BSSCII
British Society for Skin Care
In Immunosuppressed Individuals

Patient information

Skin care after an organ transplant

Also for those who have a suppressed immune system

Barts Health NHS
NHS Trust

www.bartshealth.nhs.uk

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Contents

Introduction

You are more likely to suffer from various skin problems after an organ transplant because you are taking immunosuppressive (anti-rejection) drugs. Your body is less able to fight certain skin conditions effectively, mainly because your immune system is being suppressed.

This booklet has been produced to help you look after your skin following a transplant. Much of the advice is also appropriate for people who have a suppressed immune system due to other causes such as chronic lymphocytic leukaemia (CLL) and HIV, and for those awaiting an organ transplant.

The booklet gives you information on what signs and symptoms to look out for, and describes the treatment for a variety of skin conditions. There is also a useful chapter on skin cancer prevention including how to examine your skin and protect yourself from exposure to the sun.

At the back is a patient diary for you to write down the outcome of your clinic visits and any comments about your skin condition.

Please bring this booklet with you when you come to the transplant skin clinic.

About the transplant skin clinic at Barts Health NHS Trust

The transplant skin clinic is part of the dermatology department. It is run by dermatologists for monitoring, preventing and treating skin problems in patients who have had an organ transplant or who are immunosuppressed (immunocompromised) for other reasons.
It is one of the biggest centres for this specialty in the UK.

Our doctors and nurses aim to see you within 12 months of your transplant to alert you to any possible skin problems that might arise, and to assess your individual risk for skin cancer. They will give you advice and guidance on how to look after your skin. Depending on your risk factors and individual needs, you will be advised how frequently you need to be seen thereafter – usually between one and five years.

An important part of the work of this clinic is research on skin disease and skin cancer after transplantation, with a view to preventing and improving these conditions. We may ask whether you would be willing to participate in one of the research studies being undertaken by the clinic.

How often will I be seen in the clinic?

This will depend upon your risk of developing skin problems. Our aim is to detect new or suspicious skin lumps early so that we can treat them as soon as possible.

At your first appointment we will assess your risk of developing skin cancer. This is based on:

- Your age
- Your age at transplantation
- How easily you burn in the sun
- Your history of sun exposure
- How often you have suffered sunburn
- Any pre-existing skin problems

Follow-up appointments

For some of you the risk of developing skin problems is so low that we will not need to see you routinely. We ask only that you self-examine your skin and request a referral back to us if there are any concerns.

Other patients need to be seen at regular intervals. This may be as little as once every 5 years, every 18 months or as much as every 3 months. We will let you know when your appointments should be made.

The frequency of your visits may change over the course of your care. If you develop a skin cancer you will need to be seen more often.

Between appointments

For everyone regular self-examination of the skin is essential so that problems, especially skin cancer, can be detected early and treated. How to examine your skin is described on pages 32–35.

If you have a skin lesion that changes over time, or develop a new skin mark, please ask a health professional for advice or ring us. Our contact numbers are on page 37.

Common skin conditions after a transplant

This is a list of the most common skin conditions found after transplant surgery. Each of these skin problems is described on the pages shown below. Do look through them to familiarise yourself with the skin conditions you might possibly develop as some are potentially serious.

All skin conditions that require urgent medical assessment have been indicated by a red asterisk ✻

If you develop any skin problem that you are worried about you can:

- Contact the dermatology department
- Speak to one of the transplant nurses if your renal transplant was carried out at this Trust
- Make an appointment with your GP
- Go to your local A&E department if your symptoms are severe

Under each skin condition some indication is given of whom you should contact first for treatment.

Delayed wound healing and fragile skin

Some patients may notice thinning of the skin with increased bruising. This is usually due to medication, in particular the use of steroids. Cuts and abrasions may take longer to heal.

Acne

Spots are common in the first 12–18 months after transplantation, particularly in younger patients. They usually settle down as the dosage of immunosuppressive (anti-rejection) drugs is lowered.

Treatment for acne

Simple topical preparations such as creams, ointments, lotions and gels maybe all that is required. Some of these can be obtained over the counter after speaking to a pharmacist, and others can be prescribed by your GP.

If these types of treatment do not control the acne, antibiotics may be required from your GP or dermatologist. For very severe acne a dermatologist may prescribe Isotretinoin.

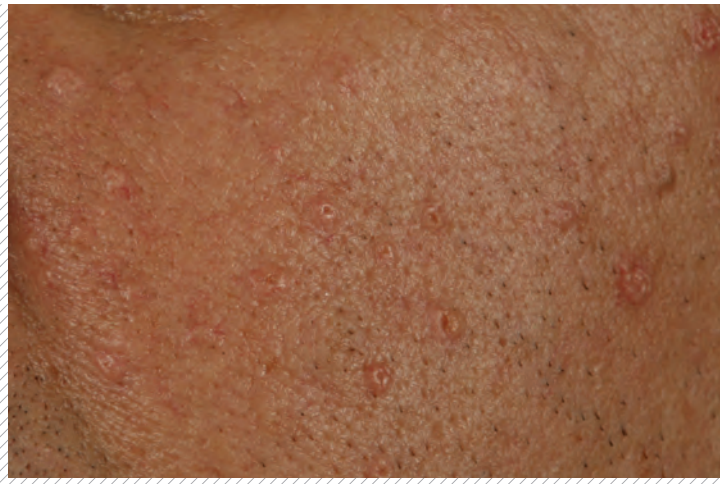
Sebaceous gland hyperplasia (SGH)

SGH is very common after an organ transplant. As shown in the photograph, it appears as small (2–4mm in diameter), raised, whitish/yellowish bumps on the skin, especially on the forehead, nose and cheeks. The bumps are due to benign overgrowth of sebaceous (oil) glands probably caused by immunosuppressive drugs.

Treatment for SGH

Nothing needs to be done about SGH unless the bumps are a significant cosmetic problem. There is no easy treatment.

Sebaceous gland hyperplasia



Fungal infection of the skin and nails

Fungal infection of the skin on the feet (tinea pedis or athlete's foot)

A very common condition that usually appears as scaly patches on the feet and a red/white rash between the toes, both of which can be itchy.

Treatment for athlete's foot

Creams are available over the counter from your pharmacist or can be prescribed by your GP.

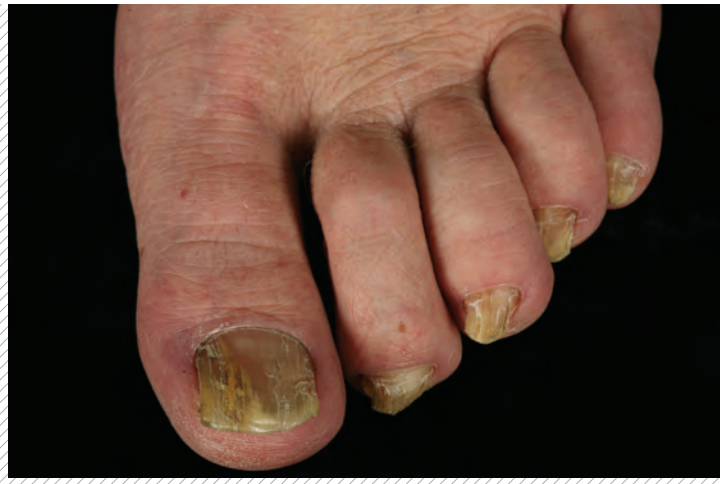
Fungal infection of the nails (onychomycosis)

Infection appears as areas of yellow or white patches under and within the toenail. It can push the nail up off the nail bed.

Treatment for onychomycosis

If treatment is needed, your GP may use lacquers (nail paint) that can take up to a year to work. For severe infection you may need a course of tablets, prescribed by your GP or dermatologist, to be taken over several months.

Fungal infection of the toenails



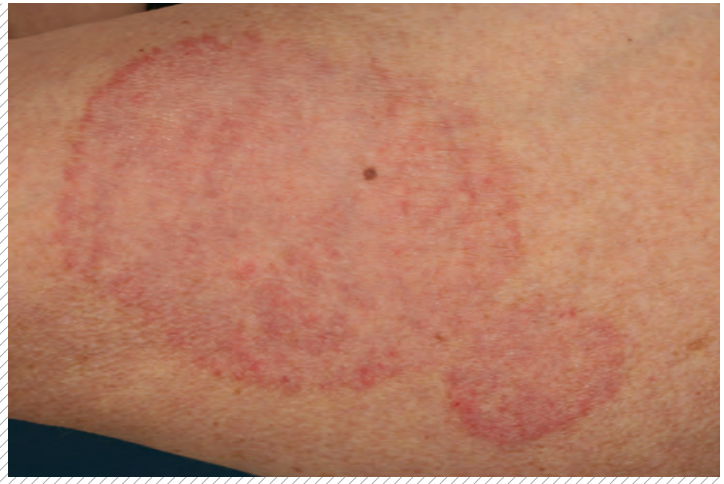
Fungal infection of the skin (tinea corporis or ringworm)

This appears as red, scaly, itchy patches on the body. It can appear anywhere but is especially common on the trunk and in the groin region.

Treatment for ringworm

It is important to have a diagnosis from a doctor before beginning treatment so if you think you have ringworm contact your GP in the first instance. Treatment is usually the application of a cream or shampoo.

Ringworm on the arm



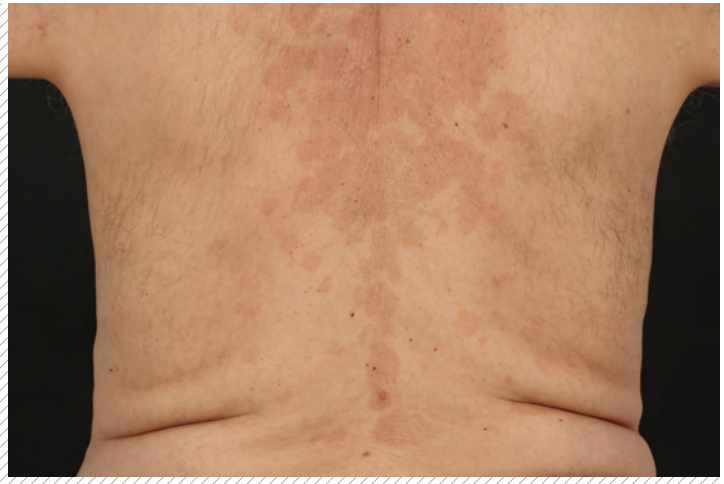
Pityriasis versicolor (yeast infection)

This common yeast infection of the skin usually affects the chest and back. As shown in the photograph, it often appears as slightly itchy, scaly patches, which may be pale pink or brown in colour. It is most common in the first one to two years after a transplant.

Treatment for yeast infection

Treatment usually involves washing with an anti-fungal shampoo and using an anti-fungal cream for several weeks. Sometimes it may be necessary to use an anti-fungal tablet as well.

Pityriasis versicolor on the back



Other infections

Shingles and chickenpox (herpes zoster and varicella)*

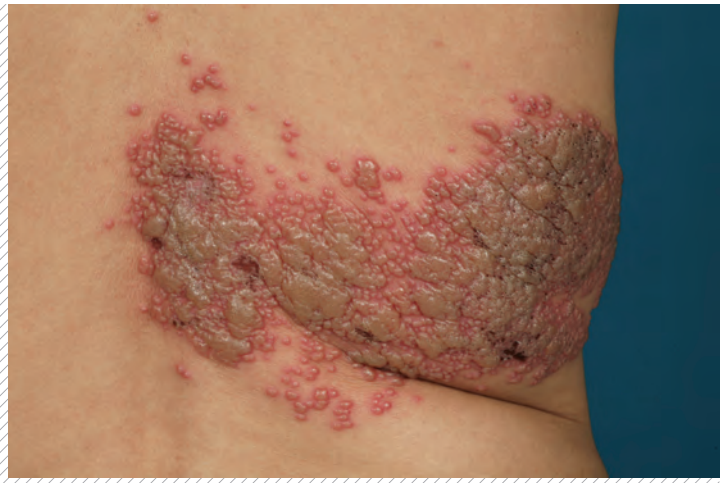
Shingles and chickenpox are caused by the same virus. Both can be more serious in people who have had a transplant.

Shingles usually appears as a painful, blistering rash on a particular area of the body, for example one side of the chest, the arm or on one side of the face. Chickenpox is usually associated with feeling unwell and a more widespread rash which eventually blisters.

Treatment for shingles and chickenpox

Treatment mainly involves antiviral medication but it is not always required.

Shingles on the right side of the back



* If you think you may have developed either shingles or chickenpox, especially if you have any form of blistering rash, you should seek medical attention immediately. Both are contagious and people with shingles can cause chickenpox in those who have not previously had it.

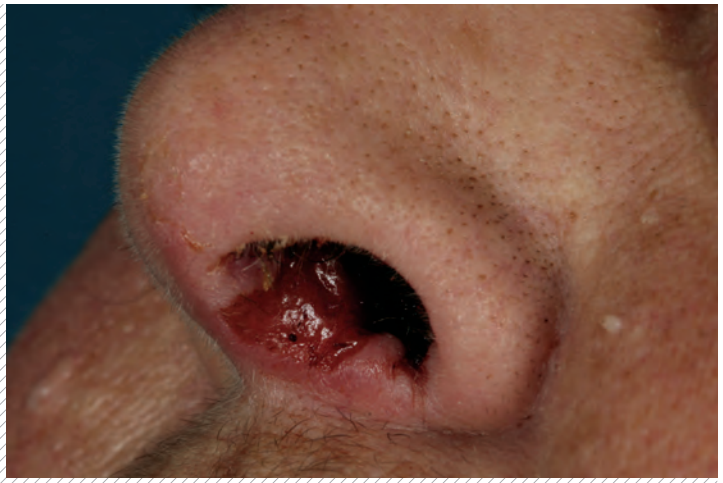
Cold sores (herpes simplex)

Cold sores are very common and can cause more problems after a transplant. They usually appear as painful blisters or ulcers that always come back in the same part of the body such as on the lips, nose or buttocks.

Treatment for cold sores

Cold sores may need treatment with antiviral creams available over the counter from a pharmacist. If they are still causing a problem see your GP, who might prescribe tablets, and if they become very troublesome contact your dermatologist.

Cold sore in the nose



Viral warts

These are very common after transplantation and are caused by the human papillomavirus (HPV). Some people develop just one or two warts – often on the hands or feet – while others can develop large numbers that need specialist care. On the feet they are known as verrucas.

Treatment for viral warts

Warts and verrucas can be difficult to treat in organ transplant patients but your GP or dermatologist will usually recommend one or all of the following in the first instance:

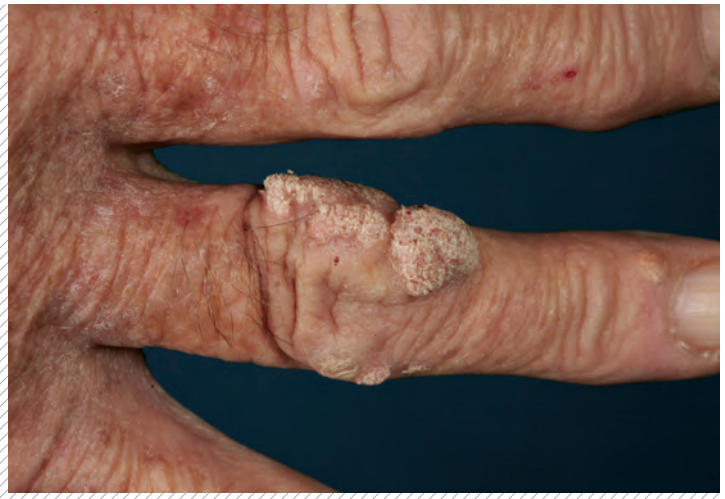
- Salicylic acid preparations (e.g. Salactol, Compound W, Cuplex, Verrugon, Occlusal)

If none of these treatments work, more aggressive therapy may be recommended such as:

- Freezing (cryotherapy)
- Efudix (5-fluorouracil) cream
- Vitamin A creams (e.g. Retin A)
- Aldara (imiquimod) cream

Some very troublesome warts may need to be surgically removed, but there is a risk that they may come back again. Very occasionally reducing the amount of anti-rejection drugs taken, or using a tablet called Acitretin, can help control warts. On the whole the aim is to control rather than cure warts after a transplant.

Warts on the fingers



Benign (harmless) skin lumps

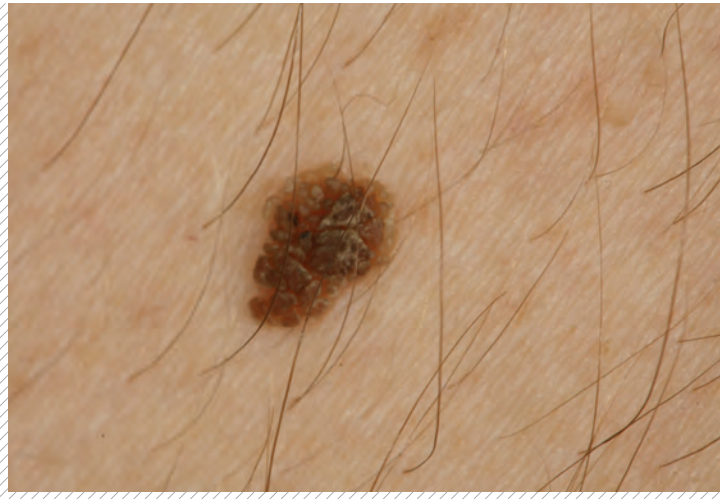
Seborrhoeic warts

These are harmless lesions with a warty, greasy, ‘stuck-on’ appearance. Seborrhoeic warts often appear on the back and chest but they can appear anywhere on the skin, and there may be many of them.

Treatment for seborrhoeic warts

Seborrhoeic warts do not usually require treatment but if they are causing problems the warts can be frozen off (cryotherapy) or removed surgically.

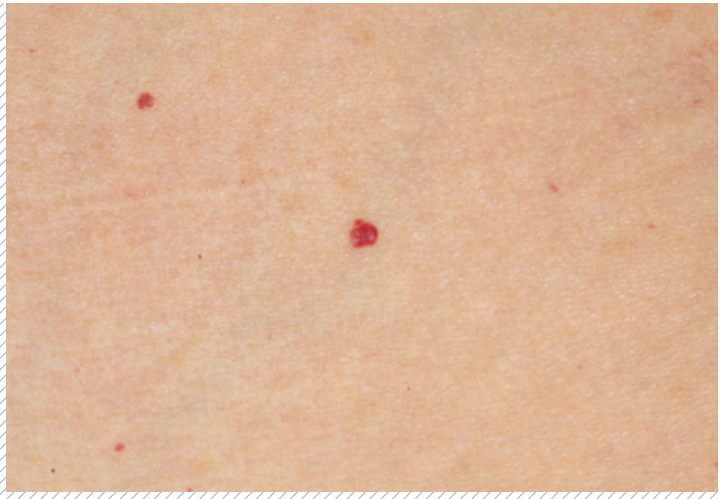
Seborrhoeic wart



Campbell de morgan spots (cherry angiomas)

These are harmless overgrowths of blood vessels and do not require treatment. They look like tiny, red, raised spots and are common on the chest and abdomen, but can appear on any part of the body.

Campbell de morgan spots



Pre-cancerous skin lesions

Actinic keratosis (AK)

This is also known as solar keratosis as it tends to occur on sun-exposed sites such as the hands, face and scalp. It appears as small, dry, flaky patches of skin, some of which can have a crust. Sometimes this crust can fall off leaving a red area underneath.

Solar keratosis is usually painless but may be slightly itchy. If you develop any tenderness or pain in the area you should seek medical advice from your dermatologist.

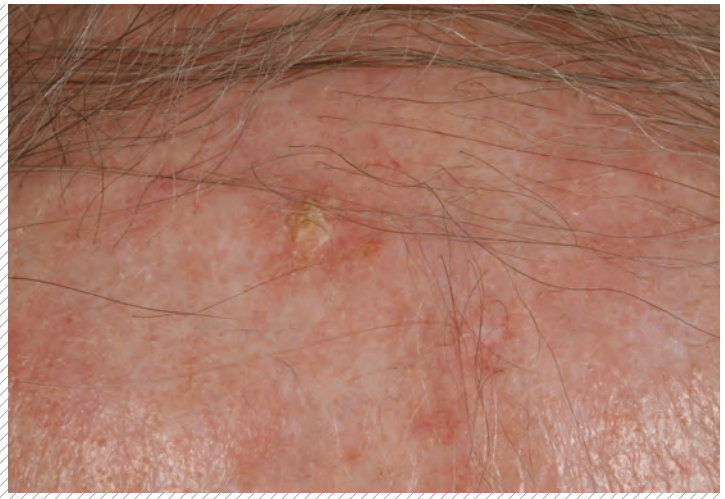
The presence of actinic keratosis may be a sign that you are at increased risk of skin cancer, and the condition has the potential to develop into skin cancer. It is usually assessed and treated, if necessary, within the dermatology department.

Treatment for actinic keratosis

Treatment includes the following options:

- Observation (watchful waiting)
- Freezing (cryotherapy)
- Solaraze (hyaluronic acid) gel
- Efudix (5-fluorouracil) cream
- Aldara (imiquimod) cream
- Surgical removal
- Photodynamic therapy (PDT)

Actinic keratosis



Bowen’s disease (carcinoma in situ)

Bowen’s disease or squamous cell carcinoma in situ (CIS) is commonly found on the lower legs, hands, forearms and face. It appears as crusty/scaly areas of reddened skin that may look a little like patches of psoriasis, eczema or fungal infection. These areas can range in size from small lesions the size of a pea, to large areas almost covering the back of a hand. They can sometimes ulcerate.

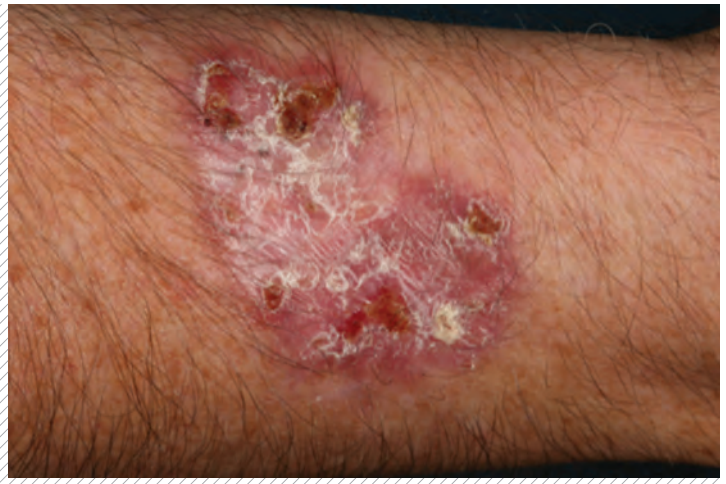
The presence of Bowen’s disease may be a sign that you are at increased risk of skin cancer, and these lesions have the potential to develop into skin cancer. They are usually assessed, diagnosed and treated, if necessary, within the dermatology department.

Treatment for Bowen’s disease

Treatment includes the following options:

- Observation (watchful waiting)
- Freezing (cryotherapy)
- Curettage and cautery (minor surgery)
- Efudix (5-fluorouracil) cream
- Aldara (imiquimod) cream
- Photodynamic therapy (PDT)

Bowen’s disease



Porokeratosis

Porokeratosis appears as raised, sometimes scaly, red rings. They are often found on the lower legs and may look like patches of psoriasis or fungal infection.

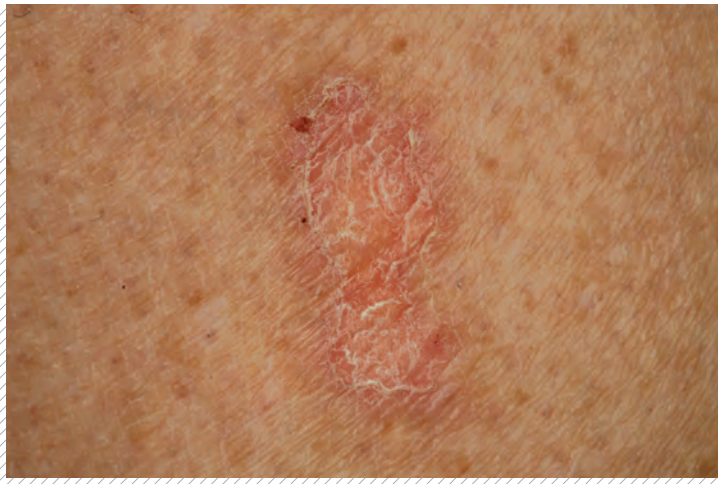
Very rarely porokeratosis can develop into a skin cancer, so if you suspect the condition please contact the dermatology department for advice.

Treatment for porokeratosis

Treatment includes the following options:

- Observation (watchful waiting)
- Freezing (cryotherapy)
- Efudix (5-fluorouracil) cream
- Aldara (imiquimod) cream
- Photodynamic therapy (PDT)

Porokeratosis



Skin cancer

The four main types of skin cancer common in organ transplant recipients are:

- Melanoma
- Squamous cell carcinoma (SCC)
- Basal cell carcinoma (BCC)
- Kaposi's sarcoma (KS)

All four types occur more frequently after transplantation, but the most common are squamous and basal cell carcinomas.

The main cause of skin cancers is a combination of exposure to the sun, which may have happened many years earlier, and immunosuppressive drugs used to stop the transplanted organ from being rejected.

Risk factors for skin cancer include:

- How long ago you were given a transplant. The longer you have had your transplant, the greater the risk. About 50% of people who have had a transplant for more than 20 years will develop some form of skin cancer. However, it takes an average of eight to 10 years for skin cancer to first appear.
- Age at transplantation. People over 50 years old when they were given a transplant are at greater risk than people who were younger.
- Fair skin. Those with a tendency to burn and freckle in the sun are at greater risk of skin cancer.
- High levels of sun exposure in the past. People at greater risk are outdoor workers, those with outside hobbies, sunbathers, people who have lived abroad somewhere sunny or have had many holidays abroad, and sun bed users. A history of repeated sunburn is a particular risk.
- The presence of actinic keratosis or Bowen's disease.

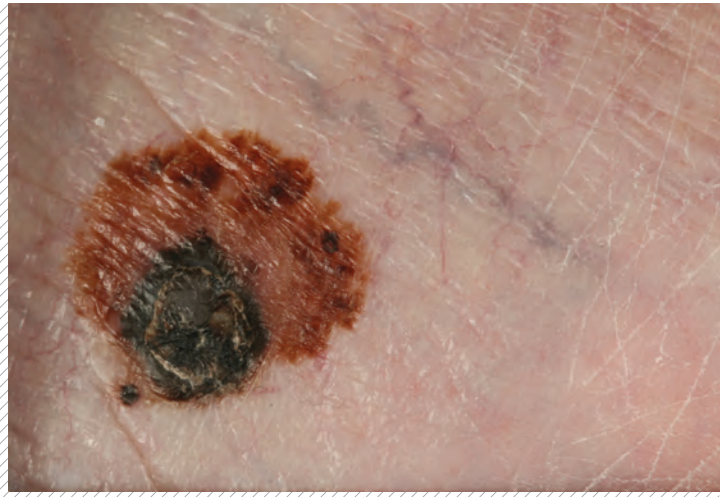
Melanoma*

Melanoma is an uncommon tumour in organ transplant patients but it is important to catch it early as melanoma can spread. Melanoma can arise from a longstanding mole, or from a new mole that wasn't there before. If you notice any change in the shape, size, or colour of a longstanding mole, or if you develop a new mole, it should be examined by a dermatologist.

Treatment for melanoma

Surgery is the best treatment for melanoma.

Melanoma



* If you think that you may have melanoma, telephone any of the dermatology department contact numbers listed on page 37 as you will need to see a dermatologist.

Squamous cell carcinoma (SCC)*

Squamous cell carcinoma is the most common skin cancer in transplanted patients, especially those with fair skin.

SCCs appear as red, crusty, raised lumps, bumps or ulcers. Sometimes they may look like warts with a red base. They can be tender or painful and they may bleed. SCCs can grow quite quickly, for example double in size within two to three months, but this is not always the case.

SCC is most common on areas of the body that are regularly exposed to the sun, such as the face, ears, hands, and lower legs in women. Transplant patients will often go on to develop more SCCs after the first one appears.

Treatment for squamous cell carcinoma

There are four treatment options:

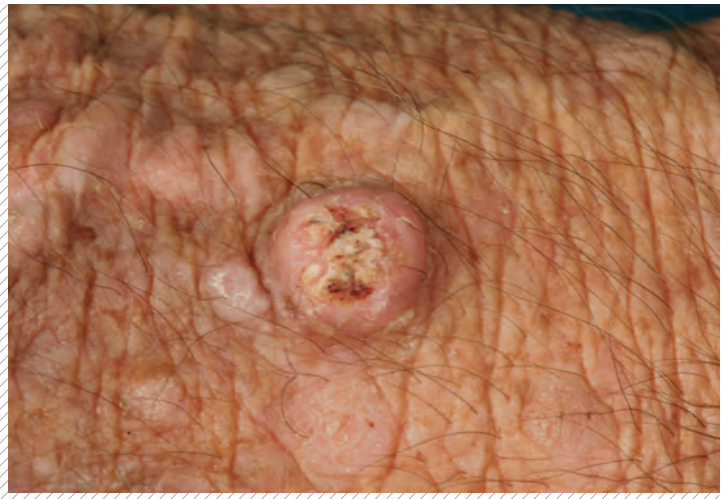
1. Surgical removal. These lesions can usually be removed by surgery in the dermatology department. If the skin cancer is big, or in a difficult area such as the ears or eyes, plastic surgery may be necessary combined with skin grafting. If left to grow, SCC can infiltrate deeper and spread to the lymph glands.

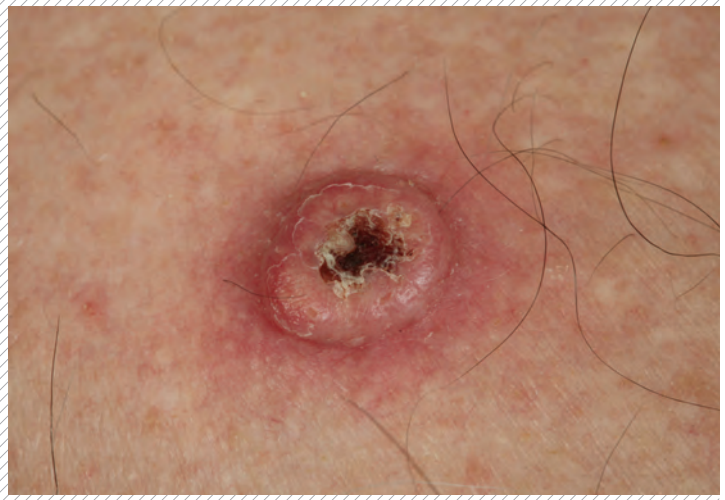
2. Radiotherapy. This is occasionally used as an alternative, or in addition, to surgery.

3. A reduction in immunosuppressive drugs. Sometimes organ transplant patients can develop multiple squamous cell carcinomas. If this occurs the dermatologists may find out from the transplant doctors whether it would be possible to reduce the dose of immunosuppressive drugs.

4. Acitretin. In some cases a drug called acitretin may be prescribed to slow down and prevent the development of these skin cancers.

Squamous cell carcinomas





* If you think that you may have a squamous cell carcinoma, telephone any of the dermatology department contact numbers listed on page 37 as you will need to see a dermatologist.

Basal cell carcinoma (BCC)*

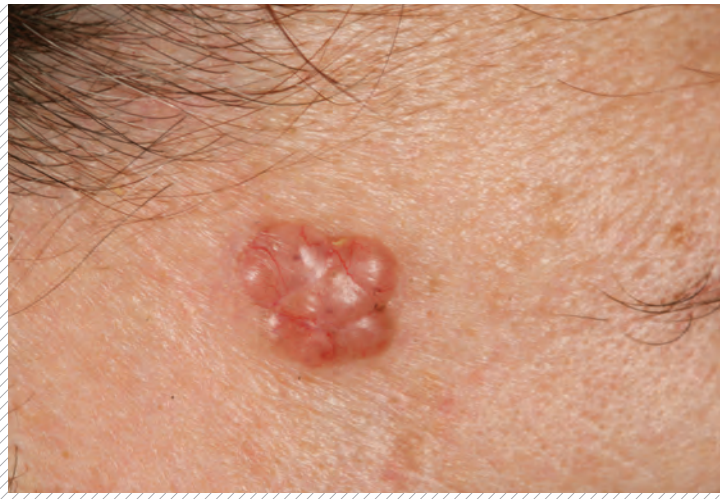
Basal cell carcinoma lesions usually appear as shiny/pearly lumps and are commonly found on the upper body and face, but they can develop elsewhere. Occasionally they appear as crusting, sore areas of skin that do not heal. The majority grow slowly and can take up to a year to double in size.

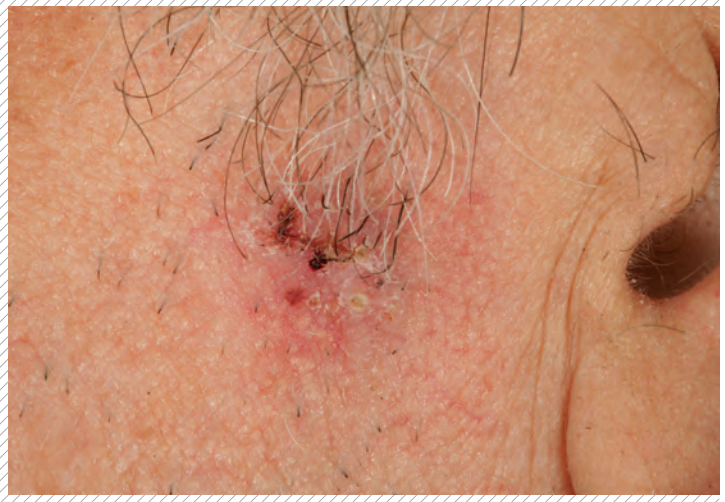
Treatment for basal cell carcinoma

The treatment options are:

- Surgery
- Aldara (imiquimod) cream or Efudix (5- fluorouracil) cream
- Cryotherapy
- Radiotherapy

Basal cell carcinomas





* If you think that you may have a basal cell carcinoma, telephone any of the dermatology department contact numbers listed on page 37 as you will need to see a dermatologist.

Kaposi's sarcoma (KS)*

People from Africa, the Middle East, the Mediterranean and the Caribbean have a higher risk of developing a type of skin cancer known as Kaposi's sarcoma. It is caused by human herpes virus (HHV8), which is very common in these areas. The virus is often picked up in childhood and lies dormant in the body until it is reactivated and causes KS. This sarcoma tends to develop within the first five years of transplant.

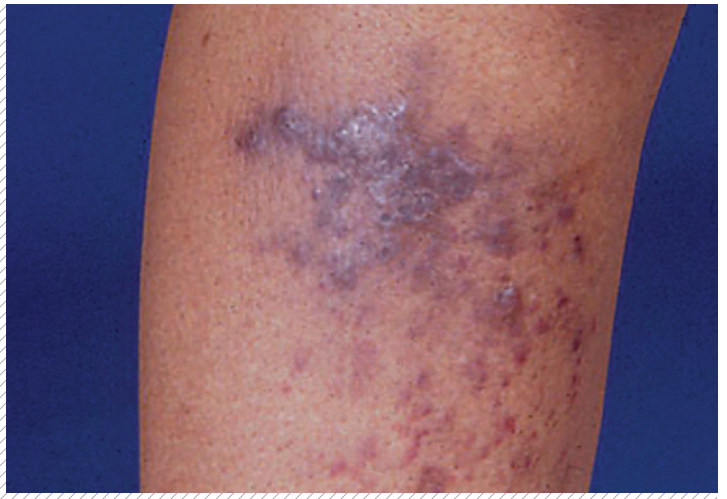
Kaposi's sarcoma may start with swelling of a limb, usually the lower leg, and/or the development of dark lumps or spots. These are commonly found on the legs and feet but can appear anywhere. They are usually dark brown or purple but they can be any colour from light brown to deep purple.

Treatment for Kaposi's sarcoma

Sometimes all that is needed is a reduction or change in immunosuppressive drugs, but this can take several months to have an effect. Occasionally additional treatments including surgical removal, radiotherapy, and chemotherapy may be required.

Please ask for our separate leaflet on Kaposi's sarcoma if you would like more information.

Kaposi's sarcoma



* If you think that you may have Kaposi's sarcoma, telephone any of the dermatology department contact numbers listed on page 37 as you will need to see a dermatologist.

Skin cancer prevention

It is important that you can recognise the early signs of skin cancer so that the appropriate treatment can be given. The earlier these skin growths are detected, the better the outcome.

Skin self-examination

We recommend you examine your skin regularly, ideally at least once a month. This means that if you notice any new lumps, bumps, marks or growths on your skin they can be checked by a dermatologist and, if necessary, treated early. Early detection can help to reduce the risk of developing a larger, more serious skin cancer that may need extensive surgery or treatment.

You should be looking for:

- New skin lumps, spots, ulcers, scaly patches or moles that weren't there before
- Marks (including moles) on the skin that have changed shape, colour, texture or size
- Sores that do not heal
- Any areas on the skin that are itchy, painful or bleed

How to examine your skin

Ideally you should examine your skin in a warm, well-lit room with the following equipment:

- A chair
- A full-length mirror
- A hand-held mirror
- A comb
- A tape measure or ruler
- A digital camera to record any skin marks you are not sure about

To make sure that you check all your skin, we suggest you examine yourself from head to toe following these steps. Use a mirror to check difficult-to-see areas or ask a friend or relative to help you.

Head

Beginning with your head, examine your scalp using a comb to part your hair so you can check all over your scalp. Go on to look over your face and neck. Don't forget to check behind your ears and the back of your neck.

Upper body

Check your shoulders, chest and abdomen, again using a comb to part any hair to examine the skin underneath. Don't forget to examine under your breasts and in the groin area.

Arms and hands

Examine each arm in turn beginning with the hands. Look at both the front and back of your hands and check between your fingers (the web spaces) and your fingernails. Examine all around your upper and lower arms (remember to use a mirror for places you can't see) and raise your arms above your head to check each armpit.

Back

If you have someone who can look at your back for you that is the easiest method of examination. If you want to do it yourself, use a full-length mirror in conjunction with a hand-held mirror. Look at the whole of your back starting at the top. Examine both shoulders to the middle of your back. Working from each side to the middle, traversing your back as you go, move down past your hips to your bottom.

Legs and feet

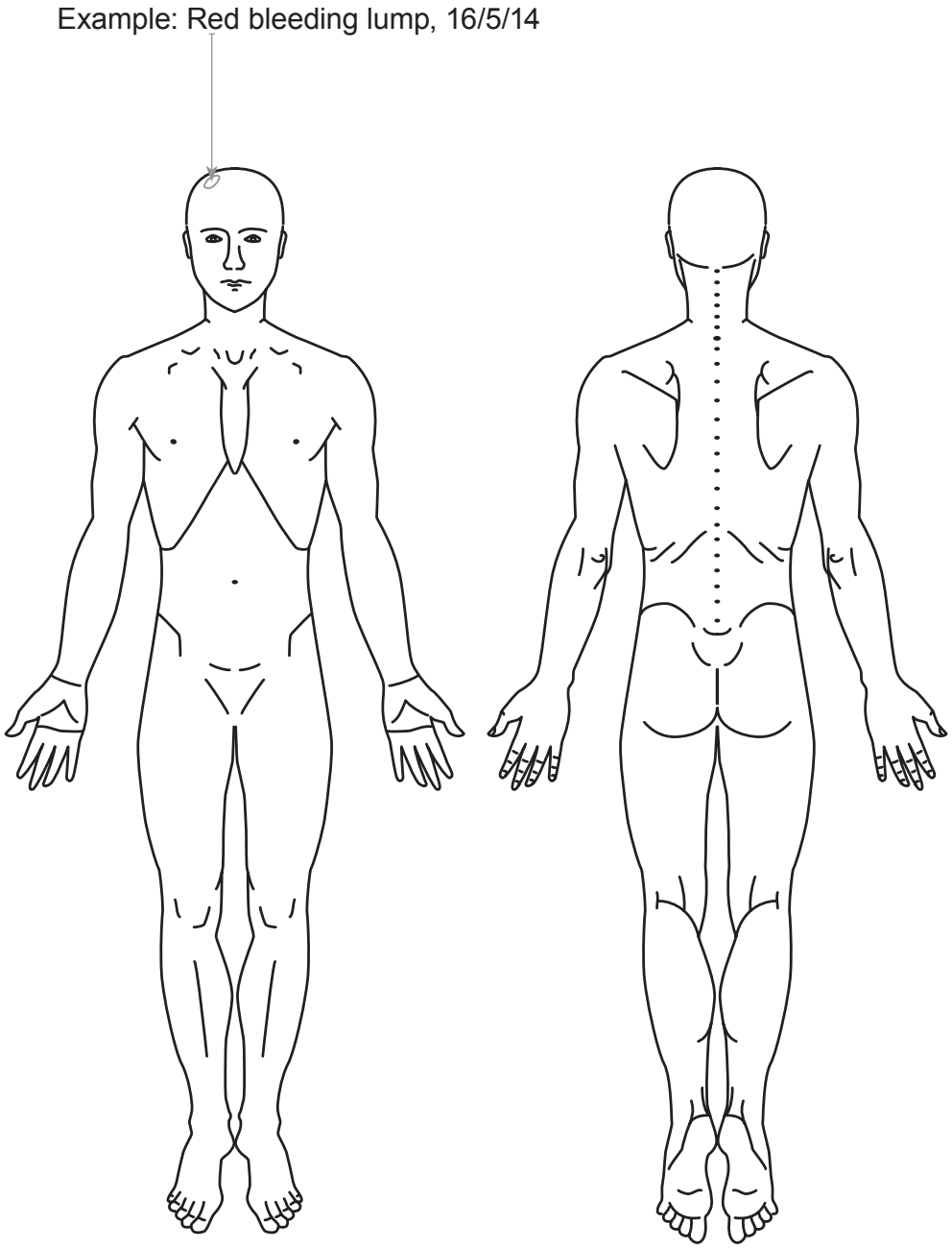
Sit down to examine the front and sides of your upper and lower legs. Remember to look at your groin area including the genitals. Look at your feet, paying particular attention to the soles and between your toes. Remember to check your toenails.

Recording what you find

You might find it helpful to use a non-permanent marker pen to draw around any skin marks that you notice to see if they get any bigger, or change in any way. Alternatively you could photograph them.

You can record any skin changes that you are worried about on these diagrams of the front and back of the body. As shown in the example here, draw a small circle on the diagram in the approximate position you found the skin problem. Write down the date that you noticed it, and any other remarks such as ‘bleeding’ or ‘itchy’. This will help remind you and assist the dermatologist when they see you at your next visit.

If you notice any new lump, bump, ulcer, sore, scaly patch or changing mole that lasts for longer than 2–3 weeks, contact your dermatologist for advice.



Sun protection

It is important to protect your skin from excessive sun exposure. The three golden rules are:

1. Prevent yourself from burning in the sun

2. Avoid sunbathing

3. Do not use artificial tanning beds

From April to October you should cover your body as much as possible by using a hat, long-sleeved clothing and sunglasses. Some people find wearing gloves helpful too.

Use a good quality sunscreen, with at least SPF 30–50 and a 4-star rating (this information can be found on the product), on all sun-exposed areas and stay in the shade. Note that between 11am–3pm the sun is particularly intense.

Sunscreens currently available on prescription from your GP are:

- Sunsense® Ultra (UVB SPF 50+)
- Uvistat® (UVB SPF 30 and 50+)
- Anthelios® (UVB SPF 50+)
- Delph® (UVB SPF 30+)

Vitamin D

People who need to take extra precautions to reduce sun exposure may become deficient in vitamin D which is important for the healthy function of the body. Vitamin D is produced in the skin after sun exposure and is found in foods such as oily fish. If you think you may be at risk of vitamin D deficiency talk to your GP or transplant doctor.

Further information

British Association of Dermatologists (BAD) gives information about skin care to pre-transplant and transplant patients.
www.bad.org.uk

British Society for Skin Care in Immunosuppressed Individuals (BSSCII) gives information on skin care for patients and health professionals.
www.bsscii.org.uk

International Transplant Skin Cancer Collaborative offers information on skin care and transplant medication.
www.itscc.org

Cancer Research UK
for free information about cancer and cancer care.

Cancer Research UK
PO Box 123
Lincoln's Inn Fields
London WC2A 3PX

Tel: (Supporter Services) 0808 800 4040
www.cancerhelp.org.uk

Macmillan Cancer Support is a cancer information and support charity.

Macmillan Cancer Support
89 Albert Embankment
London SE1 7UQ

Tel: (Supporter Services) 0808 808 0000
http://www.macmillan.org.uk/home.aspx

Patient diary

Please use this diary to keep a record of your clinic visits

Visit date	Outcome (treatment etc)	Comments Write down anything you want to mention at your next visit	Next appointment	
			Date	Time

Visit date	Outcome (treatment etc)	Comments Write down anything you want to mention at your next visit	Next appointment	
			Date	Time

Visit date	Outcome (treatment etc)	Comments Write down anything you want to mention at your next visit	Next appointment	
			Date	Time

Please bring this booklet with you to all clinic visits

Switchboard: 020 3416 5000
www.bartshealth.nhs.uk

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