

## Further Information

For further information please speak to your chemotherapy nurse or call one of the following telephone numbers:

Ingham (Lincoln)  
Telephone : 01522 572260/572261

Chemotherapy Suite (Boston)  
Telephone : 01205 446548



United Lincolnshire Hospitals **NHS**  
NHS Trust



## References

If you require a full list of references for this leaflet please email  
[patient.information@ulh.nhs.uk](mailto:patient.information@ulh.nhs.uk)

The Trust endeavours to ensure that the information given here is accurate and impartial.



If you require this information in another language, large print, audio (CD or tape) or braille, please email the Patient Information team at [patient.information@ulh.nhs.uk](mailto:patient.information@ulh.nhs.uk)

# What goes on behind the scenes to make my chemotherapy safe?

**Taking the time to do it right**

Pharmacy Department

[www.ulh.nhs.uk](http://www.ulh.nhs.uk)

## **Introduction**

Have you ever wondered how your chemotherapy is made, or why it seems such a long process when you attend for your chemotherapy treatment?

This information may help you understand what is involved in preparing the chemotherapy you receive.

### **Why does making a dose of chemotherapy take so long?**

It might seem that little is happening, but there is a lot of vital preparation going on behind the scenes to prepare your chemotherapy. Chemotherapy made incorrectly can be harmful to you and the staff.

### **Your chemotherapy must be sterile (germ free).**

Chemotherapy can suppress your ability to fight infections. The chemotherapy we make, therefore, must be sterile and is made in a sterile environment. This is to prevent any infections entering your system when we administer the chemotherapy. The following processes ensure your chemotherapy is sterile:

A piece of equipment called an isolator (cabinet) is used to make the chemotherapy. The cabinet is located inside a specially designed clean room that is strictly controlled and monitored.



### **For Day 1 of a 3 or 4-Weekly treatment.**

**Blood test (before 10.00am) 3 days before the day of the treatment.**

**E.g. Friday for Monday, Monday for Thursday,  
Tuesday for Friday**

### **For Day 1 of a 2-Weekly treatment.**

**Blood test (before 10.00am) 2 days before the day of the treatment.**

**E.g. Monday for Wednesday, Tuesday for Thursday,  
Wednesday for Friday**

### **For Weekly treatment (including Day 8, Day 15 and/or Day 22 of a 3 and 4-weekly treatment)**

**Blood tests (before 10.00am) on the day before  
the treatment.**

All blood tests must be taken before 10.00am for the samples to be received and processed the same day. This then allows for the results to be made available.

Some blood tests may need to be repeated if the results are outside the limits that can be accepted.

### **“Timely” does not mean fast.**

Timely means no more time than is required to make sure that your chemotherapy is carefully prepared, accurate, sterile and safe for you and the staff.

Pharmacy currently makes chemotherapy from Monday to Friday (9.00am to 5.00pm). No service is provided on weekends and Bank Holidays. Delays may occur on Mondays and the day following a Bank Holiday.

**We apologise for any delays in advance. Your patience and co-operation is greatly appreciated.**

**Finally the chemotherapy is transported to the administration area.**

This can take time, anything from 10 to 30 minutes.

**Why do some patients that arrive after me receive their chemotherapy before I do?**

**Some drugs can be prepared in advance** rather than on the day of treatment. It depends on the type of drug, the shelf life and stability.

**Some drugs come ready made** and do not need to be made in pharmacy. These drugs still require labelling and checking in pharmacy.

**There may have been a query in your prescription** which has taken time to resolve.

**Occasionally, your dose will have changed** after you see the doctor or nurse at arrival and your chemotherapy may have to be remade even if it has been made in advance.

**Their blood results were available before yours.**

Pharmacy cannot make the drug until your complete set of laboratory results are available.

**Please remember:**

**We always do our best to stay on time** but there can occasionally be unavoidable delays at the blood lab, pharmacy or the chemotherapy unit.

**You can help the process and prevent delays by having your blood tests done 48 to 72 hours before your chemotherapy appointment.**

The person making your chemotherapy must wear a coverall made of special fabric, protective overshoes, a mask, a cap and two layers of chemotherapy gloves. They are not allowed to wear cosmetics while making the chemotherapy or make the chemotherapy if they have any signs of infection.

Checks and tests are carried out daily, monthly and annually to ensure the sterility of the rooms, staff and the equipment used to make your chemotherapy. These checks are usually done during working hours and may cause some delays.



**Your chemotherapy must be accurate.**

To ensure your chemotherapy is correct and suitable to administer, we undertake several checks throughout the process.

**It can take 30 to 90 minutes to make one dose of chemotherapy.**

Depending on the treatment and dose we may need to manipulate one or several vials to prepare your chemotherapy. Some drugs are powders and need time to dissolve. Also, most patients receive more than one drug (sometimes up to six drugs). If you participate in a Clinical Trial there will be extra paperwork and processes to be completed before preparation can begin.

It takes time to clean and prepare the special room and isolator (cabinet) at the beginning of the day and this may cause delays if your chemotherapy is amongst the first doses to be prepared.

All pharmacy staff involved in making and checking your chemotherapy are specially trained. Occasionally, if a new trainee is working, extra time and supervision is required.

### **What's involved in making your chemotherapy?**

**The doctor prescribes your chemotherapy.**

**A specially trained pharmacist checks your prescription to ensure that the treatment is suitable and all the doses are correct for you.**

The pharmacist also reviews your blood results, checks your electronic notes and any additional investigations that you may have had done to check the dose you have been prescribed is correct. The prescription is sent to pharmacy for processing only when the pharmacist has approved it.

**A specially trained nurse also reviews the prescription.**

The nurse will review your blood results and will also ensure that you are well enough to have your chemotherapy.

**The prescription is entered into the computer system by a member of the pharmacy team.**

The computer system prints the labels, which will be attached to the syringe(s) or bag(s) of chemotherapy and a record sheet (worksheet) which gives instructions on how to make your chemotherapy.

**A pharmacy member of staff will gather the components** including the drugs, needles, syringes, sterile (alcohol) wipes and containers of chemotherapy.

The batch numbers and expiry dates of all the components are recorded on the worksheet. This allows full traceability of all the components used to make your chemotherapy.

**The label, worksheet, components and calculations are** reviewed to ensure they are accurate. If there is an error, it is corrected and this may involve restarting the process.

**The supplies, labels and worksheet have to be disinfected before going into the sterile area.**

**The chemotherapy is made by a pharmacy member of staff in the isolator.**

If the drug comes as a powder, a solution has to be used to dissolve the powder. It can take time to dissolve the powder. A syringe is then used to remove the exact amount of chemotherapy from the vial or ampoule.

**A pharmacist authorises the chemotherapy for use after checking the final syringes(s) and/or bag(s) and that all the steps and processes followed were correct.**

In the rare event there is an error, the medicine is discarded and the whole process restarts.

