



# Practical Guidance

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## SKIN CANCER: BASAL CELL CARCINOMA & ACTINIC KERATOSIS

### Background Information

- The incidence of both non-melanoma and melanoma skin cancers has been increasing over the past decades, primarily due to greater acute and prolonged exposure to the sun and people's increased longevity.
- Although morbidity and mortality are low, skin cancers are far more common than other malignancies. Currently, between 2 and 3 million non-melanoma skin cancers and 132,000 melanoma skin cancers occur globally each year. One in every three cancers diagnosed is a skin cancer.<sup>1</sup>
- Incidence of skin cancer is closely linked to UV damage from chronic sun exposure.

### TYPES OF SKIN CANCER

Skin cancers are categorised by the type of skin cells they originate from and are divided into two types known as melanoma and non-melanoma.

- **Melanoma**  
Melanoma is the most dangerous form of skin cancer as it has the tendency to metastasise (spread) to other parts of the body from the melanocytes, the cells which produce the pigment melanin that colours our skin, hair and eyes. However, if detected early there is a greater than 90% chance of successful treatment.
- **Non-melanoma skin cancer (NMSC)**  
Non-melanoma skin cancer (NMSC) is the most common form of skin cancer and comprises both basal cell carcinomas (BCC) and squamous cell carcinomas (SCC) and is rarely life threatening. If left untreated, however, they can cause extensive damage to surrounding organs and structures. It is estimated that approximately one third of all cancers diagnosed are NMSCs and once a person has developed a NMSC, there is an increased chance that a new skin cancer will develop in later years.

### NON-MELANOMA SKIN CANCER

#### 1. BASAL CELL CARCINOMA (BCC)

BCC is the most frequently diagnosed form of NMSC and the incidence is increasing, a fact which has recently been recorded particularly since many countries have set up skin cancer registries. The incidence shows geographical variation; in south Wales the age standardised incidence was estimated at 114.2 per 100 000 population in 1998 and 117 per 100 000 in Trentino Italy in 1998. In Minnesota, USA, this was 146 per 100 000. In Australia, the incidence was 726 per 100 000. However, these figures are all likely to be underestimates, as BCC tends to be under-reported to the cancer registries.<sup>2</sup>

The age standardised incidence of BCC in white populations, the racial type most at risk, is between 18% and 40% higher in men. Sporadic BCC is rarely seen before the age of 20 years, but after that the age specific incidence increases.<sup>2</sup>



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BCCs are slow growing malignancies that can develop over a number of months or years, but if left untreated can become dangerous. The metastatic rate ranges from 0.0028% to 0.55%.<sup>2</sup>

### What are the risk factors for developing BCC?

The principal cause of BCC is accumulated chronic sun exposure over a number of years. Three quarters of the patients with BCC are over 40 years old<sup>3</sup> and the greatest incidence is reported in persons older than 55 years. BCC is often thought to develop as the result of chronic sun exposure as a child.<sup>1</sup>

BCCs occur most frequently on parts of the body that are exposed to the sun, such as the face, ears, neck, scalp, shoulders, and back. BCCs rarely occur in areas not generally exposed to sunlight.<sup>4</sup>

Anyone with a history of frequent sun exposure can develop a BCC, but people who have fair skin, light hair, and blue, green, or grey eyes are at highest risk. Those whose occupations require a significant amount of time outdoors or who spend extensive leisure time in the sun are at particular risk.<sup>4</sup>

### What does a BCC look like?

**Nodular BCC:** The most common appearance of nBCC is a small dome-shaped bump that has a pearly white colour, sometimes with blood vessels appearing on the surface. BCC may also appear as a pimple-like growth that heals and then recurs again and again.

**Superficial BCC:** sBCC are red, with a slightly raised, sometimes ulcerated or crusted surface, often bordered with pearly, threadlike formations occurring most often on the upper trunk or shoulders. They can be difficult to diagnose and are often mistaken for other skin conditions such as eczema or psoriasis.

**Morpheaform BCC:** A less common form (morpheaform) looks like a smooth white or yellowish waxy scar or depressed patch with irregular borders. A very common sign of BCC is a sore that bleeds and heals, only to recur again.<sup>4</sup>

## 2. SQUAMOUS CELL CARCINOMA (SCC)

SCC is the second most frequently diagnosed skin cancer.<sup>5</sup> Like BCC, the incidence of SCC is increasing accounting for about 10% to 30% of all skin cancers.

As with BCC, the primary cause of SCC is accumulated sun exposure over a number of years, however, SCCs represent a more dangerous form of skin cancer than BCC. SCCs tend to be more aggressive than basal cell cancers. They are more likely to invade tissues beneath the skin, and slightly more likely to spread to lymph nodes and/or distant parts of the body, although this is still uncommon. (ref: American Cancer Society)



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Treatment of SCC is very successful. SCC will most often occur on sun-exposed areas of the skin as a thickened red, scaly spot that later may bleed easily or ulcerate.<sup>6</sup>

### 3. BOWEN'S DISEASE (SCC IN SITU)

Bowen's disease is a persistent form of intraepidermal in situ SCC, affecting predominantly females over the age of 60. Bowen's disease lesions generally present on the lower leg as enlarging well demarcated erythematous plaques with an irregular border and surface crusting and scaling.<sup>7</sup>

### ACTINIC KERATOSIS

Actinic keratosis (AK) or solar keratosis is a very common pre-cancerous skin lesion that results from exposure to UV radiation (sunlight and/or artificial light sources). The term pre-cancerous is used because these abnormal growths are much more likely to give rise to malignant growths than the adjacent normal skin. AKs are characterised by rough, red, scaly patches, crusts or sores on the top layer of skin.<sup>8</sup> They are frequently found on the backs of the hands, forearms, face, bald scalp and other sun exposed areas. Often, the disease occurs in the form of multiple lesions in sunexposed fields. This phenomenon is called field cancerisation.

Up to 26% of AK lesions may spontaneously resolve without medical intervention,<sup>9</sup> however, it has been estimated that between 0.25% and 16% of AK lesions progress to become malignant SCC.<sup>10</sup> It is not obvious which individual AK will progress into an invasive SCC but studies suggest that for people with AK the lifetime risk of progression ranges from between 6% and 10%; for people with more than 10 AKs there is a cumulative probability of 14% of developing an SCC within 5 years.<sup>12</sup> We cannot predict exactly which AK lesions will progress to cancer, therefore, suspected lesions should all be diagnosed and treated.

Like BCC, AK lesions most frequently occur on parts of the body that are exposed to the sun.<sup>8</sup>

### TREATMENT OF BASAL CELL CARCINOMA AND ACTINIC KERATOSIS

Several effective treatments for BCC and AK are currently available. However, conventional treatments which include surgery and cryotherapy are often associated with scarring or undesired cosmetic outcome and a longer recovery time.<sup>12,13</sup>

Metvix<sup>®</sup> (MAL-photodynamic therapy) offers a non-invasive and more selective treatment for tumour cells, minimising damage to surrounding healthy tissue. While being as effective in treating BCC and AK as conventional therapy, Metvix<sup>®</sup> is able to offer superior cosmetic results.<sup>13-17, 23</sup>



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- optimising the  
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