ACTINIC (SOLAR) KERATOSIS PRIMARY CARE TREATMENT PATHWAY

Adapted from the Primary Care Dermatology Society Treatment Pathway)

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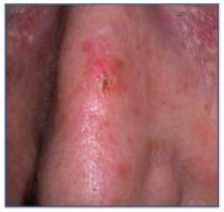
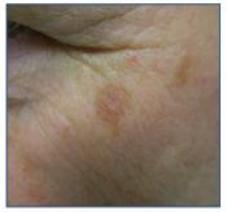
NHS Nottinghamshire Area Prescribing Committee

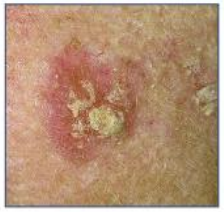
WHAT ARE ACTINIC KERATOSES (AKS)?

Actinic keratoses are areas of squamous dysplasia on chronic sun-exposed skin. This can cause redness, scaling and keratosis. The lesions fluctuate, and spontaneous resolution may occur. They carry a low risk of progression to squamous cell carcinoma (SCC) of less than 1 in 1000 per annum. Actinic keratoses are a marker for the risk of non-melanoma skin cancer. In patients with an average of 7.7 AKs, 10% will develop squamous cell carcinoma in 10 years.

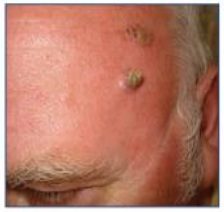
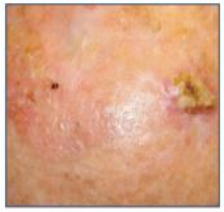
WHAT DO ACTINIC KERATOSES LOOK LIKE?

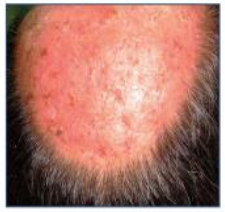
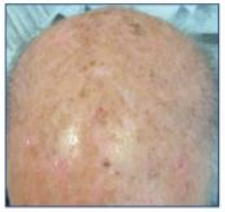
Grade I: Flat, pink macules without signs of hyperkeratosis and erythema often easier felt than seen. Scale and possible pigmentation may be present.

Grade II: Moderately thick hyperkeratosis on the background of erythema that is easily felt and seen.

Grade III: Very thick hyperkeratosis, or obvious AK; the differential diagnosis includes thick IEC (intra-epidermal carcinoma) or early SCC.

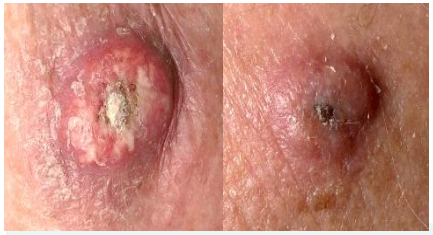



Field damage: Large areas of multiple AKs on a background of erythema and sun damage.

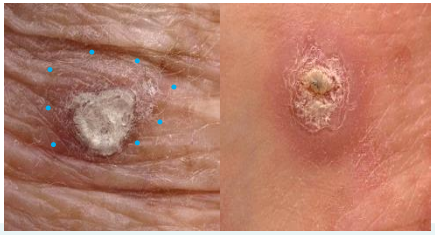
WHY SHOULD WE TREAT THEM ?

- Patients may prefer to get rid of the lesions
- The lesions may become inflamed and sore, spontaneously or with ultraviolet exposure (can be treated with a mild topical steroid and sunblock)
- AKs may be traumatised by simple daily activities such as clothing, tights or combing of the hair
- If numerous lesions are present, treatment can resolve the benign lesions and make neoplastic lesions easier to identify
- Treatment of early lesions may prevent malignant transformation
- Treatment may not be required if the patient declines therapy

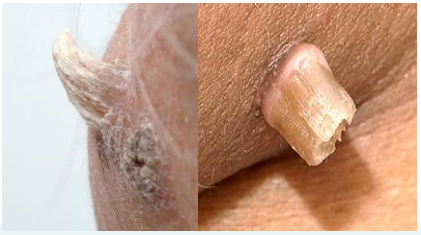
WHEN TO WORRY ABOUT MALIGNANT TRANSFORMATION ?



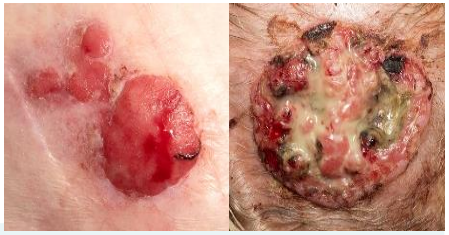
Nodular change



Induration – assessed by palpation



hyperkeratosis



Ulceration /squamous proliferation

- very tender actinic keratoses, which do not settle with topical steroids, should be suspected of micro-invasion

- FOR SUSPICIOUS LESIONS, REFER TO SECONDARY CARE ON THE 2-WEEK WAIT SKIN CANCER PATHWAY

- IF YOU ARE UNCERTAIN, CONSIDER THE NOTTINGHAM TELEDERM SERVICE ON THE ERS (SEND IN IMAGES OR USE IMAGE CLINIC)

- if you think it is benign but want a review face to face, refer it routinely to secondary care, or send it to the Mid Nottinghamshire Community Dermatology service (Mansfield and Ashfield, Newark and Sherwood) or the Rushcliffe Community Dermatology service (Rushcliffe).

GENERAL ADVICE ABOUT TREATING ACTINIC KERATOSES

- All patients should use regular emollients and sunblock
- All active treatments cause a significant reactive dermatitis, which takes 4-6 weeks to settle
- Treatment is not urgent. Patients should use treatment in a socially convenient timeframe (consider autumn /winter)
- All patients should be counselled about the expected reaction, so they are not alarmed
- If any of the treatments cause a severe intolerable reaction, the treatment should be stopped, and the reaction will start to settle
- A topical steroid can be used to hasten the resolution of the reactive dermatitis
- If complicated by secondary infection, topical or oral antibiotics may be required

- When lesions are limited, only individual lesions need treatment
- When there are multiple lesions or field change, field treatment should be considered (cream is applied to the entire area of affected skin)
- During field treatment, clinical and sub-clinical actinic keratoses will react
- Successful field treatment can give patients a long recurrence-free period
- No treatment is curative, and recurrence of the lesions can occur
- Treatment success depends on the response to treatment and the extent of the condition
- Treatment is successful if the skin is normal to touch with your eyes closed (background erythema and pigment may remain)
- Extensive disease may need more than one treatment for clearance

- **TREATMENT RESPONSE SHOULD BE ASSESSED AT 6 WEEKS AFTER COMPLETION OF TREATMENT**

- If the response to treatment is limited, reassess if the diagnosis is correct or if there is any sign of malignant transformation, seek advice
- Secondary care options for actinic keratoses include cryotherapy, photodynamic therapy and 5% imiquimod (Aldara®).

TREATMENT OPTIONS FOR ACTINIC KERATOSIS

AK PIL: Actinic (solar) keratosis (pcds.org.uk)
British Association of Dermatologists (bad.org.uk)

Treatment	Area treatment	Treatment schedule	Notes	Patient information leaflets
Emollients	- no limit	- Apply whenever the skin is dry	- helps resolve keratosis /dryness - use after active treatments below	
Sunblock	- no limit	- During any sun exposure	- prevents UV induced inflammation - prevents further photodamage	Sunscreen-Fact-Sheet.pdf (skinhealthinfo.org.uk) NHS Sunscreen and sun safety (www.nhs.uk)
Efudix® (5-fluorouracil cream 5%)	- up to 500 cm² - 22 x 23 cm	- Twice a day for 4 weeks	- clearance rates of 80% (best) - large 40g tube - can be reduced to once daily - not to be used if pregnant or breastfeeding - effective contraception must be used during and after treatment	Actinic Keratosis Efudix (download) 5-Fluorouracil Cream (wpengine.com)
Klysiri® (Tirbinabulin cream)	- Up to 25 cm² - 5 x 5 cm	- Once a day for 5 days	- 5 sachet box - reaction takes 3 weeks to settle	Information about your AK treatment
Actikerall® (0.5% 5 fluorouracil and 10% salicylic acid)	- up to 25 cm² - 5 x 5 cm	- Once a day for 6-12 weeks	- bottle with a brush applicator - good for thick keratotic lesions	Actikerall PIL.pdf (sfh-tr.nhs.uk)
Zyclara® (3% imiquimod cream)	- up to 25 cm² - 5 x 5 cm	- 6-week period (daily for 2 weeks, 2-week break, daily for 2 weeks)	- 28 sachet box - flu-like symptoms may occur	EN Zycla PI (medicines.org.uk)

FURTHER READING

V2.1 July 24 (Efudix pregnancy warning).
Next review: July 26

- **Primary Care Dermatology Society- Actinic Keratosis** https://www.pcds.org.uk/clinical-guidance/actinic-keratosis-syn-solar-keratosis
- **British Association of Dermatologists guidelines for the care of patients with actinic keratosis 2017** https://onlinelibrary.wiley.com/doi/10.1111/bjd.15107