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WHAT IS BASAL CELL CARCINOMA? (BCC)

Basal cell carcinoma (BCC) is a keratinocyte cancer, or non-melanoma skin cancer. BCC is the most common skin cancer in Australia and the most frequently occurring cancer overall.

BCC usually grows slowly, and the vast majority are diagnosed early and cured with surgery and radiation.

Basal cell carcinoma

The top layer of your skin, the epidermis, is made up of basal cells, melanocytes, and squamous cells.

The basal cells form the bottom portion of the epidermis. These cells eventually move up, change, and become the squamous cells that flake off. If basal cells become cancerous, the condition is known as basal cell carcinoma (BCC).

Why are the numbers increasing?

BCC is a growing problem: the number of new basal cell carcinoma cases occurring every year (incidence) is increasing.

In Australia, we are doing more skin cancer screening, which means we find more types of skin cancers, particularly BCCs, since they are so common.

Also, the population is ageing and we know that basal cell carcinomas are caused by cumulative sun damage to the skin.

What does basal cell carcinoma look like?

Basal cell carcinoma (BCC) is usually associated with excess UV light exposure, so it mostly occurs in sun-exposed areas of the skin.

BCC can look differently in different people and in different locations. Sometimes it can be tricky to distinguish BCC from other non-cancerous spots you might see on your skin.

BCC is a generally slow growing tumour. While highly treatable, it can grow and invade underlying nerves, blood vessels, and bone, leading to symptoms and disfigurement.

BCC commonly occurs as:

- An open sore that bleeds, oozes, or crusts and remains open for several weeks
- A reddish, raised patch or irritated area that may crust or itch but generally doesn't hurt

- A shiny pink, red, pearly white, or translucent bump
- A pink growth with a raised border and crusted central indentation
- A scar-like, white, yellow, or waxy area, often with a poorly defined edge
- For people with darker skin, a dark, pearly translucent skin growth which often appears on the head or neck
- For people with lighter skin, a pearly translucent skin growth.

Risk factors for Basal Cell Carcinoma (BCC)

Skin cancer can strike anyone. In fact, Australians have a high life-time risk of keratinocyte cancer. The lifetime risk of having at least one excision for a histologically-confirmed keratinocyte cancer in 2014 was 69%.¹

The majority of skin cancers are caused by UV light exposure, however there are a range of different factors that could put you at risk of developing basal cell carcinoma (BCC).

Risk factors for basal cell carcinoma (BCC) include:

- Exposure to ultraviolet (UV) radiation including from the sun, indoor tanning beds and sunlamps. Our UV radiation exposure is increasing because of the depletion of the ozone layer, increased longevity and immune suppression²
- Fair or light skin that easily burns or rarely tans and sensitive skin that freckles easily
- Fair hair such as natural blonde or red hair, and blue or green eyes indicates sensitivity to UV light
- Where you live. In Australia, the further north you live or spend time, the higher the rates of skin cancer³. Queensland has the highest incidence of keratinocyte cancers (including BCC) in Australia⁴.
- Exposure to ionising radiation, such as the radiation generated during medical imaging procedures like x-rays
- A weakened immune system, particularly in patients receiving immunosuppressive regimens after undergoing organ transplantation
- Exposure to PUVA (taking a medicine called psoralen, then being exposed to UV light as a treatment for psoriasis)
- Certain genetic mutations
- Exposure to arsenic in your food or water
- Patients who have had one BCC have an increased risk of developing a new BCC elsewhere. 40-50% of these patients will develop a new BCC within five years of their first diagnosis.

Darker skinned people can develop skin cancer

While people with fairer skin are at the highest risk of skin cancer overall, BCC is the most common skin cancer in Hispanic, Chinese and Asian, and Japanese people and the second most common in black people and Asian Indians⁵. BCCs can be more brownish in colour in darker-skinned people, which may make these tumours harder to recognise, resulting in delayed identification and treatment.

My parents or grandparents have had BCC, am I at higher risk?

Answer: While the risk of melanoma is increased among people who have a close relative with melanoma, there is little evidence that having a relative with BCC increases your risk of developing one. While there are a few genetic syndromes that cause defects in the pathways our body uses to protect us from or repair DNA damage that are associated with a high risk of BCC, the major risk factor for BCC is exposure to ultraviolet light.

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HOW IS BASAL CELL CARCINOMA (BCC) DIAGNOSED?

The process for diagnosing a basal cell carcinoma (BCC) is similar to how other skin cancers are diagnosed:

- **Medical History:** your GP or dermatologist will take a medical history. This will include asking about your sun-exposure history, any relevant medical information including medications you are taking, and a history of any skin cancers you have had and what your family has had.
- **Full body skin check:** A full head-to-toe skin examination (skin check) will be recommended to look for other problem areas. You can always ask your GP or dermatologist to perform a full body skin check if they don't suggest it, although you might need another appointment – you don't want to rush it.
- **Consider a biopsy:** the GP or dermatologist will determine if you need a skin biopsy. They will generally numb the skin and using a scalpel, will remove part or all of the spot from your skin. A biopsy is the only way to know whether the spot is cancer or not. The skin sample will be examined by a pathologist who will look at the tissue under the microscope.
- **Extra tests:** if your doctor is worried that the cancer has spread to the lymph nodes, they may request a lymph node test (a biopsy) as well as imaging studies of the lymph nodes (and potentially other areas).

Treatment for the BCC may be completed in one appointment if the cancer is found very early.

What is a biopsy?

A biopsy is an important part of diagnosing what type of cancer you have. A biopsy is when the doctor or dermatologist uses a scalpel to remove part or all of the spot of concern from your skin or takes a sample from another part of your body. A specialist will look at that bit of skin under a microscope to determine if the spot is cancerous.



What are lymph nodes?

Lymph nodes are small lumps of tissue between 0.1cm and 2.5cm long. They are part of the body's immune system and help fight infection. Adults have hundreds of lymph nodes in their body. If the cancer spreads from the primary tumour, the cancer cells typically spread to the nearest lymph node before affecting other parts of the body.

Preparing for a dermatology appointment for a suspected skin cancer

Your GP or dermatologist will review the biopsy procedure with you, discuss the potential risks and benefits, answer your questions, and obtain your consent before doing the biopsy. In most cases, a biopsy can be completed in one visit. It can leave a scar. Your doctor will provide you with specific details before the procedure.

Pathology tests

After the biopsy is completed, the skin sample (specimen) will be sent to a pathology laboratory (lab) where it will be examined by a pathologist. A pathologist is a medical professional who uses laboratory tests and their expert knowledge of cells, tissues, and organs to diagnose disease.

The pathologist will examine the specimen with and without a microscope, measure its thickness, describe its location and appearance, and do special tests. Your diagnosis is based on the careful examination of the biopsied tissue.

Pathology reports

The pathologist will write a pathology report. The pathology report is a detailed summary of your suspected skin cancer that helps determine your diagnosis and prognosis.

Pathology reports may look different from one lab to another, but they generally report the same details and measurements.

What will the pathology report tell me?

The pathology report will contain some key information about the biopsy and the specimen, including:

- Whether the pathologist thinks it is cancer or not
- If there is cancer, what type
- The stage of the cancer based on the tumour characteristics
- Whether the cancer has any "high-risk/aggressive" features
- Depending on the biopsy type, there may be an indication of the depth of the invasion of the cancer.

Some questions you could ask about your pathology report

Your GP or dermatologist will explain the pathology report and the results of your biopsy. If there is something that does not make sense, you can ask for it to be explained in a different way. Here are some questions that might be helpful.

- Is this a particular type of skin cancer?
- Can you draw me a picture to help me understand?
- Will I have more tests?
- Do I have any high-risk features? If so, how many and what are they?
- Is my skin cancer localised or has it spread to my lymph nodes—or beyond?
- Is my skin cancer at risk for spreading or recurring?
- Can I please have a copy of the pathology report?
- What is my prognosis (likely outcome of the cancer)? How did you establish that?
- What is the stage of my skin cancer?
- What are my treatment options?
- What are the potential risks / side effects?
- Do I need a referral to any other specialists (such as a medical oncologist, radiation oncologist, or head-and-neck surgeon)?
- Who can I contact if I have more questions?

HIGH-RISK FEATURES OF BASAL CELL CARCINOMA (BCC)

Certain features of a basal cell carcinoma (BCC) can indicate whether the cancer is more likely to spread to other parts of the body. These high-risk features are related to the location, size and pathologic features of the tumour as well as certain characteristics of the patient.

When the pathologist examines the part of your skin that was taken by the biopsy, they will work out if your cancer is advanced or not. The pathologist will also determine if the cancer is aggressive or not.

Primary tumour

The primary tumour is where the cancer first develops in an organ or tissue. It can also be called the initial tumour or primary cancer. Cells from the primary tumour may break away and be carried to other parts of the body, where secondary cancers may form.

Localised disease

The part of your body around your primary cancer tumour is called the 'local' area. If your treatment team says something is 'localised', they are saying that all cancerous tissue remains near the area where the cancer first formed (the area near the primary cancer tumour).

Locally advanced

The term 'locally advanced' is used when the tumour is large or aggressive and has invaded surrounding tissues including bone, cartilage, nerve and muscle.

Aggressive

Aggressive means that the cancer is more likely to spread locally and invade other tissues such as your nerves, bone and other structures. It is possible, but unlikely, that it will travel to distant parts of the body.

High-risk features of the primary tumour

Large size:

- Size greater than 20 mm (2 cm) for tumours on the trunk and extremities. 20 mm is about the size of an Australian \$2 coin.
- Size greater than 10 mm (1 cm) for tumours on cheeks, forehead, scalp, neck and pretibial¹.

Problematic location:

- Areas of skin that have lots of sun exposure, such as the central face (the mask area – see image), hands, and feet
- Although rare, it is possible to have a BCC on sensitive or mucosal locations such as the genitals
- On a site that has been previously treated with radiotherapy

Certain symptoms: Causing pain and itchiness (which may indicate neurologic involvement)

Certain tumour subtypes: Ones that have an aggressive growth pattern, which is specific information that should be noted on the pathology report

A tumour that has come back (recurred)

Tumours that show invasion of nerves and rarely invasion of blood vessels

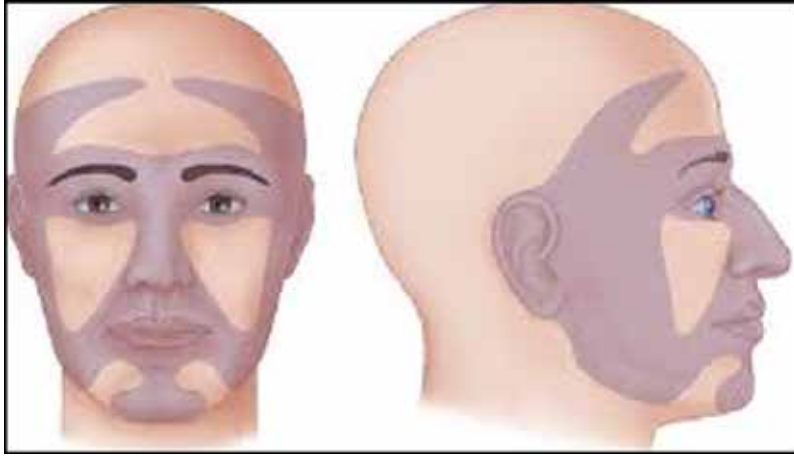


Image 1: Tumours that arise in the "mask area" on the face are high risk (shaded in image)

High-risk features of the patient

Patients who have experienced any of the following are at higher risk for aggressive forms of basal cell carcinoma (BCC):

- Immunosuppression resulting from the immunosuppressive regimens used after organ transplantation and other medical conditions, infection with the human immunodeficiency virus (HIV), certain blood cancers or other immune modified disorders
- Continuing immunosuppressive medications for various medical disorders
- Older age with tumour(s) on the head and neck
- A history of very intense or prolonged sun exposure

The greater number of high-risk features, the more likely you are to have the BCC come back.

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STAGING BASAL CELL CARCINOMA (BCC)

The doctor will identify the stage of your cancer to help them create your treatment plan. The stage of a cancer describes how far the cancer has grown and spread in your body at the time of diagnosis. Because basal cell carcinoma (BCC) has a low risk of spread but does tend to recur, it has a unique staging system.

Staging system for Basal Cell Carcinoma (BCC)

The staging system for BCC is based primarily on risk features and whether the BCC is difficult to treat¹. BCC is classified into 3 groups based on prognosis² (the likely outcome or course of a disease; the chance of recovery or recurrence):

- Two of these categories are low-risk and high-risk. In this case, the risk is based on the likelihood of the BCC coming back in the same spot (recurring) or continuing to grow and cause additional tissue damage.
- The third classification is advanced BCC, which is BCC that is difficult to treat or that has spread.
-

Local Basal Cell Carcinoma – Low Risk

Low-risk BCCs describe smaller BCCs without any high-risk features. They are slow to progress and rarely metastasise¹.

Local Basal Cell Carcinoma – High Risk

High-risk BCCs are localised tumours that have one or more high-risk features. These BCCs are more likely to recur or metastasise^{1,3}. The risk is low for metastasis. If your treatment team says something is 'localised', they are saying that all cancerous tissue remains near the area where the cancer first formed.

Locally Advanced Basal Cell Carcinoma

A locally advanced BCC is a BCC that is localised, has one or more high-risk features and is difficult to treat or that has spread (metastasised). Approximately 1%-10% of BCCs are considered advanced.

Locally advanced BCCs are often:

- Large in size
- Invasive
- Located in difficult-to-treat locations
- Recurrent and multifocal (exhibiting horizontal spreading) in nature, including into the space surrounding a nerve

Locally advanced BCCs are likely to be difficult to treat in certain populations as well, such as:

- People with genetic syndromes
- The frail and elderly
- Patients with a lot of other health problems
- Patients with low functional status (are not able to care for themselves)

Advanced disease can also be used to describe BCCs that metastasise (spread). This is only a small proportion—an estimated less than 0.55% (or one in 200) BCCs metastasise.

Regional Basal Cell Carcinoma

Regional disease is characterised by cancer that has spread to nearby lymph nodes. Lymph nodes are small, seed-shaped structures that contain clusters of immune cells. Cancer cells typically spread from the primary tumour to the nearest lymph node before traveling to other parts of the body. Regional disease is also called Nodal disease.

How is regional disease diagnosed?

If the lymph node feels swollen or if lymph nodes are identified by imaging, then the doctor will take a sample from the lymph node for testing. There are two ways to test the lymph nodes:

- Fine needle aspiration: a hollow thin needle is attached to a syringe to remove fluid and small amounts of tissue to examine.
- Core needle biopsy: a larger needle with a larger hollow centre (bore) is used to remove a small section of tissue to give the doctor more information.

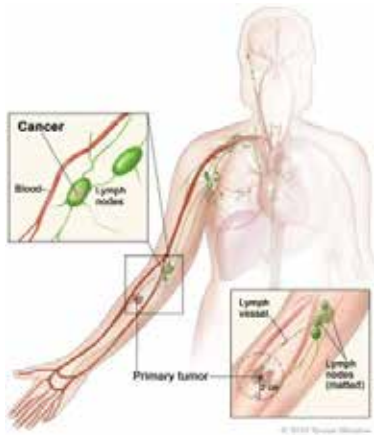


Image 3: Cancer involving the lymph nodes. The diagram shows the primary tumour as well as the affected lymph nodes

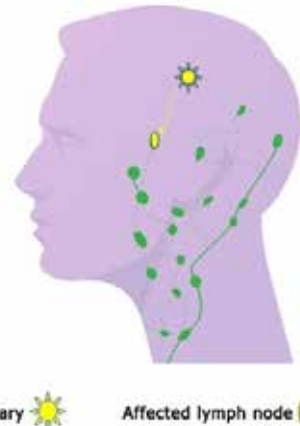


Image 2: Skin cancer on the scalp that has spread through the lymphatics to a lymph node on the head.

Distant Metastatic Basal Cell Carcinoma

Distant metastatic basal cell carcinoma (BCC) means the disease has spread to other site(s) in the body, beyond the closest lymph nodes.

Your doctor can advise you if you need imaging to look for metastatic disease. Imaging may be ordered if you have certain symptoms or abnormal laboratory tests. The additional imaging may include computed tomography (CT) or positron emission tomography - computed tomography (PET-CT).

Metastasis of BCC is a relatively rare occurrence.



Image 4: Yellow sunburst shows the site of the primary tumour on the neck and spread to the lung, liver, and bone

Types of scans

Below are three types of scans – all three can be used to help diagnose disease (such as cancer), plan treatment, or find out how well treatment is working.

CT Scan

A computed tomography (CT) scan uses a computer linked to an x-ray machine to make a series of detailed pictures of areas inside the body. The pictures are taken from different angles to create three-dimensional (3D) views of tissues and organs. A dye may be injected into a vein or swallowed to help the tissues and organs show up more clearly on the pictures.

Also called CAT scan, computed tomography scan, computerised axial tomography scan, and computerised tomography.

PET Scan

A positron emission tomography (PET) scan provides pictures of how the body is working. A small amount of radioactive glucose solution is injected into the body to find cancerous areas. Cancerous areas show up brighter in the PET scan because they take up more of the glucose.

PET-CT Scan

PET-CT is a procedure that combines the pictures from a PET scan and a CT scan. The PET and CT scans are done at the same time with the same machine. The combined scans give more detailed pictures of areas inside the body than either scan gives by itself.

Also called positron emission tomography-computed tomography scan.

Clinical consideration: do I need an MDT?

For most cases of BCC, your expert dermatologist or surgeon can manage the disease surgically. But if your tumour has high-risk features, it might make sense to seek out a dermatologist who works in a multidisciplinary team (MDT) setting like a hospital.

An MDT can include experts in radiation oncology, surgical oncology, head-and-neck surgery, and medical oncology.

If your dermatologist cannot cure you surgically, an MDT approach might be needed to treat your BCC. Typical situations that warrant this approach include:

- Surgically challenging (or high-risk) tumours on the head-and-neck region
- Tumours that are in other locations that are hard to manage surgically
- Tumours that have recurred
- Tumours that can't be managed with surgery or radiotherapy
- Disease that has spread to the regional lymph nodes
- Disease that has spread (metastasized) to other parts of your body.

Talk to your doctor about what is the best treatment option for your diagnosis. Your doctor can recommend where you could go for further advice and refer you to specialists.

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TREATMENT OPTIONS FOR BASAL CELL CARCINOMA (BCC)

Your pathology report will identify the features of your basal cell carcinoma (BCC). Your doctor will explain the results of the pathology report and help you understand the stage of cancer you have. Then it is time to plan your treatment strategy.

Remember, you can always ask your treatment team questions about your proposed treatment plan and to explain any words or terms that you are not familiar with.

Surface or Destructive Therapy

These treatments are applied directly to your skin to treat BCC.

Curettage and Cautery (C&C)

Curettage and cautery involves the doctor scraping the cancer from your skin (curettage). Heat is applied to destroy any remaining cancer cells (cautery), which also stops any bleeding. The curettings will be sent to pathology for review, including looking for any high-risk features.

Advantages:

- It is quick and often completed in one visit
- It does not require stitches
- It is a non-invasive option for people who do not want or cannot tolerate a more-invasive procedure
- It allows rapid treatment of multiple cancers at the same time, for high-risk groups who have more than one BCC.

Disadvantages:

- Cannot be used for BCCs with high-risk features¹
- It does not work well on areas of the body that have hair
- It generally does not heal as well as an excision
- If the tumour is deeper than expected, the tumour may still need to be surgically removed
- It is not as effective as surgery
- It can be difficult for the pathologist to determine all the details of the tumour, particularly the depth of the tumour, given the small sample provided by the curettings.

Cryotherapy

Cryotherapy involves applying a cold substance, such as liquid nitrogen, to the tumour and freezing off the tumour.

Cryotherapy may be considered for:

- Specific low-risk small, well defined and superficial BCCs when more effective therapies are either not advised or impractical¹.
- Patients who have conditions that cause their body to form large numbers of tumours.

Cryotherapy is not recommended for:

- BCCs that exhibit any high-risk features.
- For patients who have cryoglobulins in their blood.



Topical Medication Treatments

Most often topical medication means a treatment that is applied to the skin. Topical medications include creams, foams, gels, lotions and ointments.

Cure rates of BCC with topical treatments are not as high as other treatment options. The cosmetic results with topical medication is generally better than curette and cautery and surgical excision.

A topical medication can be used in low-risk BCCs or when a patient has a large number of small BCCs within a region.

Imiquimod (Aldara®)

Imiquimod is a cream which modulates the immune system and is used to treat superficial BCCs on the trunk, neck and extremities where surgery is considered inappropriate. It is usually applied once a day or every other day for six weeks or longer. It is covered by the Pharmaceutical Benefits Scheme in Australia.



Imiquimod acts to destroy cancer cells and has associated side effects. This includes skin redness, localised pain or burning sensation, swelling, sores, ulceration, crusting, itching and tingling.

Surgery

Treatment for BCC may involve surgery to remove some or all of the cancer tumour. Your treatment team will explain why they recommend surgery and what they hope the outcome will be. Some patients require several surgeries to remove all the cancer tumours that can be identified.

Some surgery can leave scarring on your body and can be disfiguring.

Some patients with advanced BCC might require reconstructive surgery to repair the skin or other areas of the body where the cancer has caused damage. Reconstructive surgery can have both functional and cosmetic goals, so it is important to discuss and understand what the expected surgical outcome is with your surgeon.

Benefits of surgery:

- Surgery is one of the best methods to control or cure a cancer.
- Important diagnostic tests can be done on the parts of the cancer tumour that has been removed.
- Surgery may help to relieve symptoms that you experience as a result of the cancer.
- While not commonly done, surgery can remove any remaining areas of cancer after drug therapy or radiation therapy has shrunk the primary cancer tumour.

There are two general types of surgery for BCC:

Wide Local Excision

A dermatologist (or specialised surgeon) cuts out the cancer and an area around the tumour called a wide margin. The wide margin removes extra skin around the tumour to ensure the doctor has removed all the cancer. If there is a big enough margin of normal skin around the cancer cells, your treatment is complete. If not, your doctor may need to go back and take more.

Mohs Micrographic Surgery (MMS)

Mohs (rhymes with nose) surgery is recommended for BCC that is has ill-defined edges and is already recurrent or is in an area where you don't want to remove a lot of skin. For example, it can be used around the face, neck, hand, fingers or toes.

Mohs surgery is not appropriate for all BCC, and your BCC must meet certain criteria, such as size or location on the central face.

In Mohs (also called microscopic, controlled excision) surgery, you are usually awake while the doctor removes the smallest amount of tissue needed to treat the cancer.

The doctor removes the skin cancer that can be seen. Then a thin layer of surrounding skin is cut away and examined under a microscope. If cancer cells are found in that additional layer, the process will be repeated until no cancer cells can be seen. The doctor will then decide the best way to treat the wound.

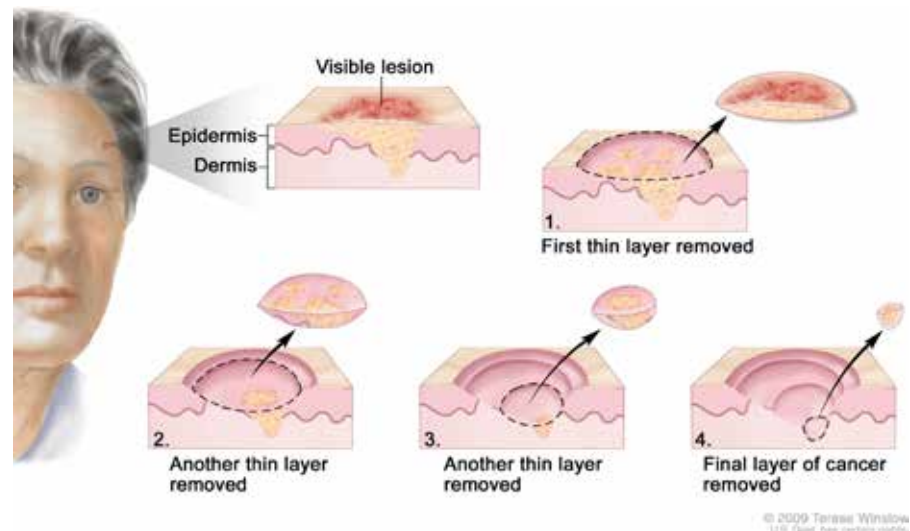


Image 5: Mohs Micrographic Surgery (MMS)

Radiation Therapy or Radiotherapy

Radiation therapy uses high-energy particles to damage the DNA of cancer cells. The damage ultimately leads to the targeted cancer cells dying. The radiation injures both normal cells and cancer cells. However, normal cells can repair themselves while cancer cells can't and die after treatment.

Radiation therapy is used for the treatment of BCC as an alternative to surgery if you cannot have or do not wish to have surgery. Reasons why patients may not be able to have surgery can be because the surgery required is too dangerous or perhaps the patient's general health is not strong enough to tolerate surgery.

In some cases, radiation is given for people who have aggressive BCC as a follow-up treatment to surgery to help destroy any remaining cancer cells so that the cancer does not come back (adjuvant therapy). The radiation therapy is given at a hospital over a period of several weeks. Radiation is typically only used in people 60 years of age or older.

Light Therapy or Photodynamic Therapy (PDT)

Photodynamic therapy is a light-activated treatment, it involves:

- A solution (called a photosensitizer) that makes your skin sensitive to light is applied to the cancer and a portion of surrounding skin.
- After a period of time, a light will be aimed at the BCC to kill the cancer cells.
- You will need two treatments around two weeks apart to treat a BCC.



Photodynamic therapy works well for low-risk superficial BCCs and some types of nodular BCCs.

Potential side effects include being sensitive to the sun which will require you to avoid the sun and use sun protection for 48 hours. Other side effects include redness, swelling, tenderness and sometimes crusting or erosion.

Laser therapy, with a pulse dye laser, is not recommended for the treatment of BCC.

KEY TERM: Adjuvant therapy The word 'adjuvant' is used to identify treatment that helps the primary treatment and lower the risk that the cancer will come back. For BCC, the primary treatment is usually surgery. An example of adjuvant therapy in the treatment of BCC is sometimes when the cancer has invaded the space surrounding a nerve, radiotherapy is given after surgery.

Systemic Therapy

Oral Medications

Two medications that are taken in a pill form are available for advanced BCC. Both of these drugs belong in a class of drugs called hedgehog inhibitors (more information below).

The two drugs are:

Vismodegib (Erivedge) (vis-moe-deh-gib) is an inhibitor of smoothed (SMO) protein, part of the Hedgehog pathway. Vismodegib is PBS approved for metastatic or locally advanced BCC which are not appropriate for surgery or curative radiotherapy.

Sonidegib (Odomzo) (so-nī-deh-gib) is a prescription medication which is PBS approved to treat metastatic or locally advanced BCC that is inappropriate for surgery and inappropriate for curative radiotherapy treatment.

Vismodegib and sonidegib stop or slow down the spread of the cancer and shrink the tumours in some patients. Some patients with locally advanced BCC even see their tumours disappear. These drugs are generally taken as long as they are working and the side effects are tolerable.

Side effects

Hedgehog inhibitors have a number of side effects, including muscle spasms, weight loss, altered taste, fatigue, hair loss, nausea, diarrhoea and some liver problems. During clinical trials, about 28% of participants discontinued therapy as a result of the side effects. Patients should consider tolerability of side effects as a factor if pursuing this treatment option.

The most critical side effect is foetal harm—When a baby is exposed to these drugs in utero, the drugs can cause the baby to die before it is born or cause severe birth defects. Therefore, both women with reproductive potential and men whose partners have reproductive potential should practice birth control while taking these medications if they are sexually active to avoid pregnancy and potential foetal harm.

Hedgehog pathways and Hedgehog inhibitors

In patients with BCC, a pathway involved with cellular signalling, the hedgehog pathway, is overactive, leading to unrestricted cellular proliferation (or development of cancer). Some patients with genetic disorders leading to BCC have mutations in genes such as PTCH, which normally rejects the hedgehog pathway. That is why patients with some genetic disorders develop so many BCCs – they do not have a way to suppress that pathway.

Hedgehog inhibitors slow down this overactive hedgehog pathway, thereby slowing or stopping the growth of BCCs.

References

1. Nasr I, McGrath EJ, Harwood CA, et al. British Association of Dermatologists guidelines for the management of adults with basal cell carcinoma 2021. *British journal of dermatology* (1951). 2021;185(5):899-920. doi:10.1111/bjd.20524

TREATMENT OPTIONS BY STAGE FOR BASAL CELL CARCINOMA (BCC)

When selecting the treatment for your basal cell carcinoma (BCC), you and your doctor will discuss the stage of your disease, any other medical conditions you may have, and your personal preferences for different types of therapy.

This section reviews recommendations for treatment by the stage of the cancer and provides some guidance on how to weigh the efficacy, safety, convenience and other treatment factors that are important to you.

Local Basal Cell Carcinoma – Low Risk

For low-risk local BCCs, the most recommended treatment approaches are:

- Curettage and cautery (C&C) (except on areas that have hair)
- Surgery if the BCC is located on the face
- Standard surgical excision.

If surgery does not remove all of the cancer the first time or if fat is reached during C&C, then further surgery can be done or your doctor might consider radiotherapy.

Local Basal Cell Carcinoma – High Risk

If your BCC tumour is high-risk, then you are a candidate for the following treatments:

- Standard surgical excision
- Mohs surgery
- Radiation therapy.

If the surgery does not remove all the cancer the first time, then another surgery may be an option. If that is not possible, radiation therapy, systemic therapy or a clinical trial may be considered.

Sometimes if you have a tumour that has invaded your nerves, particularly large nerves, your treatment team may consider giving you radiotherapy in the adjuvant setting to prevent the disease from coming back.

Locally Advanced Basal Cell Carcinoma

Locally advanced BCCs can be difficult to treat. If possible, locally advanced BCCs should be managed by:

- Surgery
- Radiotherapy.

If the BCC cannot be managed surgically or the BCC is extensive, your treatment team will consider the following options with you:

- Systemic therapy with a hedgehog inhibitor (if curative radiotherapy is not feasible).
- If these approaches do not produce satisfactory results, a clinical trial could be considered.

Regional Basal Cell Carcinoma

Regional BCC (or regional disease) is when the cancer has spread beyond the skin. Although BCC rarely metastasizes, when it does, it can easily spread to the nearest lymph nodes and distant sites.

Your doctor may choose to do a CT or PET scan to get more information. They may also take a sample of the lymph nodes through fine needle aspiration or core biopsy to see if the cancer has spread.

If your lymph nodes test positive for cancer, your treatment may involve radiotherapy (if possible) and systemic therapy with a hedgehog inhibitor. If you are not an appropriate candidate for or progress on a hedgehog inhibitor, your doctor may consider enrolling you in an appropriate clinical trial.

Distant Metastatic Basal Cell Carcinoma

For BCC with distant disease, a systemic therapy with a hedgehog inhibitor can be used. If you are not an appropriate candidate for or progress on a hedgehog inhibitor, your doctor may consider enrolling you in an appropriate clinical trial. Surgery or radiotherapy can be considered for symptomatic sites to ease symptoms and suffering (palliation).

Key term: Palliation

Palliation means the relief of symptoms and suffering caused by cancer and other life-threatening diseases. Palliation helps a patient feel more comfortable and improves the quality of life but does not cure the disease.