

**Thank you for your participation in the study:**

**Attitudes and perceptions of professionals to anticoagulation: warfarin  
versus novel/direct oral anticoagulants**

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### Summary of main findings

Due to a patchy and slow uptake of DOACs in the UK, this study aimed to elicit what were the perceived barriers to appropriate use of DOACs, with the hope of developing strategies to overcome these. However, what was found was that, whilst not yet universally preferred, we appear to be moving through a period of change with regards to use of oral anticoagulant agents, with a shift away from warfarin and towards DOACs becoming the first line drugs for some indications. There was variation in participants' perceptions, which is most likely due to data collection being carried out during a period of change, thereby capturing a snapshot of attitudes and perceptions which are changing/have changed at different rates.

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### Methods

One-to-one semi-structured interviews were carried out with professionals who are involved in initiating oral anticoagulation. These interviews were transcribed verbatim and analysed using framework analysis.

### Results

Early in the data collection process, participants spoke of how they generally felt that their practice was changing and that they were comfortable using DOACs. Following completion of data analysis of the whole data set the overarching theme identified was one of change. Under this overarching theme, two other main themes identified were barriers and facilitators to appropriate use of DOACs and professional related factors affecting drug choice. Alongside these themes the fourth and final theme was around shared decision making.

#### *Changing practice and the end of warfarin*

The overarching theme was one of change. Change was discussed, or alluded to, throughout the interviews and is apparent throughout the other themes and sub-categories, however, there were points where participants spoke directly of how they perceived the changing landscape. The change in practice was described as a gradual process, involving increased familiarity and confidence.

#### *Professional related factors affecting drug choice*

There were four sub-categories which came under this theme: knowledge of DOACs, drug preferences, professional boundaries and thoughts on guidelines. The majority of participants

described themselves as being comfortable in the use of and confident in their knowledge of DOACs. The most commonly stated contra-indications to DOAC use were prosthetic heart valves and caution in renal impairment. However, most participants seemed unsure about their place in guidelines. Most participants thought guidelines which stated a specific drug to use in specific circumstances would be useful, but too difficult to devise.

Nearly all participants discussed their preferred oral anticoagulant for stroke prevention in non-valvular AF. This varied depending on their specialty, with those working within cardiology and stroke citing specific reasons, based upon the evidence base, of why they mainly tend to use specific drugs. In comparison, those from outside these specialties tended to refer to what they perceived as being the preferred option within their trust or area of practice, but explanations as to why these agents were preferred were either not given or were justified in much less detailed terms.

Whilst a minority of participants indicated they still preferred warfarin, most of the participants perceived that it was now being overtaken in use by DOACs, with DOACs being the preferred treatment option for those in whom they were appropriate. Professional boundaries were frequently referred to as affecting decisions on drug choice. This included referral to specialists for advice, and junior doctors deferring to consultants' drug preferences.

#### *Barriers and facilitators to appropriate use of oral anticoagulants*

Several sub-categories were identified under the theme of barriers and facilitators to the appropriate use of oral anticoagulants, both within the practice of the participants and their perceptions of others' practice. Throughout this theme participants reflected upon how these had changed over time.

Reversal agents and bleeding risk were discussed by all participants, but there was variation in how much participants viewed this as affecting the decisions made. Some participants described how the availability of a reversal agent was something that they would discuss with the patient when explaining the differences between warfarin and DOACs, with others describing how their practice had changed so that they now discussed this issue in less detail than when DOACs were newer. When discussing reversal agents many participants articulated that they felt they were to some extent unnecessary, with occasions when they would be required (instead of other management options) being perceived to be rare.

Perceived advantages of DOACs over warfarin were the lack of INR monitoring, and more recently, the ability to place newer DOACs into compliance aids. Another frequently discussed drug factor which affected choice of agent was dosing regimen (once daily versus twice daily).

Some participants described various issues around what they perceived as inappropriate prescribing with DOACs. These were attributed to prescribers' misunderstandings of the various different licensed indications and dosing regimens for the various different DOACs.

#### *Shared decision making process*

There was variation in the views held towards the shared decision making process, with all participants acknowledging that that was how the decision should be made, but the general feeling being that it was usually not carried out comprehensively.

Most participants indicated that the prescriber would usually make the decision as to which oral anticoagulant to prescribe for a patient. This was usually attributed to one of two reasons - either the prescriber had a preferred agent, or the patient, upon being given the information, would defer to the prescriber to make the decision anyway.

Time constraints were perceived as a major barrier in effectively carrying out the shared decision making process. Alongside time constraints, the context in which the decision was being made was also highlighted as a barrier to shared decision making. Participants described how in the acute phase following a diagnosis, patients may feel overwhelmed with information and struggle to make an immediate decision on long term treatment.

Decision aids were not widely used, however most participants stated that they thought they could be useful. Participants who had used the NICE patient decision aid felt that it was not helpful.

Patients' prior knowledge of warfarin was often used by participants as part of the discussion around the different options. It was noted that patients will often have some knowledge regarding warfarin, which will inform their perceptions of it as a drug. Participants described this experience as generally being either negative or positive, but not neutral.

All participants described various ways in which they broke down the discussion around the need for anticoagulation and the various options for this. In general participants said they perceived that patients placed less importance on choosing an individual oral anticoagulant agent, than they placed on the initial consideration of whether or not to take an anticoagulant.

At the point of taking the discussion forward once a patient indicated they would like to start an anticoagulant, the approach varied between participants. Some described how they would offer warfarin or a DOAC, whilst others had moved towards describing how DOACs were the new drugs that they now use rather than warfarin.

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**This information provides a summary of the responses and views given by the participants in the study overall.**

**Thank you again for your participation.**

**Please feel free to contact myself for any further information via email:**

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