

CLINICAL SKILLS: EXPLAINING WARFARIN

As with all explaining OSCE stations, let the patient lead you and answer their specific questions. Below are a few key points that you might want to include in the discussion

- **Wash hands**
- **Introduce self**
- **Ask permission to discuss the patient's Warfarin treatment with them**

What is Warfarin?

- Warfarin is a medication that thins the blood by preventing the production of certain chemicals (it is a vitamin K antagonist and therefore
- It is prescribed for patients to prevent or treat the formation of clots in the blood
- It greatly reduces the chances of getting certain illnesses, including deep vein thromboses and strokes
- If you have Atrial Fibrillation (AF), then Warfarin is often given lifelong to minimise the chance of a clot forming in your heart which might travel to your brain and cause a stroke. This is also true if you have an artificial metal heart valve, as these clots can form on the surface of the metal
- If you have a Deep Vein Thrombosis or a Pulmonary Embolism then Warfarin is given for several months (between 6 weeks to 6 months, depending on location of thrombosis) in order to slowly allow the clot to break down
- If you have a history of experiencing clots on several occasions in the past, then you might be put on Warfarin for life to clots to minimise the chance of future clots

How do I take Warfarin?

- Warfarin is a tablet taken orally once a day, usually in the evening
- It may be given at first with another drug which is injected, called heparin. This is in order to thin the blood faster, as Warfarin takes 3-5 days to start work effectively
- You shouldn't stop taking this medication without consulting your doctor first

Do I have to have any tests while taking Warfarin?

- The downside of Warfarin is the close monitoring that is required when on this medication (called the 'INR' - the International Normalized Ratio, a ratio of the Prothrombin Time/PT)
- When you first start this treatment, you will need to have blood tests to check your clotting levels once per day for the first week, then once a week
- Once your levels are stable, then these tests can be cut down, ultimately leading to you only needing a test once every 3 months
- Depending on the results of these tests, we may ask you to change the dose of Warfarin you are taking (1mg are brown, 3mg are blue, 5mg are pink, 0.5 mg are white)
- We will give you a Warfarin patient booklet so you can keep a record of your results and your doses of Warfarin in case you need to speak to another doctor or nurse about it

What are the side effects?

- Because Warfarin thins the blood, there is a risk of bleeding and bruising with this medication. If you notice either, let your doctor know as soon as possible. Sometimes, the bleeding can be more serious. This may require going to hospital for

more treatment. Make sure you let the hospital doctors and nurses know that you normally take Warfarin

- There is a risk of a hypersensitivity reaction, which can be like an allergic reaction
- It is possible that the Warfarin might interact with other drugs that you take, including herbal medicines. It is necessary to go through all of your medications with your doctor before starting Warfarin, especially antibiotics, non-steroidal anti-inflammatorys (like ibuprofen) and medications for epilepsy
- Warfarin might also cause: a rash, alopecia, diarrhoea and nausea
- If you experience bad side effects then it may be possible to change to you a different medication

Is there anything else I will need to know?

- If you forget to take your medication then take the dose as soon as you remember, but only if you only remember within the next 24 hours from when you should have taken it. Then carry on with your regular dose as prescribed. Don't take any extra medication or double the dose if you have missed a dose, as this can lead to your blood becoming too thin which can cause bleeding
- If you forget to take your medicine for 2-3 days then inform your doctor so they can advise you of what to do
- It is important to let your doctors and dentists know before each visit that you are taking Warfarin. Even small procedures can cause severe bleeding and problems, so they will have to take this into consideration when treating you and may need to change you to injections of Heparin for a few days before going back to Warfarin
- If you are planning on becoming pregnant whilst on this medication, please inform your doctor first. Warfarin can be very dangerous in pregnancy, for both the mother and baby. Your doctor may change your medication before you become pregnant to avoid this.
- Diet: it is best to consult your doctor before making any significant changes in your diet as it might affect how effective the Warfarin and affect your risk of clots or bleeding. Additionally avoid drinking cranberry juice and only drink alcohol in moderation, as these can also affect your Warfarin levels
- Exercise: avoid any sport where there is a significant risk of injury or bleeding
- **Ask the patient if they have any further questions**
- **Wash your hands**
- **Thank the patient and provide with a leaflet and contact details of their local anticoagulation clinic.**

Extra notes on Warfarin

Note: this is for general guidance only - guidelines change between Hospitals and Trusts so please familiarise yourself with your local guidelines

Indications for Warfarin:

- Treatment:
 - Deep Vein Thrombosis
 - Pulmonary Embolism
- Prophylaxis:
 - Atrial Fibrillation
 - Mechanical heart valve (artificial, not a tissue valve)

- Personal history of recurrent DVTs, or familial inherited pro-coagulant condition

Contraindications for Warfarin:

- Hemophilia
- Recent head injury
- Hemorrhagic stroke
- Peptic ulceration
- Adverse lifestyle, e.g.: plays contact sports
- **Pregnancy** - especially first and third trimesters
- **Severe hypertension**
- **Infective Endocarditis**
- **Liver or kidney disease**

INR ranges:

- INR between 2-3:
 - DVT, PE, systemic embolism, AF
- INR between 3-4:
 - DVT or PE whilst on Warfarin, mechanical prosthetic valves, antiphospholipid syndrome

Management of INR above therapeutic range:

- If a patient is found to have a supra-therapeutic INR (e.g. above 4), then you need to manage them according to the INR and their clinical state
- Severe bleeding (with any INR):
 - Assess using [DR ABC](#)
 - Stop Warfarin
 - Prothrombin Complex Concentrate (PCC) should be given (only use Fresh Frozen Plasma if PCC is unavailable)
 - Vitamin K should be given IV to replenish active clotting factors
- INR >8 with little or no bleeding:
 - Assess using [DR ABC](#)
 - Stop Warfarin
 - Administer Vitamin K IV
- INR 5-8 with no bleeding:
 - Assess using [DR ABC](#)
 - Stop warfarin
 - Restart warfarin when INR <5 (depending on Hospital guidelines)
 - Avoid giving Vitamin K as this can cause prolonged resistance to Warfarin when it is restarted
- INR normal but there is bleeding:
 - Investigate the underlying cause