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 objectives Describe the evolution of pharmaceutical interventions in the ED related to HRD in two comparable time periods and evaluate the acceptance degree.

Material and methods Retrospective observational study. All interventions performed in the ED during the periods between July and December 2019 and 2020 were included. The primary endpoint was the percentage of interventions related to HRD and their acceptance percentage. Secondary endpoints were: percentage of interventions related to HRD according to therapeutic group, their acceptance percentage, and the main reasons for intervention (>15%). Interventions were recorded through the electronic prescription programme and were communicated to the responsible physician. The data were processed using Excel 2013.

Results A total of 165/494 (33.4%) and 234/731 (32.0%) HRD interventions were performed in 2019 and 2020, respectively. The acceptance percentages were 108/165 (65.5%) and 173/234 (73.9%). The main HRD therapeutic groups on which we intervened and their acceptance percentage in the periods of 2019 and 2020, respectively, were: heparin and parenteral anticoagulants (23.6% (61.5%) and 20.1% (83.0%)), insulins (12.1% (60.0%) and 15.0% (71.4%)), oral anticoagulants (10.9% (66.7%) and 13.2% (83.9%)), opioids (8.5% (71.4%) and 7.7% (77.8%)), antipsychotics (7.9% (69.2%) and 6.8% (68.8%)), diuretics (7.3% (50.0%) and 16.7% (61.5%)), sedatives (6.7% (63.6%) and 4.3% (90.0%)), antibiotics (6.1% (80.0%) and 1.3% (100%)), narrow-margin antiepileptics (4.2% (71.4%) and 5.6% (69.2%)) and other groups (<5%). The main intervention reasons (>15%) on the most prevalent therapeutic groups (>10%) were in the 2019 and 2020 periods, respectively: heparin and parenteral anticoagulants (need for treatment (66.7% and 57.4%)); insulins (need for treatment (60.0% and 41.2%)); medication reconciliation (15.0% and 23.5%); inadequate dose (10.0% and 17.6%); oral anticoagulants (medication reconciliation (55.6% and 41.9%)); inadequate dose (11.1% and 19.4%)); diuretics (medication reconciliation (50.0% and 43.6%)) and renal insufficiency (16.7% and 12.8%).

Conclusion 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. It seems that the intervention of pharmacists in the ED could improve the safety in the use of HRD.

REFERENCES AND/OR ACKNOWLEDGEMENTS
1. ISMP-Spain list of HRD in hospitals.

Conflict of interest No conflict of interest