



## Department of Uro-oncology

# Non-seminomatous Germ Cell Tumour (NSGCT): Stage 1 disease

You have recently had an operation called an 'orchidectomy' (removal of a testicle) which has confirmed a diagnosis of testicular cancer. This information explains what happens next.

Testicular cancer is rare, but it is the most common cancer to affect men between the ages of 20 to 35 years although it can occur in younger or older men. There are two main types of testicular cancer which are based upon the types of cells that make up the tumour.

- Seminoma
- Non-seminomatous germ cell tumours (NSGCT also known as teratoma)

A diagnosis of seminoma or NSGCT is based on the nature of the cells that make up the tumour. The distinction between the two types of cancer is important because the treatment depends on the type of the cancer. The treatment also depends on the stage (extent of spread) of the cancer. The majority of testicular cancer, even if it has spread, can be cured with treatment.

This leaflet explains the treatment options for your diagnosis of non-seminomatous germ cell tumours (NSGCT).

### Staging tests

Several tests will provide important information to help your doctor decide on the best treatment options to offer you:

- histology (the appearance of the cancer tissue examined under a microscope)
- scans and X-rays (mainly CT scans and chest X-rays)
- blood tests to measure specific chemicals in the blood (tumour markers)

**Histology:** A doctor called a histopathologist examines the testicular tissue removed at your operation under the microscope to see what types of cells are present. This determines what type of testicular cancer is present.

**CT scan:** A CT scan of the chest, abdomen and pelvis is carried out to look for any signs that the disease has spread outside the testicle. You may have these scans at your local hospital or at The Christie.

### **Blood tests (tumour markers):**

NSGCT tend to produce three main types of tumour marker, although in some cases they do not. The three main markers are:

- AFP (alpha fetoprotein)
- $\beta$ HCG (beta human chorionic gonadotrophin)
- LDH (lactate dehydrogenase)

AFP and  $\beta$ HCG can be produced by testicular cancer cells when they are growing. LDH is less specific and can be produced by other normal cells as well as testicular cancer cells. These markers are measured before the testicle is removed, and are then rechecked after you have recovered from the operation to see if they decrease to normal levels. If they do not return to normal, or rise again in the future, you may need further tests and treatment. The blood test will be repeated at your first visit to the oncologist (a doctor specialising in cancer treatment) and monitored at each following visit.

Once all the above information is collected, the multi-disciplinary team will discuss your case. This is a team of experts (surgeons, radiologists, histopathologists, oncologists and specialist nurses) who will review all the information and decide on the best options of treatment. Your doctor or nurse specialist will discuss this with you at an outpatient appointment.

The type of testicular cancer you have has been typed as a clinical stage 1 NSGCT – what this means is described below. There are a number of treatment options we may offer you which depend on the tumour type, its grade and stage, as well as the level and type of tumour markers before and after your surgery.

### **Stage 1 Non-seminoma (NSGCT)**

This means that the cancer is confined to the testicle and there is no evidence of spread from your blood tests and scans. However, despite this, there is a risk that the cancer is still present in very small amounts. This can come back in other areas of the body. The highest risk of recurrence is over the next two years.

We will discuss treatment options with you when you come to clinic. The policy at The Christie is one of active surveillance. We do not offer further treatment at this stage but we will monitor you closely with blood tests, X-rays and scans. If the cancer should recur, we will pick it up early and offer you treatment with chemotherapy.

Active surveillance is very intensive and needs a long-term commitment from you. You will need to attend the outpatient department regularly. The usual schedule is:

- monthly for the first year
- every 2 months in year 2
- every 3 months in year 3
- every 6 months to year 5 then discharge or
- annually to year 10.

At each visit, a doctor will see you and discuss your general health and identify any ongoing or new problems with you. The doctor will examine your neck, abdomen and remaining testicle. We will also teach you how to examine your remaining testicle. Blood tests will be taken for tumour markers and you will have a chest X-ray to detect any signs of the cancer coming back at an early stage. Blood test results are not usually available on the same day, however, if you would like to know the results please phone Cath Pettersen, Urology CNS, on **0161 918 7328** on the Monday or Tuesday of the following week. You will have a CT scan twice in the first year following diagnosis and you may need another CT scan afterwards.

As well as assessing your physical health, we are also interested in your emotional and psychological health as a diagnosis of testicular cancer can cause stress and anxiety. This may impact on how you are able to carry on with your usual lifestyle. You will be encouraged to discuss any concerns you or your relatives have. If you are worried about fertility, please speak to your doctor.

### **What are the benefits of active surveillance?**

We can target chemotherapy to those men who need it and avoid giving chemotherapy to those who are cured by their initial surgery.

### **What are the risks of active surveillance?**

This approach involves a long-term commitment from you as a patient and often for your relatives. If you fail to attend outpatients, a diagnosis of recurrence of the cancer may be delayed.

### **Are there any alternatives to active surveillance?**

Some hospitals/centres treat patients with higher risk tumours immediately with two cycles of chemotherapy. Long-term survival is likely to be equivalent for each approach. Some centres in the US and Europe use abdominal surgery, but this is not necessary.

### **What happens if I decide not to undergo active surveillance?**

You should discuss other options with your cancer specialist who will advise you about whether this is an appropriate option.

### **Contacts**

Catherine Pettersen	Macmillan urology clinical nurse specialist	<b>0161 918 7328</b>
Sharon Capper	Macmillan urology clinical nurse specialist	<b>0161 446 3856</b>
Jane Booker	Macmillan urology clinical nurse specialist	<b>0161 446 8018</b>

Dr. Leahy's secretary	<b>0161 446 8384</b>
Dr. Logue's secretary	<b>0161 446 3355</b>
Dr. Welch's secretary	<b>0161 446 3833</b>
Dr. Wylie's secretary	<b>0161 446 3341</b>

### **Further information**

Cancer Information Centre at The Christie  
Open Monday to Friday, 9am to 4pm  
Calls are answered by cancer information nurse specialists.  
Call **0161 446 8100**

Macmillan Cancer Support  
Call **0808 808 00 00** Open Monday to Friday, 9am to 8pm

Cancer Research UK  
Call **0808 800 4040** Cancer information is available in 170 languages via an interpreter.

We try to ensure that all our information given to patients is accurate, balanced and based on the most up-to-date scientific evidence. If you would like to have details about the sources used please contact **patient.information@christie.nhs.uk**

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For more information about The Christie and our services, please visit **www.christie.nhs.uk** or visit the cancer information centre at Withington, Oldham or Salford.

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The Christie Patient Information Service

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