

4CPS-102 DRUG RELATED PROBLEMS SECONDARY TO HEPARIN TREATMENT IN PATIENTS DISCHARGED FROM THE EMERGENCY DEPARTMENT

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Background and Importance It is a common practice to discharge patients from the emergency department (ED) with low-molecular-weight-heparin (LMWH). But there is limited knowledge of the risk factors associated with drug related problems secondary to heparin treatment in patients discharged from ED.

Aim and Objectives To assess drug related problems secondary to heparin treatment in patients discharged from ED including bleeding and thromboembolic episodes.

Material and Methods Retrospective observational study. Adults patients discharged from ED with LMWH were included (February to April 2022). Study variables included comorbidities of the patient, number of drugs at discharge, drugs that may be related to bleeding episodes, length of treatment, and 30-day ED revisits. The association between 30 days ED revisits, comorbidities and patient treatment was evaluated using Ji-square or Fisher's test.

Results Over the duration of the study 90 patients were included (mean age=73.1 years (SD 16.2); females 32 (49.2%). Reason for anticoagulation with LMWH included atrial fibrillation (32;35.6%), prophylaxis (7;7.8%) and thromboembolism (51;56.67%). Duration of treatment with heparin was less than 7 days (17;18.9%), 7 to 30 days (37;41.2%) and more than 30 days (36;40%). Of the 90 patients, 3 came back due to haemorrhage and 2 due to thromboembolism.

A greater tendency to return to the ED once discharged at 30 days was observed in patients over 80 years old (10.5% vs 1.9%; $p=0.158$) and in patients >10 drugs (10% vs 2%; $p=0.167$).

Conclusion and Relevance About a 5% of patients who were discharged with heparin from ED returned after 30 days due problems as bleeding or thromboembolism, more frequently in patients over 80 years old and polypharmacy.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest

4CPS-106 BEDSIDE CHECK OF MEDICATION APPROPRIATENESS (BED-CMA) AS A RISK-BASED TOOL FOR BEDSIDE CLINICAL PHARMACY SERVICES: A PROOF-OF-CONCEPT STUDY AT THE TRAUMA SURGERY WARD

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Background and Importance Implementation of bedside clinical pharmacy services prevents medication errors and associated adverse events but is not possible in many European countries on a hospital-wide and/or on full-time basis due to limited

resources. Clinical rules using structural information in the electronic health record can help bedside pharmacists to prioritise their work on the ward by identifying potential high-risk situations. Hence, a risk-based clinical pharmacy service was developed and implemented at the trauma ward, as a proof of concept.

Aim and Objectives To evaluate the impact of a risk-based clinical pharmacy service on potential inappropriate prescriptions (PIPs) at the trauma ward.

Material and Methods The impact on the proportion of residual PIPs per day, i.e. the number of PIPs that persisted up to 24h after pharmacist intervention divided by the number of PIPs at T0, was evaluated using an interrupted time series analysis. The pre-intervention cohort received usual pharmacy services, i.e. 0.3 FTE availability of a junior bedside clinical pharmacist. In the post-intervention period, the pharmacist could rely on 16 clinical rules, targeting antimicrobial, anticoagulant and analgesic therapy. The pre-intervention period was compared to two post-intervention scenarios to investigate possible requirements for the intervention: (scenario A) clinical rule alerts reviewed by a junior clinical pharmacist on a 0.3 FTE basis; and (scenario B) clinical rule alerts reviewed daily for approximately 1h by a clinical pharmacist with one year of clinical pharmacy experience.

Results Pre-intervention, a median proportion of 67% residual PIPs per day was observed. Scenario A showed an immediate relative reduction of 42% ($p=0.15$) and scenario B a significant immediate relative reduction of 77% ($p=0.03$) in residual PIPs per day. In scenario A, recommendations were provided by the pharmacist for 19% (44/232) of clinical rule alerts, of which 69% was accepted by the trauma surgeon within 24h. In scenario B, recommendations were given for 56% (167/299) of clinical rule alerts, of which 84% was accepted.

Conclusion and Relevance The use of clinical rules is an effective approach to organise bedside clinical pharmacy services and improves the efficiency of the clinical pharmacist at the trauma ward. Pharmacist's experience and daily follow-up of the clinical rule alerts are two requirements to be considered.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of Interest No conflict of interest

4CPS-112 SURVEY OF DIETARY SUPPLEMENT USE AND VACCINATION STATUS AMONG RHEUMATOID ARTHRITIS PATIENTS DURING THE COVID-19 PANDEMIC

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Background and Importance In recent years not just the novel therapeutic approaches, but the Coronavirus pandemic has also affected the therapy management of patients with rheumatoid arthritis. Beside these changes, the immunisation against COVID-19 has also been an issue and raised several questions from clinicians to patients.

Aim and Objectives Therefore, our aim was to find out the possible changes that patients were experiencing and the potential factors influencing their therapy.

Material and Methods Data was collected through structured personal interviews with a 33-item questionnaire licensed by

the Regional Research Ethics Committee of the University of Pécs and review of the medical records from January until September in 2022. We used the data available in the ambulatory medical records and the itemised reporting interface of the National Health Insurance Fund. Drug interactions were analysed using UpToDate Lexicomp database.

Results 35 female patients (average age: 63.53 years \pm 13.82) and 23 male patients (average age: 53.54 \pm 12.96) received biological or targeted therapy for an average of 7.17 years (\pm 4.12), while the average patient activity index DAS28 was 3.15 (\pm 1.17) and BASDAI was 5.29 (\pm 5.52). 87.93% (51/58) of the patients have used non-medication health products, mainly vitamin C or D. 34.48% of the patients were confirmed with coronavirus infection during the pandemic, while the vaccination rate was 87.89%. 83.45% of the patients received at least one mRNA vaccine. In our patient group, the influenza vaccination rate was 36.21%, while only 5.21% of the patients had been vaccinated against Pneumococcus in six months previous to our survey. The total number of serious (category X and D) interactions were 216, in 135 cases a vaccine and in 58 cases a monoclonal antibody or targeted therapy was included as interacting pair.

Conclusion and Relevance Despite the growing number of new therapeutic approaches and vaccines, the screening methods for analysing potential drug interaction are lacking behind and the Summary of Product Characteristics are not suitable for comprehensive evaluations. The inclusion of these therapies and the optimisation in vaccination status in the medication review process and the understanding of immunological mechanism potentially influencing the therapy of patients is warranted.

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4CPS-114 DEVELOPMENT AND PROSPECTIVE VALIDATION OF A PREDICTION MODEL TO IDENTIFY CLINICALLY RELEVANT MEDICATION DISCREPANCIES AT THE EMERGENCY DEPARTMENT

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Background and Importance Medication discrepancies occur in a majority of hospital admissions to the emergency department (ED) and are a major source of avoidable harm. Obtaining an accurate medication history is essential to identify drug-related problems early on. However, the medication reconciliation process is prone to many errors and is furthermore labour-intensive. As a result, many patients simply do not receive a complete medication reconciliation, mostly owing to limited resources. We hence need an approach which enables us to identify those patients at the ED who are at increased risk for clinically relevant discrepancies.

Aim and Objectives To develop and prospectively validate a prediction model to identify patients who are at risk for at

least one clinically relevant medication discrepancy at the time of ED presentation.

Material and Methods A prospective study was carried out at the ED. Medication histories were obtained and clinically relevant discrepancies were identified, using an internally validated scoring tool. Two distinct datasets were created. A first dataset (n=824) was used to build and internally validate a prediction model. We used multivariable logistic regression with backward stepwise selection to select the final model. A second dataset (n= 350) was used to prospectively validate the prediction model. The predictive performance of this model was assessed by measuring calibration, discrimination and classification.

Results The final model contained nine predictors that can easily be obtained upon ED admission, including age, origin before admission (home/nursing home) and number of drugs. Prospective validation showed excellent calibration with a slope of 1.09 and an intercept of 0.18. Discrimination was moderate with a c-index of 0.66. Using a probability threshold of 0.4, the sensitivity, specificity, positive predictive value, negative predictive value and alert rate was 41%, 81%, 56%, 70% and 27%, respectively.

Conclusion and Relevance The presence of at least one clinically relevant medication discrepancy can be predicted by our model with moderate performance. Using our prediction model is more efficient than performing medication reconciliation at random and can guide the rational use of limited resources at the ED. Depending on the available resources, different probability thresholds can be applied to increase either the specificity or the sensitivity of the prediction model.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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4CPS-122 CLINICAL FOLLOW-UP IN PATIENTS WITH MIGRAINE AFTER DISCONTINUATION OF PROPHYLACTIC BIOLOGICAL TREATMENT: A REAL-WORLD EXPERIENCE

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Background and Importance Monoclonal antibodies targeting the calcitonin gene-related peptide (CGRP) pathway are recommended by European Headache Federation for migraine prevention. They are considerate effective and safe in the long-term.

In individuals with episodic or chronic migraine (EM, CM) the duration of preventive treatment is not defined. Some experts recommend a pause after 12–18 months of continuous treatment. Restarting the treatment is suggested when migraine worsen after treatment withdrawal.

Aim and Objectives To evaluate the course of migraine after anti-CGRP treatment withdrawal and the prevalence of restart treatment in our population.

Material and Methods Descriptive, retrospective and observational study of patients treated with erenumab, galcanezumab and fremanezumab from January 2020 to September 2022