

# Classification of drug-related problems with new prescriptions using a modified PCNE classification system

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**Objectives** To explore and classify drug-related problems (DRPs) with new prescriptions detected in community pharmacies using a modified PCNE (Pharmaceutical Care Network Europe) classification system. **Setting** Sixty-four Swiss community pharmacies offering internships for pharmacy students. **Main outcome measures** Occurrence, nature and pharmacist's management of DRPs. **Methods** Fifth year pharmacy students collected consecutively hospital discharge and primary care prescriptions. After training, they documented clinical and technical DRPs, causes and interventions. **Results** Prescriptions of 616 patients (43.0% discharged from hospital) were analysed. The patients' median age was 56 years and they received a median of 3 (range 2–19) different drugs. In 121 (19.6%) prescriptions 141 clinical DRPs were detected. The most frequent clinical DRPs were potential drug-drug interactions (37.6%), drug choice (24.8%) and drug use problems (15.6%). These clinical DRPs led to a total of 299 interventions. There were 222 prescriptions (36.0%) that showed 278 technical DRPs, resulting in a total of 417 interventions. Most frequent technical DRPs were missing or unclear package size or therapy duration (32.7%) and missing or unclear dosing/application instructions (30.9%). Most DRPs (75.4%) could be managed by the pharmacist alone. The number of prescribed drugs was the main factor with an influence on the frequency of clinical and technical DRPs. **Conclusion** Clinical and technical DRPs are frequently observed in primary care as well as in hospital discharge prescriptions. The modified PCNE classification system, especially the amendment with a technical DRP category, proved to be useful and allowed the classification of all DRPs. Neither the setting (hospital discharge vs. primary care) nor the quality of electronically printed prescriptions, but only the number of prescribed drugs influenced the occurrence of clinical or technical DRPs.