IMPACT OF TAILORED SCREENING INTERVALS ON THE BURDEN OF DRUG-DRUG INTERACTION ALERTS: AN INTERRUPTED TIME SERIES ANALYSIS

Greet Van De Sijpe[1,2], Karolien Walgraeve[1], Eva Van Laer[1], Charlotte Quintens[1], Christophe Machiels[3], Lorenz Van der Linden[1,2] and Isabel Spriet[1,2]

[1] University Hospitals Leuven, Pharmacy dpt., Leuven, Belgium; [2] KU Leuven, Leuven, Belgium; [3] IT dpt., Nexuzhealth, Belgium

SITUATION BEFORE INTERVENTION

Monday 8:00	Tuesday 8:00	Wednesday 8:00	Thursday 8:00
LMWH *e.g. Clexane® 80mg*	LMWH *e.g. Clexane® 80mg*	DOAC *e.g. Xarelto® 20mg*	DOAC *e.g. Xarelto® 20mg*
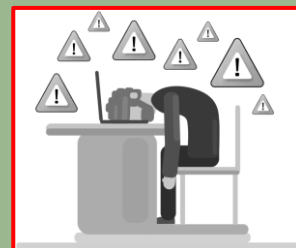
Correct switch between anticoagulants

BUT… alert is fired *due to fixed and broad screening interval of 14 days for all DDIs*

Risk of bleeding

INTERVENTION

Embedding *customized* screening intervals for 27 frequently fired DDI alerts into the hospital information system

Taking into account:
- mechanism of the DDI
- half-life of involved drugs
- (ir)reversible receptor binding
- sequence of prescribing

DDI pair	Alert if prescription within
factor Xa inhibitor + LMWH/VKA	12 h after factor Xa inhibitor 12 h after LMWH 2 d after acenocoumarol 4 d after warfarin 7 d after phenprocoumon

example

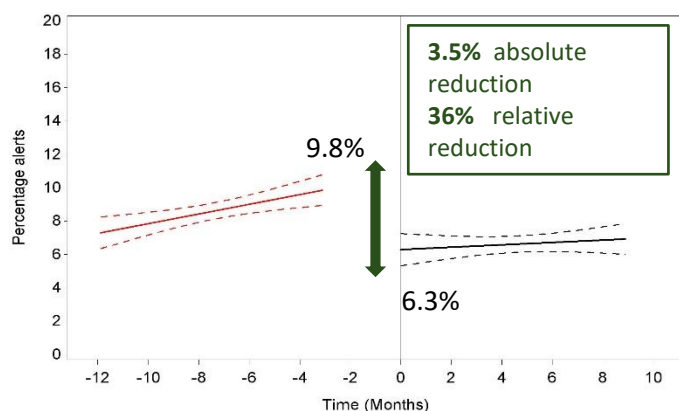## METHODS

Interrupted time series
- April 2021 to December 2022
- 50 random days before and after intervention
  - before: broad screening interval of 14 days
  - after: customized screening intervals

Outcome
- number of DDI alerts / number of new prescriptions per day

CONCLUSION

The intervention was feasible and effective in reducing the burden of DDI alerts

greet.vandesijpe@uzleuven.be

5PSQ-039

RESULTS

PRE-INTERVENTION	POST-INTERVENTION
23429 alerts	17619 alerts
3181 very severe alerts / 20248 severe alerts	1140 very severe alerts / 16176 severe alerts

9.8%

6.3%

3.5% absolute reduction
36% relative reduction

In practice

5731 new prescriptions per day
→ 201 false positive DDI alerts avoided each day

DDI, drug-drug interaction; DOAC, directly acting oral anticoagulant; LMWH, low molecular weight heparin; VKA, vitamin K antagonist