

Patient Information Leaflet: Actinic Keratoses (AKs) and Management Options

What are Actinic Keratoses?

Actinic keratoses (AKs) are rough, scaly patches of skin that develop due to prolonged sun exposure. They are considered pre-cancerous lesions, meaning they have the potential to develop into skin cancer (squamous cell carcinoma) if left untreated. AKs are most commonly found on areas of the skin that have been frequently exposed to the sun, including the face, ears, scalp, neck, and backs of the hands.

Signs and Symptoms:

- Rough, dry, or scaly patches of skin
- Colour may vary from skin-coloured to red or brown
- Itching, tenderness, or discomfort may occur
- Size can range from a few millimetres to over a centimetre

Who is at Risk?

Risk factors for developing actinic keratoses include:

- Fair skin that burns easily
- History of excessive sun exposure or tanning bed use
- Older age (over 40 years)
- Weakened immune system
- Previous skin cancers or AKs

Diagnosis:

A dermatologist can typically diagnose actinic keratoses through a physical examination of your skin. In some cases, a biopsy may be performed to confirm the diagnosis and rule out any potential skin cancers.

What is the risk of them changing into anything nasty?

The risk of an individual lesion changing into a skin cancer is very small and roughly between 1 in 1000 to 1 in 3000. Some people do have lots of AKs and therefore the risks do increase. A lesion that has a thickened base, is enlarging or is painful is suspicious of malignant change.

Do they need to be treated?

Very minor AKs do not necessarily need treatment. Simple moisturisers and suncream can sometime lead to partial improvement. As lesions progress, treatment is recommended with the aim of decreasing the potential for them to change into a skin cancer.

Management Options for Actinic Keratoses:

1. Topical Treatments:

- **5-Fluorouracil (5-FU) Cream:** A chemotherapy cream that targets abnormal skin cells, commonly applied directly to AKs. Treatment often involves applying the cream once daily for at least 4 weeks.
- **Imiquimod (Aldara) Cream:** An immune response modifier that stimulates the body's immune system to attack abnormal cells. Typically applied Monday to Friday for four weeks.
- **Diclofenac Gel:** An anti-inflammatory medication that helps reduce lesions over time through topical application. Requires twice daily application for 3 months.

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- **Tirbanibulin cream:** A cream that kills proliferating sun damaged cells. Treatment involves daily application for 5 days only.
- 2. **Cryotherapy:**
 - This method involves applying liquid nitrogen to freeze the AKs. The treated area may blister and eventually peel away, leading to the removal of the abnormal skin cells. This is a quick and effective outpatient procedure.
- 3. **Photodynamic Therapy (PDT):**
 - Involves applying a photosensitizing agent to the skin, which is then activated by a specific wavelength of light. This treatment selectively targets and destroys abnormal cells while leaving surrounding healthy skin intact.
- 4. **Laser Therapy:**
 - Laser treatments can help vaporise AKs and improve the appearance of affected skin. Several types of lasers may be used depending on the specific case.
- 5. **Surgical Options:**
 - In some instances, cryotherapy or laser therapy might not be suitable, and the AKs may be surgically curetted or excised. This is most often reserved for larger or more persistent lesions or lesions suspicious of cancer change.
- 6. **Combination Therapy:**
 - Often, a combination of treatments may yield the best outcome. Your consultant will recommend the most appropriate approach based on the number and severity of your AKs.

What is the best treatment for thickened lesions?

The cream based treatments work best for the flatter lesions. One can pre-treat the skin with Urea based emollients to soften the outer layer and this may improve treatment success for moderately thick lesions. Urea is available in various creams from 5% to 25%. One can start with the lower strengths eg Balneum cream (5%), or Eucerin or Calmurid (both 10%) and progress to high strengths, as needed, eg Flexitol (10-25%). You can also use Salicylic acid based creams like Cerave SA Smoothing cream to further help prepare the skin for active treatment. Pre-treatment takes a couple of weeks to soften the AKs and active treatment with the prescribed cream should be deferred until this has been done.

Very thickened lesions are best treated with a form of destructive treatment that kills or removes the top layer of the skin. These include cryotherapy and curettage.

Prevention:

- **Sun Protection:** Protect your skin from sun exposure by wearing protective clothing, wide-brimmed hats, and using broad-spectrum sunscreen with an SPF of at least 30 but preferably 50 or higher.
- **Avoid Tanning Beds:** Stay away from artificial sources of UV light.
- **Regular Skin Checks:** Perform self-examinations of your skin regularly and schedule annual dermatological assessments, especially if you have a history of skin lesions.

When to Seek Medical Advice:

- If you notice any changes in your skin, such as new spots, changes in existing spots, or any concerns regarding your skin's appearance, consult a dermatologist.

Conclusion:

Actinic keratoses are a common skin condition resulting from sun damage, but with appropriate management and preventive measures, they can be effectively treated, reducing the risk of skin cancer.

