DermNet NZ

The Royal Australasian College of Physicians

TOP 5 Low-value practices and interventions

The **New Zealand Dermatological Society** (NZDS) has reviewed the evidence and consulted with its expert members to develop the following recommendations to support best patient care and reduce the use of unnecessary or ineffective practices within a given clinical context.

1. **Don't prescribe oral antifungal therapy for suspected nail fungus without confirmation of fungal infection**

2. **Don't perform sentinel lymph node biopsy or other diagnostic tests for the evaluation of early, thin melanoma because they do not improve survival**

3. **Don't treat uncomplicated, non-melanoma skin cancer less than 1 centimetre in size on the trunk and extremities with Mohs micrographic surgery**

4. **Don't use oral antibiotics for the treatment of atopic dermatitis unless there is clinical evidence of infection**

5. **Don't routinely use topical antibiotics on a surgical wound**

EVOLVE is a physician-led initiative to ensure the highest quality patient care through the identification and reduction of low-value practices and interventions.

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EVOLVE is part of a worldwide movement to analyse medical practices and reduce unnecessary interventions. It is an initiative in partnership between the RACP and the Specialty Societies, Divisions, Faculties and Chapters.

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1 Don't prescribe oral antifungal therapy for suspected nail fungus without confirmation of fungal infection

About half of nails with suspected fungus do not have a fungal infection. Because other nail conditions, such as nail dystrophies, may look similar in appearance, it is important to ensure accurate diagnosis of nail disease before beginning treatment.

By confirming a fungal infection, patients are not inappropriately at risk for the side-effects of antifungal therapy, and nail disease is correctly treated.

2 Don't perform sentinel lymph node biopsy or other diagnostic tests for the evaluation of early, thin melanoma because they do not improve survival

Patients with early, thin melanoma, such as melanoma in situ, T1a melanoma, or T1b melanoma ≤ 0.5mm, have a very low risk of the cancer spreading to the lymph nodes or other parts of the body. Further, patients with early, thin melanoma have a 97 per cent five-year survival rate, which also indicates a low risk of the cancer spreading to other parts of the body. As such, the performance of sentinel lymph node biopsy is unnecessary.

Additionally, baseline blood tests and radiographic studies (e.g. chest radiographs, CT scans, and PET scans) are not the most accurate tests for the detection of cancer that is spreading because they have high false-positive rates. These tests have only shown benefit when performed as indicated for suspicious signs and symptoms based on the patient's history and physical exam.

3 Don't treat uncomplicated, non-melanoma skin cancer less than 1 centimetre in size on the trunk and extremities with Mohs micrographic surgery

In healthy individuals, the use of Mohs micrographic surgery for low-risk, small (< 1cm), superficial or non-aggressive (based on appearance under a microscope) squamous cell carcinomas and basal cell carcinomas is inappropriate for skin cancers on the trunk and extremities.

In these areas of the body, the clinical benefits of this specialized surgical procedure do not exceed the potential risks. It is important to note that Mohs micrographic surgery may be considered for skin cancers that appear on the hands, feet, ankles, shins, nipples, or genitals because they have been shown to have a higher risk for recurrence or require additional surgical considerations.

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4 Don't use oral antibiotics for the treatment of atopic dermatitis unless there is clinical evidence of infection

The presence of high numbers of the staphylococcus aureus bacteria on the skin of children and adults with atopic dermatitis is common. It is widely believed that staph bacteria may play a role in causing skin inflammation, but the routine use of oral antibiotic therapy to decrease the amount of bacteria on the skin has not been definitively shown to reduce the signs, symptoms (e.g. redness, itch), or severity of atopic dermatitis. In addition, if oral antibiotics are used when there is not an infection, it may lead to the development of antibiotic resistance.

The use of oral antibiotics can also cause side effects, including hypersensitivity reactions, or exaggerated immune responses such as allergic reactions. Although it can be difficult to determine the presence of a skin infection in atopic dermatitis patients, oral antibiotics should only be used to treat patients with evidence of bacterial infection in conjunction with other standard and appropriate treatments for atopic dermatitis.

5 Don't routinely use topical antibiotics on a surgical wound

The use of topical antibiotics on clean surgical wounds has not been shown to reduce the rate of infection compared to the use of non-antibiotic ointment or no ointment. Topical antibiotics can aggravate open wounds, hindering the normal wound-healing process.

When topical antibiotics are used in this setting, there is a significant risk of developing contact dermatitis, a condition in which the skin becomes red, sore, or inflamed after direct contact with a substance, along with the potential for developing antibiotic resistance. Only wounds that show symptoms of infection should receive appropriate antibiotic treatment.

How this list was developed….

The New Zealand Dermatological Society (NZDS) is a not-for-profit incorporated society of more than 60 dermatologists, medical and surgical specialists in diagnosis and treatment of diseases of the skin. NZDS is a small society and members convened to review possible candidates for low value clinical practices. Consequently it was agreed that the interventions previously highlighted by the American Academy of Dermatology fully captured the concerns and priorities of members and their resulting items were endorsed by the Society members. The final Top 5 list was endorsed by the NZDS Executive on December 17, 2015.

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New Zealand Dermatological Society – Top 5 recommendations

EVIDENCE SUPPORTING RECOMMENDATION 1

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Mehregan DR, Gee SL. The cost effectiveness of testing for onychomycosis versus empiric treatment of onychodystrophies with oral antifungal agents. *Cutis* 1999; 64(6): 407–10.

EVIDENCE SUPPORTING RECOMMENDATION 2

Bichakjian CK, Halpern AC, Johnson TM, Foote Hood A, Grichnik JM, Swetter SM, Tsao H, VH, Chuang TY, Duvic M, Ho VC, Sober AJ, Beutner KR, Bhushan R, Smith Begolka W. American Academy of Dermatology: Guidelines of care for the management of primary cutaneous melanoma. *Journal of the American Academy of Dermatology* 2011; 65(5): 1032–47.

American Joint Committee on Cancer. AJCC cancer staging manual. 7th ed. New York: Springer, 2010.

National Comprehensive Cancer Network. National Comprehensive Cancer Network clinical practice guidelines in oncology (NCCN Guidelines®): melanoma. Revised 2012. Fort Washington (PA): NCCN, 2012.

EVIDENCE SUPPORTING RECOMMENDATION 3

Connolly SM, Baker DR, Coldiron BM, Fazio MJ, Storrs PA, Vidimos AT, Zalla MJ, Brewer JD, Smith Begolka W; Ratings Panel, Berger TG, Bigby M, Bolognia JL, Brodland DG, Collins S, Cronin TA Jr, Dahl MV, Grant-Kels JM, Hanke CW, Hruza GJ, James WD, Lober CW, McBurney EI, Norton SA, Roenigk RK, Wheeland RG, Wisco OJ. 2012 Appropriate use criteria for Mohs micrographic surgery: a report of the American Academy of Dermatology, American College of Mohs Surgery, American Society for Dermatologic Surgery Association, and the American Society for Mohs Surgery. *Journal of the American Academy of Dermatology* 2012; 67(4): 531–50.

National Comprehensive Cancer Network. National Comprehensive Cancer Network clinical practice guidelines in oncology (NCCN Guidelines®): Basal cell and squamous cell skin cancers. Revised 2011 February. Fort Washington (PA): NCCN, 2011.

EVIDENCE SUPPORTING RECOMMENDATION 4

Bath-Hextall JF, Birnie AJ, Ravenscroft JC, Williams JC. Interventions to reduce Staphylococcus aureus in the management of atopic eczema: an updated Cochrane review. *British Journal of Dermatology* 2010; 163: 12–26.

EVIDENCE SUPPORTING RECOMMENDATION 5

Dixon AJ, Dixon MP, Dixon JB. Randomized clinical trial of the effect of applying ointment to surgical wounds before occlusive dressing. *British Journal of Surgery* 2006; 93(8): 937–43.

Smack DP, Harrington AC, Dunn C, Howard RS, Szkutnik AJ, Krivda SJ, Caldwell JB, James WD. Infection and allergy incidence in ambulatory surgery patients using white petrolatum vs bacitracin ointment. A randomized controlled trial. *Journal of the American Medical Association* 1996; 276(12): 972–7.

Campbell RM, Perlis CS, Fisher E, Gloster HM Jr. Gentamicin ointment versus petrolatum for management of auricular wounds. *Dermatologic Surgery* 2005; 31(6): 664–9.

Sheth VM, Weitzul S. Postoperative topical antimicrobial use. *Dermatitis* 2008; J19(4): 181–9.

Gehrig KA, Warshaw EM. Allergic contact dermatitis to topical antibiotics: epidemiology, responsible allergens, and management. *Journal of the American Academy of Dermatology* 2008; 58(1): 1–21.

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