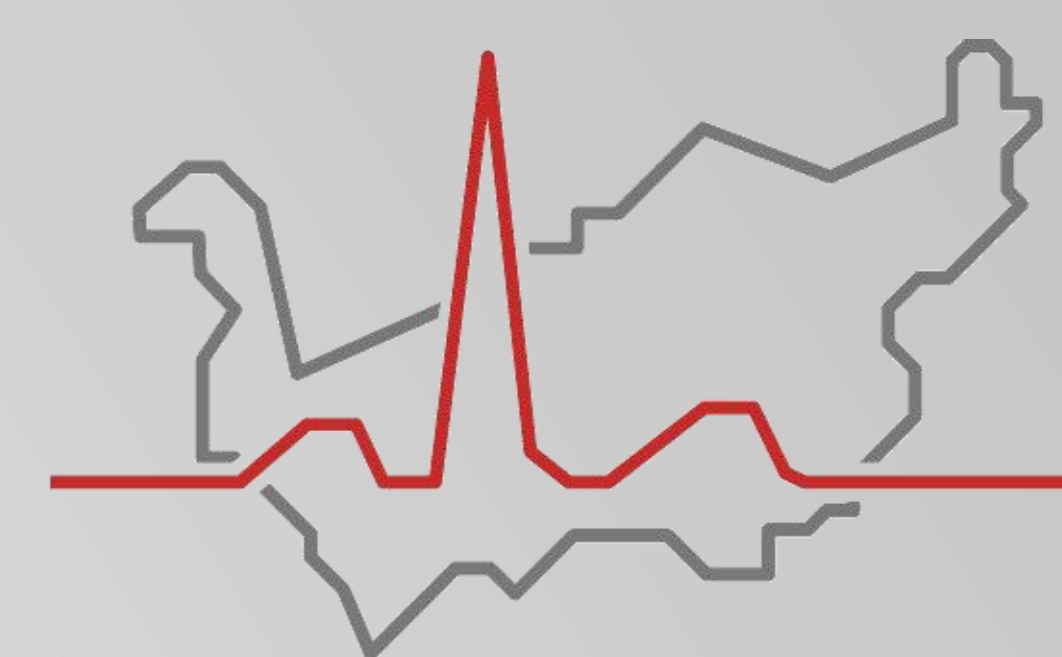


Continuity of care of inpatients: from medication history to discharge treatment



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Objective

The aim of this study is to compare the medication at discharge (according to the discharge prescription and letter) with the medication taken before hospital stay (according to outpatient pharmacy data) in order to identify whether the observed modifications are appropriate or not, and to understand their origin.

Design

Four months (September 2008–January 2009) observational and descriptive study of the process from the physician's medication history on admission to the discharge prescription.

Setting

Patients hospitalised on a medicine ward of a Swiss regional hospital and followed up by a clinical pharmacist.

Main outcome measures

To calculate the percentage of patients with at least one modification in their drug therapy. To determine whether these modifications were appropriate or not and their origin (with particular attention to the inappropriate ones). As we analysed the process and not the quality of the prescription, all modifications wished by the prescriber were considered appropriate, irrespective of their clinical pertinence.

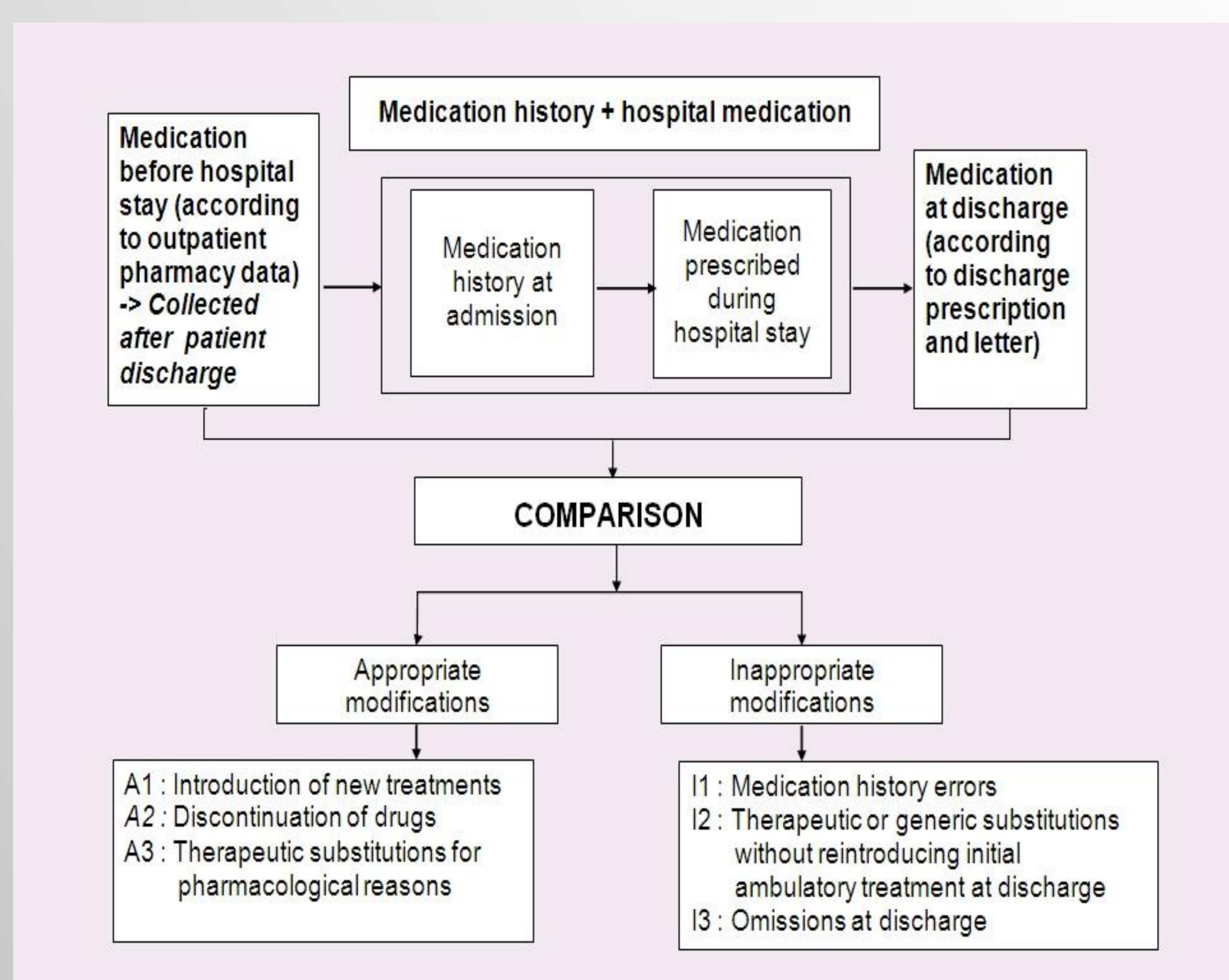


Figure 1 : Comparison method

Results

All 26 included patients had at least one modification in their medication. Twenty-four patients (92%) had at least one appropriate modification and 18 (69%) at least one inappropriate modification. A total of 139 modifications were observed, 90 were appropriate and 49 inappropriate.

The reasons for appropriate modifications were :

- introduction of new treatments (63%) [A1]
- discontinuation of drugs (30%) [A2]
- therapeutic substitutions for pharmacological reasons (7%) [A3].

The inappropriate modifications were due to :

- medication history errors (53%) [I1]
- therapeutic or generic substitutions without reintroducing initial ambulatory treatment at discharge (37%) [I2]
- omissions at discharge (10%) [I3].

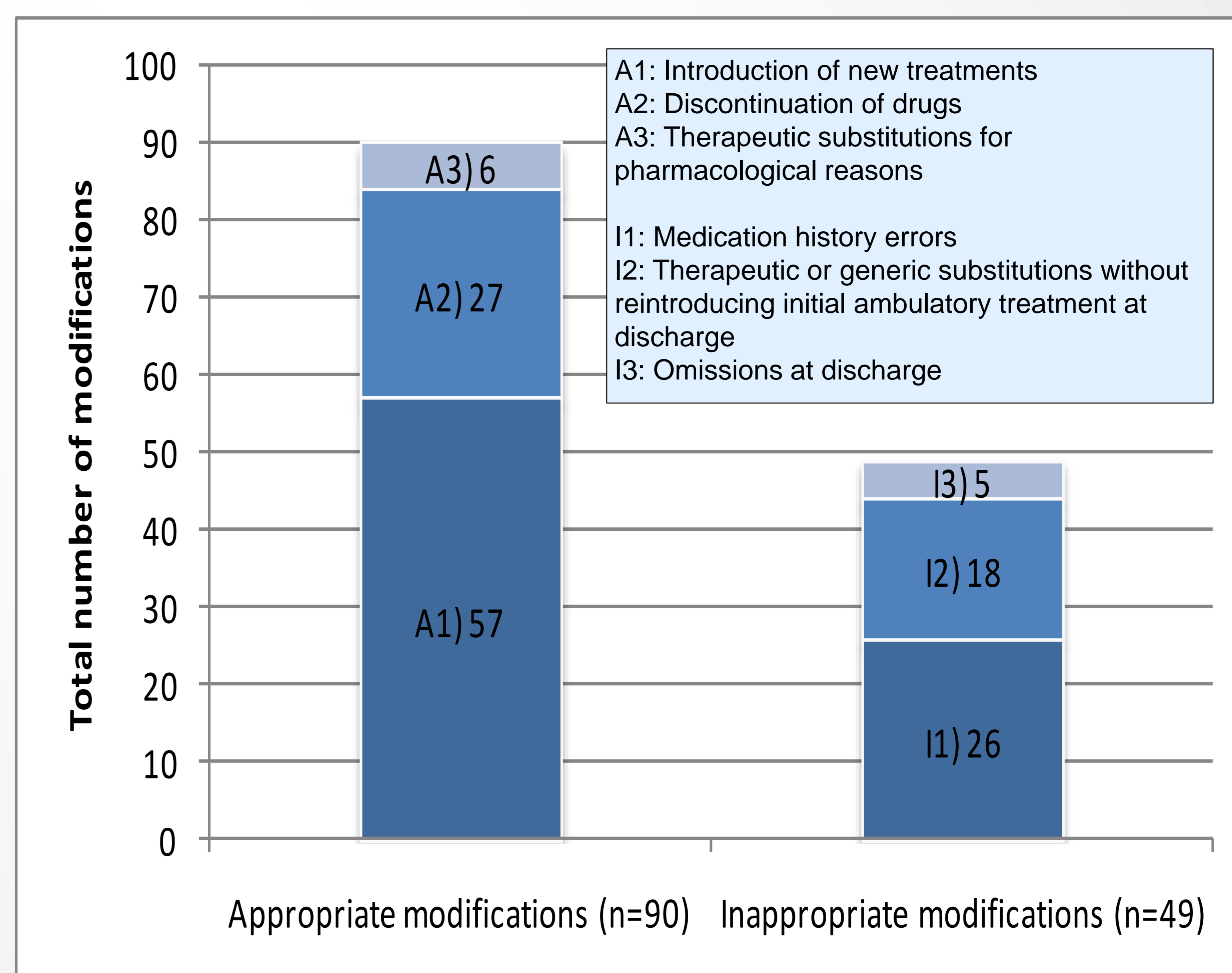


Figure 2 : Distribution of appropriate and inappropriate modifications

Conclusion

More than a third of the modifications were inappropriate. As 53% were due to medication history errors, further research will focus on obtaining better medication history. New information technology developments are planned to address the 37% of inappropriate modifications due to substitutions.