



Government of **Western Australia**  
Department of **Health**

# Living with a direct-acting oral anticoagulant (DOAC)

apixaban (Eliquis®) | dabigatran (Pradaxa®) | rivaroxaban (Xarelto®)

## Information for patients



Produced and made available by the Western Australian Medication Safety Collaborative,  
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This booklet has undergone consumer review facilitated by the Health Consumers' Council (WA)

# About direct-acting oral anticoagulants (DOACs)

**apixaban (Eliquis®), dabigatran (Pradaxa®), rivaroxaban (Xarelto®)**

The direct-acting oral anticoagulants (DOACs), also known as non-Vitamin K antagonist oral anticoagulants, are a group of anticoagulant medicines. An anticoagulant helps to lower the risk of blood clots forming. Blood clots can cause serious health problems when they block blood vessels in the brain, lungs or legs.

## Why have you been prescribed a DOAC?

A DOAC may be prescribed for you for one of the following reasons:

### **Prevention of stroke in patients with atrial fibrillation (AF)**

AF is an irregular heartbeat which can increase the risk of blood clots forming in the heart. A blood clot may then travel to the brain or other parts of the body. This may lead to serious health problems such as stroke. DOACs lower your chance of having a stroke by helping to prevent blood clots forming.

or

### **Prevention of blood clots in patients who have had recent hip or knee replacement**

Blood clots may occur in people who are not physically mobile. People who have had a hip or knee replacement may need an anticoagulant to prevent blood clots until they are able to move around.

or

### **Treatment of deep vein thrombosis (DVT) and prevention of recurrent DVT**

DVT is a blood clot in one of the deep veins in your body, usually in your leg. Continuing treatment in people with a history of blood clots may be required to prevent further blood clots.

or

### **Treatment of pulmonary embolism (PE) and prevention of recurrent PE**

PE is a blockage in blood flow when a blood clot from a vein breaks off and travels to the lungs. Continuing treatment in people with a history of blood clots may be required to prevent further blood clots.

or

### **Prevention of heart attack, stroke and death in patients with coronary artery disease (CAD) and/or peripheral artery disease (PAD)**

CAD causes poor blood flow in the blood vessels of the heart. PAD causes poor blood flow in the arms and/or legs. In people with CAD or PAD, rivaroxaban, taken in combination with aspirin 100mg once daily, lowers the chance of a heart attack, stroke or death.

If your condition is not on this list or you are not sure, ask your clinician (doctor or nurse practitioner) why you need a DOAC.

**If you do not take your DOAC medicine, you are at risk of blood clots, but if you take too much you are at risk of uncontrolled or serious bleeding.**

## Taking your DOAC medicine safely at home

If you take a DOAC, it is important that you use it safely and correctly.

### It is important for you to know:

- why you are taking it
- how long you need to take it for
- how to take the correct prescribed dose
- your DOAC dose is the right dose for you as determined by your clinician
- signs and symptoms of bleeding to watch for
- what to do if bleeding occurs
- when you need to consult with your clinician, for example if you become ill or before starting new medicines.

If you have any questions about your medicines talk to your doctor, nurse or pharmacist.










## Important points about all your medicines

- Don't stop taking your medicines or change the dose unless you are told to by your clinician.
- Your medicines are prescribed for you only. Don't share your medicines with anyone else.
- Store all medicines out of reach of children.
- Keep all medicines securely in one place, away from light, heat and moisture.
- Keep medicines in their original packaging (with all the labels and instructions).
- Ask your pharmacist for help with containers and dose administration aids, if required.
- Check the expiry date of your medicines often.
- Do not take out-of-date medicines. Return expired medicines to a pharmacist for safe disposal.
- Keep an up-to-date list of all your medicines.

**This booklet is yours to keep and refer to in the future. Feel free to make notes on the pages.**

## DOAC formulations and strengths

There are three different medicines in the DOAC group, as shown in the table below. Your clinician may prescribe one of these for you.

Medication	Strengths	Example of tablet or capsule
<b>apixaban (Eliquis®) tablets</b>	2.5 mg	
	5 mg	
<b>dabigatran (Pradaxa®) capsules</b>	75 mg	
	110 mg	
	150 mg	
<b>rivaroxaban (Xarelto®) tablets</b>	2.5 mg	
	10 mg	
	15 mg	
	20 mg	

You may be prescribed **one** of these DOACs. Although there are three DOACs available they are not all the same. You will be prescribed the DOAC that is best for your condition.

## How should I take my DOAC medicine?

**Take your medication exactly as prescribed.**

Take your medication regularly, exactly as prescribed. If prescribed:

- **once daily** – take at the same time each day, morning or night whichever is easiest for you to remember
- **twice daily** – take morning and night, 12 hours apart.

DOACs need to be taken every day to be effective. It is very important that you do not miss a dose.

The usual instructions are listed below but might be changed by your clinician.

What is your diagnosis?	Usual dosing instructions	Additional instructions
<b>apixaban (Eliquis®)</b>		
Atrial fibrillation	Twice daily	Take with or without food
Hip or knee replacement	Twice daily	Tablets can either be swallowed whole, or crushed and mixed with water or apple puree immediately prior to taking the dose
To treat or prevent a blood clot	Twice daily	
<b>dabigatran (Pradaxa®)</b>		
Atrial fibrillation	Twice daily	Swallow whole with or without food – do <b>not</b> chew or open the capsule
Hip or knee replacement	Once daily	Keep capsule in original packaging (see <b>page 11</b> ) until ready to take – do <b>not</b> transfer capsule to a dose administration aid such as a dosette box or Webster-pak®
<b>rivaroxaban (Xarelto®)</b>		
Atrial fibrillation	Once daily	Take with food
Hip or knee replacement	Once daily	(NB 2.5 mg and 10 mg strength tablets can be taken with or without food)
To treat or prevent a blood clot	Twice daily for the first 3 weeks followed by once daily	Tablets can either be swallowed whole, or crushed and mixed with water or apple puree immediately prior to taking the dose
Prevent heart attack or stroke in CAD/PAD	Twice daily	



## How long do I need to take my DOAC for?

**Do not stop taking your DOAC unless advised by your prescribing clinician.**

Your clinician will tell you how long you will need to take your DOAC for and when you can stop it.

The duration of treatment will depend on the condition being treated and your risk factors. It is very important that you do not stop taking your DOAC unless advised by your clinician.

- **Prevention of stroke in patients with atrial fibrillation:**  
Continue to take your medicine for as long as your clinician tells you.
- **Prevention of blood clots in patients who have had a recent hip replacement:**  
The usual treatment course is for 28 to 42 days.
- **Prevention of blood clots in patients who have had a recent knee replacement:**  
The usual treatment course is for 10 to 14 days.
- **To treat or prevent a blood clot such as DVT or PE:**  
Continue to take your medicine for as long as your clinician tells you. Your dose may change during treatment.
- **Prevention of heart related conditions in coronary artery disease or peripheral artery disease:**  
Continue to take your medicine for as long as your clinician tells you.

## Missed doses

**Do not miss a dose – Never take a double dose to make up for a missed dose.**

### What to do if I forget to take a dose?

If you take your **DOAC once daily** and you have forgotten a dose:

- If it is **less than 12 hours** since the missed dose was due, take the missed dose immediately and take your next dose at the usual time.
- If it is **more than 12 hours** since the missed dose was due, do not take the missed dose. **Do not change or double up the next dose. Take your next dose at the usual time and then continue taking your medicine as normal.**

If you take your **DOAC\* twice daily** and you have forgotten a dose:

- If it is **less than 6 hours** since the missed dose was due, take the missed dose immediately and take your next dose at the usual time.
- If it is **more than 6 hours** since the missed dose was due, do not take the missed dose. **Do not change or double up the next dose. Take your next dose at the usual time and then continue taking your medicine as normal.**

\*If you take **rivaroxaban twice daily** the instructions from the manufacturer may be different. Speak to your clinician or pharmacist for further advice.

If you are unsure of what to do or if you miss more than one dose of your DOAC, talk to your clinician or pharmacist.

## Make sure you plan ahead:

- If you run out of tablets and cannot reach your usual doctor or nurse, visit the nearest medical centre or hospital.
- If you are travelling within Australia or overseas, ensure you have an adequate supply of your medicine for the duration of your trip. You may also require a letter from your doctor.
- Check with your clinician when to take your DOAC medicine if you are changing time zones.

## Monitoring your DOAC treatment

DOACs do not have a test to monitor their effect on blood clotting like other anticoagulants such as warfarin. However, it is important to have regular blood tests, as advised by your clinician, to check your kidney and liver function:

- **before** you start a DOAC
- at least **twice a year** – especially if you are over 75 years of age or have kidney problems
- if you become severely dehydrated or have any other problems that may affect your kidneys.

It is important to have regular check-ups with your clinician to monitor your condition and for signs of bleeding (see **page 8**).

## DOACs and other medicines

Tell your clinician or pharmacist if you are taking any other medicines including prescription medicines, vitamin, mineral and herbal supplements and/or medicines you buy without a prescription from a pharmacy, supermarket or health food store.

To minimise the risk of medicine interactions with DOACs, let your health practitioner know:

- what regular medicines you are taking before starting a DOAC
- that you are taking a DOAC before you start any new medicines or complementary therapy.

If you are taking any of the following medicines do not take a DOAC without first speaking to your clinician.

Medicine type	Medicine name (for brand names ask your pharmacist)
Medicines for fungal infections	ketoconazole, itraconazole, voriconazole and posaconazole
Medicines for hepatitis or HIV infection	lopinavir/ritonavir, saquinavir, glecaprevir/pibrentasvir
Some immune suppressing medicines	cyclosporin, tacrolimus
A medicine for high blood pressure and atrial fibrillation	verapamil



Other medicines may interact with DOACs and your clinician may need to change your medicine or the dose. Tell your clinician or pharmacist if you are taking any of the following:

Medicine type	Medicine name (for brand names ask your pharmacist)
Other medicines to prevent blood clots	warfarin, enoxaparin, dalteparin, clopidogrel, ticagrelor, prasugrel, aspirin
Some pain relief or anti-inflammatory medicines	aspirin, ibuprofen, naproxen, diclofenac, meloxicam, celecoxib
Some medicines for atrial fibrillation	amiodarone, diltiazem
Some antibiotics	clarithromycin, rifampicin
Some herbal or complementary medicines	St John's Wort
Medicines for epilepsy	carbamazepine, phenytoin

There may be other medications not listed here. Ask your clinician or pharmacist for more information.

## DOACs and warfarin

You should not need to take warfarin and a DOAC at the same time. Ask your clinician for advice if both have been prescribed for you.

## Can I take aspirin?

If you are currently taking low dose aspirin (e.g. Cartia<sup>®</sup>, Cardiprin<sup>®</sup>, Spren<sup>®</sup> and Astrix<sup>®</sup>), check with your clinician if you need to continue taking it with your DOAC. There may be instances where you can take low dose aspirin whilst taking your DOAC. Be sure to check with your clinician.

Avoid taking aspirin for pain or fever whilst on your DOAC. It is safer to use paracetamol (for example, Panadol<sup>®</sup> or Panamax<sup>®</sup>) for short-term pain relief or fever. Check with your clinician if you need treatment for long-term pain.

## Alcohol

Alcohol can interact with DOACs and increase the risk of bleeding. Talk with your clinician about how much alcohol you can drink. Avoid heavy or binge drinking while taking a DOAC.

# Bleeding and what to do if you have a bleed

Bleeding is the main side effect of DOACs. Taking your DOAC exactly as your clinician prescribes reduces the risk of bleeding.

It is important that you:

- know what to do if bleeding starts
- tell your clinician or dentist well before any planned procedure or surgery
- avoid activities and sport that may cause serious injuries
- seek medical attention for serious bleeding and always tell your clinician that you are taking a DOAC.

## Signs and symptoms to watch for

Occasionally you can have a serious bleed from taking anticoagulants. This can be dangerous and needs urgent medical attention.

Even if there are not visible signs of injury, tell your doctor or nurse or go to the emergency department if you have any falls, knocks to the head or body or other major injuries.

**Contact your clinician right away if you have any signs or symptoms of significant bleeding. If bleeding is severe go to the nearest emergency department immediately.**

## Common signs and symptoms of unusual bleeding:

- unexpected bleeding or bleeding that lasts a long time (this includes nose bleeds, bleeding from your gums, bleeding from cuts and scrapes and/or menstrual periods)
- severe or unexplained bruising, or bruising that gets bigger without a cause
- red or dark urine
- red or black (tar like) bowel motions
- coughing blood
- dark or blood-stained vomiting
- severe headache or dizziness
- unexpected new pain, swelling or discomfort.

## What should I do?

You should contact your clinician right away if you have any signs or symptoms of unusual bleeding. If the bleeding is severe, then go to the nearest emergency department immediately.

## Avoiding injuries

When taking a DOAC you can perform all your normal daily activities, but you are at risk of excessive bleeding if you are injured.

### What can I do?

To minimise your risk of injury which may cause bleeding:

- avoid activities such as contact sports (football, rugby, boxing)
- take care to prevent falls
- wear gloves when you use sharp instruments like knives and gardening tools
- consider using an electric razor instead of a blade
- take false teeth out for a few hours a day to let your gums rest and do not wear dentures or retainers if they do not fit properly
- tell your doctor, dentist or nurse that you take a DOAC ahead of having any medical or dental procedures or surgery - that includes vaccinations and routine appointments with the dental hygienist.

## Surgical, medical and dental procedures

Bleeding from surgical, medical and dental procedures may be increased if you are taking a DOAC. With simple dental procedures and minor skin surgery you may not need to stop taking your DOAC. Other procedures, such as endoscopy, may require specialist advice. Your doctor will tell you what you need to do.

Tell your clinician or dentist that you are taking a DOAC well before any planned procedure including operations in hospital, minor procedures at the doctor's surgery and dental procedures. Your DOAC therapy will be considered during the planning of your operation or procedure. **Do not stop taking your DOAC unless told by your clinician.**

Tell other health professionals such as your podiatrist or physiotherapist that you are taking a DOAC.

## Adverse reactions/side effects

If any of the following occur go to the emergency department at your nearest hospital immediately:

- signs of allergy such as rash, itching, swelling of any parts of the body, difficulty breathing
- signs of liver problems such as yellowing of the skin and/or eyes (jaundice)
- signs of severe bleeding (see **page 8**).

Tell your clinician if you notice any of the following:

- indigestion, discomfort when swallowing
- diarrhoea, stomach ache
- nausea, vomiting
- dizziness, breathlessness
- fever or general unwellness.

## Special precautions

DOACs may not be suitable for you if you have:

- uncontrolled high blood pressure, liver problems or reduced kidney function
- artificial heart valves (particularly mechanical valves)
- had recent surgery (particularly brain, spinal or eye surgery)
- a bleeding disorder or a history of bleeding problems (e.g. current or recent stomach ulcers)
- certain types of cancer.

Your clinician will need to take this into consideration before prescribing any DOAC.

## Pregnancy and breastfeeding

DOACs are **not recommended** during pregnancy or whilst breastfeeding. If you plan on becoming pregnant or think you are pregnant talk to your clinician immediately.

## For emergencies

**Carry identification with you that states which DOAC you take.**

If you have an accident or become very ill, ambulance and hospital staff need to know that you take a DOAC – carry identification that states which DOAC you are taking. This might be an anticoagulant treatment card (see **page 11**) or Medical ID tag (e.g. MedicAlert®). It is also useful to carry an up-to-date list of all your medicines.

Patients on long-term oral anticoagulation with a DOAC should consider joining MedicAlert® and reviewing their My Health Record.

### MedicAlert®

Joining MedicAlert® involves providing personal details and medical history including DOAC therapy. This vital information can then be accessed by medical and emergency workers during emergencies. You can find out more information about MedicAlert® from [www.medicalert.org.au](http://www.medicalert.org.au)

### My Health Record

My Health Record is a secure online summary of your health information. Your record allows you and your clinicians, hospitals and other healthcare providers to view and share your health information to provide you with the best possible care. For more information visit [www.myhealthrecord.gov.au](http://www.myhealthrecord.gov.au)

## Storage

Keep your tablets in the original packaging until it is time to take them.

Dabigatran (Pradaxa<sup>®</sup>) capsules **must not** be transferred out of the original packaging (blister pack), as exposure to moisture can make the capsules less effective. Do not package in dose administration aids such as dosette boxes or a Webster-pak<sup>®</sup>. This does not apply to apixaban and rivaroxaban.

Keep your medicines in a cool dry place where the temperature stays below 30°C. Do not store your medicines in the bathroom or near a sink. Do not leave them on a window sill or in the car.

Store all medicines out of reach of children.

DOAC is an anticoagulant	
Your name:	DOAC name:
Telephone:	Dose:
Emergency contact:	Frequency:
Clinician's name and contact details:	Medical condition:

*Fold and keep this anticoagulant treatment card in your wallet*

## Useful contacts

**Poisons information line** – for immediate advice for overdoses or poisoning  
24-hour telephone line: **131 126**

**NPS MedicineWise** – for information about your medicines  
Website: [www.nps.org.au](http://www.nps.org.au)

NPS Medicines Line: **1300 633 424** (1300 Medicine)

**healthdirect Australia** – to speak with a registered nurse for health advice  
24-hour telephone line: **1800 022 222**







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