



## Testicular Cancer

### HIV and Testicular Cancer

This factsheet is for men with the human immunodeficiency virus (HIV) who have been recently diagnosed with testicular cancer. It provides information on testicular cancer, its treatment and management options and examines some of the issues you may come across during the course of your cancer journey.

Managing your anti-HIV treatment alongside treatment for testicular cancer can be complex and you will need to see a different doctor for each treatment. But your out-patient clinic and medical teams should work together. Each hospital or specialist healthcare team will manage your disease slightly differently and the treatment you receive will also be dependent on your general health, the status of your immune system and any other conditions you may have such as hepatitis or TB.

You may wish to take this factsheet with you when you meet your medical team or you can visit the Orchid website for further information.

#### **Who is affected?**

Testicular cancer is the most common cancer in men aged 15-35. Every year over 2,000 men will be diagnosed with the disease.

Men with HIV have a slightly higher incidence of testicular cancer (approximately double the risk compared to HIV negatives) although it is not as common as Kaposi's sarcoma and non-Hodgkins lymphoma. The reason for this increased risk in HIV positives is not clear.

#### **What is testicular cancer?**

The testicles are located inside the scrotum, the loose bag of skin that hangs below the penis. From the start of puberty, each testicle produces sperm. The testicles also produce the hormone testosterone.

Testicular tumour is a lump created by the abnormal and uncontrolled growth of cells. These lumps can often be found following regular examination of the testicles. They can occur in one or both testicles.

*Q. Does having HIV make testicular cancer more difficult to diagnose and treat?*

*A. Any mass in the testicle should be treated with suspicion and an ultrasound should be performed irrespective of HIV status. One of the difficulties with testicular cancer in HIV positives is it can be difficult to differentiate between abnormalities caused by HIV and cancer. This is particularly true if the HIV infection is advanced, where abnormally large lymph nodes can occur in both conditions. Close collaboration between the HIV doctors, radiologists and the oncologists is required.*

#### **What are the different types of testicular cancer?**

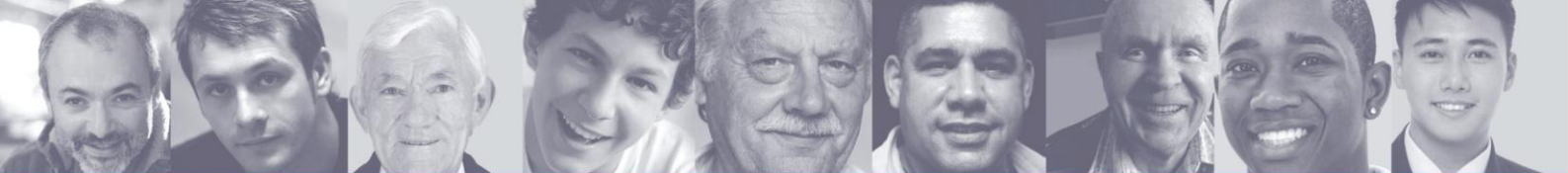
There are a number of different types of testicular cancer. About 95% of testicular tumours arise from the germ cell epithelium which lines the testicular tubes and are known as germ cell tumours.

The most common of these is seminoma which are made up of a single type of cell, grow slowly and tend to stay localised in the testicle for long periods of time. They tend to affect men over the age of 25. The remaining types, made up of more than one type of cell, are often grouped together and known as non-seminomas. They usually affect younger men and tend to be more aggressive.

*Q. My consultant has told me I have a non-seminoma cancer. What does this mean?*

*A. There are 2 groups of cancer. Non-seminoma testicular cancers include teratoma, embryonal carcinoma, choriocarcinoma and Yolk sac tumours. A non-seminoma testicular cancer may have some teratoma cells and some embryonal carcinoma cells, for example. It is also possible to have pure teratomas. These types of testicular cancer are usually treated in the same way so the exact cell types will not make much difference to you. Some testicular tumours have both seminoma cells and non-seminoma cells.*

There are other types of cancer which can start in the testicles but these are rare. The most common cancer found in the testicles in men over 60 is lymphoma.



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## **What are the likely causes of testicular cancer?**

There is no single known cause of testicular cancer. However, research studies have shown the following may make testicular cancer more likely:

- An undescended testicle (cryptorchidism). Research has shown the risk of testicular cancer increases dramatically if this is not corrected by the age of 11
- A brother or father who has had testicular cancer
- A previous diagnosis of testicular cancer
- Men who had a rare complication of mumps called orchitis may have an increased risk
- Testicular cancer is more common in some racial and social groups
- Carcinoma in situ (CIS) means that there are abnormal cells in the testicle. If left untreated, it will develop into cancer in about half the men who have it (50%)
- There is some research to indicate that a small number of men with fertility problems may develop testicular cancer

Having a vasectomy, experiencing a single injury to the testicles or being sexually active does not cause testicular cancer.

## **Treatment options: how is this decided?**

Fortunately, testicular cancer is highly treatable in HIV negatives. If caught early, 98% of men will make a full recovery, and even in the later stages of the disease, 90% of men will make a full recovery. Early in the HIV pandemic it was feared that testicular cancer in HIV positives may be more aggressive and associated with a less good outcome. However, more recent data suggests this is not the case. Providing testicular cancer in HIV positives is treated in an identical manner to HIV negatives, the outcome appears to be the same.

Your specialist healthcare team will have carried out a series of blood tests, examinations and scans (such as a CT scan of the chest, abdomen and pelvis) to identify the type of cancer you have and whether it has spread beyond the testicle. This will help to determine the best course of treatment.

*Q. I have been diagnosed with stage 2 testicular cancer. What does this mean?*

*A. Understanding how far your cancer has spread is called staging. It is important to know what stage your cancer is, in order that appropriate treatment may be given and to avoid your cancer spreading to other organs of your body. The stages are: stage 1 - cancer is only in the testicle, stage 2 - cancer has spread to the lymph nodes in the abdomen, stage 3 - there are cancer cells in the lymph nodes in the chest or above the collarbone, stage 4 - cancer has spread to other organs, often the lung.*

## **Treatment options: what are they?**

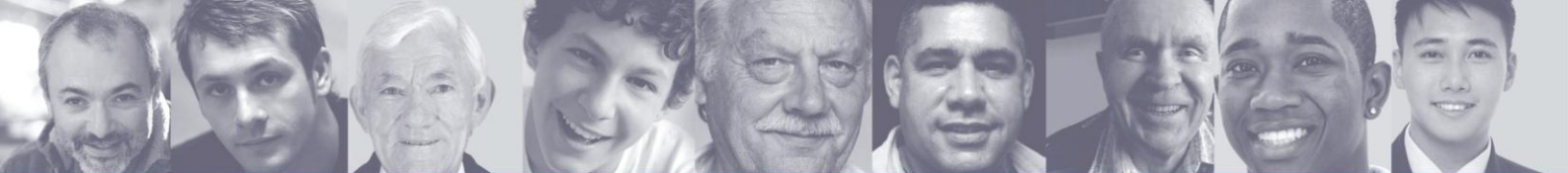
There are 3 possible types of treatment available to you: surgery, radiotherapy and chemotherapy.

**Surgery** : removing the affected testicle and tumour by surgery (orchidectomy) is the standard treatment for testicular cancer where the cancer has remained within the testicle(s). This is usually done quickly and within a two week period. It will not adversely affect your sexual performance and a prosthesis – or false testicle - can be inserted in place of the removed one. This tends to be performed a few months after the initial operation. Another option is surgery involving a lumpectomy where just the tumour is removed, although this is only possible under specific conditions and is not considered standard treatment in many settings.

After surgery it is not necessary to give any further treatment, providing the cancer has not spread beyond the testicle. This form of treatment is known as surveillance. Unfortunately the cancer returns or relapses (usually at the site of the lymph nodes in the abdomen) in about 30% of patients. This is true for both HIV positives and negatives alike. Almost all of these patients are cured with chemotherapy however the chemotherapy does have side effects and can be bad for your CD4 count (it causes a 50% fall).

*Q. What happens if someone has been diagnosed with HIV but not started on a course of anti-HIV medication?*

*A. Patients with newly diagnosed testicular cancer do not necessarily need to start antiretroviral therapy, even if chemotherapy is required. Starting HAART at this time depends on HIV factors including the CD4 count at the start of therapy. This is because the CD4 count will fall with chemotherapy by about 50%. Therefore close observation of the count is required during chemotherapy.*



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Therefore some doctors offer either radiotherapy or mild chemotherapy to prevent the cancer coming back. This milder treatment has a much less profound effect on your immune system and some patients opt for this extra treatment for preventative purposes. If you have an early stage non-seminoma you may not receive treatment immediately. It is likely that you will be monitored and treated.

If it is apparent that the cancer has spread beyond the testicle (usually the lym surgery you will almost certainly need chemotherapy. HIV positives have an excellent outcome if treated with the same chemotherapy drugs as their HIV negative counterparts (cisplatin bleomycin and etoposide). These drugs can be bad for your HIV parameters (CD4 count and viral load) in the short term (although a full recovery is seen over 6 months). Therefore close collaboration between the HIV doctors and the oncologists is required and prophylactic treatment against opportunistic HIV related infections may be required.

*Q. How long will a course of treatment be for HIV positives with testicular cancer which has spread beyond the testis and required chemotherapy?*

*A. It depends a bit on the stage but the chemotherapy is usually finished within 3 months and most patients have made a complete recovery (including immune) parameters within 6 months. The chemotherapy should be given in an identical manner to HIV negatives if possible.*

Radiotherapy is not widely used in HIV positive testicular cancer patients. If the disease has only spread to a very small number of lymph nodes in the abdomen (stage 2) radiotherapy could be an option, although most oncologists would still advise chemotherapy. Additionally we know that radiotherapy is also bad for the immune parameters.

Once your treatment has stopped you will be monitored on a regular basis for at least five years by your oncologist. CT scans will be performed to make sure the cancer has not come back.

## **Sex and your treatment**

Whether you choose to remain sexually active during your cancer treatment or not is entirely a personal choice and the type of treatment you have will affect you in different ways. You should continue to protect yourself and your partner during this time and there are issues about fertility which you will need to discuss with your specialist healthcare team.

## **Chemotherapy**

*Q. Do some antiretroviral drugs (HAART) interact with the chemotherapy?*

*A. Yes, these interactions are drug specific and predictable. However, it is very important to give the right chemotherapy drugs to ensure the best possible outcome, therefore a change in the antiretroviral therapy may be required.*

*Q. What happens to the blood count during the cancer treatment?*

*A. Chemotherapy suppresses all aspects of the immune repertoire in HIV positives and negatives alike. This predisposes chemotherapy patients to bacterial infections which can be serious (neutropenic sepsis). If you develop a fever while on chemotherapy for testicular cancer seek urgent medical advice.*

*Q. What else needs to be monitored?*

*A. The doctors should also monitor your kidney and lung function as well as looking out for signs of nerve damage which can be associated with the chemotherapy.*

## **Conclusion**

Remember that treatment for testicular cancer will vary according to the type and stage of your cancer. Every case will vary. For example your treatment may be delayed as it can be more difficult to decide if the cancer has spread beyond the testicle in HIV positives. However, as a rule you should receive identical treatment regimens to HIV negatives, and most patients have an excellent outcome.

For further information and support on testicular cancer and other male cancers please visit [www.orchid-cancer.org.uk](http://www.orchid-cancer.org.uk)

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