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## Background and Importance

**Medication reconciliation** is a clinical pharmacy process to prevent medication errors at transitions of care. We integrated a year ago this activity into the management of elderly in our hospital. **CLEO** is a comprehensive tool assessing especially **clinical impact of pharmacists' interventions (PIs)** developed by experts of the French Society of Clinical Pharmacy (SFPC). We used it to evaluate the potential clinical impact of medication reconciliation on the patient.

## Aim and Objectives

The aim of this study was to assess **unintentional medication discrepancies (UD) in admission orders with potential for patient harm** (moderate or major clinical impact) with the **CLEO tool**.

## Material and Methods

- ✓ We conducted a **prospective observational single-center study**
- ✓ From September 2020 to August 2021 (1 year)
- ✓ On internal medicine **patients over 65 years old**
- ✓ **Medication reconciliation** upon admission was performed
- ✓ We used the **CLEO tool** to rank the **clinical impact** (Negative/Null/Minor/Moderate/Major/Avoids Fatality) of UD
- ✓ UD were scored by **2 experienced clinicians**

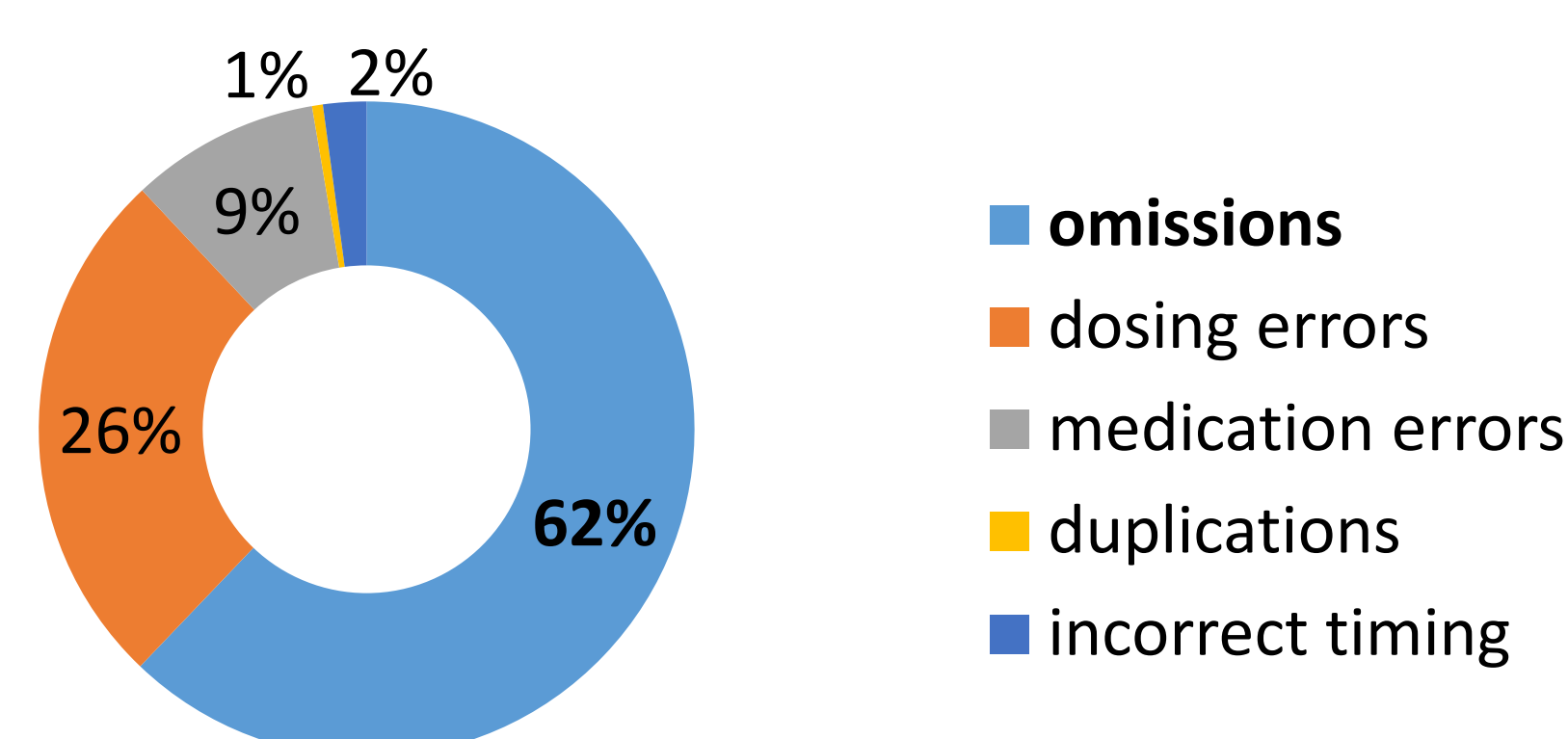
## Results

### ❖ Population studied :

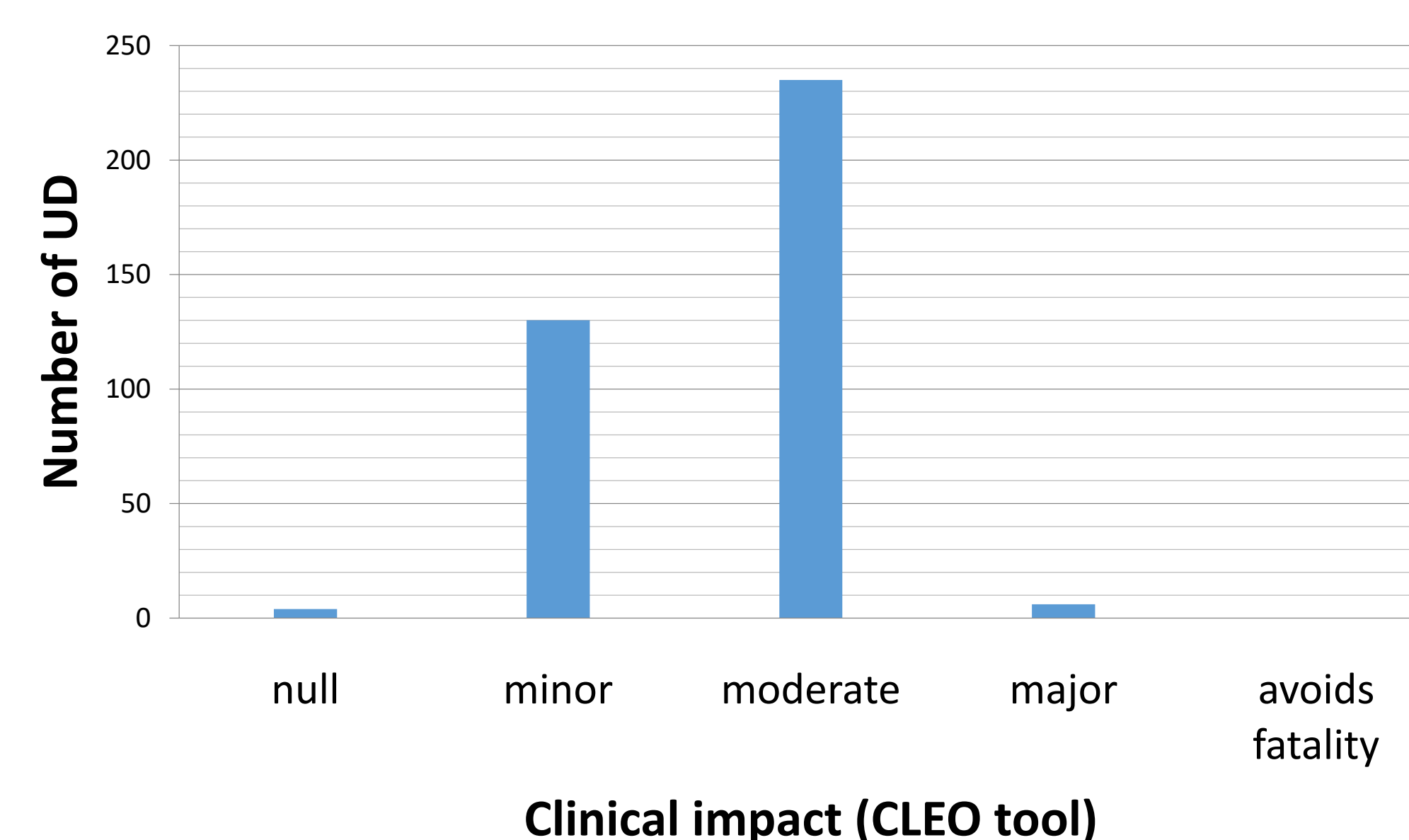
Demographics	Patients (n = 318)
Sex ratio	127M/191F
Mean age	82.3 ± 8.0 y.o.
Mean number of prescribed drugs	8.0 ± 4.0
Mean Length of stay	8.2 ± 6.7 d

### ❖ Medication reconciliation :

- 176 patients had **at least 1 UD (55%)**
- We found 2.1 UD per patient, essentially omissions of medications



### ❖ Clinical impact :



- **63%** of UD were associated with a « **moderate** » clinical impact  
 « The PI can prevent harm that requires further monitoring/treatment, but does not lead to or does not extend a hospital stay »
- **2% of UD (6/375) were associated with a « major » impact**  
 « The PI can prevent harm which causes or lengthens a hospital stay OR causes permanent disability or handicap »
  - **2 omissions of insulin therapy**
  - **1 omission of DVT prophylaxis**
  - **1 omission of neuroleptic drug**
  - **2 inadequate benzodiazepine dosing**

## Conclusion and Relevance

The identification of UD with **moderate and major clinical impact** underline the significance of the sustainability of medication reconciliation in routine clinical practice. Furthermore, according to the Multi-center Medication Reconciliation Quality Improvement Studies (MARQUIS), the cost of harmful medication error to hospital in the USA is about 4655\$. If we expanded to 241 UD with a moderate or major clinical impact, we could easily calculate **significant annual savings** to hospital as a result of **avoided harmful medication errors**, providing useful input to convince hospital boards about **medication reconciliation return on investment**, in addition to the **benefit** expected for patients.