2016, we selected patients with a concomitant DOAC and AP prescription during their hospitalisation. Medical history, clinical and medication data were retrieved from the electronic medical record. Based on current guidelines, a decision tool was developed to evaluate the appropriateness of combined DOAC-AP therapy according to three classifications: 'likely appropriate' (i.e. in line with current guidelines); 'out of guidelines'; and 'debatable'. Evaluations were performed first by the clinical pharmacist. Complex cases were then discussed with specialist physicians.

Results Among 336 patients screened, 106 (31%) received combined DOAC-AP therapy during their hospitalisation. Fifty-two prescriptions (49%) were considered as 'likely appropriate', 51 (48%) were rated as 'out of guidelines' (including 27 patients with stable coronary artery disease) and no consensus was achieved for three (3%; judged as 'debatable'). Eighteen patients had undergone a PCI in the past 6 months. The antiplatelet scheme was a combination of aspirin and clopidogrel in 14 (82%) patients and DOAC prescription's adjustment was performed in 10 patients (59%).

Conclusion Half of the patients on DOAC received a potentially unsuitable AP therapy, showing the potential of prescription optimisation. Additional data from clinical trials is also urgently needed, to improve the level of evidence and reinforce the strength of recommendations in clinical guidelines.

REFERENCES AND/OR ACKNOWLEDGEMENTS

None.

No conflict of interest.

4CPS-019 MEDICATION USE EVALUATION OF EDOXABAN IN A TERTIARY HOSPITAL

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Background A new oral anticoagulant (NOAC) edoxaban, which causes less drug-drug or drug-food interactions than warfarin and does not require routine international normalised ratio (INR) monitoring, is associated with a better safety profile in those with renal impairment or low bodyweight, and the elderly.

Purpose To analyse the trend and the appropriateness of edoxaban prescriptions in a tertiary hospital.

Material and methods A retrospective study was conducted using the electronic medical records between April 2016 and August 2017. Patients who initiated treatment with edoxaban between April 2016 and August 2016 were included. We analysed the data to assess if the indications and dosage were appropriate based on the labelling recommendations. We also followed patients' treatment outcomes and adverse events.

Results In total, 142 patients were treated with edoxaban during the observation period. In 94.4% of these patients, edoxaban was prescribed for proper indications, except for eight patients who lacked approved indication for edoxaban use: six were being treated for valvular atrial fibrillation and two for suspected arterial embolism. Among 134 patients with appropriate indications, the percentages of patients whose renal function and bodyweight were measured before initial dosing were 85.8% and 94.0%, respectively. Of the 30 patients who switched from warfarin to edoxaban, 21 patients (70.0%) started edoxaban when the INR ≤2.5. Ninety-three of 134 patients (69.4%) received appropriate an initial dose based on renal function, bodyweight and drug interactions. Thirty patients needed dose modification during administration, but dose adjustments were performed only in eight patients. Twenty patients (14.9%) had adverse drug events, with a total of 30 events, 22 of which were related to bleeding. During the study period, stroke occurred in two patients and no evidence of stroke or pulmonary embolism was observed in 123 patients. Nine patients were lost to follow-up.

Conclusion The majority (≥90%) of patients in our study had indications adequate for edoxaban use, but only 70% of patients received appropriate interventions in terms of dose adjustment and transitioning between anticoagulants. Of the 30 cases of adverse events, 73.3% were bleeding-related events. Therefore, pharmacists need to make more efforts to improve the safe and effective use of edoxaban.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-020 ANTICOAGULATION THERAPY IN HAEMODIALYSIS – A CLINICAL PHARMACIST EXPERIENCE IN A PRIMARY CARE TEAM

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Background Anticoagulation (AC) is essential to haemodialysis (HD), however the uremic state itself can cause bleeding complications.

Purpose The aims of this retrospective cohort study were:

- To evaluate our current anticoagulation practice focusing on bleeding risk in contrast to thromboembolic events.
- To analyse potentially severe drug–drug interactions (DIs) to determine drug combinations that should be avoided.

Material and methods We reviewed the medical records of 101 chronic HD patients (55 men, age 69±12 years, HD vintage 31 months (IQR:45)) in our hospital. Each patient's current medical treatment was evaluated by in-person interview and drug interactions were checked with Medscape. Statistical analysis was performed with the SPSS v18.0 software package. Data were expressed as mean ±SD, comparisons between groups were analysed by non-parametric tests, $p<0.05$ was considered statistically significant.

Results A total of 69 patients received UFH and 31 got LMWH during HD as per dialysis protocol. For other indications 20 patients received LMWH and 11 patients received oral anticoagulation therapy (OAC) off-dialysis days. The majority of patients spent a longer time outside of target international normalisation ratio. Additionally, 41 patients took antiplatelet agents and 29 took NSAIDs. Overall, 34% of the total patients had experienced bleeding, while 30% had suffered thromboembolic complications.

Forty-four (45%) patients had 83 severe/contraindicated DIs. The main severe potential drug-drug interactions were caused by combinations of NSAID/ASA (35%), dalteparin/UFH (29%) and dalteparin/clopidogrel (10%). Sixty-eight per cent of these patients (31 out of 45) had manifest bleedings, whereas among those without drug interactions bleeding was observed in 18% ($p<0.001$). More blood transfusions (64%

vs 44% p=0.048) and higher erythropoietin substitution were needed for patients who had severe drug interactions (21409 ±10 991 vs 18500±11480 IU/month, p=0.197) compared to those patients who did not.

Conclusion Dialysis patients may experience severe potential DIs. Their anticoagulant regime should be personalised. Clinicians should be cautious when prescribing drugs to them. Involving clinical pharmacists in the primary team is advisable to prevent DIs.

REFERENCES AND/OR ACKNOWLEDGEMENTS

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4960860/
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765624/
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5051256/
https://reference.medscape.com/drug-interactionchecker
No conflict of interest.

4CPS-021 ABSTRACT WITHDRAWN

4CPS-022 HIGH INPUT IN PATIENT SAFETY – DOCUMENTATION OF CARDIOVASCULAR SYSTEM DRUGS

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Background Cardiovascular disease (CVD), together with its main components, coronary heart disease (CHD), and cerebrovascular diseases, is the main source of morbidity and mortality in the European Union. The involvement of pharmacists demonstrated an ability to improve CVD outcomes through providing education, medicine management or a combination of both.

Purpose To show which areas of CVD could be improved by pharmacists a retrospective analysis of data collection was conducted. Data were derived from a detailed documentation system from 2015 to 2018.

Material and methods Four times a week one pharmacist counselled two wards of a medical department with infectious diseases and tropical medicines with ~1600 admissions per year. The focus was on CVD drugs according to recent ESC guidelines. Either written recommendations or collaborative agreements with individual physicians were done.

Results One-thousand three-hundred interventions were documented by only one pharmacist. The majority (64%) of these interventions were accepted and implemented. The most common drug classes involved in interventions were CVD drugs (27%) and the most detected drug-related problems (32%) were missing indications. Thirty-one per cent of all CVD drug recommendations concerned stopping nicorandil and NO-donors for missing indication.

On the other hand, 45% of all patients who should be on a statin, did not get therapy while hospitalised, if the pharmacists would not have intervened. Fifty-four per cent of recommendations concerned change of medication due to a better side effect profile: diuretics (electrolyte imbalances), ß-Blockers (selectivity) and calcium channel blocker (less flush and oedema). Time of administration for amlodipin and carvedilol was optimised in 70% of cases, and in 21% doses of ACE inhibitors and sartanes according to blood pressure was adapted.

Conclusion Through data analysis the effectiveness of clinical pharmacist interventions within a multidisciplinary team was demonstrated. These error mitigation efforts can serve as a priority in patient safety strategies in this high-risk patient group.

These improvements may also lead to an improvement in patients' quality of life, better use of healthcare resources and a reduced rate of mortality.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Link: The role of the clinical pharmacist in the care of patients with cardiovascular disease. https://www.ncbi.nlm.nih.gov/pubmed/26541925

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