

ALL Consolidation (Cycles 1-4)

The possible benefits of treatment vary; for some people this chemotherapy may reduce the risk of the cancer coming back, for others it may control the cancer and its symptoms. Your doctor will explain to you whether you will receive chemotherapy or another type of treatment, or a combination of both. Your doctor or nurse will be happy to answer any questions you have about your treatment. You will find it useful to refer to the booklet 'Chemotherapy, a guide' which gives general information on chemotherapy and side effects. You may be given this treatment as part of a clinical trial. Your medical team will discuss this with you. If it is given as part of a clinical trial, the schedule and/or medications may vary to those listed below.

Your treatment

The consolidation phase will consist of **4 cycles** of chemotherapy. The first cycle will begin when your neutrophil count is above 0.75 and your platelets are above 75.

Cycle 1 The first cycle lasts for 4 weeks.

Days 1-5 inclusive:	Cytarabine via an infusion (drip) over 30 minutes.
Days 1-5 inclusive:	Etoposide via an infusion (drip) over 1 hour.
Day 5:	Peg-Asparaginase via an infusion (not all patients will receive this).
Day 1:	Intrathecal methotrexate once during this cycle (usually around day 1).

Cycle 2 Begins 3 weeks from the first day of cycle 1 when the neutrophil count is above 0.75 and platelets above 75.

Days 1-5 inclusive:	Cytarabine via an infusion (drip) over 30 mins.
Days 1-5 inclusive:	Etoposide via an infusion (drip) over 1 hour.
Day 1:	Intrathecal methotrexate once during this cycle (usually around day 1).

Cycle 3 Begins 3 weeks from the first day of cycle 2 when the neutrophil count is above 0.75 and platelets above 75, and is in 2 parts.

Part 1

Days 1, 8, 15 and 22:	Daunorubicin via an infusion (drip) over 1 hour Vincristine via an infusion (drip) over 15 minutes.
Day 2:	Intrathecal methotrexate once during this cycle (usually around day 2).
Day 4:	Peg-Asparaginase via an infusion (not all patients will receive this).
Days 1-4, 8-11, 15-18	Dexamethasone taken as a tablet for 4 days with each and 22-25 daunorubicin and vincristine.



Part 2 Day 29 chemotherapy commences from day 29 or when neutrophil count is above 0.75 and platelets are above 75.

Day 29:	Cyclophosphamide via an infusion (drip) over 30 mins.
Days 30-33 & 37-40:	Cytarabine via an infusion (drip) over 30 mins.
Days 29-42	Mercaptopurine tablet taken every day.

Cycle 4 Begins when the neutrophil count is above 0.75 and platelets above 75. It is identical to cycle 2.

Days 1-5 inclusive:	Cytarabine via an infusion (drip) over 30 mins
Days 1-5 inclusive:	Etoposide via an infusion (drip) over 1 hour
Day 1	Intrathecal methotrexate once during this cycle (usually around day 1)

This treatment can have serious or possibly life-threatening side effects. It is very important that you report side effects straight away. Don't delay, if you feel unwell, please ring The Christie Hotline on **0161 446 3658**. The lines are open 24 hours a day.

Increased risk of serious infection

You are vulnerable to infection while you are having chemotherapy. Minor infections can become life-threatening in a matter of hours if left untreated. Symptoms of infection include fever, shivering, sweats, sore throat, diarrhoea, discomfort when you pass urine, cough or breathlessness. We recommend that you use a digital thermometer so you can check your temperature. You can buy one from your local chemist.

If you feel unwell, you have symptoms of an infection or your temperature is 37.5°C or above, or below 36°C contact The Christie Hotline straight away.

Possible side effects

Chemotherapy can cause many different side effects. Some are more likely to occur than others. Everyone is different and not everyone gets all the side effects. Most side effects are usually temporary, but in some rare cases they can be life-threatening. It is important to tell your hospital doctor or nurse about any side effects so they can be monitored and, where possible, treated.

Common side effects (more than 1 in 10)

Vincristine can cause constipation and you may need medication (laxatives) to help you. You may feel some numbness in your fingers and toes which normally improves with time.

Cytarabine can sometimes cause a syndrome that can result in some or all of the following: fever, weakness and aching in your muscles and bones, a rash and pain in the chest. This will not affect everyone and will disappear soon after the Cytarabine infusions stop.

Peg-Asparaginase can cause a swollen pancreas (pancreatitis). Tell your doctor straight away if you get sharp pain in the upper tummy (abdomen) with sickness and vomiting. They will examine your tummy and prescribe medicines that can help.

Blood clotting

The liver makes proteins that help blood to clot. Peg-Asparaginase can cause too many or too few of these proteins to be made. Too many clotting proteins can cause a blood clot. Symptoms of a blood clot include:

- Pain, redness or swelling in a leg or arm
- Breathlessness
- Chest pain.

If you have any of these symptoms, contact a doctor straight away.

A blood clot is serious but can be treated with drugs that thin the blood. Your doctor or nurse can give you more information.

Too few clotting proteins can also cause bruising or bleeding, let your doctor know if you have any unexplained bruising or bleeding, such as nosebleeds, bloodspots or rashes on the skin, and bleeding gums. You may need a platelet transfusion.

Dexamethasone tablets should be taken with food, as they may cause indigestion. They may also cause an increase in appetite, which may result in you gaining weight. It is better to take them earlier in the day since they can make you feel more alert and prevent sleep.

Blood sugar

Dexamethasone can cause your blood sugar to rise. If you have diabetes, then you may need to increase the dose of any diabetic medication you take (insulin or tablets). You should discuss this with your doctor before starting the chemotherapy. Dexamethasone can also induce diabetes in people not known to have this disease. This is normally reversible although you may need to take some diabetic medication while you are having chemotherapy.

Mood changes

Dexamethasone tablets can affect your mood. This may result in mood swings and irritability. You may also have difficulty in sleeping. You may feel very energetic and have a good appetite when you take the tablets, and then lethargic and low in mood when you stop. If you experience this side effect and find it hard to tolerate you should discuss it with your doctor.

Daunorubicin because of its red colour may discolour your urine red or pink for the first few times following treatment. This is normal and nothing to worry about.

- **Anaemia (low number of red blood cells)**

While having this treatment you may become anaemic. This may make you feel tired and breathless. Let your doctor or nurse know if these symptoms are a problem. You may need a blood transfusion.

- **Nausea and vomiting (sickness)**

The severity of this varies from person to person. Anti-sickness medication will be given along with your chemotherapy to prevent this. If you continue to feel or be sick, tell your nurse as your anti-sickness medication may need to be changed or increased.

- **Liver disorders**

The chemotherapy may cause changes in the way your liver works. Your medical team will monitor this closely by taking blood samples from time to time to measure your liver function. If your liver is affected, we may need to alter the dose of chemotherapy.

- **Hair loss**

Hair loss is usually total. The hair falls out gradually 10 to 14 days following your first course of treatment. The time scale varies from person to person. Please remember that this is a temporary side-effect and your hair will grow back when your treatment is completed. Very rarely, hair loss can be permanent.

The cancer information centre offers a coping with hair loss service to all patients where support, information and advice will be given. Drop in, contact **0161 446 8100/8107** or email **the-christie.informationcentre@nhs.net**. Information about the wig service can also be found here and vouchers for wigs can also be obtained for eligible patients. The wig room provides a drop-in service, please see The Christie leaflet 'The wig fitting service' for further information.

The Maggie's Centre runs a Talking Heads hair loss support workshop for anyone who is anticipating or experiencing hair loss (both men and women). These sessions cover the practicalities of hair loss as well as offering support with its emotional impact.

Contact Maggie's on **0161 641 4848** or email **manchester@maggies.org**.

- **Lethargy**

Some chemotherapy may make you feel tired and lacking in energy. It can be frustrating when you feel unable to cope with routine tasks. If you do feel tired, take rest when necessary. Gentle exercise such as walking can be beneficial.

- **Skin changes**

Sometimes as a result of the chemotherapy, your skin may appear darker in colour or lightly tanned, especially around the joints. This is known as hyperpigmentation. The skin will return to normal when treatment is finished. Some chemotherapy can make your skin more sensitive to the sun than usual. Sit in the shade, avoid too much sun and use a sunblock cream. Asian and African-Caribbean people may develop noticeable light patches on their skin.

- **Irritation of the bladder**

Cyclophosphamide may irritate your bladder. Tell your doctor or nurse if you have any discomfort when you pass urine.

Uncommon side effects (less than 1 in 10)

- **Diarrhoea**

If this becomes a problem during or after your treatment, anti-diarrhoea tablets can be prescribed by your doctor. Ask the staff for a copy of 'Eating: help yourself' which has some useful ideas about diet when you are having treatment.

- **Sore mouth**

Your mouth may become sore or dry, or you may notice small mouth ulcers during this treatment. Drinking plenty of fluids and cleaning your teeth regularly and gently with a soft toothbrush can help to reduce the risk of this happening. We can prescribe a mouthwash for you to use during treatment. You can dilute this with water if your mouth is sore. Ask your doctor or nurse for further advice. There is also general mouth care information in the chemotherapy booklet. If you continue to have a sore mouth, please contact The Christie Hotline.

Occasionally during treatment, you may experience a strange taste, sometimes described as metallic or bitter. A strongly flavoured sweet or mint will help to disguise this.

Rare side effects (less than 1 in 100)

- **Extravasation** is when chemotherapy leaks outside the vein. If you develop redness, soreness or pain at the injection site at any time, please let us know straightaway.
- **Irregular heart beats**

Occasionally this can happen as a result of the daunorubicin. It is quite rare if your heart is healthy and is usually reversible. Please make sure you tell a doctor if your heart beat feels different from normal or you have pains in the chest.

Serious and potentially life-threatening side effects

In a small proportion of patients, chemotherapy can result in very severe side effects which may rarely result in death. The team caring for you will discuss the risk of these side effects with you.

You will have a routine blood test every day while you are in hospital to monitor the effects of the chemotherapy, but please tell your nurse if you experience any of the symptoms listed above.

Sex, contraception and fertility

Protecting your partner and contraception:

We recommend that you or your partner use a condom during sexual intercourse while you are having the course of chemotherapy. Chemotherapy is dangerous to unborn babies, and this will also protect you and your partner from any chemotherapy drugs that may be present in semen and in the vagina. If you suspect that you may be pregnant, please tell your doctor immediately.

Fertility:

This chemotherapy may affect your ability to have children. Your doctor or nurse should have discussed this with you. If not, please ask them before you start treatment.

Late side effects

Some side effects may become evident only after a number of years. In reaching any decision with you about treatment, the potential benefit you receive from treatment will be weighed against the risks of serious long term side effects to the heart, lungs, kidneys and bone marrow. With some drugs there is also a small but definite risk of developing another cancer. If any of these problems specifically applies to you, the doctor will discuss these with you and note this on your consent form.

Contacts

If you have any general questions or concerns about your treatment, please contact the Haematology and transplant unit.

Haematology nurse specialists	0161 918 7962
Haematology and transplant day unit	0161 446 3924
General enquiries	0161 446 3000
For urgent advice ring The Christie Hotline	0161 446 3658 (24 hours)

If you need information in a different format, such as easy read, large print, BSL, braille, email, SMS text or other communication support, please tell your ward or clinic nurse.

The Christie is committed to producing high quality, evidence based information for patients. Our patient information adheres to the principles and quality statements of the Information Standard. If you would like to have details about the sources used please contact **the-christie.patient.information@nhs.net**

For information and advice visit the cancer information centres at Withington, Oldham, Salford or Macclesfield. Opening times can vary, please check before making a special journey.



Contact The Christie Hotline for
urgent support and specialist advice
The Christie Hotline: 0161 446 3658
Open 24 hours a day, 7 days a week