

**SHEFFIELD AREA PRESCRIBING GROUP**

**Managing actinic (solar) keratosis**


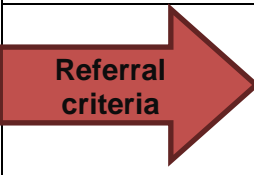
**Aim**

This pathway is designed to promote the management of patients with actinic keratosis (AK) in primary care, thus improving patient care and reducing referrals to secondary care. It is supported by the Dermatologists at Royal Hallamshire Hospital.

**Background**

- It is estimated that 19–24% of individuals in the UK aged 60 and above have AKs.
- Approximately 20% of AKs spontaneously resolve over a 1-year period. Some persist and a small number progress to squamous cell carcinoma (SCC). For a person with an average of 7.7 lesions, the probability of at least 1 lesion transforming to SCC in a 10-year period is ~10%. (de Berker, 2017)

	<p>All patients diagnosed with AK by the GP in the community</p> <p><b>Except:</b>                  Immunosuppressed, especially those post-transplant who are at higher risk of SCC</p>
	<p><b><u>Features of AK:</u></b></p> <ul style="list-style-type: none"> <li>• Commonly develop on sun exposed sites in older people</li> <li>• Forehead, face, back of hands, bald scalp of men, and ladies legs</li> <li>• 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</li> </ul> <p><b>Beware</b> rapid growing, painful, ulcerated or indurated lesions - these are signs of SCC and may warrant a 2 Week Wait referral.</p> <p><b>If there's a thick scale or hyperkeratosis– take it off (can soften with emollient over few days and ask to come back) &amp; look beneath as may be a hidden area of raised base or ongoing ulceration!</b></p> <p><b>For more information on stable typical AK see:</b>  <a href="http://www.pcds.org.uk/clinical-guidance/actinic-keratosis-syn.-solar-keratosis#management">http://www.pcds.org.uk/clinical-guidance/actinic-keratosis-syn.-solar-keratosis#management</a>  <a href="https://www.dermnetz.org/topics/actinic-keratosis/">https://www.dermnetz.org/topics/actinic-keratosis/</a></p>
	<p><a href="#">Management flow chart</a></p> <p>When deciding on treatment of other parts of the body than the face, forehead and bald scalp the epidermal thickness in different areas may be taken into consideration. (Koehler, 2010; Sandby-Moller, 2003)</p>
	<p>Arrange follow up to check for resolution at about <b>12 weeks</b> to consider change of treatment, a repeat course (patient concordance). If no improvement or diagnostic uncertainty, consider referral to Dermatology for a biopsy.</p>

 <p><b>Patient info</b></p>	<p><b>Actinic (solar) keratosis patient information leaflet :</b></p> <ul style="list-style-type: none"> <li>• <a href="http://www.bad.org.uk/shared/get-file.ashx?id=66&amp;itemtype=document">http://www.bad.org.uk/shared/get-file.ashx?id=66&amp;itemtype=document</a></li> </ul> <p><b>Actinic keratosis: Who gets and causes</b></p> <ul style="list-style-type: none"> <li>• <a href="https://www.aad.org/public/diseases/skin-cancer/actinic-keratosis-causes">https://www.aad.org/public/diseases/skin-cancer/actinic-keratosis-causes</a></li> </ul> <p><b>Five facts you should know about precancerous skin growths</b></p> <ul style="list-style-type: none"> <li>• <a href="https://www.aad.org/public/diseases/skin-cancer/actinic-keratosis-symptoms">https://www.aad.org/public/diseases/skin-cancer/actinic-keratosis-symptoms</a></li> </ul> <p><b>Self-care - seven highly effective habits for people who have had actinic keratosis</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Sun protection leaflet</a></li> <li>• <a href="https://www.aad.org/public/diseases/skin-cancer/actinic-keratosis-self-care">https://www.aad.org/public/diseases/skin-cancer/actinic-keratosis-self-care</a></li> </ul> <p><b>Skin Cancer prevention:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Skin Cancer leaflet</a></li> <li>• <a href="https://www.aad.org/public/diseases/skin-cancer/prevent">https://www.aad.org/public/diseases/skin-cancer/prevent</a></li> </ul>
 <p><b>Referral criteria</b></p>	<p><b>Any features of malignancy as above</b></p> <p><b>Diagnostic uncertainty-</b> not responding to treatment as per management flow chart</p>
<p><b>Clinic information</b></p>	<p>If a referral is required, book against the following on the Choose and Book system:  <b>Specialty : Dermatology</b>  <b>Clinic Type: Not otherwise specified</b></p> <p><b>If there is concern regarding skin cancer then refer via the 2 Week Wait pathway</b></p>
<p><b>Additional Information</b></p>	<p><a href="http://www.bad.org.uk/healthcare-professionals/clinical-standards/clinical-guidelines">http://www.bad.org.uk/healthcare-professionals/clinical-standards/clinical-guidelines</a></p> <p><a href="http://www.pcds.org.uk/clinical-guidance/actinic-keratosis-syn.-solar-keratosis#management">http://www.pcds.org.uk/clinical-guidance/actinic-keratosis-syn.-solar-keratosis#management</a></p>

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## Actinic (Solar) Keratosis

- <https://onlinelibrary.wiley.com/doi/epdf/10.1111/bjd.15107>
- <http://www.bad.org.uk/healthcare-professionals/clinical-standards/clinical-guidelines>

If malignancy suspected, refer to Dermatology through 2 Week Wait referral;

If diagnostic uncertainty and without malignant suspicion, refer routinely

YES

### Any features of malignancy?

- Remove surface scale if needed and examine base
- Indurated / tender base
  - If any diagnostic uncertainty
  - Lesion with rapid onset, indurated inflamed base, immunosuppressed patient or >1cm

NO

### General conservative management

- [Sun protection and emollients](#) - progression of very early AK lesions and AK recurrence may be reduced by daily use of an appropriate sunscreen (SPF 30 and above)
- [Education](#)
- [Patient information leaflets](#)
- [Self-examination - skin cancer risk and danger signs](#)

### Active management

#### Single or several discrete lesions / Multiple lesions +/- field change

- For mild thin single / multiple lesions - **Diclofenac 3% gel (Solaraze®)** for 60-90 days, use pea-size of the gel on a 5 cm x 5 cm lesion site
- For non-hyperkeratotic or multiple lesions, field change or where failed treatment with Solaraze® - **5% 5-fluorouracil cream (Efudix®)**. Should not exceed 23cm x 23 cm (Apply once or twice daily for 3 to 4 weeks, depending on site). See [patient information sheet](#) for Efudix®.
- For 1-10 moderate hyperkeratotic individual lesions - **0.5% 5-FU / 10% salicylic acid cutaneous solution (Actikerall®)**. Should not exceed 25 cm<sup>2</sup> (may include the lesion(s) and a small area of surrounding skin (rim of healthy skin should not exceed 0.5 cm). Multiple AKs (up to ten single lesions at the same time) and surrounding skin can be treated simultaneously. Apply once daily to the affected area until the lesions have completely cleared or for 6-12 weeks, apply with brush applicator & peel off existing coating before reapplication. If severe side effects occur, reduce the frequency of drug application to three times per week until the side effects improve. If areas of skin with a thin epidermis are treated, the solution should be applied less frequently and the course of the therapy monitored more often. The most common side effects are local inflammation and pruritus at the application site, and no serious adverse effects have been reported to date. See [patient information sheet for Actikerall®](#).
- Cryotherapy- can be used for isolated lesions

Review at 12 weeks post treatment  
 and if not clear consider referral to Dermatology

Advise patients who have been treated to continue to be vigilant for new skin lesions within the treatment area and to seek medical advice immediately should any occur.

Medicines recommended in the AK pathway are classified as **'GREEN'**

## Sun protection- Some simple guidelines

1. Avoid going out into the sun between the hours of 11.00am and 3.00pm. This is when the sun is at its strongest. Plan outdoor activities earlier or later in the day.
2. Protect your skin with clothing, including a brimmed hat, T-shirt and sunglasses when out in the sun. Tightly woven materials such as cotton offer greater protection. Balding men should always wear a hat when outdoors.
3. Sit in the shade but remember that sand, snow, concrete and water can reflect sun into shaded areas so you can still get burnt.
4. Apply sun cream at least 30 minutes before going out in the sun and reapply every 2 hours as long as you are outdoors. Reapply after swimming or any other vigorous activity, sweating, towel drying or if you think it has rubbed off.  
Use a sun cream which has a sun protection factor (SPF) of 30 or higher, and apply liberally and evenly - more is better in terms of sun protection. Do not forget areas such as the sides and back of the neck, the temples and the ears.  
Do not rely on sun cream alone. While it does offer protection, physical barriers such as clothes and shade are just as important.
5. Sun creams also have a star rating on the packaging. This indicates the level of protection from UVA which causes skin ageing as well as skin cancer. Choose a sun cream which has a high SPF and a high star rating. The brand does not matter as long as you apply it correctly.
6. Use a sun cream for activities at high altitude such as climbing and skiing, as the risk of burning is greater the higher up you go. The sun can also be stronger in hot countries.
7. You should wear sun cream everyday if you: have fair skin that easily burns, work outdoors, have lots of moles, or have had a skin cancer.
8. Don't forget to use sun cream on cool and cloudy days as the sunlight is only scattered by clouds and still reaches the earth's surface. Also, clouds can clear quickly to leave you exposed to strong sunlight. In this country, sun cream should be applied daily from as early as March, through to October.
9. If you develop an allergic reaction (rash) to your sun cream, stop using it and talk to your pharmacist about changing to a different type. If the problem persists, see your GP.
10. Certain drugs or medicines can cause you to be more sensitive to the sun or can cause rashes when you go in the sun. Some perfumes and cosmetics can also do this. Check with your pharmacist or doctor about your medicines as you may need to be extra careful in the sun.
11. Sunbeds can cause sunburn, ageing changes in the skin and can significantly increase your risk of skin cancer. Using a sunbed before you go on holiday does not provide your skin with any extra protection from the sun. *There is no such thing as a 'safe sunbed'.*
12. Sunbathing is not recommended. A tan is a sign of damage to your skin.
13. Keep babies and young children out of the sun. Keep them covered using clothes, shade and sun cream to protect them. Teach children simple guidelines about sun protection whilst they are young. Sun damage occurs with each unprotected sun exposure and accumulates over the course of a lifetime.
14. Sunlight helps the skin to produce vitamin D which is important for healthy bones and can prevent other health issues. Small amounts of incidental sunlight, as you might get through daily activities, may help to boost vitamin D levels. However, protecting your skin in the sun from burning should be a priority. Public Health England recommends a daily intake of 10 micrograms daily, since it is difficult to get this from your diet and as it is recommended that people with AK protect their skin from the sun, you may want to consider taking a daily supplement containing 10 micrograms of vitamin D all year round. These are readily available from pharmacies, health food shops and supermarkets. See [NHS advice for more information](#).

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## Skin Cancer What to look out for!

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 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.

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