

# TESTS AND INVESTIGATIONS

Below is a list of some tests and investigations that you may undergo during your treatment. You will receive more detailed information about them if they are required, but speak to your clinical nurse specialist at any time for further information or advice.

## **Blood Tests**

Blood tests can help your medical team diagnose a cancer, see whether it has spread and check whether treatment has been effective. For some treatments, such as chemotherapy, a blood test will be taken before each course to check that it is safe to give it.

## **Full Blood Count (FBC)**

- This is a general blood test that looks at the different types of cells in the blood. The cells the medical team are usually most interested in are:
- White Blood Cells (WBC) these are the cells that fight infection. If the level is high it can indicate an infection. If it is low, the body may be unable to fight an infection.
- Haemoglobin (Hb) is the oxygen carrying part of the Red Blood Cells (RBC). Hb is measured to check iron levels in the blood.
- Platelets are the cells that help the blood to clot. A low count can indicate a risk of bleeding.

## **Urea and Electrolytes (U & E's)**

This is a blood test to assess general health and see how well the organs in the body are working. It can also be used to check on the effect of certain drugs on the body.

## **Liver Function Tests (LFT's)**

These are blood tests to see how well your liver is working.

## **Tumour Markers**

A blood test may be used to measure the amount of chemical substance produced by the cancer, for example, to monitor the progress of the disease.

# X-RAYS AND SCANS

X-rays and scans are used to help diagnose a cancer, to check whether it has spread and to show how effective treatment has been.

## **Plain X-rays**

These are simple 2 dimensional X-ray pictures that can show abnormalities in the body particularly in the lung or bone. They can also show where a cancer is, how big it is, and what effect treatment is having.

## **CT**

Computerised Tomography Scan - This is a scan that uses X-rays and computers to create pictures of the body in cross-section. It gives more detailed information than a plain X-ray and shows up organs in the body much more clearly.

## **CT Guided Biopsy**

A sample of cells is taken from the designated area using CT scan for accuracy. This involves a local anaesthetic, which only takes a few minutes and is done in the X-Ray Department.

## **USS -Ultrasound Scan**

This is a scan using sound waves to build up a picture of organs and other body parts. It is particularly good at showing up the liver.

## **MRI -Magnetic Resonance Imaging Scan**

This is a scan using magnetic waves to create images of the body. It gives very detailed information about all parts of the body.

## **Bone Scan**

This is a scan that looks specifically at the bones to see if cancer is present, or if there is damage or healing.

## **PET-CT - Positron Emission Tomography**

Computerised Tomography. This combines a CT scan with a technique using injected markers to give greater clarity in some specific areas of care.

# OTHER GENERAL TESTS

## **Biopsy**

A sample of cells or tissue is taken from the body, to be looked at under a microscope. This may require an operation.

## **FNA**

Fine Needle Aspiration – a fine needle is used to draw up cells into a syringe to look at under a microscope.

## **Endoscopy**

This is a test to look at part of the inside of the body using a flexible tube with light and camera - for example the stomach (gastroscopy), lung (bronchoscopy), bladder (cystoscopy), or large bowel (colonoscopy). A tissue sample (biopsy) can be taken.

## **Echocardiogram**

An echocardiogram is a non-invasive ultra sound scan of the heart to check cardiac function to help assess fitness for surgery.

## **ECG**

Electrocardiogram or Heart Monitor

These are medical tests of the heart. Small pads are stuck to the chest around the heart. Wires are attached to the pads. These are connected to an ECG machine that takes an electrical recording of the heartbeat. The trace of the heart beat is examined to see if the heart is working normally.

## **EUS**

Endoscopic ultrasound

Procedure performed under sedation similar to an endoscopy but has a scanner attached in order to give more information about the area.

## **Lung Function Tests**

Breathing Tests

There are a number of different tests that can be done to find out how well your lungs are working. For example, doctors can measure the volume of air you breathe in or out normally; the amount you can breathe in or out when you are trying as hard as you can; or the extra you can breathe in when you try after you have breathed in normally. All these measurements tell them more about the workings of your lungs. Lung function tests will be done before

