



COVID-19

Questions, Answers and Actions

Practical warfarin monitoring during the COVID-19 pandemic response

Part 1

Question: "What information is available to support the management of patients anticoagulated with vitamin K antagonists during the COVID-19 pandemic response?"

Answer: A number of national resources and guidance have been published to support answering this query:

1. [Clinical guide for the management of anticoagulant services during the coronavirus pandemic – 31st March 2020 – NHSE/I](#)

This guidance summarises what principles may need to be considered when managing anticoagulated patients during the COVID-19 pandemic. Including:

- Which patients must continue with their current anticoagulation.
- When it may be appropriate to stop or suspend anticoagulation or switch to a low molecular weight heparins (LMWH) or direct oral anticoagulants (DOAC) as appropriate
- If switching is commenced this should be done in a phased approach to protect the supply chains and manage workload for clinicians
- Practical guidance on how to switch from warfarin to a DOAC
- Self-testing considerations
- Optimising INR testing facilities to minimise infection risks

2. [Management of patients currently on warfarin during COVID-19 – 1st April 2020 – SPS](#)

This page gives brief advice on the management of patients taking warfarin in primary care during the Covid-19 pandemic, and links to some other national resources.

3. [Guidance for the safe switching of warfarin to direct oral anticoagulants \(DOACs\) for patients with non-valvular AF and venous thromboembolism \(DVT / PE\) during the coronavirus pandemic - 26th March 2020 – RPS](#)

This resource provides practical guidance on the switch from warfarin to DOAC.

Part 2

Question: "How should the management of certain patient groups be approached?"

Answer: The recommendations in the published guidance has been summarised as follows:

Warfarin patient Group	Option 1	Option 2	Option 3	Option 4	Option 5
General	Review if anticoagulation still required e.g. DVT/PE with low risk of recurrence	Can be transferred to a DOAC where appropriate – see list of patients who must remain on warfarin	Optimise attendance at INR clinic: Extend frequency of testing to a maximum of 12 weeks*, re-organise clinics to enable distancing measures and minimise infection risks	Can self-testing and phone support on dosing be implemented e.g. using point of care testing equipment	Can drive through testing be implemented?
Sub optimal % TTR	Can be transferred to a DOAC where appropriate – see list of patients who must remain on warfarin	Use of LMWH for selected groups of patients			
Patients choice to remain on warfarin	Optimise attendance at INR clinic provided not in shielded group	Can self-testing and phone support on dosing be implemented e.g. using point of care testing equipment			
Shielded group	Can be transferred to a DOAC where appropriate – see list of patients who must remain on warfarin	Can self-testing and phone support on dosing be implemented e.g. using point of care testing equipment	Consider the use of LMWH where facilities for administration or cease anticoagulation as last resort**		
Vulnerable group excluding care home residents	Can self-testing and phone support on dosing be implemented e.g. using point of care testing equipment	Review to transferred to a DOAC, see list of patients who must remain on warfarin	Can drive through testing be implemented or provide quieter time for patients to attend	Consider the use of LMWH where facilities for administration or cease anticoagulation as last resort**	
Care and residential home group	Can self-testing and phone support on dosing be implemented e.g. using point of care testing equipment	Review to transferred to a DOAC, see list of patients who must remain on warfarin	Consider the use of LMWH where facilities for administration or cease anticoagulation as last resort**		

New patients	Initiate anticoagulation with a DOAC if not contraindicated	Temporary use of LMWH (off-label use – discuss with cardiology) may be appropriate for patients with mechanical heart valve if monitoring of warfarin is not possible or where the patient or family member can be trained to (self) administer	
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*For those who cancel their 12-week check due to symptoms of coronavirus, extend the interval to 14 weeks if safe to do so.

** Where cessation of anticoagulation is being considered this should be done with specialist input and a careful discussion regarding the risks and benefits with the patient and/or carer. Clinicians should take care to document why all other options were considered to be unsuitable.

A switch from warfarin to a DOAC should not be considered for patients:

- with a prosthetic mechanical valve
- with moderate-to-severe mitral stenosis
- with antiphospholipid antibodies
- who are pregnant, breastfeeding or planning a pregnancy
- requiring a higher than standard INR range of 2.0–3.0
- with severe renal impairment (creatinine clearance (CrCl) <15mL/min)
- with active malignancy/chemotherapy (unless advised by a specialist)
- prescribed some HIV antiretrovirals and hepatitis antivirals – check the HIV drug interactions website (<https://www.hiv-druginteractions.org/>)

Other groups should be discussed with an anticoagulation specialist before switching if:

- they take phenytoin, carbamazepine, phenobarbital or rifampicin; these patients are likely to have low DOAC levels
- have suffered with venous thrombosis at unusual sites as there is little data on DOACs for these patients
- they are prescribed triple therapy (dual antiplatelet plus warfarin)

Where a switch to DOAC is appropriate this should be done in a phased manner to protect the supply chain and help manage the workload for clinic staff.

Direct-acting oral anticoagulants (DOACs): reminder of bleeding risk, including availability of reversal agents

[A recent MRA alert](#) published on 29th June 2020 seeks to remind prescribers of the bleeding risks associated with the use of DOACs and the availability of reversal agents. Prescribers are reminded to:

- use caution if prescribing direct-acting oral anticoagulants (DOACs) to patients at increased risk of bleeding (for example, older people or people with renal impairment)
- remain vigilant for signs and symptoms of bleeding complications during treatment, especially patients with increased bleeding risk
- remind patients of the signs and symptoms of bleeding and encourage them to always read the patient information leaflet that accompanies their medicines
- ensure patients with renal impairment receive an appropriate dose and monitor renal function during treatment to ensure dose remains appropriate
- specific DOAC reversal agents are available for dabigatran, apixaban, and rivaroxaban
- monitor the reversal effects of andexanet alfa using clinical parameters; anti-FXa assays should not be used to measure the effectiveness of andexanet alfa as the results may not be reliable
- report suspected adverse drug reactions associated with DOACs on a [Yellow Card](#), including thromboembolic or haemorrhagic event

Supply of additional direct oral anticoagulants (DOACs) during COVID-19

A letter from NHSE/NHSI Commercial Medicines Director, published on 27th May 2020 sent to CCG Pharmacy leads, CCG Finance Directors and Heads of Finance outlines the results of a national procurement exercise to support a further 200,000 patients to be switched to a DOAC using either apixaban or rivaroxaban. This should be taken into account when considering switches from warfarin to a DOAC. Note that existing patients (those already prescribed any DOAC) and new (anticoagulant naïve) patients are **outside the scope** of this scheme.

CCGs and prescribers should be reminded that the choice of oral anticoagulant should be based on the individual patient's clinical circumstances and made jointly following a discussion with the patient and/or carer regarding the risks and benefits of each treatment. Local programmes to optimise use of anticoagulants should note the availability of the scheme and its role in maintaining supply of these agents to those who require them.

References

1. https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/03/C0077-Specialty-guide_Anticoagulant-services-and-coronavirus-v1-31-March.pdf
2. <https://www.sps.nhs.uk/articles/management-of-patients-currently-on-warfarin-during-covid-19/>
3. <https://www.rpharms.com/Portals/0/RPS%20document%20library/Open%20access/Coronavirus/FINAL%20Guidance%20on%20safe%20switching%20of%20warfarin%20to%20DOAC%20COVID-19%20Mar%202020.pdf?ver=2020-03-26-180945-627>
4. **Supply of additional direct oral anticoagulants (DOACs) during COVID-19. Letter from NHSE/NHSI Commercial Medicines Director. 27.05.2020**
5. https://www.gov.uk/drug-safety-update/direct-acting-oral-anticoagulants-doacs-reminder-of-bleeding-risk-including-availability-of-reversal-agents?utm_source=e-shot&utm_medium=email&utm_campaign=DSU_June2020Main1



Version: 2.2

Changes to this version:

Updated to add information on the outcome of a national DOAC procurement, the implications of which have been clarified following feedback from stakeholders

Addition of details of the MHRA alert regarding DOAC bleeding risk and reversal agents

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