Actinic Keratosis Pathway

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Document history

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Aim/outline

Actinic Keratosis (AK) are very common and can be of significance:

- NICE estimates that over 23% of the UK population aged 60 and above have AKs
- AKs can occasionally transform into squamous cell carcinoma (SCC) - the presence of ten AKs is associated with a 14% risk of developing an invasive SCC within 5 years
- AK referral represents a significant proportion of the lesions referred into specialist hospital clinics - 11% of the lesions and 7% of the total referrals to the local community GPwSI skin clinic in 2009

Given the very large numbers of patients who have AKs it is important that the majority should be managed in the community by GPs otherwise consultant and GPwSI clinics will become overburdened, and patients with more serious skin problems will wait longer to be seen by a specialist.

The aim of this pathway is to enable GP’s to manage AKs effectively within the community & thus reduce their dermatology referral rates.

Contacts

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All Patients diagnosed with AK in the community
Except-
• Immuno-suppressed patients, in particular post transplant
• AKs induced by phototherapy used for treating other conditions
e.g. PUVA for psoriasis

- Take a good skin history- Is there a PMH/FH of any previous skin cancer/ pre-malignant skin lesions?
• Is the lesion painful?
• How quickly is it growing?
• Make a careful examination of the lesion & the REST of the patient’s skin - are there other lesions?

Features of AK
• Common sun exposed sites in older people
• Forehead, face, back of hands, bald scalp of men, and ladies legs
• Early lesions may be red patches and produce pin prick sensation. Later a sand paper roughness can be felt. Some become rough, raised and irregular, like stuck-on cornflakes

Exclude painful, ulcerated or indurated lesions - these are signs of SCC and warrant a 2WW referral.

If there’s a crust – take it off & look beneath! If you don’t you won’t know what’s happening.

Remember not all AK need treating-
Patients with a small number of lesions, especially if they have a reduced life expectancy should be given the option of no treatment. (up to 21% of AKs may resolve spontaneously over 12/12)

A: SINGLE OR SEVERAL DISCRETE LESIONS

Treatment options:

Liquid Nitrogen (cryotherapy) – use a 5 second x1 cryofreeze
Tell your patient what to expect – use a patient advice leaflet (appendix A)

Efudix (5 fluouracil cream)
• Apply Efudix to the affected area with a finger or cotton-bud every night for two weeks. Avoid the eyes, lips and nasolabial folds, as it can cause irritation in these areas.

• Wash off the following morning and repeat the process until an inflammatory response occurs. The skin should become red and tender and may weep and crust or resemble a superficial burn.

• The skin must reach this point as it signals effective treatment. Depending on the skin type this takes 10-28 days to occur, with a wide variation between individual patients.

• Early redness with mild stinging is not a sufficient end point

• Tell your patient that for the treatment to work the cream has to destroy the damaged skin cells so they need to get to a point where the skin is quite inflamed.
• Give an advice leaflet (Appendix B) or use one from the manufacturer - Meda Pharmaceuticals 0845 4600000

**Curette & cautery** – where a mild degree of clinical uncertainty exists
c&c gives both histology & treatment for precancerous lesions.
The base of the lesion must be represented in the histology sample.

**B: MULTIPLE LESIONS AND/OR FIELD CHANGE**

• Use Efudix to the whole of sun damaged area as per regimen above. Tell the patient to expect to discover that they have more sun damaged skin than they thought!

**GENERAL POINTS FOR ALL PATIENTS**

• Do a general skin examination to look for other significant skin lesions
• Advise sun protection - up to 25% of AKs will resolve if patients adhere to advice. See appendix C for a useful patient advice leaflet.

**ACTINIC KERATOSIS FLOW DIAGRAM**
Remember to follow up any patients after treatment if there was any diagnostic uncertainty!

Lesions becoming more raised or with a fleshy base or becoming tender may be transforming into SCC; these lesions should be referred to dermatology as a 2WW.

Painful, Ulcerated or indurated lesions or those changing rapidly.

**Routine:**
- First Outpatient appointment = £119 (single professional) £167 (multi professional)
- Follow up appointment = £67 (single professional) £117 (multi professional)

**Clinic information**
If a referral is required book against the following on the Choose and Book system:
- **Speciality:** Dermatology
- **Clinic Type:** Not otherwise specified

**Additional Information**
- [www.bad.org.uk](http://www.bad.org.uk)

**Appendices**
- Appendix A – Cryotherapy leaflet
- Appendix B – How to use Efudix leaflet
- Appendix C – Sun protection leaflet
- Appendix D – Skin Cancer leaflet
Cryosurgery is used to treat warts, sun damaged skin and other conditions. The response of the skin over the first few hours and days depends on the site treated and how long the liquid nitrogen was applied. A small response which is usual after treating warts may lead only to redness and a little swelling. A big response may produce a blister which breaks down to leave a weeping, rather mucky sore but takes up to two weeks to form a scab.

Blisters may be popped with a needle that has been boiled but the roof should not be cut away. If the skin comes away you should cover the wound with antiseptic cream and apply a Band-Aid.
APPENDIX B: How to use Efudix leaflet

The treatment of actinic keratoses with topical 5-fluorouracil (Efudix)

Information for general practitioners

Topical fluorouracil (5FU) (Trade Name Efudix®) is a topical cytostatic preparation that selectively destroys sun damaged skin cells with little injury to normal skin.

- Use for treating actinic keratoses that commonly appear as red, defined, sandpapery roughenings on sun-exposed areas such as face, scalp, back of hands and forearms.

- It is particularly useful for treating actinic keratoses that occur over a wide area.

- Do not use for very large or thick lesions with an infiltrated base, which should first undergo a biopsy to exclude Squamous Cell Carcinoma. If you are in any doubt you should refer for a second opinion.

Application method:

- Apply Efudix at night to the affected area with a finger or cotton-bud. Avoid the eyes, lips and nasolabial folds, as it can cause irritation in these areas.

- Wash off the following morning and repeat the process until an inflammatory response occurs. The skin should become red and tender and may weep and crust or resemble a superficial burn.

- The skin must reach this point as it signals effective treatment. Depending on the skin type this takes 10-28 days to occur, with a wide variation between individual patients.

- Early redness with mild stinging is not a sufficient end point.

- Once a satisfactory response has occurred, stop treatment and allow the skin to heal and normal skin to re-grow. Some patients may find a moisturiser, e.g. Diprobase or Vaseline, improves the symptoms.

Summary of Treatment protocol:

Apply daily for 2 weeks, unless the skin becomes tender and sore before then. If there is little or no change at 2 weeks then apply twice daily until this does occur. Then stop treatment and allow to heal.

Important! An actinic keratosis that fails to respond to Efudix applied as described above, or appears deep or infiltrative, should be referred for a second opinion rather than undergo repeated courses of Efudix. It is however quite reasonable to treat new similar lesions with Efudix, as they appear later or at another site.
Using topical 5-fluorouracil cream (Efudix®) to treat actinic keratoses

Information for patients

Actinic keratoses occur in sun-damaged skin, usually a result of years of sun exposure. They appear as rough scaly spots on the face, scalp, backs of the hands and forearms. They are usually treated because they may produce symptoms and can occasionally become cancerous.

Efudix is a cream that removes the sun-damaged skin cells in actinic keratoses, allowing new healthy skin to grow. Efudix does not affect normal skin.

- **Application:** apply a thin layer of Efudix at night to the affected area using a cotton bud or glove, avoiding skin creases such as the eyes and lips. Wash off in the morning. Apply every night for 2 weeks until the skin becomes red and tender; it may weep and crust and resemble a burn.

- If the skin does not become red and sore by the end of 2 weeks then start to apply Efudix twice daily until the skin does become red and tender. **This means the cream is working!** When this happens, stop applying the Efudix and allow the skin to heal. This may take 2-3 weeks.

- Try not to treat too large an area at one time as some people can become very sore indeed!

- Ask your GP to review any actinic keratoses that do not improve with this regime, as they may require another method of treatment or a biopsy for diagnosis.
APPENDIX C: Sun protection leaflet

SUN FACTS

Did you know.....

At midday, when the sun is at its highest and passing through the least depth of ozone, burning is most likely to occur. Sun exposure should be limited during the hours of 11am to 3pm.

Sitting in the shade you can still get significant sun exposure, so other additional precautions to protect the skin need to be taken.

Closely woven clothes are much better than the best sunscreens.

Glass allows only 10% of UVB through but 80% of UVA, which may be the rays that cause skin cancer. The car is not an ultraviolet free zone!!

It does not have to be hot to burn. You can burn on a cold windy or cloudy day. Children are the most susceptible to burning especially those with blue eyes, and blonde, light brown or red hair.

Sun exposure should be limited in those under two years old

Freckles are the first sign of sun damage and can be avoided if a fair skinned child is kept protected from the sun.

If a child is kept protected from the sun until the age of 18 they will have 75% less chance of developing melanoma skin cancer, which can be fatal.

Skin cancer has been doubling in incidence every ten years since about 1960 and this figure continues to grow.

It is estimated that over the last 20-30 years, UK residents have received 2-3 times more ultraviolet radiation than previous generations. This is due to increased leisure time, the availability of cheaper foreign travel and the "suntan" culture.

Hats with a wide brim are important to protect the face, scalp and neck (the most sun-exposed parts of the body). Short haircuts need a legionnaires flap at the back to protect the neck. Clothing with a high UV protection factor is now available.

UV exposure on the face produces the wrinkles we take as signs of ageing but they are a record of sun exposure and sun damage.

Facial sun exposure without good eye protection is felt to promote the formation of cataracts in the eyes.

High protection sunscreens help prevent sun damage but cannot be relied upon as they are often applied too thinly and not often enough as they come off with sweat and sport activities especially in the sea and pool.
There are two main types of skin cancer, malignant melanomas and non melanoma skin cancers.

**Malignant melanomas** - This is the most serious and dangerous type of skin cancer. They grow rapidly, spread early and can be fatal. They usually arise from freckles or moles.

The warning signs to look out for are any one of the following:

- A mole or freckle that is **getting bigger**.

- A mole or freckle that is **changing shape**; most moles are round or oval with a symmetrical shape. When a mole develops an irregular border it is a bad sign.

- A mole or freckle that **changes colour**; most moles are an even shade of light or dark brown. When a mole develops irregular shades of colour throughout it is a bad sign.

If any of your moles develop **any one of the above** signs you should contact your doctor immediately, as early detection and removal of a malignant melanoma can be lifesaving.

Other warning signs to look out for in a mole or a freckle are as follows:

- Itch
- Size greater than the head of a pencil (i.e. <7mm)
- Bleeding and crusting

**Non melanoma skin cancers** - These include basal cell carcinomas (BCC) and squamous cell carcinoma (SCC). SCC’s grow slowly and rarely spread beyond the skin unless they are neglected for a long time. BCC’s can never spread beyond the skin, no matter how long they are present, so they are not fatal. However, they can spread locally within the skin and cause troublesome ulcers or damage local structures such as the eyes, ears or lips.

The warning signs to look out for are as follows:

- A new growth on the skin which appears for no apparent reason.

- A sore or an ulcer that will not heal after two to four weeks.

- A persistent isolated scaly patch on the skin that does not clear up with topical creams.

If you have any of these warning signs, please get your doctor to check your skin.