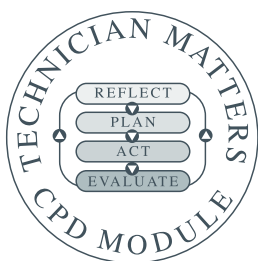


current thinking on...

# Actinic keratoses and skin cancer



Welcome to our CPD module series for community pharmacy technicians. Written in conjunction with the *Pharmacy Magazine* CPD series, it will mirror the magazine's

programme throughout the year. The series has been designed for you to use as part of your continuing professional development. Reflection exercises have been included to help start you off in the CPD learning cycle.

## Contributing author:

Dr Christine Clark, MRPharmS, community pharmacist and clinical pharmacy writer

Although it is not part of community pharmacy's remit to diagnose skin cancer, community pharmacy is often the first port of call when someone finds a suspicious lesion on their skin. It is then up to the pharmacist to advise on the best course of action.

In 2012, around 2,200 people died from skin cancer in the UK. There is a spectrum of skin cancer ranging from malignant melanoma (the most dangerous) to precancerous actinic keratoses. Note: Non-melanoma skin cancers (NMSCs) is a group including squamous cell carcinomas (SCCs), basal cell carcinomas (BCCs) and the precancerous actinic keratoses (AKs).

Table 1 summarises the features of the common skin cancers.

### Melanoma

The most common sign of melanoma is the appearance of a new mole or a change in an existing mole, most commonly on the back, legs, arms or face,



## MODULE NUMBER: 53

**Aim:** To provide an update on the current management of actinic keratoses and skin cancer.

**Objectives:** After reading this module, pharmacy technicians will:

- Know the features of common skin cancers and actinic keratoses
- Understand who is most at risk of developing actinic keratoses
- Be able to list the treatments for actinic keratoses
- Be able to advise on the role of high-factor sunscreens and other preventative measures.

although it can be on any part of the body.

Melanomas usually have an irregular shape and uneven colouring. They may also be larger than normal moles and can sometimes be itchy or bleed. The main risk factors include genetic predisposition (fair skin, red hair, large number of moles), UV exposure and immunosuppression. The main treatment for melanoma is surgical removal of the lesion. If treated at an early stage, this is usually successful.

### Squamous cell carcinoma

Squamous cell carcinoma is linked with overexposure to ultraviolet (UV) light. The majority of SCCs – 60-80 per cent – start as AKs. The main risk factor is cumulative UV exposure.

### Basal cell carcinoma (rodent ulcer)

Basal cell carcinomas (BCCs) usually appear on sun-exposed areas of the body. Although BCCs rarely spread, they can erode into the surrounding tissue. The main risk factors are

genetic predisposition (e.g. fair skin) and UV exposure.

### Actinic keratoses

Actinic keratoses (AKs, also known as solar keratoses) are common and usually harmless, but they do have the potential to become malignant. AKs commonly appear as multiple lesions that gradually enlarge. The presence of multiple lesions is described as 'field cancerisation' or 'field change'. Over a one year period, 15-25 per cent of AKs will disappear

**Table 1: Skin cancers – appearance, behaviour and treatment**

	Proportion of skin cancer cases	Appearance	Notes	Treatment
<b>Malignant melanoma (MM)</b>	10 per cent	Black/brown spot (like an unusual mole). See <b>ABCDE</b> checklist.	Can spread beyond the skin if not treated early. Can be fatal.	Surgical removal
<b>Squamous cell carcinoma (SCC)</b>	10 per cent	Red, scaly patch which may itch; often tender to touch, bleeds easily and may develop into an ulcer.	60-80 per cent start as an AK. If untreated, about five per cent spread to other sites. Can be fatal.	Surgical removal
<b>Basal cell carcinoma (BCC)</b>	80 per cent	Small red or pink lump; can also be pearly-white or 'waxy' looking; grows slowly and can become crusty, bleed or develop into a painless ulcer.	Can be locally destructive.	Surgical removal
<b>Actinic keratoses (AK)</b>	Numbers large but unknown	Pink, red or brown patches, scaly and sometimes thickened. 'Field change' plus multiple small lesions e.g. on scalp.	Pre-cancerous – about 10 per cent transform into SCC, 15-25 per cent will spontaneously disappear over one year.	Surgical removal; cryotherapy; PDT; topical drug treatment

spontaneously without any intervention.

AKs are caused by frequent or intense exposure to UV radiation over many years, and so usually appear on sun-exposed skin areas including the face, ears, bald scalp, forearms and on the backs of hands.

#### Management of AKs

The uncertainty about which AKs will transform into SCCs makes prevention of AKs an important issue, especially for organ transplant patients, who are at greater risk.

Education of patients regarding UV-protection, self-examination and detection of early lesions plays an important part in overall management.

#### Sun-protection and organ transplant recipients

Skin cancer is the most common malignancy in organ transplant recipients (OTRs).

People who have undergone organ transplants and are therefore taking immunosuppressant treatment are 250 times more likely to develop an AK than immunocompetent individuals. They also have a 100-fold higher risk of developing invasive SCCs. This means that all patients who have received an organ transplant need on-going

preventative treatment and regular monitoring of their skin.

Organ transplant recipients are now routinely educated about the risks of developing skin cancer, but some patients still fail to protect their skin adequately. This is often because prescribed products are difficult or unpleasant to use while good quality sunscreen products are expensive.

Another important factor is the popular myth that some sunscreens are carcinogenic. However, the evidence for effectiveness of high-factor sunscreens is compelling. One study involving 120 transplant patients compared patient education about sun protection with education plus provision of a high-factor sunscreen over a two-year period. The results showed that 53 per cent of AKs in the sunscreen group went into spontaneous remission. In addition, eight new invasive SCCs occurred in the control group compared with none in the sunscreen group. Adherence to the sunscreen regimen was high in the study.

#### Topical treatment of AKs

No treatment, or treatment with an emollient only, is considered satisfactory for mild AKs. Single AKs can be treated using targeted treatment such as:

- Curettage – surgical removal of the lesion
- Cryotherapy – freezing the lesion with liquid nitrogen
- Photodynamic therapy (PDT) – applying a photosensitiser, methyl aminolevulinate (Metvix) and exposing the area to red light
- Topical medicines such as 5-fluorouracil (5FU) either as Efudix (5FU 5%) or Actikerall (5FU 0.5% + 10% salicylic acid).


For multiple lesions (field change) topical diclofenac, ingenol mebutate or imiquimod is recommended.

All topical treatments for AKs are directed at destroying the sun-damaged cells so they all, to a greater or lesser extent, induce inflammation in the skin. The skin may weep, then crust or scab over. The area may also be itchy or painful. This is caused by the abnormal cells dying and is a sign that the treatment is working. This is something that patients need to be aware of because it may be important for the timing of treatment.

#### Vitamin D supplementation

People who are avoiding exposure to sunlight and using sunscreens assiduously are at risk of vitamin D deficiency.

Sunlight (UVB) is required for vitamin D synthesis in the skin and this is essential for bone and muscle function. About 15 minutes of sunlight on unprotected skin – ideally between 11am and 3pm when UVB radiation is most intense – is all that is needed for satisfactory vitamin D synthesis. There is still uncertainty about the 'right' level of vitamin D and what, if any, supplements are required. NICE guidance on this topic is expected this year. In the meantime, experts recommend vitamin D supplementation if sunscreens are used regularly (e.g. 10mcg/day).



### reflection exercise

Consider the problems of using a high factor sunscreen on a daily basis and find out which products would be suitable.

Reflect on how you would explain the options and help a patient to select the most appropriate product.

#### ABCDE melanoma checklist

- **A**symmetrical – melanomas have two very different halves and an irregular shape
- **B**order – melanomas have an uneven or ragged border
- **C**olours – melanomas will be a mix of two or more colours
- **D**iameter (or **D**ynamic) – melanomas are larger than 6mm (1/4 inch) in diameter
- **E**nlargement or **E**levation – a mole that grows over time or is raised is more likely to be a melanoma.

## Record your learning

Once you have read this article, use the following CPD questions to help you reflect on what you have learned and how it might affect your everyday work. Remember to record your learning on the GPhC website if you are registered ([www.uptodate.org.uk](http://www.uptodate.org.uk)). Otherwise, it is good practice to record it in your ongoing learning and development folder.

- What did I learn that was new? (*Evaluate*)
- How have I put this into practice? (Provide examples of how learning has been applied.) (*Evaluate*)
- Do I need to learn anything else in this area? (*Reflect*)



#### preventative measures for AK

- Avoid over-exposure to UV light – limit the time spent in the sun, especially around midday
- Use a high factor (SPF 50) sunscreen on all exposed skin, including lips, and cover skin when possible
- Avoid tanning beds – tanning beds emit ultraviolet A (UVA) rays, which penetrate deeper into the skin and are believed to cause AK lesions
- Check skin regularly and report any changes to a healthcare professional.

**Next month:** we look at the management of depression.