Portuguese pharmacists? perceived needs of education in anticoagulation


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Background Atrial fibrillation is the most common cardiac arrhythmia globally, responsible for one third of strokes, and often resulting in death or incapacity. In recent years, therapeutic treatment options have expanded with the introduction of novel oral anti coagulants (NOACs) and subsequent expansion of their indications. However, the extent to which pharmacists have increased their knowledge and confidence in this therapeutic area remains unclear.

Purpose To identify and assess pharmacist's knowledge gaps in the areas of anticoagulation (AC), and to compare and contrast knowledge gaps by therapeutic area; by area of practice; and by country's provision of pharmacy services.

Method An online survey was developed by iPACT in English and subsequently translated and adapted to 19 countries, including Portugal. The survey comprised a total of 25 questions divided into 3 domains (general confidence level with advising patients on AC; perceived training needs; and training formats preferred) and was disseminated via a link in the society's newsletter. Sub-group analysis assessed differences between confidence levels by therapeutic groups. Countries were clustered according to the literature into: advanced level (Australia, the Netherlands and Canada) and basic level service provision (Brazil, Hungary and Gulf Countries); and Portugal's performance was compared with these 2 groups. Statistical analysis was performed using SPSS® version 24, focusing on bivariate analysis to compare confidence by therapeutic class and by country, and descriptive analysis of preferred forms of training.

Findings After 9 months, 181 responses were obtained in Portugal out of a total of 3,324 participants worldwide. The confidence levels of pharmacists to counsel patients on vitamin K antagonists (VKA) was significantly higher than for newer non-vitamin K oral anticoagulants (NOACs) in Portugal (p <0.001). Hospital pharmacists felt more confident than community pharmacists with advising patients on VKAs in Portugal (p= 0.002), whilst not significantly different for NOACs. Whilst there were clear differences in confidence levels between countries with advanced pharmaceutical services (M=25.3; SD=5.96) and those with basic services (M=30.1; SD=7.06), Portugal’s performance was closer to the latter (M=29.0; SD=6.01), an obvious cause of concern. The vast majority expressed a clear preference for e-learning (72.8%) as a method of continuing education in this area, similar to worldwide results.

Conclusion Portuguese pharmacists expressed low confidence levels for advising patients on AC, a finding perhaps unexpected considering specific post-graduate education in this area. Consequently, it is essential to invest on education to better fill the knowledge gaps and indirectly increase medication safety.