

PHARMACIST INTERVENTION AND ITS DOCUMENTATION IN THE COMPUTERISED MEDICAL RECORD IN SAP

CP-147

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Background

Clinical pharmacy services provided in hospitals are more and more accepted as an important approach to prevent medicines administration errors and improve patient safety.¹ However, the way pharmaceutical interventions are documented varies from hospital to hospital, and the information is often separated from the patient's medical record.

Purpose

A project was started in 2014 at our hospital as collaboration between the clinical pharmacy and the internal medicine department. To ensure high quality and reproducible documentation and analysis of clinical pharmacy activities a new tool called 'pharmaceutical advice' was directly implemented in the patient's computerised medical record in SAP, the most widely used software for management of clinical data.

Materials and Methods

- ✓ Pharmacists have access to several patient's documents in computerised medical record which are stored in SAP
- ✓ A new entry tool was developed to generate an additional document called 'Pharmaceutical Advice':
 - Directly implemented in patient's computerised medical record in SAP
 - Available to all doctors and nurses electronically

WORKFLOW:



The screenshot shows the SAP interface for generating 'Pharmaceutical Advice'. It includes fields for patient information (name, date of birth, sex, case number), diagnosis selection, and a table for current medication. A 'Pharmaceutical Advice' document is shown below, containing patient details, diagnosis, medication, and a section for 'Pharmaceutical recommendations regarding drug-related problems'. The document also includes a signature line for the prescriber and a date field.

Step 3
Add hard copy to the patient's temperature chart and discuss with the prescriber if possible

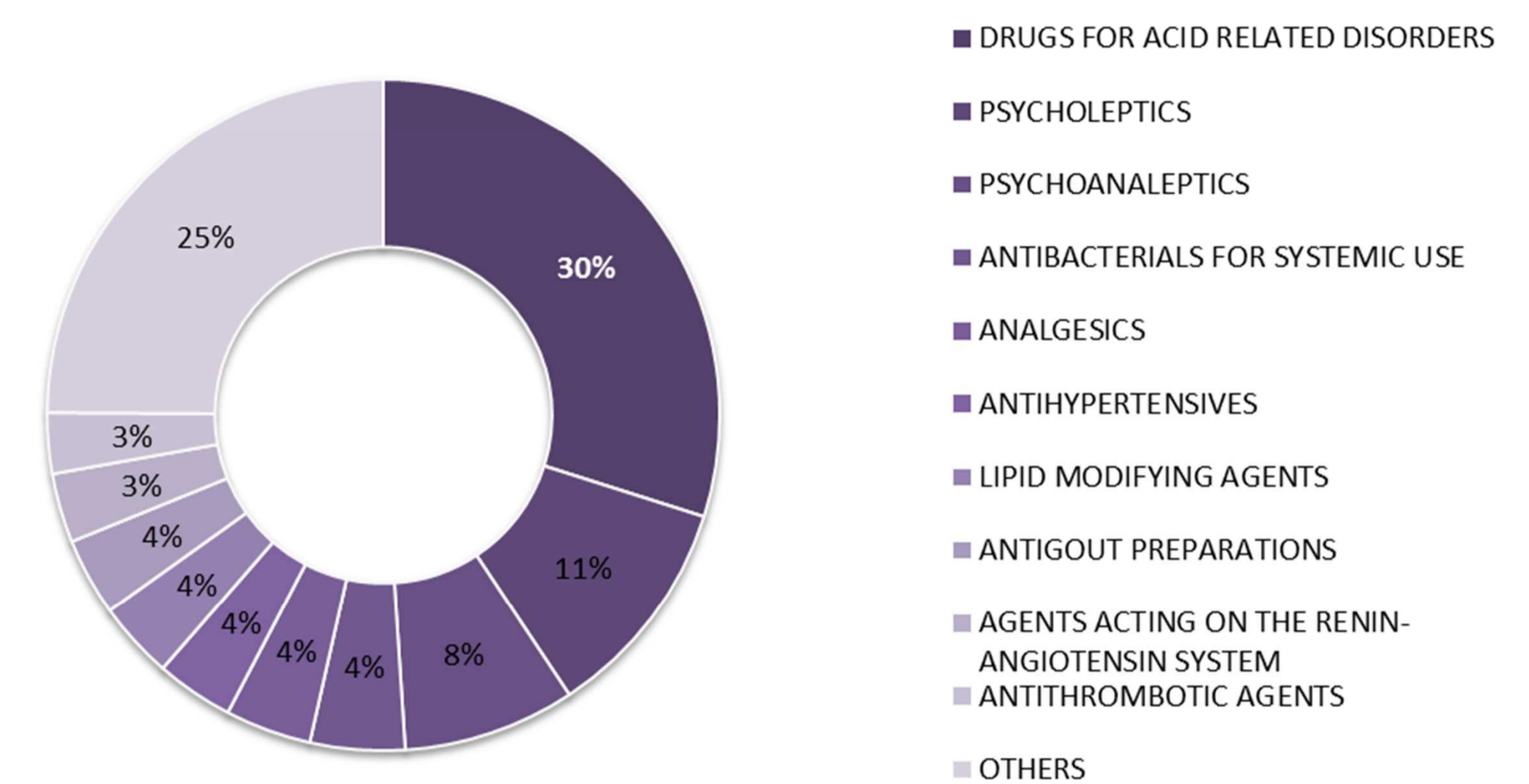
Step 4
Statistical Analysis of interventions using a connected search tool in SAP

Results

The new patient document was successfully developed by our hospital multidisciplinary team in May 2015. Using this new system, 241 drug related problems were documented during the first 4 months of implementation and classified according to PCNE (Pharmaceutical Care Network Europe) guidelines² regarding the kind of the problem, cause, intervention and outcome.

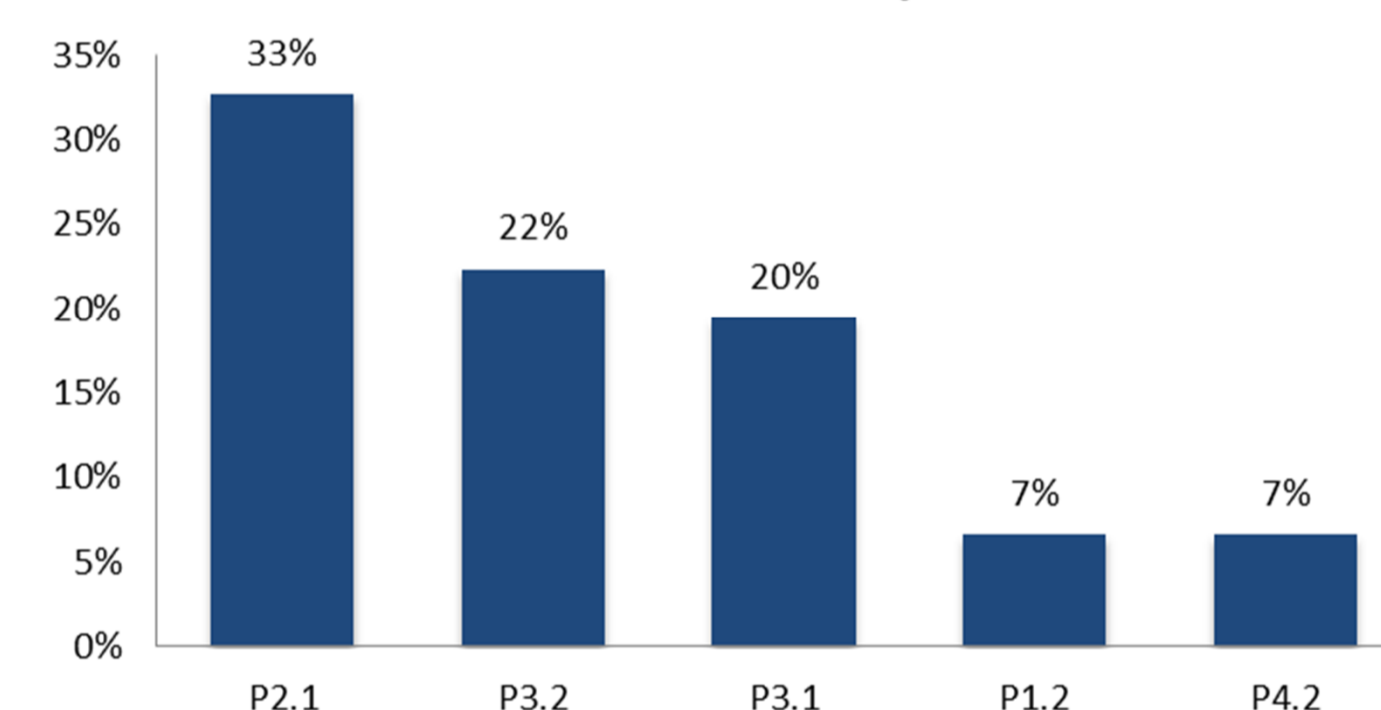
The most frequently identified groups of drugs leading to pharmaceutical interventions encompassed drugs for acid related disorders, psycholeptics and psychoanaesthetics.

ATC code of drugs leading to pharmaceutical interventions



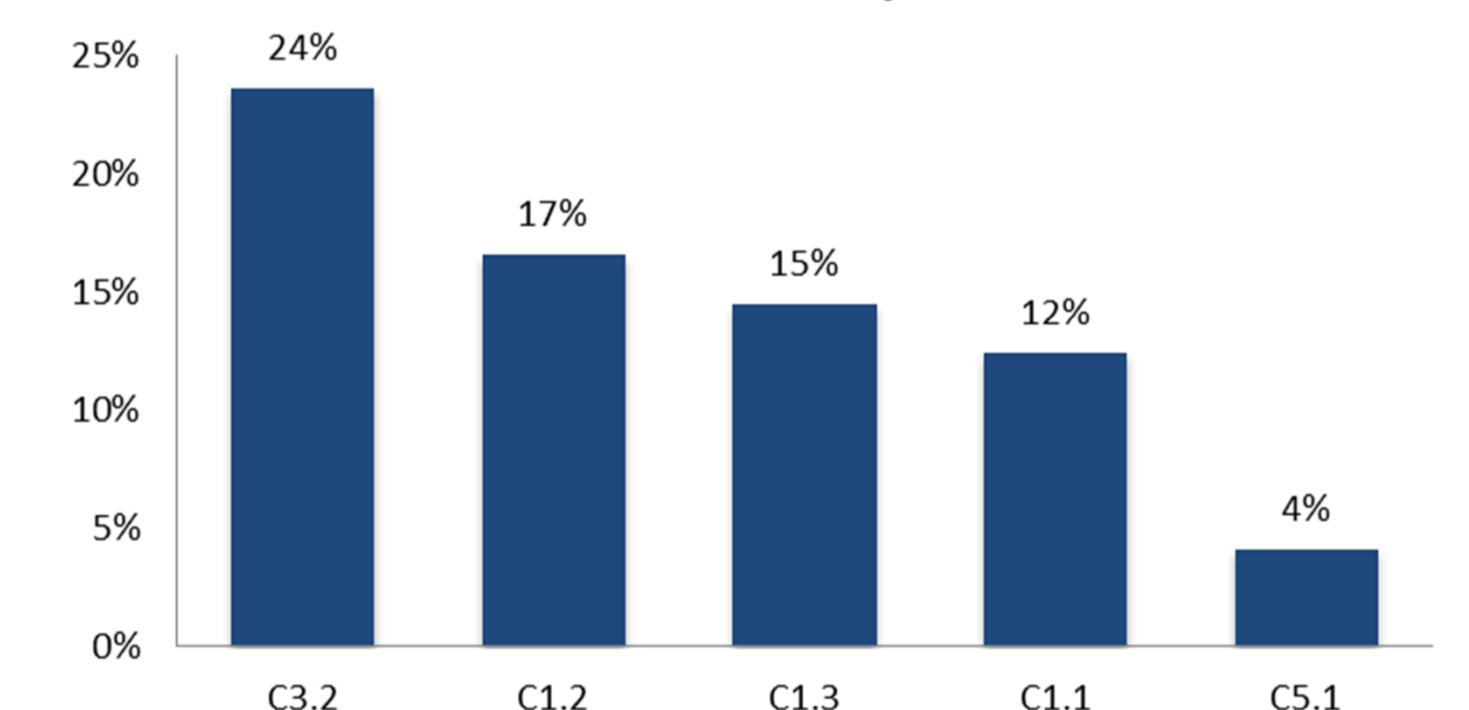
Classification of the pharmaceutical interventions according to PCNE guidelines, revealed that the main drug-related problems (DRPs) were possible adverse drug events, unnecessary drug-treatment and drug treatment that was more costly than necessary.

Problems - Top 5



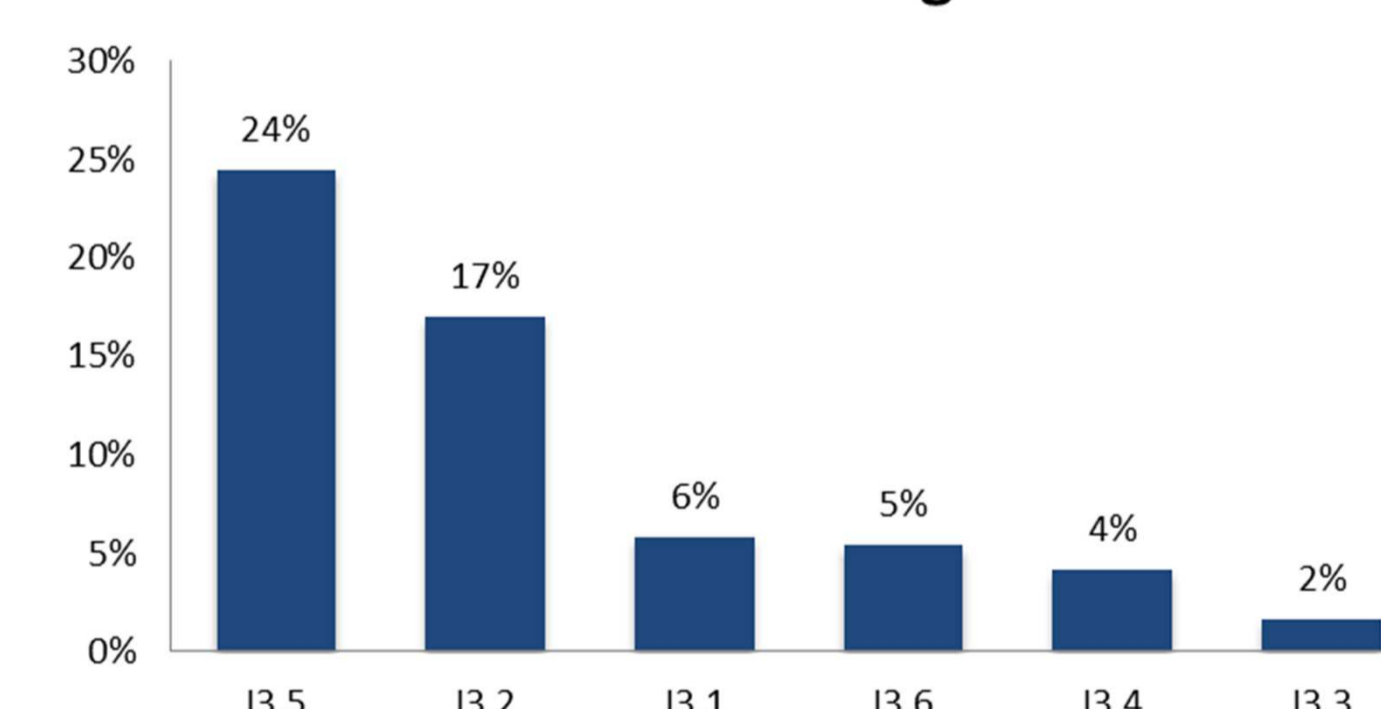
P2.1: Adverse drug event, P3.2: Unnecessary drug-treatment, P3.1: Drug treatment more costly than necessary, P1.2: Effect of drug treatment not optimal, P4.2: Unclassified problem

Causes - Top 5



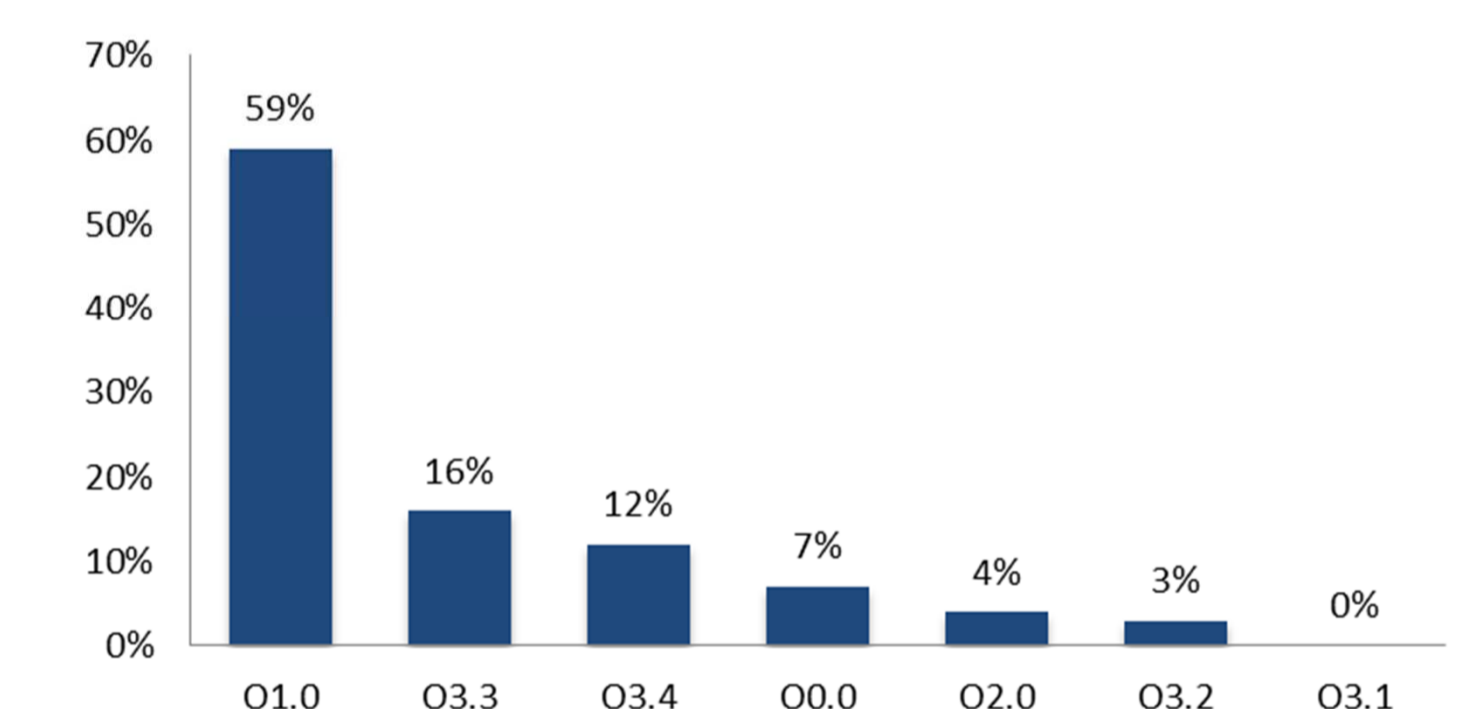
C3.2: Drug dose too high, C1.2: No indication for drug, C1.3: Inappropriate combination of drugs, C1.1: Inappropriate drug, C5.1: Inappropriate timing of administration

Intervention - Drug Level



I3.5: Drug stopped, I3.2: Dosage changed, I3.1: Drug changed, I3.6: New drug started, I3.4: Instructions for use changed, I3.3: Formulation changed

Outcome



O1.0: Totally solved, O3.3: Not solved, intervention not effective, O3.4: No need or possibility to solve the problem, O0.0: Outcome unknown, O2.0: Partially solved, O3.2: Not solved (prescriber), O3.1: Not solved (patient)

The main causes of the DRPs were too high drug doses, missing indications or inappropriate combinations of drugs. 59% of the identified DRPs could be totally solved. The initial acceptance of the interventions is very satisfying and increases significantly with the physical presence of the pharmacist at the ward.

Conclusion

Overall, the newly created 'Pharmaceutical Advice' is an effective tool to document pharmaceutical interventions within the patient's clinical data and allows fast statistical analyses. To our knowledge, this kind of documentation is unique in our country and provides a new quality standard in pharmacist intervention.

References:

- ¹Wunder C, et al. Eur J Hosp Pharm 2013;0:1-5
- ²PCNE. The PCNE Classification V 6.2 2010 01 Jan 2010

Acknowledgements:

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