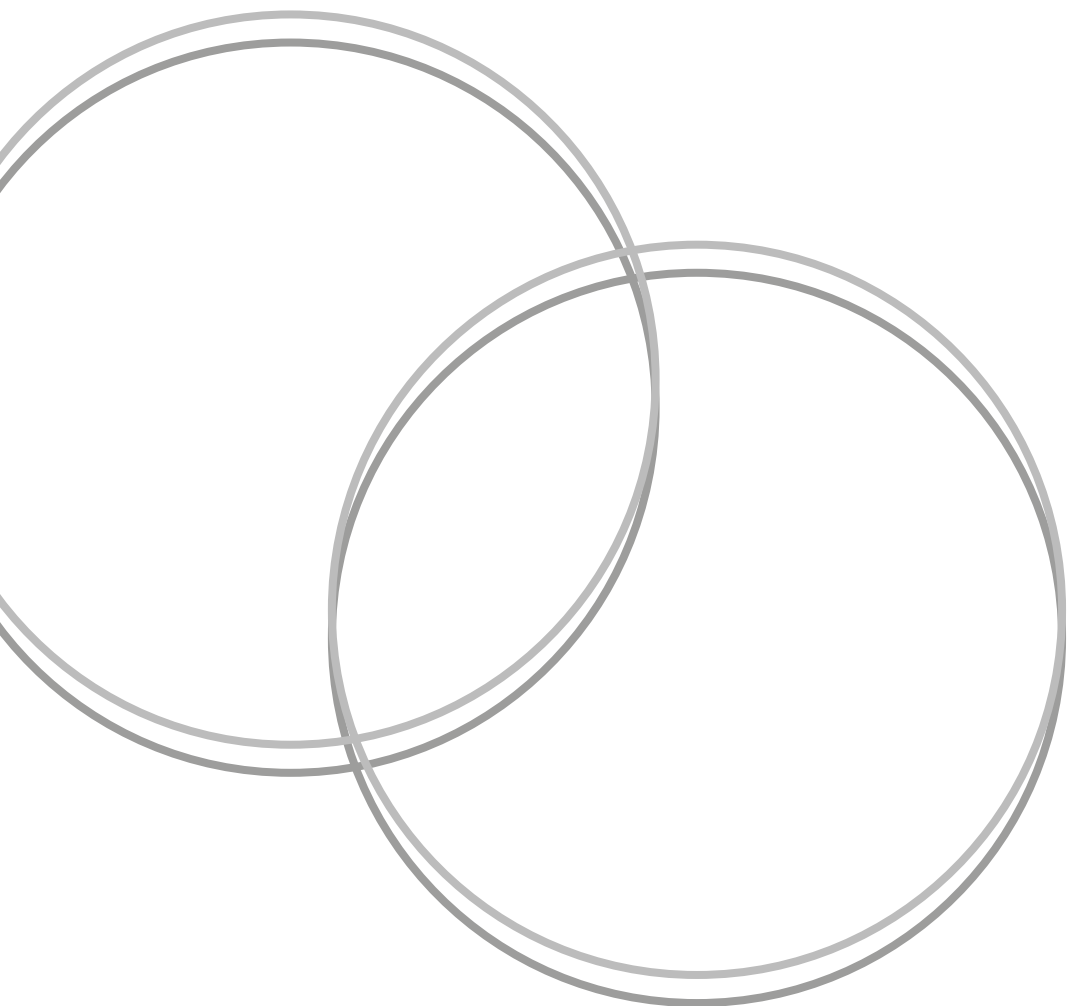




Oxford University Hospitals
NHS Foundation Trust

Warfarin Management for Surgery and Procedures

Information for patients



Information for patients on warfarin (or other Vitamin K antagonists) due to have surgery or a procedure.

This leaflet explains what to do if you are on warfarin and have plans for surgery or a procedure. It is also applicable for patients on acenocoumarol and phenindione but refers to warfarin as the most common vitamin K antagonist.

It is very important that you inform your anticoagulation clinic immediately if you have been listed for surgery or a procedure. This will help plan the safe management of your anticoagulation around this time.

Different procedures will have different bleeding risks. These will be explained below.

What is the purpose of warfarin?

Warfarin is an anticoagulant. It is used to treat and reduce the risk of blood clots and to prevent strokes. Warfarin increases the time it takes for your blood to clot. This is measured by an INR (International Normalised Ratio) blood test.

Why is warfarin stopped for surgery or a procedure?

Warfarin increases the time it takes for your blood to clot. Therefore, this puts you at increased risk of bleeding during some surgery or procedures. For this reason, it may need to be stopped for a short period beforehand. Whilst your warfarin is stopped, you are at an increased risk of a blood clot or stroke. It is a fine balance, and your individual risks will be assessed by the pre-operative assessment team. You should only stop warfarin when told to do so by a healthcare professional.

Surgery or procedures with a low bleeding risk

Some surgeries or procedures such as dental, eye, endoscopy or radiological procedures may not require your warfarin to be stopped. Your INR will need to be checked 1 to 3 days beforehand to ensure it can be performed safely. The team performing the surgery or procedure will inform you what they would like your INR to be.

Surgery or procedure with a high bleeding risk

For surgery or procedures with a high bleeding risk, your warfarin will need to stop 5 days before the planned date. This allows your INR to return to a normal level and reduces the risk of bleeding.

Your warfarin is normally restarted at your usual dose the evening or day after, on the advice of the team performing the surgery or procedure.

Patients with a high risk of blood clots or stroke

If you have been assessed as being at a high risk of a blood clot or stroke, you will need to have an injection to replace the warfarin. This short acting anticoagulant injection is safe to use around the time of the surgery or procedure. It is called Low Molecular Weight Heparin (LMWH). Drug names include Dalteparin, Clexane, Enoxaparin but they are all types of LMWH. This is known as 'Bridging' as it bridges the gap whilst your INR is below your target range.

The injections will usually be prescribed by the pre-operative assessment clinic and supplied from the hospital pharmacy. A separate patient information leaflet on how to inject the LMWH is available. If you cannot inject yourself for any reason, you should inform the pre-operative assessment team so they can make alternative arrangements for you. You will be given a yellow sharps bin to dispose of the needles. This should be sealed and returned to your GP practice for disposal once you have finished your injections.

Pre-operative bridging plan

You will be asked to stop taking your warfarin 5 days before your operation. LMWH will then need to be started 3 days before your operation. You should have an INR blood test with your usual service the day before your procedure. This is to ensure your INR is low enough for the procedure to continue. The last dose of LMWH should be given by 7.30am, the day before your procedure.

Post-operative bridging plan

Following your procedure, the operating team will assess your risk of bleeding and clotting. This is individual to you and may change during your recovery. Most commonly, if you have no bleeding, warfarin will be restarted at your usual dose on the evening or day after surgery. You will also need more LMWH injections until you are back in your INR target range. If you are not back into your target range before your discharge home, you will be sent with further LMWH injections.

Discharge home

The doctor will liaise with the team that usually manages your warfarin and confirm a plan for testing your INR once home. You should have an INR check 2 to 3 days after leaving hospital.

The doctor will tell you a warfarin dose to take at home and give you a date for your next INR test. This will be written on your discharge letter. If you have any questions about this, please do ask your nurse or a doctor.

What to do if surgery or procedure is cancelled or delayed?

Please ask the doctor performing the surgery if you should restart your warfarin. Contact the service that manages your warfarin and inform them of the delay.

If you are on LMWH injections, please continue. The injections should continue until you are back in your target INR range. You should arrange for an INR blood test 3 days after restarting your warfarin.

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

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Oxford University Hospitals NHS Foundation Trust
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