Comparing Patient Experience and Adherence with Rivaroxaban and Warfarin

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INTRODUCTION

In the current treatment of atrial fibrillation (AF), anticoagulant medications such as warfarin and rivaroxaban are commonly prescribed to help reduce the risk and occurrence of ischemic strokes and other thromboembolic events. Whilst previous research has highlighted various advantages and disadvantages of each of these medications, [1,2] there remains an absence of qualitative evidence regarding the comparative lived experiences of AF patients currently prescribed on either warfarin or rivaroxaban. As such, the present study aims to obtain a greater understanding of the patient experience and beliefs surrounding their selected anticoagulant medication.

METHOD

Participants aged ≥18 were selected via a purposive sampling methodology,. An initial list of potential participants who satisfied the criteria (i.e. were currently taking warfarin or rivaroxaban) was provided by a local National Health Service (NHS) haemophilia and thrombosis clinic centre, before letters were out to a pool of 60 potential participants (30 warfarin and 30 rivaroxaban Additional participants were recruited via a local AF support group, with a final sample of 20 participants (10 warfarin and 10 rivaroxaban) being selected to take part in the study.

Once recruited and consented, each participant was requested to fill out a pre-interview questionnaire which included psychometric measures pertaining to levels of adherence (MMAS-4)[3] and beliefs about medication (BMQ)[4]. Once these measures were completed, each participant took part in a semi-structured interview which sought to explore: 1) Initial responses to anticoagulant medication (ACM); 2) Current issues, impacts and experiences related to ACMs; 3) Perceived pros and cons associated with current ACM; 4) Adherence and management experiences; 5) Perceptions of monitoring processes and; 6) Advice and recommendations for AF patients and clinicians.

All interviews were transcribed verbatim and analysed using thematic analysis protocols.

RESULTS

Analysis of the psychometric measures included in the pre-interview questionnaire, revealed no significant differences between warfarin and rivaroxaban participants in relation to levels of adherence and beliefs surrounding their selected ACM medication. Descriptive statistics can be observed in table 1.

Table 1

Measure	Warfarin Mean (SD)	Rivaroxaban Mean (SD)	MW-U test Z	Sig.
MMAS-4	0.5 (0.67)	0.3 (0.46)	0.45	0.65
BMQ- Specific Necessity	3.38 (0.75)	3.53 (0.57)	-0.57	0.57
BMQ- Specific Concern	2.67 (0.87)	2.33 (0.68)	1.7	0.24
BMQ- General Overuse	2.5 (0.83)	3 (0.60)	-1.29	0.20
BMQ- General Harm	2.1 (0.62)	2.4 (0.66)	-0.90	0.36

The thematic analysis process resulted in the emergence of three prevailing themes: 1) Positive perceptions of current ACM; 2) Distrust of alternative ACMs; and 3) Inconsistencies in support experiences (see table 2).

Table 2

Main Theme	Participant Quotes
Positive Perceptions of current ACM	"I have to say, I haven't been aware of any side-effects whatsoever." (P17, rivaroxaban) "I can feel lethargic at times and err as I say, being out of breath and ever if you exert significantly err it probably magnifies that. But I can't really say much beyond that I don't think." (P9, warfarin) "I get mental satisfaction I guess from knowing I'm reducing my risk of a clot." (P2, warfarin) 'I think it's a wonderful medicine. And I think what it prevents has made my life a lot happier." (P8, rivaroxaban) "I still carry on the same as I was doing. I like to be outdoors, that remains." (p6, warfarin) "it's never stopped me doing anything." (p9, rivaroxaban) " I just swallow the pill and that's it. Job done" (P3, warfarin) I find it very easy really. I just take this little red tablet." (P15, Rivaroxaban)
Distrust of alternatives	"In my past I was in the drug squad for a couple of years. The warfarin was always used for the rat killers so (laughs) it must be a psychological thing. I just didn't want to trust it at all." (p4, rivaroxaban) "I didn't switch to the newer versions of anticoagulants because they didn't have an antidote. And whilst you don't plan to have an accident, you never know.."(P10, warfarin) "I would hate to think that we would have to go back to just warfarin because this drug is so much easier to manage and for anybody that cannot drive or cannot have any transport to get to have blood tests." (P8, rivaroxaban)
Inconsistencies in support experiences	"I think the other one's were relatively new at the time and that was why it was thought that I should be better off on warfarin.". (p6, warfarin) "There was no discussion of any alternative medicine. He told me it was very safe drug and very new and extremely successful" (P8, rivaroxaban) "Well, I was educated right from the very word go and they explained how it would work." (P4, rivaroxaban) "I sense it was mostly a "There you go, we've-we've diagnosed what-what you've got, you keep taking this." I don't think there was any proactive form of "Are you ok?" (P9, warfarin) "The support I get from the INR testing I thought was brilliant. I think the nurses are very good" (p6, warfarin) "There's no contact at all. There's no sort of like follow up at all." (p19 rivaroxaban)

DISCUSSION

Findings of the present study highlight that both warfarin and rivaroxaban populations appear to be well-adjusted to their selected ACMs and overall have a positive perception of their medication. Moreover, it would appear there is an apparent reluctance to pursue alternatives. In part, this reluctance appears to be perpetuated by misconceptions and a lack of education and understanding surrounding ACMs mechanism of action.

In recognition of the current COVID-19 pandemic and the increasing number of AF populations opting to switch to direct oral anticoagulant medications (DOACs) such as rivaroxaban[5], it is important clinicians take findings of the present study into consideration when attempting to best support and educate AF populations, who may be seeking to switch medications. From the views of patients obtained in the present study, pertinent recommendation may include:

- Helping patients to better understand the realities of long-term anticoagulation treatment and providing them with the opportunity to make choices following initial diagnosis and thereafter
- Providing a detailed, factual and transparent overview of the misconceptions associated with ACMs. This may include addressing misconceptions relating to issues of rat poison', antidotes and lifestyle choices (e.g., dietary restrictions related to certain fruits and vegetables)
- Demonstrating greater empathy and understanding toward the concerns AF populations have regarding ACMs, as well as the firm beliefs they possess about their prescribed medication. We must acknowledge that whilst change may seem simple from a clinician perspective, patients may view it as somewhat of a more challenging and threatening prospect.

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