

# BLEOMYCIN TREATMENT FOR MALFORMATIONS (Venous & Lymphatic)

## DIRECT STICK SCLEROTHERAPY

### PATIENT INFORMATION

This leaflet tells you about Bleomycin treatment for **low flow venous (LFVM) and lymphatic (LFLM) malformations**. It explains what is involved and what the possible risks are. It is not meant to replace informed discussion between you and your doctor, but can act as a starting point for such discussions. If you have any questions about the procedure please ask the doctor who has referred you or the department which is going to perform it.

## WHAT IS BLEOMYCIN?

*Bleomycin is a liquid medicine that is used in the treatment of both venous and lymphatic malformations. Initially it was discovered as an antibiotic medicine, however later it was discovered that Bleomycin also had anti-tumour properties. Bleomycin is now used in a number of cancer therapies intravenously e.g. lymphomas and testicular tumours. In*

*1977 Bleomycin was used to treat vascular malformations and vascular tumours e.g. haemangiomas. How Bleomycin works in venous and lymphatic malformations is not completely understood but studies over a 30 yr period have shown good safe results.*

## WHICH MALFORMATIONS IS BLEOMYCIN USED FOR?

Bleomycin has been used for all vascular tumours and malformations in the past. We, however, believe that Bleomycin is best used for microcystic (small cysts) low flow lymphatic malformations, for solid (no spaces) looking low flow venous malformations and as a second line treatment in low flow venous malformations.

## HOW IS BLEOMYCIN ADMINISTERED?

In the treatment of low flow venous and lymphatic malformations Bleomycin is injected directly into the malformation using a needle. The results of treatment are due to the additive effects of Bleomycin and typically 3-6 treatment sessions are needed. On each treatment session a maximum dose of 15mg (or 15,000U) of Bleomycin can be given.

## HOW MUCH BLEOMYCIN CAN I RECEIVE?

As mentioned before we use a maximum of 15mg (15,000U) on each treatment session. Initially a maximum of 6 sessions can be arranged meaning that a maximal total dose of Bleomycin is 90mg (90,000U). If you are having clinical benefit we can go higher but the risks of treatment also increase.

## DO I NEED EXTRA TESTS BEFORE BLEOMYCIN TREATMENT?

At the moment if you have any chest complaints we will need to arrange for you to have a lung function test. This is when you blow into a special machine that records how much you can blow. This is done in out-patients.

## WHY DO I NEED A LUNG FUNCTION TEST?

Bleomycin has been associated with causing lung damage. This is called lung fibrosis and is related to the total administered dose. It is very rare and usually seen in patients with underlying lung complaints. It is also extremely rare under a total dose of 150mg (150,000U) total dose. We monitor this very carefully.

## WHO HAS MADE THE DECISION?

The multidisciplinary team responsible for your care will have decided after reviewing the imaging and meeting to discuss with you.

## WHO WILL YOU SEE?

On admission day Dr McCafferty will see you on the ward and explain the procedure in more detail and discuss any questions you may have before asking you to sign a consent form.

## WHAT HAPPENS DURING BLEOMYCIN SCLEROTHERAPY?

Bleomycin direct stick sclerotherapy is very similar to all forms of sclerotherapy. However

in some instances your treatment can be performed as an outpatient.

You will be asked to wear a hospital gown and a small cannula (thin tube) will be placed into a vein in your arm.

You will be asked to lie flat on your back on the special X-ray table and may have monitoring devices attached to your chest and finger. You may receive oxygen via a mask.

Sclerotherapy is performed under sterile conditions and the interventional radiologist and radiology nurse will wear sterile gloves to carry out the procedure. The skin overlying the swelling will be swabbed with antiseptic and you may have a small injection of a sedative or strong painkiller to make you feel sleepy.

The procedure is performed under using ultrasound guidance, small needles will be placed in the swelling and Bleomycin injected. Sometimes it is not possible to place a needle in a safe.

## WILL IT HURT?

There will be some pain and swelling following the procedure due to inflammation. This is the desired effect and may last 10-14 days. Painkillers and anti-inflammatory medication can help during this period e.g. Paracetamol & Ibuprofen.

## ARE THERE ANY RISKS?

Bleomycin sclerotherapy is safe; but as with any medical procedure there are some risks.

There is often pain and swelling following the procedure but this is usually less than other forms of sclerotherapy.

Many patients complain of a "flu-like" feeling for a few days to weeks after Bleomycin treatment. This is commonly seen and resolves with no treatment.

Hyper-pigmentation (dark areas) of the skin related to pressure points has been seen. Great care is taken if having a general anaesthetic to avoid this and monitoring sticky points are hidden under the armpits.

Very rarely, ulceration of the overlying skin can occur. This is more common in Haemangioma. Whilst this looks worrying it commonly heals on its own with no problem.

## FINALLY

Some of your questions should have been answered by this leaflet, but remember that this is only a starting point for discussion about your treatment with the doctors looking after you. Make sure you are satisfied that you have received enough information about the procedure.

## CONTACT INFORMATION:

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### Legal notice

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