4CPS-017

EVALUATION OF PHARMACISTS' INPUT IN ANTICOAGULATION CLINIC REVIEWING DIRECT ORAL ANTICOAGULANTS INITIATED IN A SECONDARY CARE HOSPITAL IN LONDON

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Background The National Institute for Health and Care Excellence (NICE) technology appraisals has made recommendations on four direct oral anticoagulants (DOACs). Local anticoagulation policy recommends all patients newly initiated on a DOAC should be followed-up in an anticoagulation clinic within 4 weeks. There is evidence suggesting that up to 30% of patients are dosed inappropriately according to their age, bodyweight and renal function.

Purpose To assess the dosing appropriateness of DOACs at initiation at the 1 month follow-up anticoagulation appointment in the clinic.

- Determine percentage of patients who are initiated on an appropriate dose.
- Determine percentage of patients that had an intervention made in their treatment plan at the clinic.

Material and methods Data was collected retrospectively over a period of 6 months from patient healthcare records from January 2018 to July 2018 for patients attending anticoagulant clinics.

Results

- Sixty-four per cent (n=118) of patients newly initiated on a DOAC were followed-up within 4 weeks.
- Ninety-two per cent (n=166) of patients were initiated on an appropriate dose of DOAC in accordance with product licence.
- Fifteen per cent (n=27) of patients had either a dose or DOAC changed, or DOAC stopped at the follow-up appointment by a pharmacist.
- The majority of alterations were due to incorrect documentation of weight, use of old blood test results and use of eGFR instead of calculated creatinine clearance (CrCl) using Cockcroft and Gault.
- The majority of patients were followed up within a 4 week period. A significant proportion, 8% (n=17), required dose amendments, as initial dosing was incorrectly based on CrCL estimated by the hospital system which is based on e-GFR and not Cockcroft and Gault in line with the product licences and clinical trials.

Conclusion Pharmacists have a clear role in ensuring appropriate dosing of DOACs and a reminder (and education) for non-specialist pharmacists on the importance of dosing based on CrCl with Cockcroft and Gault, as opposed to the default on hospitals with is e-GFR.

REFERENCE AND/OR ACKNOWLEDGEMENTS

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No conflict of interest.

4CPS-018

EVALUATION OF ANTIPLATELET AGENT PRESCRIBING IN PATIENTS ON DIRECT ORAL ANTICOAGULANT

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Background Among patients requiring an oral anticoagulant (OAC), a large proportion also take an antiplatelet agent (AP). Several studies have highlighted the significantly increased bleeding risk associated with a combined OAC (VKA mainly) and AP (aspirin mainly) therapy, without a reduction in risk of recurrence of coronary artery events or thromboembolism. The continuation of an AP in patients on OAC therapy for venous thromboembolism or atrial fibrillation remains a recurrent matter of debate and is still little studied in patients on direct OAC (DOAC).

Purpose Our main objective was to evaluate to what extent combined DOAC-AP therapy met recommendations of current guidelines. A secondary objective was to describe antithrombotic prescription schemes in patients on DOAC with a recent percutaneous coronary intervention (PCI).

Material and methods We performed an observational retrospective cohort study in a 450-bed teaching hospital. Among DOAC patients prospectively reviewed by a clinical pharmacist dedicated to anticoagulation between January and December

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 ($\geq 90\%$) 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

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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 $\pm$ 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%)