

119 APPROPRIATENESS OF PRESCRIBING OF DIRECT ORAL ANTICOAGULANTS IN A UNIVERSITY TEACHING HOSPITAL NETWORK

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Introduction Direct oral anti-coagulants (DOACs) have been developed that provide simplified, fixed dose regimes over variable dosing with vitamin K anticoagulants. However, DOAC dosing is dependent on indication, demographics and co-morbidities, such as renal impairment. Inappropriate dosing is associated with harm with both unintentional under- and excessive-dosing [1]. The purpose of this study is to describe the appropriateness of DOAC prescribing with respect to the criteria set out in summary of product characteristics (sPC) and British National Formulary [2,3].

Methods A retrospective audit of consecutive in-patients, over a 3-month period, prescribed DOACs in St Bartholomew's and Royal London hospitals from November 2018 was performed. Data was extracted from electronic healthcare and pharmacy records. Inclusion criteria: prescribed a DOAC (apixaban, dabigatran, edoxaban and rivaroxaban), recorded dose and frequency, patient sex, age and weight; serum creatinine (sCr). Exclusion criteria: use of non-DOAC anticoagulant, record duplication and incomplete records. Dosing appropriateness was compared for each of the drugs with respect to indication and criteria set in individual sPCs.

Results 360 patients were prescribed DOACs, of whom 203 (56%) satisfied inclusion/exclusion criteria. Main reasons for non-inclusion were incomplete records (n=54) and record duplication (n=91). Mean age was 76±24 years, with 23% of patients >80 years-old and 15% <60 kg. Renal function (creatinine clearance (CrCl), calculated using Cockcroft-Gault method) was <50 mL/min in 42% of patients. The majority of DOAC prescribing was for atrial fibrillation (71%). For the

individual DOACs, dose appropriateness was best for dabigatran (93.3%, n=14/15 patients) and edoxaban (95.2%, 20/21 patients). Rivaroxaban was prescribed appropriately in 81% (n=58/72) of patients and apixaban was prescribed appropriately in 82% (n=78/95) of patients. Majority of dose inappropriateness was due to non-indicated underdosing (n=29/34). For rivaroxaban, this was apparent in patients with a significant discrepancy between renal function measured by eGFR (CKD-EPI equation) and calculated CrCl (Cockcroft-Gault method, recommended in sPC and used in the clinical trials). For patients requiring reduced dosage, this was correctly prescribed in 92% (n=35/38) patients.

Conclusion In our university hospital network, more patients were underdosed relative to their indication than was expected. This may be due to usage of clinically available eGFR, which is routinely available as part of hospital systems, rather than using manually calculated CrCl and the multiple criteria required to dose apixaban correctly. Further education of prescribers and ward-based pharmacists is required to improve the prescribing quality with the aim of improving treatment efficacy and safety outcomes.

REFERENCES

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Conflict of Interest nil

120 CARDIOVASCULAR RISK PROFILE AND DISEASES IN PATIENTS WITH SARCOIDOSIS IN THE ACALM BIG DATA REGISTRY

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Abstract 120 Table 1 Prevalence of comorbid cardiovascular disease in patients with sarcoidosis

	Sarcoid Prevalence	Control Prevalence	Adjusted Risk
	n (%)	n (%)	Odds ratio (95% CI)
Hypertension	256 (28.4%)	1,562 (17.3%)	1.724 (1.430-2.078)***
Hyperlipidemia	102 (11.3%)	605 (6.7%)	1.310 (1.014-1.691)*
T1DM	19 (2.1%)	107 (1.2%)	1.284 (0.769-2.144)
T2DM	152 (16.9%)	682 (7.6%)	1.961 (1.587-2.425)***
IHD	97 (10.8%)	801 (8.9%)	0.849 (0.656-1.097)
ACS	13 (1.4%)	242 (2.7%)	0.394 (0.220-0.707)**
Heart Failure	51 (5.7%)	209 (2.3%)	2.202 (1.549-3.130)***
AF	46 (5.1%)	283 (3.1%)	1.215 (0.855-1.727)
CKD	43 (4.8%)	122 (1.4%)	2.862 (1.967-4.164)***
Cerebrovascular	17 (1.9%)	156 (1.7%)	0.814 (0.482-1.375)
PVD	8 (0.9%)	104 (1.2%)	0.473 (0.221-1.010)

Odds ratio for comorbid cardiovascular disease adjusted by multivariate logistic regression accounting for demographics and cardiovascular diseases * = p<0.05 ** = p<0.01 *** = p<0.001
T1DM = Type 1 Diabetes Mellitus. T2DM = Type 2 Diabetes Mellitus. IHD = Ischemic Heart Disease. ACS = Acute Coronary Syndrome.
AF = Atrial Fibrillation. CKD = Chronic Kidney Disease. PVD = Peripheral Vascular Disease.