Mohs Micrographic Surgery

This leaflet has been written and produced by staff working in Cancer Services at the Chelsea and Westminster Hospital NHS Foundation Trust for patients and their families.
Introduction
This leaflet provides information for patients who are having Mohs micrographic surgery at Chelsea & Westminster Hospital. It explains the treatment and care you will receive.

Your doctor has discussed Mohs Micrographic surgery with you and recommenced it for the treatment of a skin cancer. This leaflet is designed to answer some of the questions you may have about Mohs Micrographic surgery. It supplements the information you were given by your doctor and nurse when you discussed Mohs surgery with them.

What is Mohs surgery?
This is a highly specialised type of surgery for certain types of skin cancers. It was developed by Dr Frederic Mohs in the 1930’s. It is usually just shortened to ‘Mohs surgery’.

This method of surgically removing skin cancers is most often used to remove basal cell carcinoma (also known as rodent ulcer) and squamous cell carcinoma. Basal cell carcinoma and squamous cell carcinoma are the two most common types of skin cancer.

Basal cell carcinoma most often affects the face, commonly the nose. Squamous cell carcinoma most often affects the skin that has had the most sun exposure over the years, commonly the bald scalp, cheeks, forehead or ears. Please ask for a leaflet about these skin cancers if you require more information and have not already seen these.

What is different about Mohs surgery?
The procedure is different to other surgical techniques because at the time of tumour removal the complete tumour margin is mapped and examined under the microscope (first stage) to ensure that tumour is not present at the edges of the removed skin. We draw a map of the operation site, if tumour is still present we can identify where by using the map. If there is tumour present at the edge then a further piece of skin needs to be removed, at that specific site. This process is repeated until no tumour is found.

What are the benefits of Mohs surgery?
Mohs surgery has an extremely high success rate (usually in excess of 95%) of completely removing the skin cancer and this prevents recurrence.

It also removes less healthy tissue while ensuring that the skin cancer has been completely removed, therefore allowing the best cosmetic outcome.

Mohs surgery is well suited for skin areas where preserving as much normal tissue as possible is important, such as around the eyes, nose, lips and ears.

Mohs surgery is very good for removing skin cancers which are difficult or impossible to see with the naked eye. It is also good for removing skin cancers that have come back after previous treatments or those that have not been removed completely.
What are the risks of Mohs surgery?
The risks associated with Mohs are very low but in common with other types of skin surgery they include, pain and tenderness at the area with some swelling and bruising. Less common side effects include infection, bleeding and rarely damage to nerves producing numbness or rarely loss of function.

In common with all surgery to the skin you will have a scar. This will reduce and fade over the months following your surgery.

Alternatives to Mohs Surgery
There are alternatives to Mohs surgery and these will have already been considered in your case and discussed by your doctor at the skin cancer multidisciplinary team meeting. For your particular case the team think that Mohs surgery is the best treatment.

Your doctor or nurse can talk to you about alternatives but these may not be as effective as Mohs surgery. The skin cancer is likely to continue to grow unless it is removed completely.

What happens during Mohs surgery?
You will come to the dermatology department on the day of your Mohs surgery. This is usually a Monday morning at 9am, 10am or 11am. You may be asked to have a photograph taken before the surgery starts and will sign a consent form for the Mohs surgery.

First the skin is numbed with a local anaesthetic injection. The visible tumour is first removed and then a margin of skin around this is removed.

A map is carefully drawn so that the surgeon knows the exact location of the skin margins. This removed margin of skin is processed in the laboratory to see if any tumour remains.

A dressing is applied to the wound and the patient will be able to go back to the waiting area. The first stage is now over for the patient.

Then there is a wait to allow the removed margin of skin to be processed by the laboratory and the slides checked under the microscope by the surgeon. It will take approximately one hour for the laboratory to process a small tissue specimen; a large specimen will take longer.

If tumour is seen at the edge of the removed margin of skin then further skin will need to be removed. The process is the same as before except that only the areas where tumour is present need to be excised so in many cases this means it is a shorter procedure.

Because the effects of the anaesthetic may have worn off by this time more anaesthetic will be injected. The process is repeated for as many stages as necessary until no more tumour is found at the edge of the removed skin and there is no tumour remaining.
Will I feel any pain?
Usually the only painful part is when the local aesthetic is injected. The local anaesthetic is usually effective for two hours, after which time some discomfort may be present. If necessary two paracetamol tablets may be taken every six hours.

You may also be asked to take a short course of antibiotics before or after the operation but this will be discussed with you.

Can I be sedated?
Usually this is not required however you could ask your general practitioner to prescribe a mild sedative that you can take by mouth before the procedure. We do not use sedative injections.

What happens when the entire tumour has been removed?
Generally there are three options.
· At some sites the wound can be left and with careful dressing it will heal naturally leaving a perfectly good result. If this is done you will be shown how to look after the wound and given the necessary materials.
· The wound is repaired by the Mohs surgeon. This is done after the tumour has been removed. The repair will be done under local anaesthetic and you will be able to go home afterwards.
· The third possibility is that the resulting wound is repaired by another surgeon, either an oculoplastic surgeon or plastic surgeon. This closure procedure will usually be done a few days after the Mohs excision day.

In each case the best option for you will determine what method is used.
Is there anything I need to do?

- Bring a list of your medications
- Tell us about any allergies you have to medicines, rubber, anaesthetics, iodine, Elastoplasts.
- Smoking makes healing of the skin more difficult and there is a greater chance of infection and poor healing if you smoke. You should aim to stop smoking two weeks before and two weeks after surgery.
- It is very important that you tell your doctor if you are taking any medicines that affect your blood thinning such as aspirin, warfarin, clopidogrel. Sometimes you will be advised to stop these or to have a blood test. If you have a warfarin yellow book please bring it with you.
- Please tell your doctor if you are taking any anti-inflammatory medicines such as Ibuprofen, Diclofenac or aspirin.

Is there anything else I need to bring?

- You will need to bring your own tablets if you need to take tablets for other conditions. Please remember to bring a list of your medications.
- Food and drink will be required. These can be purchased from the hospital snack bar or cafe or you can bring a packed lunch with you.
- It is a good idea to bring some pain killers with you. We normally recommend paracetamol just after surgery as this will make the wound less painful when travelling home.
- Something to read whilst you wait for the results.

Will anything else happen?

Photographs of the procedure may be taken for recording purposes or possible use in audit, teaching or publication. Your permission for this will be requested beforehand. You will not be recognisable in the photographs and a name will not be attached.

How long does all this take?

Frozen tissue Mohs surgery: It can take all day. It depends on how big your tumour is, how much tissue has to be processed, how many excision stages are required to remove all the tumour cells and the type of wound repair.
Can I bring someone with me?
That is a good idea. You may be unable to drive if the dressing covers or partially covers your eye and you may feel a bit ‘groggy’. However, space is limited and we do not want you to bring more than one accompanying person with you. In particular, bringing a child with you would be entirely inappropriate.

What will happen if I need a reconstruction by the plastic surgery team?
If your doctor envisages that you will require a reconstruction by the plastic surgery team then you will be offered the opportunity to meet them at an outpatient appointment prior to your Mohs surgery.

Usually you will come to the treatment centre on the ground floor (on either a Wednesday or Thursday morning). After talking to your surgeon and signing your consent form you will have further surgery to close the wound. Sometimes this means that you will need a skin graft from another area of your body.

Your surgeon will discuss this with you prior to surgery. Usually you will be able to go home later the same day. You will come back to the plastics dressing clinic a week later to have your dressings removed and your wound checked.

What to expect in the days following your reconstruction surgery
You will leave the hospital with a dressing covering the wound. Do not get the wound or dressing wet and leave the dressing in place. You will need to attend the plastic dressing clinic for wound dressings and to have your sutures removed. Your wound may be sore for a few days and you can take Paracetamol.

After the surgery most people usually require a number of days to recover and it is advised not to plan any trips or holidays during this period. We find most people need about a week off work following surgery.

Follow up
Arrangements for you to be followed up will be discussed with you at the time of your Mohs surgery and after the reconstruction surgery.

All patients are seen at least once following their surgery.
Who can I talk to if I have further questions?

For questions about the date or time of your Mohs surgery in dermatology please contact
Layla Welch
Dermatology Surgery & Mohs Co-ordinator
020 3315 8184

For questions about the date or time of your plastic surgery reconstruction please contact
Marie Samuel
Plastic Surgery Admissions Officer
020 3315 8164

If you are worried about your wound following the surgical reconstruction please contact
Plastics Dressing Clinic
020 3315 2788

If you have any other questions or concerns you can talk to the skin cancer specialist nurse.
Eileen Andrews
020 3315 3085
Eileen.andrews@chelwest.nhs.uk

Further information
www.mohscollege.org
This is an American site but has some useful information