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University Hospitals of Leicester

Cyclophosphamide treatment and stem cell collection

Bone Marrow Transplant Unit Information for patients Produced: Jan 2025 Review: Jan 2028 Leaflet number: 521 Version: 8

Important dates

Outpatient appointment for counselling and consent

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Date for day case appointment for chemotherapy

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Date to start G-CSF (at home) / dose

.....

Date to attend for stem cell collection (at 8.30am) in the Osborne treatment centre (OTC)

.....

Date for next appointment and review

.....

Introduction

Your medical team has decided that you would benefit from having high dose therapy and stem cell transplantation. We hope that this booklet will help you understand how the stem cells will be collected, in order for them to be transplanted at a later date.

Medical research has shown that combining chemotherapy (in this case, cyclophosphamide) and G-CSF is the best way of enabling us to collect stem cells from the blood. G-CSF is a growth factor that is used to increase stem cell production. You will be given a separate leaflet with further information about G-CSF.

Having signed a consent form and agreed to this treatment, you will have blood tests, including testing for viruses. This will give us information about viruses you may have had in the past, and also routine elimination of serious viruses such as hepatitis and HIV.

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

Visit www.leicestershospitals.nhs.uk for maps and information about visiting Leicester's Hospitals To give feedback about this information sheet, contact InformationForPatients@uhl-tr.nhs.uk



We are not allowed to store your stem cells unless we have this information, and your doctor will have explained the reasons for this.

Dates for your chemotherapy and peripheral blood stem cell collection have been planned (see dates below).

Starting treatment

Day 1 (Date)

You should plan to be at the hospital for the whole day. In some cases your doctor may wish to admit you to hospital overnight.

- You will be seen by a member of the Transplant Team, who will make sure you are fit, and check that you have given your written consent to the procedure.
- You will be given 1/2 litre of intravenous (into the vein) fluid to ensure good hydration prior to your chemotherapy. This will take two hours.
- You will be given anti-sickness drugs and a drug called Mesna which protects your bladder from the chemotherapy.
- Your chemotherapy is given intravenously over two hours, with another 1/2 litre of fluid. You will be given a separate leaflet about cyclophosphamide and its possible side effects.
- You will receive another intravenous dose of Mesna before going home. You will be given tablets to take home, which will include Mesna, anti-sickness tablets, anti-fungal and antacid tablets.

Please note: if you vomit after taking your Mesna tablets you must inform the Bone marrow transplant unit on 0116 258 5124

Day 5 (Date)

You should start your daily injections of G-CSF. You may wish to administer the injections yourself, and your nurse will teach you how to do this. Alternatively, arrangements can be made for your district (community) nurse to do this for you.

You will need these injections daily until your stem cell collection is completed. The injections are believed to work better if administered late afternoon or early evening.

You will be given separate information about G-CSF and its possible side effects.

Day 6 onwards (Date)

During the time between your chemotherapy and the stem cell collection your white blood cells count will fall to very low levels, and you will be vulnerable to infection. You should check your temperature daily.

You must telephone the hospital immediately if you feel unwell and / or have a temperature above 37.5°C, using the numbers at the back of this leaflet.

You will also be given a leaflet about dietary precautions that you will need to take to avoid food-borne infections whilst your immunity is low.

You should avoid crowded places and visiting any friends or relatives who have colds, sore throats, vomiting or diarrhoea.

While you are having G-CSF injections you may experience headaches, bone pain and flu-like symptoms.

Day 12 (Date)

Please come to Osborne Day Care on level 2 of the Osborne Building at Leicester Royal Infirmary at 8:30 am. Please bring any unused G-CSF injections with you.

You will have a blood test to assess whether your blood count is at a suitable level for stem cell collection. If it is not, your collection will not take place that day and your doctors may decide that you will need an additional drug called plerixafor. Plerixafor helps to release stem cells from the bone marrow, and is given by injection. You will need to stay at the hospital so that the nursing staff can give you this injection at about 5pm. You will be asked to stay for 30 minutes afterwards before going home.

You will be advised to come back to the hospital the following day and, if your blood count is adequate, you will then have the stem cell collection.

How are the stem cells collected?

Stem cell collection is carried out using a cell-separating machine. This machine takes blood out of a vein, spins it to separate the components and collects the stem cells into a bag. The remaining blood is then returned back to you via a different vein.

The stem cell collection will take approximately four hours and needs good access to two different veins or a functioning skin-tunnelled catheter.

You should expect to come for this procedure on more than one occasion, and possibly for three consecutive days. This is often necessary in order to obtain adequate numbers of cells for your transplant. You should not feel unwell during or after the procedure, but should arrange for a responsible adult to take you home in a car or taxi.



Cell storage

Your cells will be stored in an accredited facility, approved by the Human Tissue Authority. Whilst every care is taken to ensure your cells are transported and stored safely, we cannot be held responsible for events outside our control (for example: road traffic accidents or power failure) that may result in the loss of your cells.

Cells will be stored until required for your treatment, or up to five years. The need for continued storage will be kept under review.

Your cells will be destroyed in the event of your death, or after five years in storage if your doctor decides they are no longer of any benefit to you. You will be issued with a form telling you what cells are stored on your behalf. If any cells are used in your treatment, or destroyed after five years, you will be sent an updated form. If you move house, please inform the laboratory using the details on the form.

Emergency contact number (24 hours a day, 7 days a week)

Telephone: 07931 865272

Other useful contact numbers

If you have any questions at any time during the whole process, please phone the following numbers, according to the hospital you normally attend.

Leicester Royal Infirmary

Hambleton Suite

Telephone: 0116 258 5124 Monday to Friday, 9am – 5pm

Osborne Treatment Centre

Telephone: 0116 258 5263 Monday to Friday, 8.30am - 6pm, Saturday 8.30am - 4.30pm

Haematology Ward (Ward 41)

Telephone: 0116 258 5088 or 258 6832 24 hours, 7 days a week

Bone Marrow Transplant Unit

Telephone: 0116 258 5698 24 hours, 7 days a week

Northampton General Hospital

Haematology Clinic

Telephone: 01604 545031 Monday to Friday, 9am-5pm

Talbot Butler Ward

Telephone: 01604 545334 24 hours, 7 days a week

Kettering General Hospital

Centenary Wing Telephone: 01536 493638 Monday to Friday - Fri, 9am-5pm

Lilford Ward

Telephone: 01536 492834 24 hours, 7 days a week

Frequently asked questions

Is the collection always successful?

In about 20% of patients we cannot initially get enough cells for transplantation to go ahead. The team will work hard to ensure a successful collection, and you may be given a drug called plerixafor to help us obtain enough cells. However, in 5% of patients we still cannot obtain enough cells. If this happens, you will be given an appointment with the Transplant Team to come and talk about the other options available to you.

Will I have any side effects whilst I am attached to cell-separating machine?

Possible side effects include:

- a headache,
- a tingling sensation (caused by a low level of calcium in your blood)
- pain at the site of the needles.

What should I do if I feel unwell after my treatment, for example if my anti-sickness tablets are not working?

Please contact us immediately using the telephone numbers in this booklet.

Your medication

Name of medication	On waking	11am	Lunch	3pm	Supper time	7pm	Night time	Medication uses

Sources of further information

Macmillan Information and Support Centre

Osborne Building, Leicester Royal Infirmary, Leicester LE1 5WW Telephone: 0116 258 6189 Email: cancerinfo@uhl-tr.nhs.uk Website: leicestershospitals.nhs.uk/cancerinfo

Sue Young Cancer Support

Helen Webb House, 35 Westleigh Road, Leicester LE3 0HH Telephone: 0116 223 0055 Website: www.sueyoungcancersupport.org.uk

Macmillan Cancer Support

Freephone: 0808 808 00 00 Website: www.macmillan.org.uk

Bloodwise

Telephone: 0808 2080 888 Website: www.bloodwise.org.uk

Lymphoma Action

Telephone: 0808 808 5555 Website: www.lymphoma-action.org.uk

Leukaemia Care

Telephone: 08088 010 444 Website: www.leukaemiacare.org.uk

Myeloma UK

Myeloma Infoline 0800 980 3332 Website: www.myeloma.org.uk

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If you would like this information in another language or format such as EasyRead or Braille, please telephone 0116 250 2959 or email equality@uhl-tr.nhs.uk



 Leicester's Hospitals is a research active trust so you may find research happening on your ward or in your clinic. To find out about the benefits of research and become involved yourself, speak to your clinician or nurse, call 0116 258 8351 or visit www.leicestersresearch.nhs.uk/patient-and-public-involvement