



Having intrathecal chemotherapy in your spine (up to age 24)

Cancer and Haematology Services Produced: September 2020

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Information for Patients

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What is intrathecal chemotherapy?

Intrathecal chemotherapy is an injection of chemotherapy into the fluid which surrounds the brain and spinal cord. This fluid is called Cerebrospinal Fluid (CSF).

Chemotherapy is given through a needle inserted into the lower part of your spine.

Why do I need intrathecal chemotherapy?

In some blood cancers, the cells can pass into the Cerebrospinal Fluid (CSF). Intrathecal chemotherapy is a direct way to treat cancer in the CSF and prevent cancer spreading to this area.

There are 3 types of drugs that are usually given this way.

These are:

- Methotrexate
- Cytarabine
- Hydrocortisone

What will happen before the procedure?

A blood test is needed a few days before the procedure to check you can go ahead with the procedure.

If you/your child are on medicine to thin your blood (anti-coagulation) you will need to stop this. Please talk to your doctor/nurse about this.

Health information and support is available at www.nhs.uk or call 111 for non-emergency medical advice

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If you are taking oral methotrexate this will not be given in the same week as the intrathecal chemotherapy so speak to your doctor/nurse to find out when to stop this medication.

Can I be put to sleep when I have intrathecal chemotherapy?

All children usually have a general anaesthetic/sedation when having this procedure. Some teenagers and young adults choose to have it done whilst they are awake and have local anaesthetic around the site before the procedure to numb the area.

General anaesthetic fasting times

If you or your child are having the procedure done under general anaesthetic then there are a few rules to follow.

- Patients can eat up until 3am of the morning of the procedure and drink until 8am.
- The only fluids that are allowed after 3am are water or very diluted squash.
- NO MILK or pure juices are allowed as they are classed as food.
- No chewing gum is allowed on the day of the procedure as this affects gastric acid production which can cause vomiting.

What happens on the day of the procedure?

Planned intrathecal chemotherapy is given in theatre on Ward 27 Daycare.

You will need to arrive at Ward 27 Daycare reception by 8am to talk about any concerns before the procedure, have an assessment by nurses with checks including blood pressure, temperature, heart rate, weight and height, and to consent for the procedure.

You will need to have 2 patient identification wristbands put on before procedure.

For patients aged 16 years or under, you may be taken to the Children's Day Care Unit opposite Ward 27 to recover after the procedure if there are no beds available.

After the procedure is carried out it is best to lie down flat for at least 1 to 2 hours to try to stop any headaches and vomiting.

What happens when I go to theatre?

If you are having general anesthetic/sedation one family member/partner can come with you when you go into theatre. There will be a few people in the room who will either be involved in looking after you when you have general anaesthetic/sedation or are involved with checking and giving your intrathecal chemotherapy. When the anaesthetist (a doctor who is trained in giving anesthetic) has started the medicine and you begin to get sleepy we will ask your family member/partner to leave.

If you are having the procedure awake you can take one family member/partner in with you for support. Numbing cream can be applied to the site before procedure. The cream can stay on for 1





hour but check for any allergic reactions to the site such as redness or itchiness. A nurse will remove it for you.

How is the intrathecal chemotherapy given?

Intrathecal chemotherapy is given by having a lumbar puncture. This involves putting a needle between two of the spinal bones in your lower back. Occasionally if this is not possible the treatment is given through an Ommaya reservoir in the head — this is called intraventricular chemotherapy.

The most common position to have a lumbar puncture performed is lying on your left side with your knees drawn up to your chest. If you are having the procedure awake another position used can be sitting on the bed whilst leaning over a table. Both of these positions open up the spaces between your spinal bones.

The doctor will clean your back with an antiseptic sponge and leave this to dry for a couple of minutes. If you are having this awake an injection of local anaesthetic is then given around the site to make it numb before proceeding further.

The doctor will then insert the needle into the space between your spinal bones in the lower back and a sample of your CSF will be taken to send to the lab (10 to 15 drops of fluid). The intrathecal chemotherapy will be in a syringe and connected to the needle. It is then injected slowly and the needle is then removed.

A dressing will be put on the site, normally gauze and tape, which can be taken off after 24 hours. We recommend you check the site for any signs of infection such as redness, swelling or pain and if there are any concerns please contact Ward 27 Daycare 8am to 6pm Monday to Friday or Ward 27 out of hours.

Side Effects

You should lie down flat after the procedure for 1 to 2 hours to stop headaches which is the most common side effect. Headaches normally occur within the first 24 hours and if it worsens despite pain relief medication such as oramorph or codeine or you start to vomit, please contact ward 27 for advice.

Drinking plenty of fluids after the procedure can help with the prevention of headaches.

Your back may feel sore and/or you may have shooting pains in your legs. This should settle within 48 hours, but if symptoms persist or worsen then contact Ward 27 Daycare 8am to 6pm or Ward 27





Contact details

Children and young adults treated on ward 27 phone:

- Ward 27 daycare (Monday to Friday, 8am to 6pm) 0116 204 7801
- Ward 27 (outside of hours including overnight & weekends) 0116 258 5959

Adult patients treated in Osborne building phone:

Haematology helpline 24 hours 7 days a week 0808 178 2212

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