How can I help reduce Healthcare Associated Infections?

Infection control is important to the wellbeing of our patients, and for that reason we have infection control procedures in place. Keeping your hands clean is an effective way of preventing the spread of infections. We ask that you, and anyone visiting you, use the hand sanitiser available at the main entrance of the hospital and at the entrance to every clinical area before coming into and after leaving the clinical area or hospital. In some situations hands may need to be washed at the sink using soap and water rather than using the hand sanitiser. Staff will let you know if this is the case.

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If you require a translation of this leaflet please contact the Early Pregnancy Unit

Venous thrombosis in pregnancy and after birth: Reducing the risk

Patient information leaflet

If you require a translation of this leaflet please call your community midwife

Author: Miss N Mishra
Issue date: October 2017
Review date: October 2020
Leaflet code: WZZ1125
Version: 3
What is venous thrombosis?
Thrombosis is a blood clot in a blood vessel (a vein or an artery). This leaflet is about a thrombosis that occurs in a vein - the blood vessels that take blood back to the heart and lungs.
A deep vein thrombosis (DVT) is a blood clot that forms in a deep vein of the leg, calf or pelvis. If the clot comes loose, it can travel through the blood stream to your lung. This is called a pulmonary embolus (PE).

What are the symptoms of a DVT or PE?
Symptoms of a DVT usually occur in only one leg and include:
- A red and hot swollen leg
- Pain and/or tenderness - you may only experience this when standing or walking or it may just feel heavy
It is important to note that during pregnancy, swelling and discomfort in both legs is common and does not always mean there is a problem.
Symptoms of a PE include:
- Sudden unexplained difficulty in breathing
- Tightness in the chest or chest pain
- Coughing up blood
- Feeling very unwell or collapsing
Always ask your doctor or midwife if you are worried.

Who is at risk of venous thrombosis?
Pregnant women are ten times more likely to develop venous thrombosis than women who are the same age and not pregnant. However, it is still uncommon; occurring in only 1-2 in 1000 women (0.1-0.2 %). Venous thrombosis related to pregnancy can occur at any stage of pregnancy and for six weeks after birth. This is due to the changes in how your blood clots during pregnancy and around the time of birth.

Further information
Royal College of Obstetricians & Gynaecologists
www.rcog.org.uk/guidelines Tel: 0207 772 6200
Green Top Guidelines:
- No. 37a: reducing the risk of thrombosis and embolism during pregnancy and the puerperium
- No. 37b: thromboembolic disease in pregnancy and the puerperium: acute management
RCOG Patient Information leaflets:
- Reducing the risk of venous thrombosis in pregnancy and after birth
- Diagnosis and treatment of venous thrombosis in pregnancy and after birth

Please Note:
This leaflet explains some of the most common side-effects that some people may experience. However, it is not comprehensive. If you experience other side-effects and want to ask anything else related to your treatment, please speak to your midwife or obstetrician.

We continually strive to improve the quality of information given to patients. If you have any comments or suggestions regarding this information booklet, please contact:

Head of Midwifery
Division of Women, Children & Sexual Health Services
Buckinghamshire Healthcare NHS Trust
Stoke Mandeville Hospital
Mandeville Road
Aylesbury
Buckinghamshire
HP21 8AL
**What happens after birth?**
It is important to be as mobile as possible and to avoid dehydration. A risk assessment will be carried out and you may need to start or continue heparin injections for 10 days or sometimes for 6 weeks after birth. Heparin will be started as soon as possible after delivery (usually 3 hours). You will be advised to wait four hours after a spinal or epidural, or six hours if the procedure was difficult.
If you were taking warfarin before pregnancy and have changed to heparin during pregnancy, you can change back to warfarin, usually 5 days after birth.
At your postnatal appointment, your doctor/GP should:
- discuss future pregnancies – you may be able to reduce your thrombosis risk e.g. stop smoking or lose weight before your next pregnancy, so heparin treatment may not be necessary;
- discuss your options for contraception – you may be advised not to use any contraception that contains oestrogen, such as the combined pill’, as this can increase your risk of DVT.

**Useful Contact Numbers**

<table>
<thead>
<tr>
<th>Antenatal Clinics</th>
<th>01296 316140 (Stoke Mandeville)</th>
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<tbody>
<tr>
<td></td>
<td>01494 425569 (Wycombe Hospital)</td>
</tr>
<tr>
<td>Labour Ward</td>
<td>01296 316103 (Stoke Mandeville)</td>
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<tr>
<td>Rothschild Ward</td>
<td>01296 316280/1</td>
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</tbody>
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**Additional risks for developing a venous thrombosis in pregnancy include:**
- A previous venous thrombosis
- A condition called thrombophilia, which makes a blood clots more likely
- Being over 35 years of age
- Smoking
- Being overweight - body mass index (BMI) over 30
- Pre-eclampsia
- Multiple pregnancy (twins or more)
- Having a very long labour (more than 24 hours); a caesarean section, excessive bleeding after birth or receiving a blood transfusion
- Being immobile for long periods of time (e.g. after an operation or when travelling for four hours or longer)
- Being severely dehydrated which can be caused by excessive vomiting in early pregnancy, severe infection (e.g. kidney infection) or unwell from fertility treatment (ovarian hyperstimulation syndrome).

**When will my risk be assessed?**
Your community midwife or obstetrician will assess your level of risk in early pregnancy, at antenatal visits, during any admission to hospital and after birth. You will be advised if you require treatment to prevent thrombosis. If you are already taking warfarin to prevent venous thrombosis, most women will be advised to change to heparin before or as early as possible in pregnancy because warfarin can be harmful to your unborn baby.

**Can my risk of venous thrombosis change?**
Yes: your risk can increase if you develop other risk factors, or decrease if, for example, you stop smoking.
How can I reduce my risk of getting a DVT or PE?
You can reduce your risk by:
- staying as active as you can
- keeping hydrated by drinking normal amounts of fluids
- stopping smoking
- losing weight before pregnancy or minimising weight gain during pregnancy if you are overweight
- wearing anti-embolic stockings (when prescribed)

You may be advised to start treatment with heparin injections, usually of low-molecular-weight heparin (LMWH), which is an anticoagulant used to thin the blood. This will be prescribed by the hospital.

If you require long-term prevention after the birth, warfarin tablets can be given. Your doctor will discuss your options with you.

What does heparin treatment involve?
Heparin is given as an injection under the skin at the same time every day. You (or a family member) will be shown how and where in your body to give the injections. You will be provided with the needles and pre-filled syringes. You will be advised how to store and dispose of these.

How long will I need to take heparin?
The starting time and length of treatment will depend on your level of risk and whether your risk changes during pregnancy. There is a risk assessment scoring sheet which is filed in your hand-held notes. Treatment is prescribed depending on this score as the score represents your individual risk. Treatment may need to start in pregnancy for some women and may need to continue for up to 6 weeks after birth.

Are there any risks to me and my baby from heparin?
Low-molecular-weight heparin does not cross the placenta to the baby and so it is safe to take when you are pregnant.

It is also safe to take when you are breastfeeding.

There may be some bruising to your skin where you inject, which will usually fade in a few days.

One or two women in every 100 (1-2%) will have an allergic reaction when they inject. If you notice a rash after injecting, you should inform your doctor so that the type of heparin can be changed.

If you have any bleeding e.g. nose bleed, blood in urine or stools, or vaginal bleeding, please contact your doctor or midwife.

What should I do when labour starts?
If you think that you are going into labour, do not take any more injections. Phone the labour ward at Stoke Mandeville Hospital immediately and tell them that you are on heparin treatment.

Most women on heparin can have a normal labour, except an epidural injection (given into the space around the nerves in your back) cannot usually be given until 12 hours (24 hours if you are on a higher dose) after your last injection. Alternative pain relief options will be discussed.

If the plan is to induce labour, an individual plan will be made with you.

What if I have a caesarean birth?
Your last heparin injection should be 12 hours (24 hours if you are on a higher dose) before a planned caesarean delivery. If an emergency caesarean is required less than 12 hours (24 hours if you are on a higher dose) from your last heparin injection, it will still be possible to have your operation but you may not be able to have a spinal or epidural anaesthetic, you may need a general anaesthetic.