



Cardiac Nurse Specialists

Children on warfarin

Information for parents and carers

Introduction

Your child has been prescribed a medicine called warfarin. This booklet aims to provide you with information, advice and guidance whilst your child is taking warfarin. There is a lot of information so keep this booklet handy to refer to when you need it.

The nurses that will help you

The Cardiac Nurse Specialists are Non-medical Prescribers and manage the anti-coagulation clinic and a home testing service. They are experts in prescribing, dosing and making follow-up appointments for your child's warfarin. As well as managing a helpline for patients and their families they provide education and support to other health professionals and teachers

What is warfarin?

Your child's blood flow may be reduced due to their cardiac condition and warfarin will reduce the risk of clots forming. Warfarin is classed as an anticoagulant and is a very effective medicine. It prevents dangerous blood clots from forming in the blood vessels of the body, helping to maintain adequate blood flow.

How quickly will warfarin work?

The effects of taking warfarin occur approximately 48 hours after taking the first dose and can take up to 72 hours for the full effect to take place.

How long will my child have to take warfarin?

The length of time will depend on the reason for it being prescribed - it could be for the short term, long term or lifelong. If you have any questions or concerns about this please speak to the Cardiac Nurse Specialists.

Does warfarin have to be taken at special times?

Warfarin is taken once a day, roughly at the same time each day, preferably at 6 o'clock in the evening. If this time is difficult for you please speak to one of the Cardiac Nurse Specialists.

How will you know what is the right dose to give?

Your child will be started on warfarin and monitored within the hospital. This so that your child can be monitored and assessed safely whilst we start this new treatment.

We do this by a blood test called an INR (International Normalised Ratio). To do the INR we will use a needle to take blood from a vein in your child's arm.

Once your child is established on warfarin we will start testing by doing a capillary sample. This test can be done by pricking a finger and obtaining a drop of blood onto a strip and get a result within seconds.

What is INR (International Normalised Ratio)?

Your child's consultant will set a target INR for your child. For example, 2-3; this means that we would like a result in the region of 2 and 3. A person who is not on warfarin would have an INR of 0.8-1.1. If your child has a target INR of 2-3 we need the blood to be 2-3 times thinner than someone not on warfarin. Your child will need their INR monitored regularly, more so at first, and once they are stable the intervals will become longer between tests.

Once your child has reached their target INR and is medically stable we would be looking to discharge them home.

What can affect INR results?

Many things affect clots from forming and therefore, affecting INR results, for example, diet, illness, medications, in older children alcohol, etc. The dose of warfarin may be changed for a few days and then go back onto the original dose

Vitamin K is the antidote to warfarin and reverses its effects.

Vitamin K rich foods include: cabbage, spinach, Brussel sprouts, cauliflower, lettuce, green beans, broccoli, asparagus, spring onions, avocado, chickpeas, rape seed oil, soya bean oil, liver, egg yolks) mature cheeses, cereals (wheat bran and oats) .

These foods are very healthy and can be eaten as part of a balanced diet and should not be avoided. If your child suddenly starts liking one of these foods tell the Cardiac Nurse Specialists and they will adjust the warfarin.

If any sudden changes occur in your child's lifestyle you must inform the Cardiac Nurse Specialists who will request their INR to be checked.

What are the effects of blood being thinner?

As your child's blood is thinner than normal they will have to take some precautions. They are more likely to bleed through injury than others; therefore, you must be aware that if your child cuts themselves they will bleed for a little longer than normal.

If your child suffers a head injury, hits concrete or a hard surface and develops a large bump or heavy bruising then you must take them to your local Accident and Emergency Department to be checked for internal bleeding.

You must always take their 'yellow book' with you as the doctors will want to know their most recent INR. They may want to repeat the INR so if you have a monitor, take it with you.

Discharge information

Your child can go home for one – three days before coming to clinic for an INR test. You will be given a date and time to come to clinic to have the INR. This is because your child will be eating and drinking differently than when in hospital and their INR may be altered

We will check your child's health and medicines; once this is done we test your child's blood and will amend the dose of warfarin accordingly.

If you live outside of Liverpool we may be able to refer you to a clinic closer to your home, however, this is not always possible.

How often will we have to come back to clinic?

If the INR is within their target range we will give you a clinic appointment for possibly one week's time. If the INR is out of target range then your child will have to come back within the next few days.

As the INR becomes more stable the time between clinic appointments will lengthen. As long as your child's INR remains stable we can see you every four weeks. If your child is ill, is started on oral antibiotics, has any changes to their lifestyle you must let us know and book into clinic for an INR as it may have altered.

Home testing

Using a portable monitor, parents can test their child's blood at home. Once the child reaches a certain age and ability they could learn how to take their own blood and test their INR themselves. You and your child will need to meet specific criteria before home testing can be considered please speak to one of the Cardiac Nurse Specialists regarding this.

Home testing is also an option for children who are not very stable on warfarin. Home testing will mean they do not have to return to hospital to have a blood test performed. A child's quality of life is greatly improved by doing their INR at home and not having to miss school by coming to hospital.

You can also take the monitor on holiday and if your child is ill you can test their INR

Can my child go to school?

Your child can go to school as normal when taking warfarin. A Cardiac Nurse Specialist is usually available to speak to staff at your child's school if you wish. They will explain the implications of your child being on warfarin and will provide a care plan template to guide them on what they need to be aware of. The teachers can then individualise this for your child.

Can my child take part in sports?

They must not take part in any contact sports, for example, rugby, karate etc, due to the risk of head injury or trauma to internal organs. Your child can however take part in a variety of other sports and do PE. Please ask your child's consultant or one of the Cardiac Nurse Specialists for advice on this.

Frequently asked questions

Can my child take other medication whilst on warfarin?

Your child may be on other medicines prescribed by their cardiologist. Many medicines are not compatible with warfarin so please seek advice if unsure.

Medications containing aspirin should be avoided.

When buying over the counter medicines, tell the pharmacist that your child is taking warfarin.

If your child is started on antibiotics tell one of the Cardiac Nurse Specialists and have their INR tested around day three of the course.

Can what my child's eats affect their INR?

It is important for your child to eat a well-balanced diet, with moderate amounts of foods containing vitamin K. These foods are important in your child's diet but eating them in excess may lower their INR. Avoid crash diets or binge eating.

Are there any side-effects to taking warfarin?

Most importantly you should look out for any signs of bruising or bleeding and report it to one of the Cardiac Nurse Specialists or doctor as soon as possible.

Other signs to let us know about are:

Long-term headaches	Bleeding from gums
Nose bleeds	Blood in vomit
Red or black stools	Pink urine
Blood shot eyes	Excessive bruising
Blood in sputum	Hair loss

Rare and minor side effects may include loss of appetite, nausea, mild diarrhoea or rash.

What dose of warfarin should my child be given?

The amount of warfarin your child should take depends on the result of their INR. One of the Cardiac Nurse Specialists or a doctor will tell you what dose to give your child.

What should I do if my child is injured?

In the event of a minor injury apply constant pressure to the wound for 5-10 minutes using a clean dry dressing. If you are unable to stop the bleed or your child has a major injury seek medical help immediately.

What should I do if my child requires an operation or dental treatment?

You should contact one of the Cardiac Nurse Specialists or your doctor for advice.

What should I do if my child drinks alcohol whilst taking warfarin?

Alcohol can be taken moderately whilst taking warfarin. However, INR's can be affected when alcohol is consumed. Speak to one of the Cardiac Nurse Specialists for advice regarding this.

What should I do if my daughter is pregnant?

Oral anti-coagulants can affect an unborn child in the early weeks of pregnancy; therefore, it is advisable that a pregnancy should not be planned without speaking to a cardiologist.

If you think or know your daughter is pregnant speak to your cardiologist or one of the Cardiac Nurse Specialists immediately.

Summary

Do:

- Report any signs of bruising or bleeding to the Cardiac Nurse Specialists or doctor
- Make sure your child has regular blood tests
- Try to ensure warfarin is taken at the same time each day
- Only give the dose of warfarin that is prescribed
- Inform one of the Cardiac Nurse Specialists of any new medicines your child is taking (including over the counter and alternative medicines)
- Give your child a balanced diet
- Keep a record of your child's medication and dose with you and with your child, for example to school.
- Remind your doctor/pharmacist your child is taking an anticoagulant

Do not :

- Give your child aspirin or medicines containing aspirin unless advised to do so by your doctor or a Cardiac Nurse Specialist.
- Let your child take more than moderate amounts of alcohol
- Miss giving a dose of warfarin unless advised to do so.
- Give extra doses or change your child's dose of warfarin
- Run out of warfarin tablets.

Discharge checklist

- I have received education concerning anticoagulation
- My child has had their blood taken for INR test before discharge
- I know what dose of warfarin to give my child each day
- I have been given a "yellow book"
- I have been given warfarin to take home.
- I have a follow-up appointment for warfarin clinic
- I have a follow-up appointment to see my child's consultant

Contact Numbers

- If you need further advice or support please contact the Cardiac Nurse Specialists during the hours of 8.30am-4.30 pm Monday to Friday on **0151-252-5291**.
- If you need advice outside of these hours regarding your child's warfarin dose, please contact the consultant or registrar on call by calling **Ward K2 on 0151-252-5418**.
- If your child requires urgent advice or treatment **go to your local Accident and Emergency Department or call 999**.

This fact sheet only gives general information. You must always discuss the individual treatment of your child with the appropriate member of staff. Do not rely on this fact sheet alone for information about your/your child's treatment.

This information can be made available in other languages and formats if requested.

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