

(49.6%) and were stratified into five age categories. 137 patients (54.8%) had polypharmacy (8 or more drugs in their medication), number of drugs in pharmacotherapy ranged from 1 to 21. The most common groups of drugs were analgesics (in 76.4% of patients) and antihypertensives (in 68.4% of patients). 20.4% of patients had diabetes mellitus on pharmacotherapy and 10.8% suffered from atrial fibrillation on therapy. According to criteria of pharmaceutical care in the Czech Republic, defined by Decree No 421/2016 Coll, regular patient medication was graded as low risk in 27.2% patients, medium risk in 61.2% patients and high risk in 10.4% patients.

Conclusion: This project demonstrates prevalent polypharmacy in oncology palliative care patients and specifies the most frequent medication groups in polypharmacy. This project confirmed the important role of the clinical pharmacist as a member of the multidisciplinary palliative care team by early identification of high risk medication and modification of pharmacotherapy in collaboration with palliative care physicians to make an individual pharmacotherapy more effective and safe.

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PP077

Drug-related problems in internal medicine wards

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Background and Objective: Patients hospitalized in the internal medicine ward usually have many chronic diseases. Thus, polypharmacy and drug-related problems are higher in this population. This study aimed to determine the drug-related problems in the internal medicine ward and show the role of the clinical pharmacist (CP) in providing pharmaceutical care.

Design: This study was carried out between September 26, 2018, and August 09, 2019, at internal medicine wards of a university hospital. The patients followed up by three different CP residents to provide pharmaceutical care and the patients with at least one CP recommendation were included into the study. Demographic and therapy data of the patients were obtained from the electronic hospital information database, patient files, and verbally from the physicians. In regard to evaluation of possible drug-drug interactions, counseling and recommendations were provided about choosing the appropriate doses according to body weight and kidney functions and determining adverse effects. Micromedex, Lexicomp, Drugs.com, Sanford Guide to Antimicrobial Therapy, and relevant, up-to-date guidelines were used to generate CP's recommendations.

Results: Two hundred seventy-two patients were followed during the study period, and at least one recommendation was made in 91 (33.5%) patients. Of those, fifty-three patients (58.2%) were women, and the mean age ($\pm$ standard deviation) was 60.0 ± 17.6 years. The most common causes of hospitalization were dyspnea (18.7%), cancer (14.3%), and hypervolemia (9.9%). The most common chronic diseases were hypertension (53.8%), diabetes (37.4%), chronic kidney failure (27.5%), coronary artery disease (25.3%), chronic obstructive pulmonary disease (16.5%), and congestive heart failure (15.4%). The patients used a total of 1012 drugs (median of 11.2, minimum: 5, maximum: 21) and 157 recommendations were provided to physicians

(1.7 recommendations per patient), and 137 (87.3%) of these recommendations were accepted by physicians (Table 1). Although it was accepted, 4 (2.9%) recommendations were not implemented.

Conclusion: Drug-related problems can adversely affect the treatment success, the patient's quality of life and treatment adherence. The involvement of clinical pharmacists in the treatment process may reduce these problems and increase adherence to the principles of rational drug use.

Disclosure of Interest: None Declared.

PP078

Medication safety: analysis the use of drug alerts after conversion to a commercial electronic health record

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Background and Objective: Interruptive clinical decision support (CDS) integrated to computerized prescriber order entry can alert physicians about potential risks and suggest suitable alternatives. Physicians bypass most of them, limiting their effectiveness. The study assesses the effects of conversion to a commercial electronic health record (EHR) (Epic®) on the use of drug alerts.

Method: A repeated retrospective observational study conducted in a Belgian tertiary care teaching hospital. We analysed the triggering and bypass of drug alerts at the prescribing stage concerning inpatients for 14 months.

Main outcome measures: Main outcomes were (1) alerts burden, (2) bypassed rates. Both overall and specifically for three types of alerts: dose, duplication and drug interaction alerts. As second outcome we assessed correlation between bypass rates and different variables such as patient age, hospitalization unit or type of alert.

Results: Average number of alerts triggered per day increased by 180%, from 249.1 alerts/day to 698, following the conversion to Epic®. In both EHR, the overall alert bypass rates were 87.7% ($p = 0.98$; Fisher's exact test). The absolute value of accepted alerts has increased by 180%, from 30.6 alerts accepted/day to 85.7. We observed a significant difference specific to three types of alerts. Bypass rates for dose and interaction alerts increased by 10%, from 82 to 92% ($p < 0.0001^*$; Fisher's exact test). While the bypass rate for duplication alerts decreased by 4%, from 89.6% to 85.6% ($p < 0.0001^*$; Fisher's exact test). Furthermore, bypass rates were statistically correlated to different variables, including patient age and care unit ($p < 0.0001^*$; Pearson's chi-squared test). For example, intensive care prescribers bypassed 92.15% of alerts, almost 5% more than the average.

Conclusion: Following the conversion from an institutional to a commercial EHR, the number of alerts triggered has increased significantly and bypass rates remain overall stable. The absolute number of accepted alerts has increased, suggest that commercial EHR has improved the safety of prescriptions. In order to trigger more relevant alerts and to limit prescribers alert fatigue, it would be interesting to adjust the sensitivity and specificity of alerts to characteristics such as the needs of the care units, the age and the health condition of the patient.

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