

**Monitoring of Oral Anticoagulants for Non-Valvular Atrial Fibrillation (Adult > 18 years)**

Please consult the [Summary of Product Characteristics](#) for each individual anticoagulant for further information

Warfain	Edoxaban (Lixiana)	Dabigatran (Pradaxa)	Rivaroxaban (Xarelto)	Apixaban (Eliquis)
<p><b>Tests prior to starting treatment:</b> Clotting screen (prothrombin time), U&amp; E's, LFTs, FBC, BP, renal function using creatinine clearance (CrCl), Thyroid status</p> <p><b>Ongoing monitoring.</b> The dose of warfarin requires adjustment to the individual needs of the patient and therefore requires regular monitoring using blood tests.</p>	<p><b>Tests prior to starting treatment</b> Clotting screen (prothrombin time), U&amp; E's, LFTs, FBC, BP, renal function using creatinine clearance (CrCl), <u>plus</u> body weight for apixaban and edoxaban</p> <p><b>Monitoring until patient is stabilised</b> Ideally assess every 3 months to:</p> <ul style="list-style-type: none"> <li>• Assess compliance and reinforce advice regarding regular dosing schedule.</li> <li>• Enquire about adverse effects such as bleeding.</li> <li>• Assess for the presence of thromboembolic events</li> <li>• Enquire about other medicines, including OTC medicines.</li> </ul> <p><b>Periodically re-check/assess these (every 6-12 months)</b></p> <p><b>Ongoing monitoring</b></p> <ul style="list-style-type: none"> <li>• When using a DOAC, clinical reviews are recommended every 3 months.</li> <li>• Check U &amp; Es, LFTs and FBC at least once a year.</li> <li>• Repeat U&amp;E's every 6 months if CrCl 30–60 mL/min, patient &gt; 75 years or fragile.</li> <li>• Repeat U&amp;E's every 3 months if CrCl 15–30 mL/ml.</li> </ul> <p>More frequent U&amp;E's/LFTs advised where intercurrent illness may impact on renal or hepatic function.</p>			

Once the patient is stabilised, review the need for anticoagulation and the quality of anticoagulation at least annually, or more frequently if clinically relevant events occur affecting anticoagulation or bleeding risk. This should be documented in the patient's medical notes.

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## Warfarin - INR Monitoring

Information about **Primary Care** Anticoagulation Monitoring Service Local Enhanced Services can be found [here](#)

### Monitoring by Anticoagulation Services

- Calculate the person's time in therapeutic range (TTR) at each visit.
- When calculating TTR:
  - Use a validated method of measurement such as the Rosendaal method for computer-assisted dosing or proportion of tests in range for manual dosing. E.g. INRStar
  - Exclude measurements taken during the first 6 weeks of treatment.
  - Calculate TTR over a maintenance period of at least 6 months.

### Poor Anticoagulation Control

- Reassess anticoagulation for a person with poor anticoagulation control shown by any of the following:
  - TWO INR values higher than 5 or one INR value higher than 8 within the past 6 months.
  - TWO INR values less than 1.5 within the past 6 months.
  - TTR less than 65%.
- When reassessing anticoagulation, take into account and if possible address the following factors that may contribute to poor anticoagulation control:
  - Cognitive function.
  - Adherence to prescribed therapy.
  - Illness.
  - Interacting drug therapy- **see separate information briefing regarding safety-**
  - Lifestyle factors including diet and alcohol consumption.

Patients with poor anticoagulation may require additional monitoring, training in self-management, or a switch to a DOAC (in those who despite evidence of good compliance with medication and monitoring, have poor anticoagulant control.)