Classification of DRPs with new prescriptions using a modified PCNE classification system



Patrick Eichenberger Pharmaceutical Care Research Group University of Basel

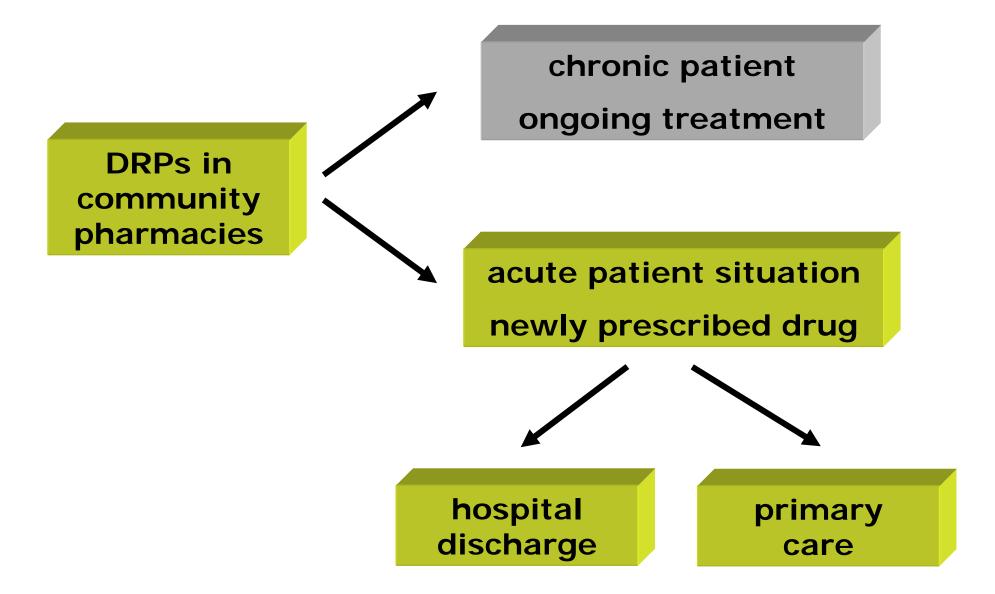
Definition

A drug-related problem is an event or circumstance involving drug therapy that actually or potentially interferes with desired health outcomes.

Different studies with different detection rates because of:

- o different definitions of DRPs
- o different classification systems
 - (no standard tool)
- o variations in the methods used to identify DRPs
- o different inclusion criteria
- o different health care systems
- o different settings

To set the scene: DRPs in community pharmacies

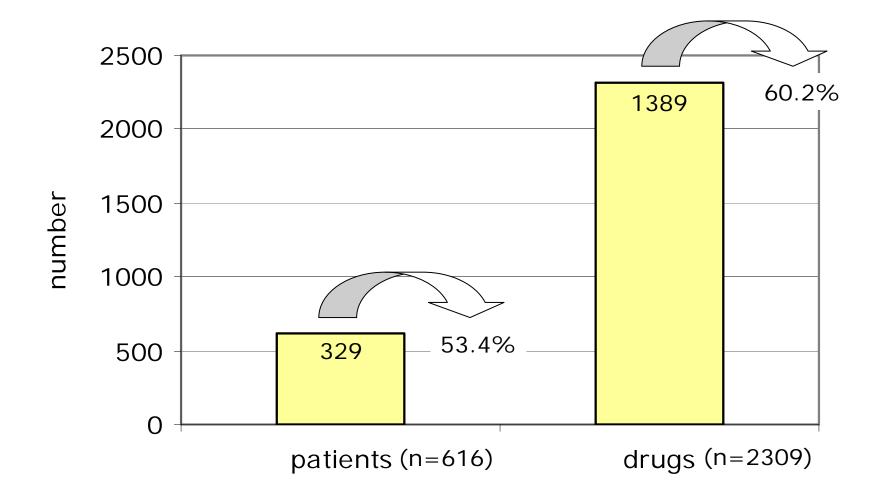


Aims of the study

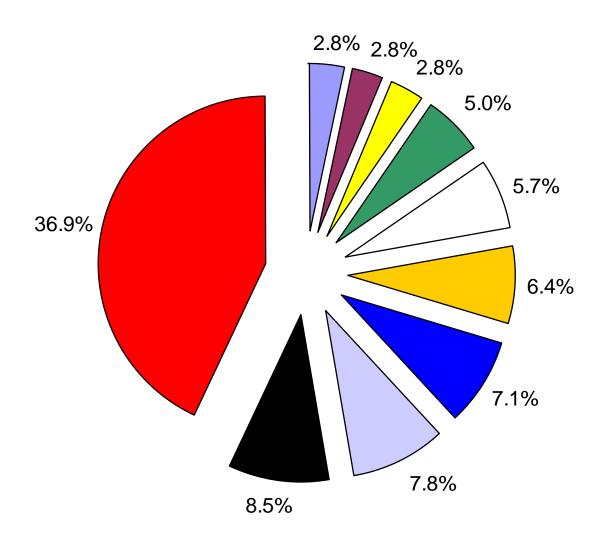
- Exploration of occurrence, nature and pharmacists' management of DRPs in new prescriptions detected in community pharmacies
- Differences between new primary care and hospital discharge prescriptions
- Analysis of possible differences between electronically printed and handwritten prescriptions
- Evaluation of applicability of a modified PCNE classification system

During internship, trained fifth-year pharmacy students collected in a <u>consecutive</u> way 5 hospital discharge and 5 primary care (incl. outpatients) prescriptions with <u>newly prescribed medicines</u>

Patients and drugs with DRPs



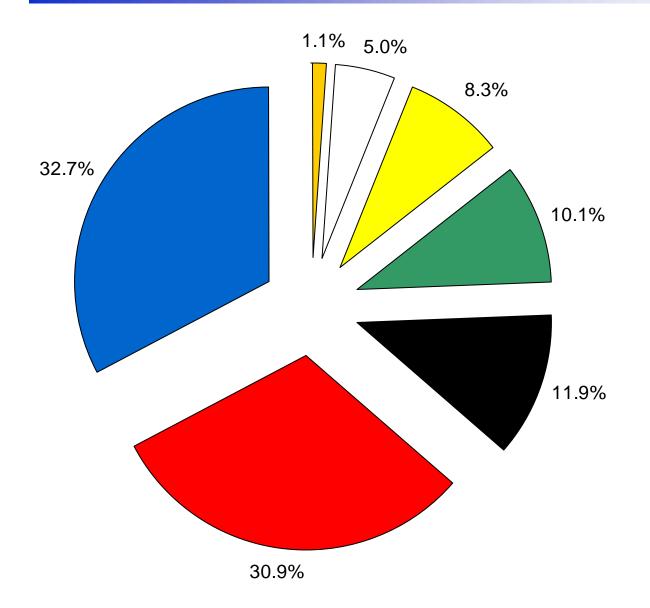
Top 10 of clinical DRPs (single items)



n = 141

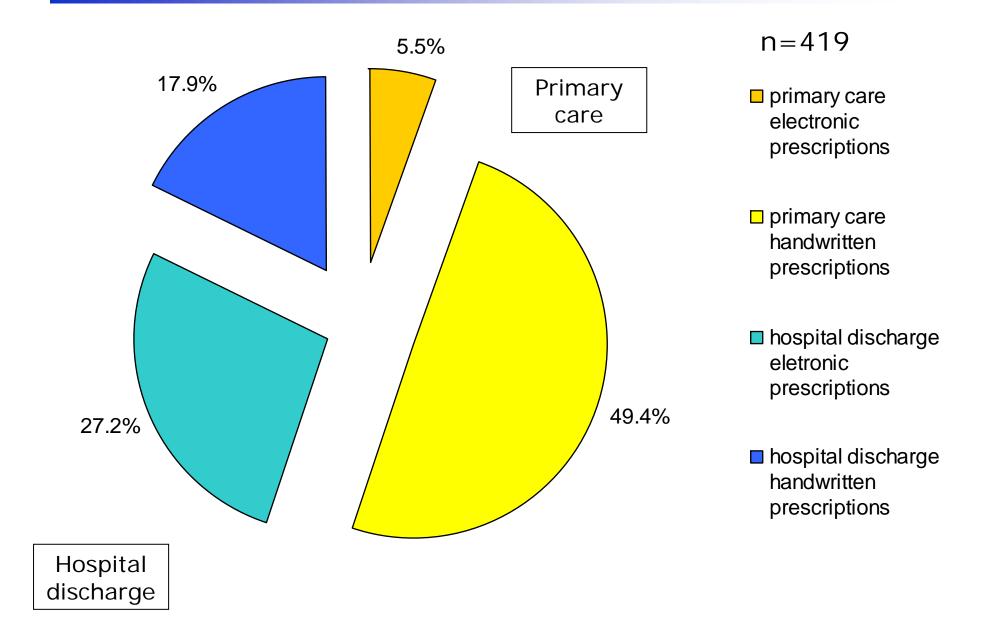
- Drug dose too low or dosage regimen too long
- Duration of treatment too short
- □ Inappropriate duplication
- Inappropriate drug form
- Drug dose too high or dosage regimen too frequent
- Wrong/not appropriate drug
- Insufficient awareness of health and diseases
- □ Inappropriate drug
- Not appropriate time of application
- Potential interaction

Technical DRPs (n=278)



- Missing prescription of necessary application aids
- Missing/unclear drug name though legible
- Missing/unclear drug form, if several available
- Missing/unclear drug potency, if several available
- Unreadable prescription
- Missing/unclear dosing/application instruction
- Missing/unclear package size and/or therapy length

Problems in electronic and handwritten prescriptions



Conclusions

- In Switzerland, half of all new prescriptions show a DRP; two-thirds are technical DRPs.
- The PCNE classification V5.1 needs to be amended, to include technical DRPs.
- The occurrence of clinical or technical DRPs is only influenced by the number of prescribed drugs. It is not relevant if the prescriptions were electronically printed.