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## Background


- Medication errors leading to preventable adverse drug events occur mainly during transitions of care (admission and discharge from a healthcare facility, hospital interdepartmental transfers)
- Data on drug reconciliation in surgical wards are scarce ; no data in Switzerland so far

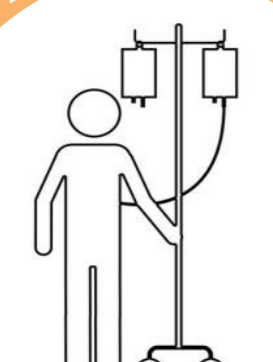
## Objectives


- Assess the prevalence of medication discrepancies in patients admitted to an orthopedic and trauma department during the Medication Reconciliation process performed by a pharmacist at admission
- Identify potential risk factors


## Setting and Method

 A prospective single-center observational study  
Conducted over a 15-week period (07/2021 - 11/2021)

 Two units of an orthopedic and trauma department of a tertiary university hospital in Switzerland


 Eligible patients :  
- admitted for a duration of hospitalization of more than 48 hours  
- presence of a chronic pathology and/or a medication at risk and/or at the the doctor's request

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- Establishment of the Best Possible Medication History (BPMH) list for each patient from 3 information sources
  - Comparison of the BPMH with the list of admission medication prescriptions to identify medication discrepancies
  - Classification of discrepancies as intentional or unintentional (UMDs) on the basis of the medical record and, if necessary, a discussion with the doctor in charge of the patient

 Identify predictors of the « presence of unintentional discrepancy » among : age, place of residence before hospitalization (at home/not at home), polymedication ( $\geq 5$  medications), elective/non-elective admission, week/weekend admission [multivariable analysis by logistic regression]

## Main outcome measures

 Quantify the UMDs at admission

 Describe the UMDs at admission by type : drug discontinuation ; drug addition ; substitution ; change (in dosage / frequency / route of administration)

## Conclusion

This study confirms the major interest of the Medication Reconciliation at admission in an orthopedic and traumatology department in an elderly and polymedicated population, exposed to high-risk medications and to a risky process.

## Results

### 1. Characteristics of the study population



120 patients included

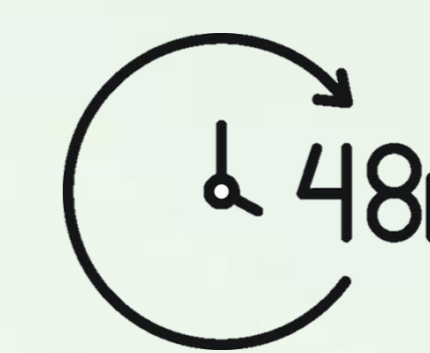
- Median age : 71 years [IQR : 63.5-83.5]
- 71.7 % of patients :  $\geq 5$  medications before admission
- 80 % of patients : live at home before admission
- Median length of stay : 9 days [IQR : 6-13]

### 2. Characteristics of the medication reconciliation activity at admission



36 minutes

median pharmaceutical time required to perform the medication reconciliation activity [IQR : 29-45]



2/3 of patients

reconciled within 48 hours post-admission

### 3. Characteristics of UMDs at admission

60.8 %  
of included patients had at least one UMD on admission

2 UMDs/patient  
in median [IQR : 1-3]

88.5 %  
of UMDs corrected by doctors in charge of patients at hospital

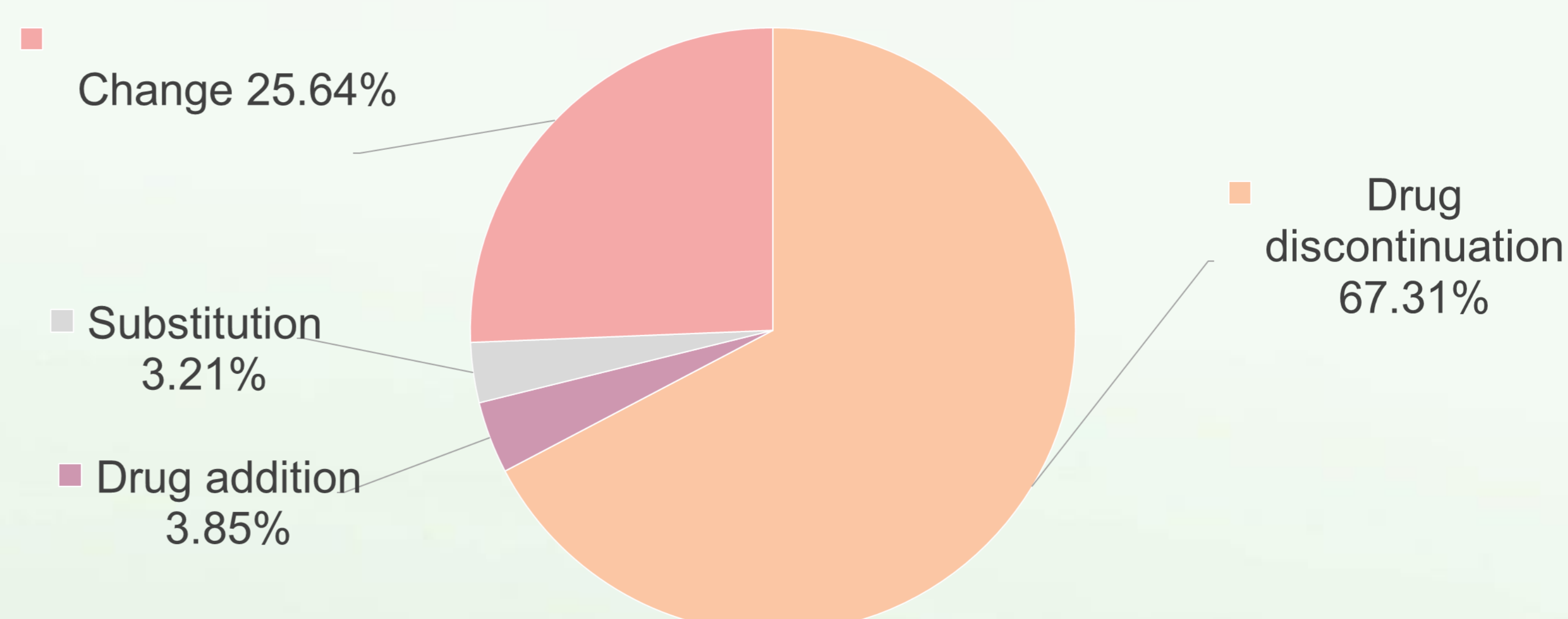


Fig. 1 Subtypes of UMDs (n = 156)

### 4. Multivariable analysis by logistic regression

Polymedication ( $\geq 5$  medications) was the only variable associated with "presence of an unintended discrepancy" at a level very close to the established statistical significance level of  $p = 0.05$  [OR = 2.24,  $p = 0.065$ ].

