

Practice Update

December 2025

Medical Management of Skin Cancers

Background

Skin cancer is the most common cancer in New Zealand with approximately 90,000 non-melanoma skin cancers diagnosed annually. Non-melanoma skin cancers include [Basal Cell Carcinoma](#) (BCC) and [Squamous Cell Carcinoma](#) (SCC).¹ [Actinic keratosis](#) (solar keratosis) is a precancerous lesion. It is considered an early form of cutaneous SCC.²

The [Hawke's Bay CPO Skin Cancer Pathway](#) outlines the decision matrix for triaging skin lesions into low or high risk. The pathway aims to ensure timely management of high-risk lesions (such as melanoma and BCC or SCC in high-risk areas on the body) while promoting appropriate medical management for low-risk lesions. Medical management for low-risk lesions reduces unnecessary surgery and can simplify surgery if required later. It is also helpful to clear field damage and defines resistant margins.

Medical management options for low-risk lesions

The Hawke's Bay CPO Skin Cancer Pathway medical management includes [imiquimod](#) 5% cream, [fluorouracil](#) cream (brand name *Efudix*) with [calcipotriol](#) 0.005% ointment (brand name *Daivonex*®) and [cryotherapy](#).

Topical immunotherapy; imiquimod and fluorouracil, both work by destroying cancerous cells in the skin, resulting in a local reaction including erythema and erosion, followed by re-epithelialisation of the skin. Imiquimod is licensed for use in superficial BCC or actinic keratosis. Fluorouracil cream is licensed for use in superficial malignant and pre-malignant skin lesions.³

Applying fluorouracil cream mixed in equal parts with calcipotriol ointment (note: calcipotriol is not approved for treating actinic keratosis) produces a synergistic effect.⁴ This combination shortens the treatment duration and usually results in a milder local skin reaction.³ Patient instructions for using this combination are available [here](#).

Cryotherapy, freezing with liquid nitrogen, can be used before or during topical immunotherapy, making it more effective. A study in BCC showed that the combination achieved a 95% clearance in tumours ≤2 cm in diameter.⁵

Comparison of medical management options^{3,6,7}

	Cryotherapy	Imiquimod	Fluorouracil and Calcipotriol
Actinic keratosis	Usual treatment of choice of isolated and hyperkeratotic.	Effective treatments for flat actinic keratoses. Imiquimod is more effective than fluorouracil and calcipotriol.	
Superficial BCC	Effective in treating small (< 2 cm) superficial BCC on the trunk and limbs.	Use for superficial BCC outside T-zone and ears; small nodular BCC below the neck.	Generally, not used.
SCC in situ	Effective option treatment for small lesions with well-defined borders.	Generally, not used.	Use for SCC in situ.
Advantages	Better tolerated than topical treatments.	Can be applied to discrete lesions or applied to a wider affected area (field treatment).	
Disadvantages	Only visible lesions are targeted.	Results in inflammation, erosion and pain.	
Regimen	Hyperkeratotic actinic keratoses: 2 × 10 sec freeze–thaw cycles Small nodular BCCs or well-differentiated SCCs below neck: 2 × 30 sec cycles	Apply daily, 5 days a week for 6 weeks (up to 12 weeks for nodular BCC).	Face: Twice daily for 4 days Elsewhere: Twice daily for 10 days.
		Cover arms or legs with plastic wrap or hands with gloves for a few hours following application for better results.	

Escalation to surgery

If lesions do not respond to medical management or show signs of progression, consider self-funded excision or referral via the Hawke's Bay CPO Skin Cancer Pathway. Allow 6–12 weeks post-treatment for healing and reassessment before deciding on surgery. Areas lower on the body may take longer to get inflamed, and even longer to heal.

Preventative care

Regular preventative skin management becomes the norm for patients with actinic damage and prior BCC or SCC. Encourage sun protection measures such as broad-brimmed hats, long sleeves, sunglasses, and daily SPF 50+ sunscreen, reapplied before sun exposure.^{7,8}

[Nicotinamide](#) has been increasingly studied for different indications in the field of dermatology. Local dermatologists recommend oral nicotinamide 500 mg twice daily (except in women with prior triple-negative breast cancer) as preventative treatment.⁷ Nicotinamide is not funded and can be purchased from pharmacies or online.

Regular field treatment with fluorouracil cream and calcipotriol ointment can be considered annually.⁷

Patient resources

- [Sun smart resources](#)
- [Efudix Daivonex patient information leaflet](#)

Further reading

- **Bpacnz:** [How to use fluorouracil and imiquimod as treatments for non melanoma skin cancer in a general practice setting](#)
- **Community HealthPathways:** [Skin lesions](#)

References:

1. Facts and figures [Internet]. SunSmart. 2021 [cited 2025 Dec 3]. Available from: <https://www.sunsmart.org.nz/skin-cancer/facts-and-figures/>
2. Actinic keratoses (Solar keratosis): Diagnosis and Treatment — DermNet [Internet]. DermNet®. 2023 [cited 2025 Dec 17]. Available from: <https://dermnetnz.org/topics/actinic-keratosis>
3. Photodamage - New Zealand Formulary [Internet]. [cited 2025 Dec 9]. Available from: https://nzf.org.nz/nzf_6479
4. Cunningham TJ, Tabacchi M, Eliane JP, Tuchayi SM, Manivasagam S, Mirzaalian H, et al. Randomized trial of calcipotriol combined with 5-fluorouracil for skin cancer precursor immunotherapy. J Clin Invest. 2017 Jan 3;127(1):106–16.
5. Gaitanis G, Bassukas ID. Immunocryosurgery for Nonmelanoma Skin Cancer: Applications and Practical Tips. In: Pasquali P, editor. Cryosurgery: A Practical Manual [Internet]. Cham: Springer Nature Switzerland; 2025 [cited 2025 Dec 9]. p. 287–303. Available from: https://doi.org/10.1007/978-3-031-88264-7_21
6. Dr. Oakley A. How to use fluorouracil and imiquimod for non-melanoma skin cancer in a general practice setting [Internet]. bpacnz; 2017 [cited 2024 Dec 17]. Available from: <https://bpac.org.nz/2017/skin-cancer.aspx>
7. CPO Skin Cancer Pathway [Internet]. Health Hawke's Bay; 2025 [cited 2023 Dec 17]. Available from: <https://healthhb.co.nz/wp-content/uploads/2025/12/Skin-Cancer-Matrix-and-Pathway-December-2025.pdf>
8. Skin cancer [Internet]. DermNet®. 2023 [cited 2025 Dec 17]. Available from: <https://dermnetnz.org/topics/skin-cancer>

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