

#### 4CPS-017 MISUSE OF NOVEL ORAL ANTICOAGULANTS IN HOSPITAL SETTINGS

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10.1136/ejhpharm-2018-eahpconf.108

**Background** In the past few years, the development of three novel oral anticoagulants (NOACs), which directly target thrombin or factor Xa, has brought a remarkable change in the clinical practice of anticoagulation therapy. Although they constitute an attractive alternative option to warfarin and heparin, the appropriate use of these agents is essential in order to maximise their effect and avoid adverse events.

**Purpose** The aim of the present study is to investigate two clinical pharmacists' interventions regarding NOACs' usage in a private hospital.

**Material and methods** A prospective study was conducted at a Private General Hospital from 1 January 2016 to 31 December 2016. NOACs were administered in different doses according to indication, bodyweight, age and comorbidities. During the study period, the clinical pharmacists documented all cases where NOACs were prescribed. Data were analysed so as to reveal potential medication errors.

**Results** Totally, 370 cases of NOACs' administration were recorded, of which, 42 (11.4%) included a medication error. Among these mistakes, 28 (66.7%) were related to erroneously calculated NOACs' dosage based on renal function, eight (19%) to drug-drug interactions and six (14.3%) to concurrent active cancer. Apixaban was the most frequent NOAC to be erroneously administered (13 of 76 cases, 17.1%), followed by rivaroxaban (28 of 257 cases, 10.9%) and dabigatran (one of 37 cases, 2.7%).

**Conclusion** No matter how advantageous NOACs seem to be, they are accompanied by several risks which are more likely to happen if these agents are not appropriately used. Both the efficacy and bleeding risk depend on patient variables, such as renal function, age, weight and concomitant medication, whereas, due to their recent authorisation, there is insufficient experience on their benefit-to-risk ratio in special cases, such as cancer, obesity or childhood. The present study showed that, in our hospital, a significant amount of patients (11.4%) received NOACs in a way that contradicts the product label guidelines. The necessity to take patients' medical history and NOACs' pharmacological characteristics into account was highlighted, along with the potential contribution of a drug-handling expert, such as a clinical pharmacist.

No conflict of interest

#### 4CPS-018 SPECIALIST PHARMACIST-LED SUPPORT IN PRIMARY CARE TO OPTIMISE CARDIOVASCULAR RISK MANAGEMENT IN PATIENTS WITH ATRIAL FIBRILLATION (AF-PATIENTS)

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10.1136/ejhpharm-2018-eahpconf.109

**Background** Patients with atrial fibrillation (AF) are at high risk of serious cardiovascular complications such as stroke.

Oral anticoagulation is an effective prevention but the rate of appropriate anticoagulation remains suboptimal in England. A London CCG initiated an AF-improvement scheme in 2017: a specialist cardiovascular pharmacist in secondary care led on clinically supporting general practitioners (GPs) in optimising the management of AF-patients.

**Purpose** To assess the impact of a specialist pharmacist on improvement of anticoagulation in AF-registered patients.

**Material and methods** Over 4 months a specialist pharmacist reviewed 20 GPs' electronic systems (Emis<sup>®</sup>) using an electronic program (APL-tool<sup>®</sup>) to extract and select global and individual patients' data to assess for anticoagulation. Patients without anticoagulant/on antiplatelet monotherapy were listed in four categories:

- Anticoagulation to be initiated.
- Multidisciplinary team (MDT) referral for complex patients to decide about anticoagulation.
- Contra-indication for anticoagulation.
- Anticoagulation not indicated i.e. CHA2DS2-VASc=0.

The pharmacist reviewed every clinical record for confirmation of AF, patient's characteristics and blood results. Based on national guidelines, eligible AF-patients were initiated either on a direct oral anticoagulant (DOAC) or warfarin. The primary endpoint was the difference in the percentage of anticoagulated patients before and after intervention (McNemar test). The secondary endpoints include type of pharmacist's intervention, number and types of exceptions/referrals to community pharmacists and patients' refusal (all presented in final results).

**Results** 1315 AF-registered patients were reviewed, of which 814 patients (62%) were anticoagulated at baseline. Following pharmacist intervention, 501 patients were identified as not receiving anticoagulation, and were assessed into the following categories:

- 283 patients (57%).
- 70 patients (14%).
- 82 patients (16%).
- 66 patients (13%).

GPs agreed with 100% of the pharmacists' decisions for anticoagulation. So far, 241 new patients from category 1 and 2 are now on appropriate anticoagulation, leading to an interim improvement of 18% (62 to 80%,  $p < 0.0001$ ). Eleven patients declined anticoagulation.

**Conclusion** Our interim results highlight the benefit of a specialist pharmacist working in GP practices with increases of anticoagulation among AF-patients. This is an innovative example of working across traditional boundaries between primary and secondary care, with an integrated and patient-centred approach. Future developments includes GP educational tools to facilitate initiating anticoagulation and integration of community pharmacists to support patients' adherence.

No conflict of interest

#### 4CPS-019 EVALUATION OF VENOUS THROMBOEMBOLIC EVENT PROPHYLAXIS IN HOSPITALISED CANCER PATIENTS: A SINGLE-CENTRED RETROSPECTIVE STUDY

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10.1136/ejhpharm-2018-eahpconf.110