

ARC '16

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<http://dx.doi.org/10.5339/qfarc.2016.HBPP2306>

Trends in New 75% Oral Anticoagulant Use in Qatar: A 5-Year Experience

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Introduction

Warfarin has been the cornerstone oral anticoagulant for more than 60 years. Direct oral anticoagulants (DOACs) have been introduced to the market since 2008. In Qatar, dabigatran was introduced in 2011 followed by rivaroxaban in 2014 and both DOACs are currently used along with warfarin for the treatment and prophylaxis of different thromboembolic diseases. Despite the perceived advantages of the DOACs and their proven efficacy and safety in randomized controlled studies, their use is not as well-established as it has been expected likely due to the lack of antidote and their high cost. Little is known about the prescription pattern of oral anticoagulants and the extent to which DOACs replaced warfarin in Qatar.

Aim

In this study, we aim to explore the trends in oral anticoagulant use in Qatar over the past 5 years and to what extent did DOACs replace warfarin. We also aimed to determine the appropriateness of DOACs use based on the dose and the indication.

Methods

From electronic medical records, we collected all anticoagulant prescriptions dispensed as in- or out-patient from 2011 to 2015 in all Hamad Medical Corporation (HMC) hospitals. Prescriptions were stratified by the year, the medication prescribed and the dose. For every calendar year, we calculated the number and percentage of patients using each one of the anticoagulants prescribed. We also compared the clinical and demographics characteristics

Cite this article as: Elewa HF, Alhaddad AF, Al-Rawi SF. (2016). Trends in New 75% Oral Anticoagulant Use in Qatar: A 5-Year Experience. Qatar Foundation Annual Research Conference Proceedings 2016: HBPP2306 <http://dx.doi.org/10.5339/qfarc.2016.HBPP2306>.

of patients prescribed warfarin versus those prescribed DOACs. Descriptive and inferential statistics were performed using SPSS.

Results

The attached table shows the change over the years in the number of patients prescribed warfarin versus those receiving DOACs. Overall, the percentage of patients receiving DOACs increased gradually from approximately 0.5% in 2011 to 20% in 2015. About 40% of patients receiving DOACs were previous warfarin users. DOACs were appropriately used in more 80% of the patients. Year/ Drug Warfarin Number (%) Dabigatran Number (%) Rivaroxaban Number (%) 2011 2078 (99.47%) 11 (0.53%) 2012 2364 (97.52%) 60 (2.48%) 2013 2567 (90.04%) 285 (9.06%) 2014 2823 (83.3%) 320 (9.44%) 246 (7.26%) 2015 2065 (80.54%) 196 (7.64%) 303 (11.82%).

Conclusion

DOACs have been gradually replacing warfarin in Qatar in a trend that is similar to other countries as well. However, warfarin use remains essential in more than 75% of patients requiring oral anticoagulant. It is important to continue educating healthcare providers to ensure appropriate use of these novel agents.