

# Audit of Oral Anticoagulant Prescribing

## What has changed in 4 years?



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## 1 INTRODUCTION

The MMUH formulary recommendations for Oral Anticoagulants (OACs) are in line with the Health Service Executive (HSE) Medicines Management Programme (MMP)<sup>1,2</sup>. In 2018, Warfarin was the MMP OAC of choice. Apixaban is the preferred Direct Oral Anticoagulant (DOAC) if Warfarin is unsuitable. Edoxaban, Dabigatran and Rivaroxaban are third-line options<sup>1,2</sup>. In 2014, Warfarin was prescribed in 81% of cases in the MMUH. National data indicates DOACs are now prescribed more often than Warfarin<sup>2</sup>.

## 2 AIMS & OBJECTIVES

- To identify current MMUH OAC prescribing practice.
- To compare results with 2014 data.

## 3 METHODS

- A point prevalence audit was completed by clinical pharmacists, on one day in November 2018, on all in-patients prescribed OACs across thirty wards.
- The audit tool recorded the OAC, indication, dose, prescribing team speciality and if treatment was commenced on this MMUH admission.
- Results were collated, analysed and compared with an identical 2014 audit using Excel<sup>®</sup> and appropriate statistical tests. Statistical analysis assumed 697 patients were reviewed in both years (current capacity of the thirty wards included).

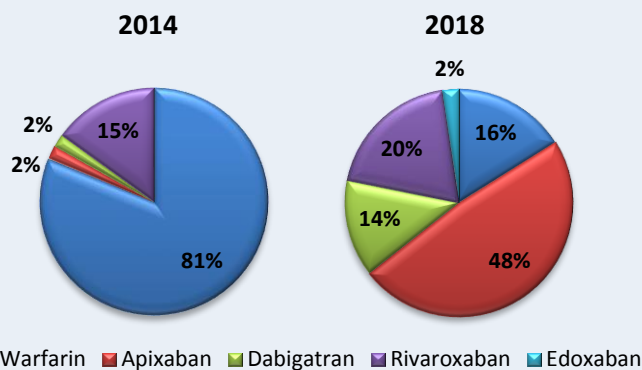


Figure 1: Breakdown of MMUH patient numbers on OACs in 2014 versus 2018

## 4 RESULTS

- More MMUH patients were prescribed OACs in 2018 (n=87) than 2014 (n=53) (P < .01).
- Apixaban was the most commonly prescribed OAC in 2018 (48%). Use of Warfarin has decreased from 81% in 2014 to 16% in 2018 and is now surpassed by DOAC prescribing (P < .01). Figure 1 illustrates this data.

- Table 1 shows a breakdown of OAC indication. All patients with valvular heart disease were on Warfarin. In 2018, Rivaroxaban was used off-label for a case of portal vein thrombosis.
- Licensed doses of OACs were prescribed for all patients with the exception of one case where Dabigatran 75 mg twice daily was prescribed for atrial fibrillation.
- The Medicines for the Elderly speciality had the most patients on OACs in both 2018 (n=29) and 2014 (n=14).
- The majority of patients prescribed OACs in both 2014 and 2018 were 60 years or over. In 2014, all patients under 60 requiring oral anticoagulation were on Warfarin. In 2018, all these patients were on DOACs.
- The number of patients starting OACs during MMUH admission was almost 10% higher in 2018 (n=27) than 2014 (n=11) (P = .18).

Table 1: Breakdown of OAC indication in 2014 versus 2018

	2014 (N=53)	2018 (N=87)
Non-valvular atrial fibrillation	60%	76%
Treatment/prevention of deep vein thrombosis	13%	10%
Treatment/prevention of pulmonary embolism	4%	7%
Valvular heart disease (all on warfarin)	11%	2%
Stroke prevention	4%	4%
Other	8% (4% unknown, 4% pulmonary hypertension)	1% (portal vein thrombosis)

## 5 CONCLUSION

- Apixaban is the most commonly prescribed OAC, overtaking Warfarin.
- DOAC prescribing is mainly for licensed indications and doses.
- Increased OAC prescribing means increased pharmacy workload in terms of medication review and patient education.
- A limitation of the study was inability to assess appropriateness of DOAC dosing; however, dosing is routinely assessed by the clinical pharmacist.

### REFERENCES:

- MMUH. Prescriber's Guide. Chapter 5.8. Information on DOACs. Last updated December 2018.
- HSE. Oral anticoagulants for Stroke Prevention in Non-Valvular Atrial Fibrillation. Version 1.1. Medicines Management Programme. Last updated September 2018.

### DISCLOSURE:

Ms. Jayne Tuthill: Nothing to disclose, Ms. Maríosa Kieran: Nothing to disclose, Prof. Patricia Ging: Nothing to disclose, Ms Jennifer Brown: Nothing to disclose.

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