

Background

Potassium chloride (KCl) for injection :

- High-risk medicine
- "Never events"

→ The development of quality assurance strategies for KCl use process is essential to minimize risk.

Objective

To assess **compliance** of **KCl prescription**, **pharmaceutical evaluation** and **administration** in accordance with guidelines for KCl use in order to **identify priorities for improvement**.

Materials & Methods

Study

Prospective and observational during 4 non-consecutive days from February to March 2020.



Population

Patients treated with intravenous KCl (without intensive care unit).



References

KCl use guidelines of French National Agency for Medicines and products Safety.



Data

- Collected in electronic medical record and the observation of the administration.
- Collected for 3 stages.



Prescribing stage

- Indication
- Informations that must appear on the prescription
 - Dosage in gram
 - Nature and volume of diluent
- Concentration
- Flow rate

Pharmaceutical evaluation stage

The entry of pharmaceutical intervention (PI) if they are non-compliant prescription

Administration stage

- Concentration administrated
- Flow rate
- Labelling
 - Patient identity
 - Drug name and dosage
 - Route of administration
 - Date and hour

Results

- **34 patients included** (53% male ; median age of 76 years)
- KCl use process : **6% of compliance** (2/34)

Fig. 2: Details of nonconformities by criteria depending on the stage

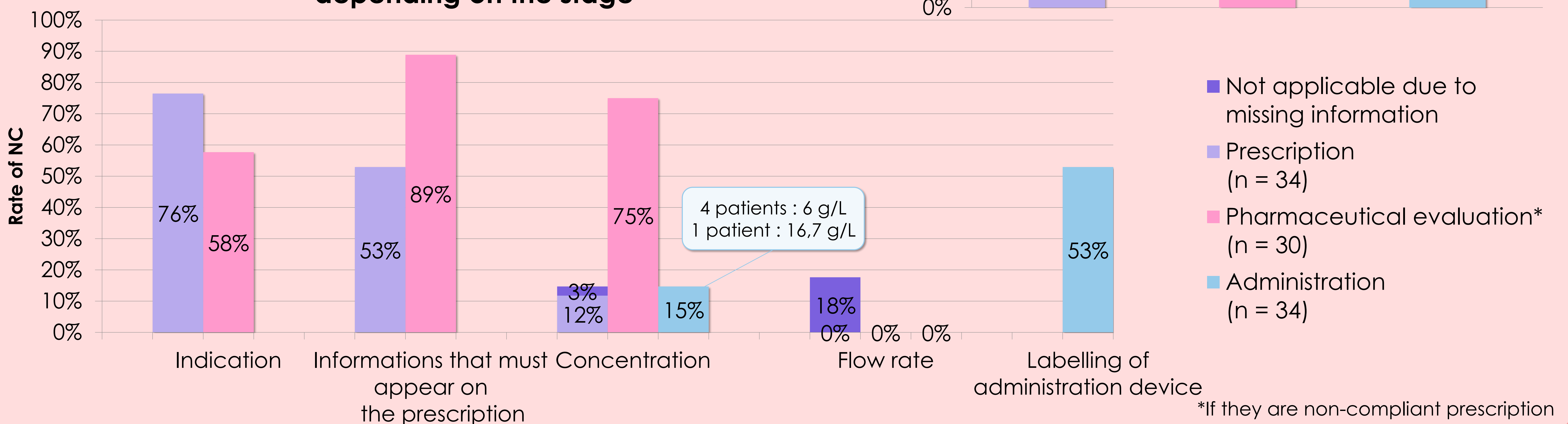
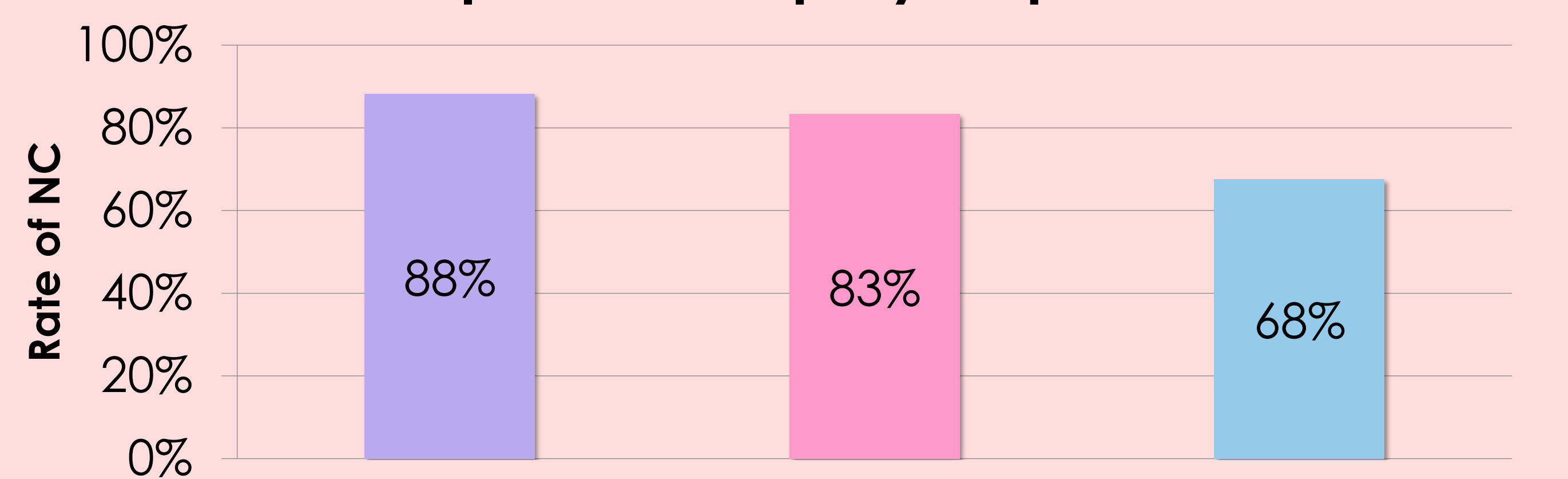


Fig. 1: Nonconformities (NC) of KCl use process step by step



Results

- This study **highlights a lack of compliance with recommendations**.
- We have identified an **action plan** for improvement:
 - Raising awareness of **KCl good practices** among physicians, pharmacists and nurses
 - Identification of high-risk medicines by a **specific logo** on software
 - Setting up **intravenous KCl prescription protocols** and an **automatic reassessment** request after 2 days.
 - For pharmacists, it will be necessary to set up a **simulation for pharmaceutical evaluation** on fictional cases.
 - For nurses, the **labeling rules** should be recalled.