



# Ready-to-use syringes: Do they have the potential to improve the safety in an intensive care unit and an emergency room?

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## BACKGROUND AND OBJECTIVES

Numerous powerful intravenous drugs are daily prepared in the intensive care units (ICU) as well as the emergency room (ER) and most often in a fast-paced and stressful surrounding increasing the risk of errors.

We conducted an observational study in order :

- To obtain a detailed overview of intravenous drugs handling in these wards.
- To gauge the interest of providing ready-to-use syringes to improve the safety of most critical drugs

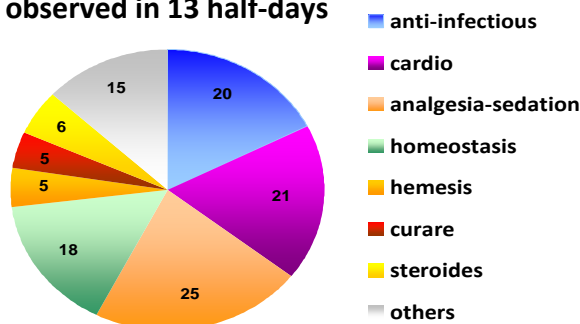
## DESIGN

A standardized grid was developed to gather data on dilutions, asepsis and labeling risk of errors while preparing drugs.

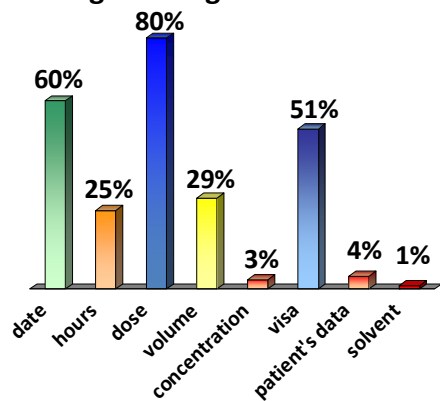
Interview with the staff were conducted in order to understand their perception of risk regarding drug handling.

## RESULTS

- Drug handling: 115 drugs preparations observed in 13 half-days



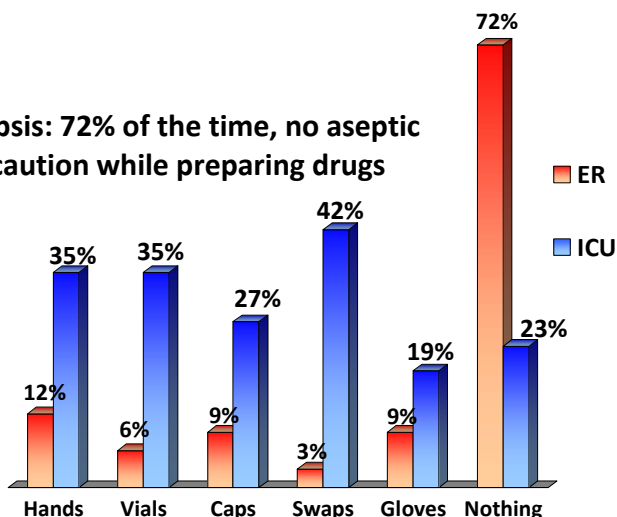
- Labeling: 18 drugs out of 115 were not labeled



- Risk criteria ranked by priorities by the nurses and "most needed" CIVAS

Emergencies	adrenalin
Complex handling	noradrenalin
Risk of confusion	amiodarone

- Asepsis: 72% of the time, no aseptic precaution while preparing drugs



- Setting for drug handling: Wards versus Pharmacy-CIVAS



## CONCLUSION

This observational study showed which risks ready-to-use syringes could tackle:

- Error of dilutions
- Lack of correct labeling
- Non-respect of aseptic procedures

## FUTURE

Adrenalin, noradrenalin an amiodarone will come first in our list of CIVAS to be developed to address the specific needs highlighted in our two-sided study.