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### Paper:

Torabi, F., Akbari, A., Harris, D., Kalra, N., Haxton, A., Halcox, J. & Lyons, R. (2018). Stroke prevention: Evaluation of the use of anticoagulation in the population with known Atrial Fibrillation. *International Journal of Population Data Science*, 3(4)

<http://dx.doi.org/10.23889/ijpds.v3i4.799>

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## Stroke prevention: Evaluation of the use of anticoagulation in the population with known Atrial Fibrillation

Torabi, F<sup>1</sup>, Akbari, A<sup>2</sup>, Harris, D<sup>3</sup>, Halcox, J<sup>4</sup>, Haxton, A<sup>3</sup>, Kalra, N<sup>3</sup>, and Lyons, R<sup>5</sup><sup>1</sup>Swansea University<sup>2</sup>Health Data Research UK - Wales and Northern Ireland, Swansea University Medical School<sup>3</sup>Abertawe Bro Morgannwg University Health Board<sup>4</sup>Swansea University Medical School<sup>5</sup>Farr Institute, Swansea University Medical School

### Introduction

Atrial Fibrillation (AF) is a common abnormal heart rhythm that is associated with five times the risk of stroke and twice the risk of death. However, this risk can be reduced by approximately two thirds through the appropriate use of anticoagulation (AC).

### Objectives and Approach

Reducing the incidence of stroke through effective management of AF is a priority recognised by Abertawe Bro Morgannwg University Health Board (ABMUHB), in Wales, UK. An understanding of how closely services follow appropriate clinical guidelines for stroke prevention allows identification of opportunities to improve stroke outcomes and service efficiency. This study was commissioned to describe the nature of antithrombotic drug prescribing in ABMUHB patients with AF according to thromboembolic and bleeding risk status, and the numbers of non-anticoagulated patients with AF presenting with stroke. This study was completed using linked data held in the Secure Anonymised Information Linkage (SAIL) databank.

### Results

AF was identified in 12,778 ABMUHB patients (approximately 3% of the population), with 97% providing linked primary care records for our required period of follow-up. Of the AF patients with linked prescribing data, 60.5% were prescribed anticoagulants, 15.8% were prescribed antiplatelet agents and 23.7% received no antithrombotic medication. Notably, the thromboembolic risk and bleeding risk profiles (characterised by modified CHA<sub>2</sub>DS<sub>2</sub>-VASc and HAS-BLED scores respectively, implemented within the SAIL databank data) were remarkably similar in those receiving and those not receiving AC. 965 patients were admitted to ABMUHB hospitals with a stroke during 2015. AF was previously diagnosed in 18% of

these patients, of whom just over half (50.3%) were not being prescribed AC during the 3 months prior to their stroke.

### Conclusion/Implications

This study demonstrates under prescribing of AC in patients with AF, which is not explained by stroke risk or bleeding scores. ABMUHB colleagues are developing strategies for service improvements, with plans for further sequential analysis to evaluate the effectiveness of implemented measures for outcome monitoring and reporting purposes.

