Wrightington, Wigan and Leigh Teaching Hospitals
NHS Foundation Trust

Anti-Coagulation in Pregnancy and the Post-Partum Period

Patient Information

Maternity Department

The Patient Information Leaflets page on the Trust website is available on the link: https://www.wwl.nhs.uk/patient-information-leaflets or scan the QR code.

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Introduction

Welcome to the antenatal haematology service at Wrightington, Wigan and Leigh NHS Foundation Trust. You have been referred for consideration of anti-coagulant therapy either during or after pregnancy. This leaflet will give you some information on the following topics:

1. The reasons for anti-coagulant therapy
2. Types of therapy used, with usual doses and method of administration and side effects
3. Monitoring of therapy
4. The management of labour
5. Management following delivery
6. Long-term considerations
7. Other sources of information
8. Glossary

Useful contact telephone numbers

Anti-Coagulant Help-line	01942 822964
Labour Ward	01942 778505
Anti-Coagulant Pharmacist	01942 244000
VTE Unit	01942 773331
Consultant Obstetrician Secretary	01942 264684

1. The reasons for anti-coagulant therapy in pregnancy and the post-partum period

Prophylactic treatment – you may require this type of treatment if:

a) You are at increased risk of blood clotting e.g.

- Increased body weight
- Prolonged bed rest (more than four days), pre-eclampsia, severe morning sickness leading to dehydration
- In those with a family history of venous thromboembolism (blood clotting)
- In those with a past history of venous thromboembolism (blood clotting)
- In those with known thrombophilia (an inherited tendency to blood clotting)
- Air travel with any of the risk factors listed above.

b) There is some evidence that if you have antiphospholipid antibodies or an inherited tendency to blood clotting (thrombophilia) and a history of recurrent pregnancy loss or late pregnancy loss, treatment with low dose heparin injections and low dose aspirin may improve your chances of a live birth up to about seven in ten (compared with around four in ten if you take aspirin alone and just one in ten if you have no treatment).

Full dose anti-coagulant therapy: You may require this type of treatment if you:

a) Develop venous thromboembolism (blood clotting for example: deep vein thrombosis DVT or pulmonary embolism) in pregnancy or post-partum

b) You are at high risk of recurrence of venous thromboembolism.

c) You have a prosthetic heart valve(s)

d) You are on long term anticoagulation

2. Types of therapy used, with usual doses, method of administration and side effects

a) Low molecular weight heparin (LMWH) e.g. Enoxaparin (Clexane) or Dalteparin (Fragmin).

These medicines act as blood thinner by reducing blood-clotting activity. It is safe for mothers during pregnancy and breastfeeding. They do not cross placenta and not secreted in breast milk hence do not have the potential to cause any problem to your baby. It can be given daily as prophylaxis or sometimes twice daily for treatment purpose. The dose depends on your weight in early pregnancy or just before you become pregnant. The usual dose of Clexane for prophylaxis in pregnancy is 40mg per/day given by injection under the skin. The usual dose for treatment of a blood clot (venous thromboembolism) is 100 units/kg twice a day, injected under the skin.

Other low molecular weight heparins (LMWH) might sometimes be used if your treatment has been started in a different hospital, or if you have a reaction to Clexane or Fragmin®. The other LMWH that are sometimes prescribed is: Tinzaparin (Innohep). This can be given for both treatment and prophylactic purposes, and the doses are different to the dose of Clexane or Fragmin ®. The doctor will explain the reason for the use of these drugs and the doses required depending on the circumstances.

Method of administration

Clexane and other low molecular weight heparins are given by an injection under the skin, usually over abdomen or thigh. A different injection site should be used for each injection. Do not rub the injection site after administration. It may be given by the midwife, a nurse, a doctor, a relative or you can learn to self-administer. The syringes are pre-filled and ready for use. The whole length of the needle should be introduced vertically into the thickness of a skin fold held gently between the thumb and finger of the person giving the injection. Some bruising might appear at the site where you inject, this usually fades in few days.

Side effects of low molecular weight heparins

One or two women in every 100 might have allergic reaction. If you find any rash at injection site, then inform your doctor or midwife immediately. Bleeding complications in the mother are very uncommon, but because the treatment helps to thin the blood it is usually recommended to miss out the daily injection if you think you are in labour. The anaesthetist may wish to avoid

epidural and spinal if you have had a Clexane injection or other low molecular weight heparins less than 12 hours previously. Please discuss the method of pain relief in advance of delivery with your midwife and obstetrician.

Duration of treatment
The duration of treatment depends on the reason for its use. For prophylaxis the duration may range from a few days to the whole pregnancy and for six weeks post-partum. It is possible to convert to Warfarin tablets for the post-partum period if preferred. The duration of full treatment therapy also depends on the reason for its use, and if given for blood clotting will depend on the stage of pregnancy that this developed. The doctor will explain the reasons for its use and the duration of therapy. It is important to adhere to the therapy as failing to do so might result in problems in your pregnancy.

b) Aspirin

Aspirin is usually given in a low dose of 150mg daily in tablet form. This has been shown to be safe. It is usually given with LMWH for the management of recurrent pregnancy loss and is often started as soon as the pregnancy test is found to be positive. The aspirin is usually continued until end of pregnancy.

c) Warfarin

Warfarin is usually avoided in pregnancy because of the risk of complications for the baby. Women who are on Warfarin should be counselled about the risk before pregnancy occurs. If a pregnancy is still desired, LMWH should be substituted for Warfarin as soon as the pregnancy test is positive (less than six weeks of pregnancy). Warfarin can be given to women who need anti-coagulation in the post-partum period, as an alternative to LMWH and is also safe in breastfeeding. The doctor will discuss Warfarin therapy in more detail with you if required.

3. Monitoring of drug therapy

a) Low molecular weight heparins

Prophylactic dose
When LMWH are given in a prophylactic dose then it is not necessary to monitor the level of the drug in the blood.

Treatment dose
If you require a full treatment dose of LMWH then it will probably be necessary to monitor the activity of the drug in the blood. This is done by arranging for you to have a blood test done immediately before and three hours after one of the early doses of your treatment. The test is called an anti Xa level. If the level is satisfactory then the test is repeated once a month. If the dose of the drug has to be adjusted, then you may need to have the test repeated more

frequently. If there are any changes to be made, then we will usually contact you by letter or telephone.

b) Warfarin

If you are started on Warfarin following the delivery of your child, you will be issued with an anti-coagulant monitoring booklet, and arrangements will be made for you to attend an anti-coagulant clinic, which may be at either Leigh or Royal Albert Edward Infirmary or in a Community Clinic.

4. Management of Labour

If you think you are going into labour, then do not have any more injections and bring all your documentation to the labour ward with you. The staff on the labour ward will give you the injection at the appropriate time or omit it if needed.

Epidural analgesia (injection given in your back to numb your lower limb) couldn't be given until 12 hrs (24 hrs if on treatment dose) from your last injection. An alternative pain relief can be suggested.

If the delivery is planned. You may be given a reduced dose of LMWH, on the day before induction of labour or Caesarean Section.

5. Management following delivery

The LMWH will be restarted about six hours after delivery. There is a slight risk of wound haematoma (2%) following Caesarean Section (collection of blood beneath the cut).

Warfarin can be started on day two or three unless you prefer to stay on Clexane or other low molecular weight heparin. The injection can be discontinued when the Warfarin has taken full effect (approx. three to five days).

The duration of anti-coagulant therapy following delivery depends on the reason for the therapy. Your doctor will discuss this with you in detail.

6. Longer term considerations

If you are receiving prophylactic therapy because of a previous history of blood clotting, then it is likely that future pregnancies would be managed in a similar way. If you are on a treatment dose of therapy because of the development of a blood clot in this pregnancy, then you would probably require some prophylactic treatment during your subsequent pregnancies. You also need to be aware of other risk factors that can be associated with blood clots (venous thromboembolism):

- Avoid oestrogen containing contraceptive pills and HRT
- Consult your doctor before long distance travel – you may require Clexane injections to cover your journey

- Mention your history of thrombosis to the clinician if you require major surgery or have a period of prolonged immobility in case you require temporary prophylaxis with Clexane

If you have had a blood clot, a family history of blood clotting or recurrent pregnancy loss then you will probably have blood tests for thrombophilia. Some abnormalities that can be found are due to genetic changes, which can sometimes be present in other family members and the doctor may suggest that family studies are undertaken.

7. Other sources of information

The Miscarriage Association
Clayton Hospital
Northgate
Wakefield
WF1 3JS

Telephone **01924 200799**
https://www.miscarriageassociation.org.uk/

Thrombophilia Support Page: https://www.miscarriageassociation.org.uk/research/alife2/

Booklet on Antiphospholipid Anti-body Syndrome
Arthritis Research Campaign
Copeman House
St Mary's Court
St Mary's Gate
Chesterfield
S41 7TD
Telephone **0870 850 5000**
https://www.versusarthritis.org/media/1317/antiphospholipid-syndrome-information-booklet.pdf

8. Glossary

Anti-coagulant therapy - treatments that 'thin' the blood by interfering with the clotting mechanism or by making platelets less sticky.

Antiphospholipid Antibody Syndrome – the presence of properties in the blood that may make it more likely to clot; there is an association with recurrent miscarriage and pre-eclampsia.

Pre-eclampsia – a combination of factors such as protein in the urine, headaches, and fluid retention (oedema).

Prophylaxis – any treatment or therapy, which successfully prevents, or helps to prevent a disease.

Prosthetic heart valve – mechanical heart valve replacement.

Post-partum – the six weeks following delivery.

Thrombophilia – tendency to clot. Often inherited increased clotting tendency.

Venous Thromboembolism – the formation or presence of a blood clot inside a vein (deep vein thrombosis), which can sometimes be dislodged to cause a blockage of a blood vessel in the lung (pulmonary embolism).

Wound Haematoma – A collection of blood trapped in the tissues around the wound.

9. Questions

Use this space to note down any questions that you may have as a result of reading this booklet.

Comments, Compliments or Complaints

The Patient Relations/Patient Advice and Liaison Service (PALS) Department provides confidential on the spot advice, information and support to patients, relatives, friends, and carers.

Contact Us

Tel: 01942 822376 (Monday to Friday 9am to 4pm)

The Patient Relations/PALS Manager
Wrightington, Wigan and Leigh Teaching Hospitals NHS Foundation Trust
Royal Albert Edward Infirmary
Wigan Lane
Wigan WN1 2NN

Ask 3 Questions

Become more involved in decisions about your healthcare. You may be asked to make choices about your treatment. To begin with, try to make sure you get the answers to three key questions:

1. What are my options?
2. What are the pros and cons of each option for me?
3. How do I get support to help me make a decision that is right for me?

How We Use Your Information

For details on how we collect, use, and store the information we hold about you, please see patient information leaflet, Ref. **Corp 006** How we use your information, this can be found on the Patient Information Leaflets page on the Trust website, see details on the front cover.

This leaflet is also available in audio, large print, Braille, and other languages upon request. For more information, please ask in the department/ward.

Call 111 first when it's less urgent than 999.

Phone: 0808 802 1212
Text: 81212
www.veteransgateway.org.uk