

# ANALYSIS OF PHARMACEUTICAL INTERVENTIONS RELATED TO HIGH-RISK-DRUGS IN THE EMERGENCY DEPARTMENT

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## BACKGROUND AND IMPORTANCE

Medication errors are frequent in the Emergency Department(ED) and the most common drugs involved are **high-risk-drugs (HRD)**, which are drugs that are more likely to cause serious or even fatal harm to patients when used incorrectly.

## AIM AND OBJECTIVE

- ✓ Describe the evolution of pharmaceutical interventions in the ED related to **HRD** in two comparable time periods.
- ✓ Evaluate the acceptance degree.

## MATERIAL AND METHODS

### Design

Retrospective observational study.

### Interventions were recorded

Through the electronic-prescription-program and were **communicated** to the responsible physician.

### Primary endpoint

% of interventions related to **HRD** and their acceptance percentage



### Interventions selected

All interventions performed in the ED during the periods between July and December 2019 and 2020 were included.

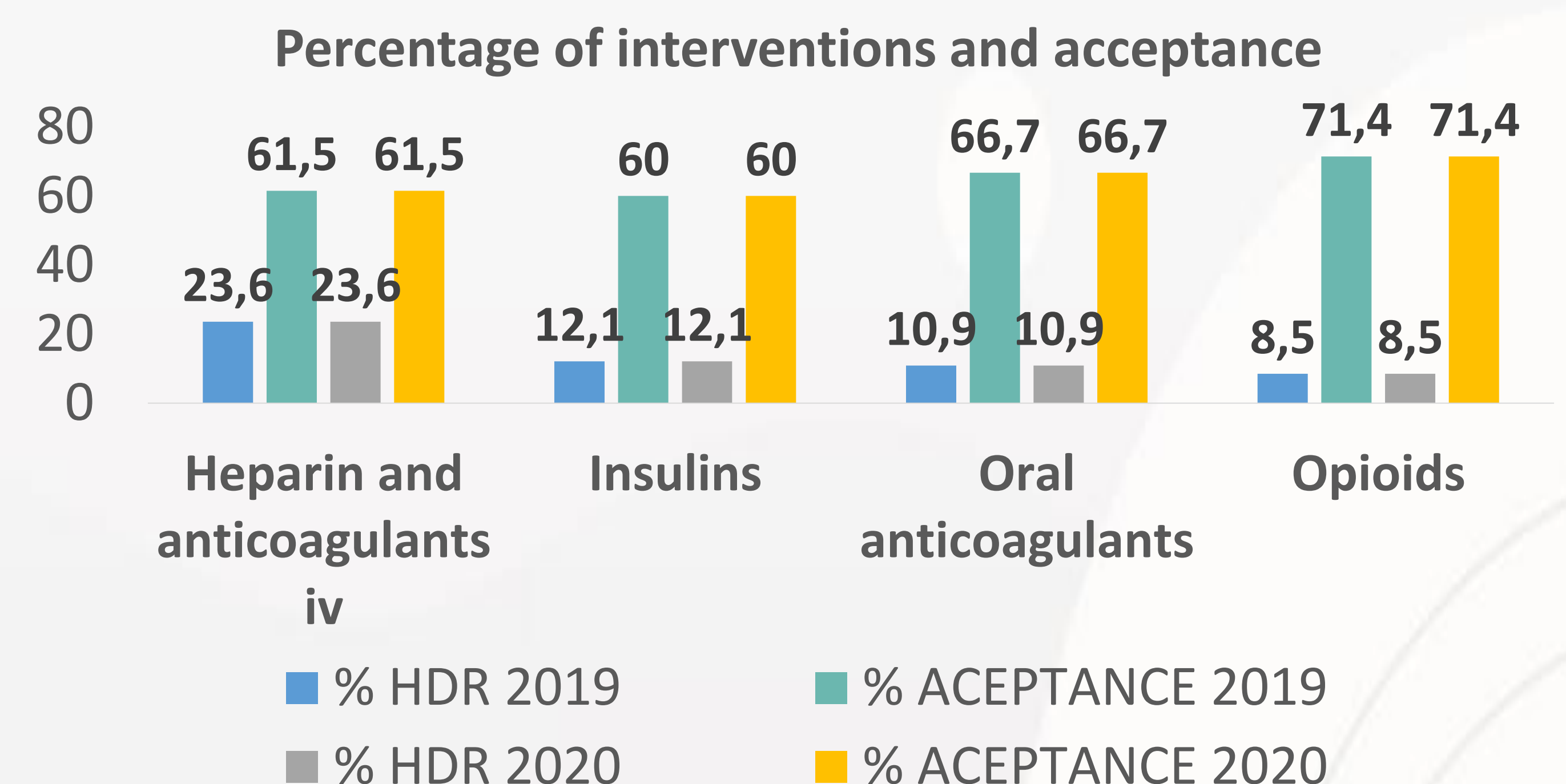
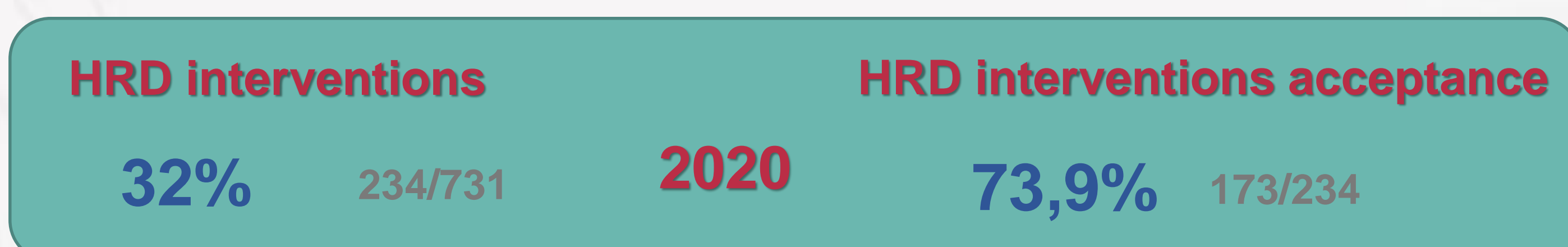
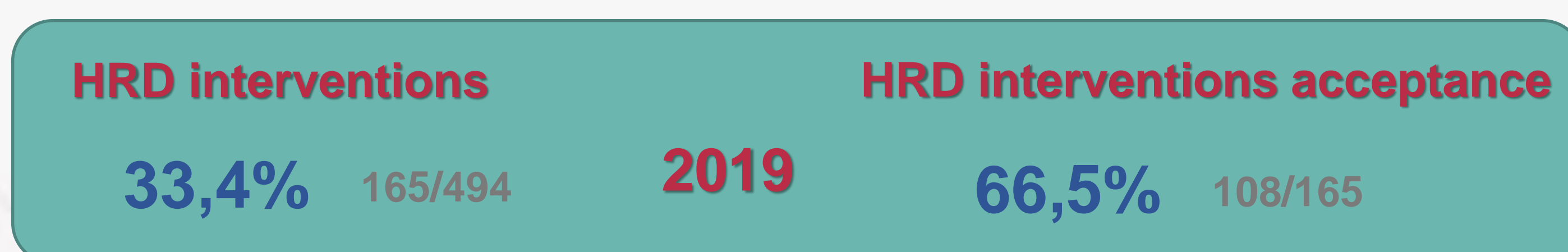
**Data processing** Excel 2013®.

### Secondary endpoint

- % of interventions related to **HRD** according to therapeutic group\*
- Their acceptance percentage.
- The main reasons for **intervention** (>15%).

## RESULTS

### Percentage of interventions and acceptance



	2019	2020
<b>Heparin and parenteral anticoagulants</b>	Need for treatment (66,7%)	Need for treatment (57,4%)
<b>Insulins</b>	Need for treatment (60,0%) Medication reconciliation (15,0%) Inadequate dose (10,0%)	Need for treatment (41,2%) Medication reconciliation (23,5%) Inadequate dose (17,6%)
<b>Oral anticoagulants</b>	Medication reconciliation (55,6%) Inadequate dose (11,1%)	Medication reconciliation (41,9%) Inadequate dose (19,4%)
<b>Diuretics</b>	Medication reconciliation (50,0%) Renal insufficiency (16,7%)	Medication reconciliation (43,6%) Renal insufficiency (12,8%)

## CONCLUSIONS AND RELEVANCE

- The percentage of interventions related to **HRD** was similar in both periods. However, there was an increase in acceptance degree in the 2020 period.
- More than a half of **HRD** interventions were performed on parenteral heparin, insulins, oral anticoagulants, and diuretics.
- The most prevalent reasons for intervention were the need for **additional treatment and medication reconciliation**.