

# EVALUATION OF A NEW CLINICAL PHARMACY SERVICE WITHIN A NEWLY LAUNCHED SURGICAL ADMISSION PROCESS

K. Kreundl<sup>1</sup>, K. Koch<sup>2</sup>, C. Sablatschan<sup>2</sup>, M. Klems<sup>2</sup>, K. Kirchdorfer<sup>2</sup>, R. Lemmens<sup>1</sup>, D. Mueller<sup>2</sup>

<sup>1</sup> University of Vienna, Department for Pharmacology and Toxicology

<sup>2</sup> Hanusch-Hospital, Pharmacy Department, Vienna, Austria

## Background and Importance

Clinical pharmacy services (CPS) targeting the admission of surgical patients have been shown to provide a significant benefit for patient safety and care.

## Aim and Objectives

To evaluate a CPS within a newly launched integrated admission-process for elective surgery patients by

- 1) defining number and type of identified drug-related problems (DRPs) and acceptance rate of pharmacists' recommendations for medication optimisation
- 2) assessing the perception of the service and identifying barriers and optimisation potential

## Materials and Methods

**Setting:** 450-bed teaching hospital, on-site service implemented within a central-integrated admission-process for elective patients across four surgical wards



Structure of the new CPS

### 1) DRP analysis:

**Sample:** All patients receiving the CPS in the data collection period (April – December 2018)

**Method:** Retrospective descriptive analysis of number and type of identified DRPs, suggested interventions and their acceptance rate based on a validated classification system<sup>1</sup>

### 2) Questionnaire:

**Sample:** Questionnaire addressing medical and nursing staff on covered surgical wards (4-week data collection period)

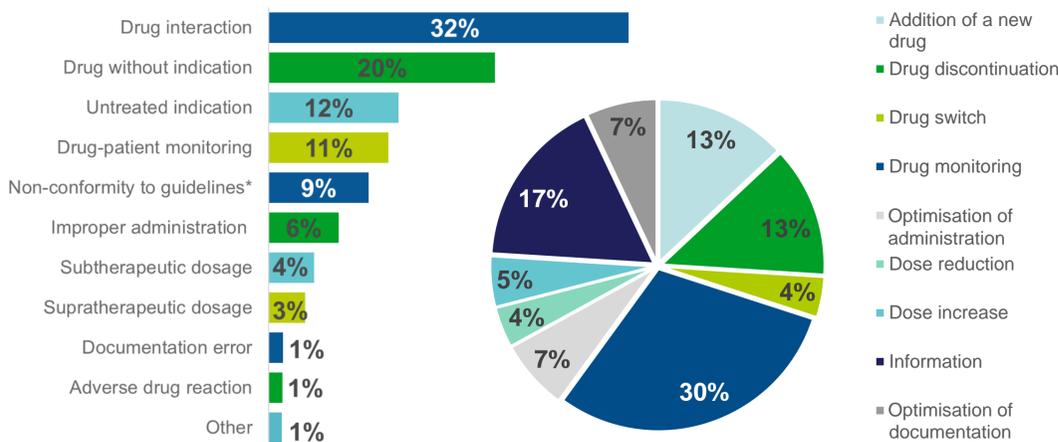
**Method:** Determination of health professions' perception towards the new service, measured by a piloted self-administered quantitative questionnaire

## Results

### 1) DRP analysis:

Pharmacists reviewed 1877 patient files (6214 drugs) and identified 2003 DRPs. 22% of the pharmacists' recommendations were implemented.

Types of DRPs (n<sub>DRPs</sub>=2003)



Distribution of CPS-recommendations (n=2003)

### 2) Questionnaire:

43 nurses and 39 physicians completed the questionnaire in the defined data collection period. Overall, the CPS was rated as "good" (1.6 ± 0.7; scale: 1-very good to 5-poor).

1	Strongly agree
2	Agree
3	Undecided
4	Disagree
5	Strongly disagree

Advantages of the service \*

Advantage	Mean ± SD
Reduced workload by switch to local drug formulary	1.7 ± 1.0
Improvement of patient safety	1.5 ± 0.7
Knowledge gain	2.0 ± 1.1
Optimisation of medication	1.7 ± 0.9

Perceived barriers for implementing the pharmacists' recommendations \*\*

Barrier	Mean ± SD
Lack of time	2.1 ± 1.3
Suggestions not applicable for inpatient setting (e.g. too short inpatient stay)	2.7 ± 0.9
Suggestions are not clinically relevant	4.0 ± 0.9
Medication optimisation not a task during hospitalisation for elective surgery	3.1 ± 1.4

Results: mean ± SD

\* Addressed to physicians and nurses \*\* Addressed to physicians

## Conclusion and Relevance

The high prevalence of identified DRPs reflects the contribution of the service towards improving patient safety and care. The questionnaire highlights the value and acceptance of the service by medical and nursing staff and identifies barriers to be learned from. The acceptance rate can be perceived as successful considering the short hospital stay of surgical patients and the recent implementation of the service. The role of clinical pharmacists within central admission processes should be further established to exploit the potential for pharmacy services in this field.

## Acknowledgements

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## References

<sup>1</sup> ALLENET, B. et al. Pharm World Sci 2006;28(4):181-8

