

Top Dermatology and Wound Care Articles

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Faculty Disclosure

- I have nothing to disclose.*

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Learning Objectives

By the end of this session, participants will be able to:

- Summarize key findings from recent high-impact dermatology and wound care studies and explain how these results inform diagnosis, prevention, and management in family medicine.
- Evaluate the clinical relevance and strength of evidence behind new and emerging therapies — including pharmacologic, procedural, and non-pharmacologic interventions — for common dermatologic and wound conditions.
- Apply evidence-based updates to patient care by incorporating practical, cost-conscious recommendations for management of conditions such as scabies, atopic dermatitis, alopecia areata, hyperhidrosis, venous ulcers, diabetic foot ulcers, and postoperative wounds.

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Dermatology

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Comparison of topical permethrin 5% vs. benzyl benzoate 25% treatment in scabies: a double-blinded randomized controlled trial

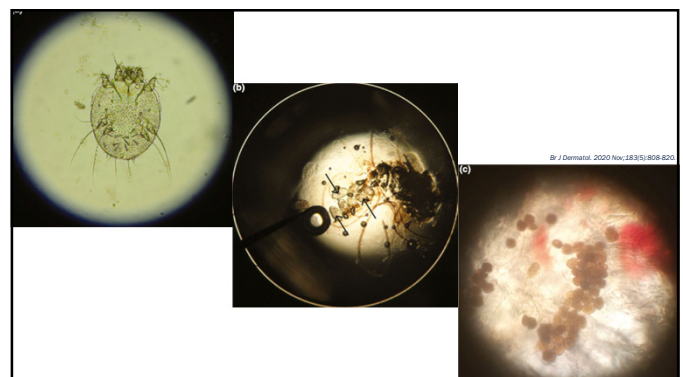
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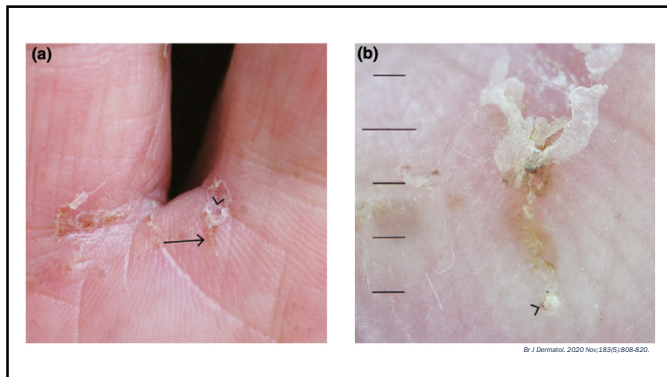
Linked Article: Sunderkotter et al. *Br J Dermatol* 2024; **190**:459–460.

Abstract
Background Scabies is a pruritic parasitic infestation of the skin. High-income countries have reported an increasing incidence over the last few years. Studies have indicated a reduction in the sensitivity of scabies mites to the standard treatment of choice, topical permethrin 5%.
Objectives To evaluate in a head-to-head manner the efficacy of two topical scabicides [permethrin 5% and benzyl benzoate 25% (BB)] in the treatment of scabies using the same administration modality, and to address potential confounding factors such as incorrectly performed treatment and hygiene measures.
Methods In total, 110 patients with dermatology-verified scabies infestation were enrolled and randomized into two equally sized groups in a double-blinded manner. Fifty-five received topical permethrin 5%, and 55 received topical BB 25%, both for daily use over a period of three consecutive days. Treatment outcome was evaluated by dermatoscopy at a 3-week follow-up visit.
Results Treatment resulted in a dermatoscopy-verified cure rate of 27% in the permethrin group and 87% in the BB group. The tolerability and safety profile of permethrin 5% cream was excellent, while the BB emulsion produced a burning sensation in 43% of patients.
Conclusions Topical permethrin demonstrated a lack of efficacy in the majority of scabies cases, whereas BB demonstrated an excellent cure rate and reasonable tolerability. Considering the reduced sensitivity of scabies mites to permethrin 5%, our results suggest that BB is an appropriate first-line therapy in the treatment of scabies.

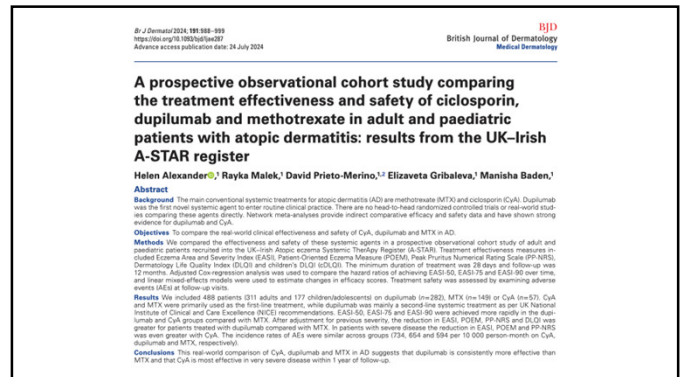
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Assessing Eczema Severity

| Scoring System | Mild | Moderate | Severe |
|---|------|----------|--------|
| Eczema Area and Severity Index (EASI) | 0-7 | 8-21 | 22-72 |
| Patient-Oriented Eczema Measure (POEM) | 0-7 | 8-16 | 17-28 |
| Peak Pruritus Numerical Rating Scale (PP-NRS) | 0-3 | 4-6 | 7-10 |
| Dermatology Life Quality Index (DLQI) | 0-5 | 6-10 | 11-30 |
| Children's Dermatology Life Quality Index (cDLQI) | 0-5 | 6-10 | 11-30 |

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Oral Minoxidil vs Topical Minoxidil for Male Androgenetic Alopecia: A Randomized Clinical Trial

Marlene Alvarez-Pereira, MD, MSc, Hilda Anuaré-Muñoz, MD, PhD, Michel Kappas, PhD, Pablo Miller-Ramos, MD, PhD

IMPORTANCE: There has been increased interest in low-dose oral minoxidil for androgenetic alopecia (AGA) treatment. However, the efficacy of oral minoxidil for male AGA is yet to be evaluated in comparative therapeutic trials.

OBJECTIVE: To compare the efficacy, safety, and tolerability of daily oral minoxidil, 5 mg, vs twice-daily topical minoxidil, 5%, for 24 weeks in the treatment of male AGA.

DESIGN, SETTING, AND PARTICIPANTS: This double-blind, placebo-controlled randomized clinical trial was conducted at a single specialized clinic in Brazil. Eligible men with AGA aged 18 to 55 years classified using the Norwood-Hamilton scale as 3V, 4V, or 5V were included and randomized. Data were collected from January to December 2021, and data were analyzed from September 2022 to February 2023.

INTERVENTIONS: Participants were randomized 1:1 into 2 groups: oral minoxidil, 5 mg, daily and topical placebo solution, or 1 mL of topical minoxidil, 5%, twice daily and oral placebo for 24 weeks.

MAIN RESULTS AND MEASURES: The primary outcome was change in terminal hair density on the frontal and vertex regions of the scalp. The secondary outcomes were change in total hair density and photographic evaluation.

RESULTS: Among 90 enrolled participants, 68 completed the study of these, the mean (SD) age was 36.4 (7.0) years. A total of 33 participants were enrolled in the oral minoxidil group and 35 in the topical treatment group. Both groups were homogeneous in terms of demographic data and AGA severity. For the frontal area, the mean change from baseline to week 24 between groups was 11 hairs per cm² (95% CI, -18.2 to 39.5, *P* = .27) for terminal hair density and 2.6 hairs per cm² (95% CI, -10.3 to 15.6, *P* = .32) for total hair density. For the vertex area, the mean change from baseline to week 24 was 21.4 hairs per cm² (95% CI, -0.3 to 43.0, *P* = .09) for terminal density and 5.5 hairs per cm² (95% CI, -12.5 to 23.5, *P* = .32) for total hair density. According to the photographic analysis, oral minoxidil was superior to topical minoxidil on the vertex (24%, 95% CI, 0 to 48, *P* = .04) but not on the frontal scalp (22%, 95% CI, -12 to 56, *P* = .26). The most common adverse effects in the oral minoxidil group were hypertrichosis (22 of 45 [49%]) and headache (6 of 45 [14%]).

CONCLUSIONS AND RELEVANCE: In this study, oral minoxidil, 5 mg, once per day for 24 weeks did not demonstrate superiority over topical minoxidil, 5%, twice per day in men with AGA.

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Efficacy and safety of deuruxolitinib, an oral selective Janus kinase inhibitor, in adults with alopecia areata: Results from the Phase 3 randomized, controlled trial (THRIVE-AA1)

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Background: Alopecia areata (AA) is a hair loss disorder that can seriously impact quality of life. Janus kinase (JAK) inhibitors, including deuruxolitinib, have previously demonstrated significant hair regrowth in AA.

Objective: The Phase 3 THRIVE-AA1 randomized, double-blind, placebo-controlled trial (NCT01518999) evaluated the safety and efficacy of the oral JAK1/JAK2 inhibitor deuruxolitinib in adult patients with AA.

Methods: Patients aged 18-65 years with ≥50% hair loss were randomized to deuruxolitinib 8 mg twice daily, deuruxolitinib 12 mg twice daily, or placebo for 24 weeks. The primary end point was the percentage of patients achieving a Severity of Alopecia Tool score ≤20. A key secondary end point was the percentage of satisfaction of hair patient-reported outcome responses.

Results: Significantly higher proportions of patients taking deuruxolitinib met the primary end point (8 mg 29.0%, 12 mg 41.3% versus placebo 0.0%). Both deuruxolitinib doses achieved significant improvements in all secondary end points versus placebo, including satisfaction of hair patient-reported outcome (8 mg 42.1%, 12 mg 50.0% versus placebo 4.7%). Most treatment-emergent adverse events were mild or moderate, consistent with other oral JAK inhibitors.

Limitations: Further studies are required to understand longer-term safety, efficacy, and impact of treatment cessation.

Conclusion: Both doses of deuruxolitinib were effective for hair regrowth. Patient satisfaction aligned with hair growth. (J Am Acad Dermatol 2024;91:880-8.)

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Sofpironium topical gel, 12.45%, for the treatment of axillary hyperhidrosis: Pooled efficacy and safety results from 2 phase 3 randomized, controlled, double-blind studies

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Background: Current treatments for primary axillary hyperhidrosis are insufficient for some patients. Sofpironium topical gel is a retinoid/botulinum-toxin-like topical anticholinergic with rapid metabolism, which is associated with reduced side effects and targeted efficacy.

Objective: To assess efficacy and safety of sofopironium topical gel for primary axillary hyperhidrosis.

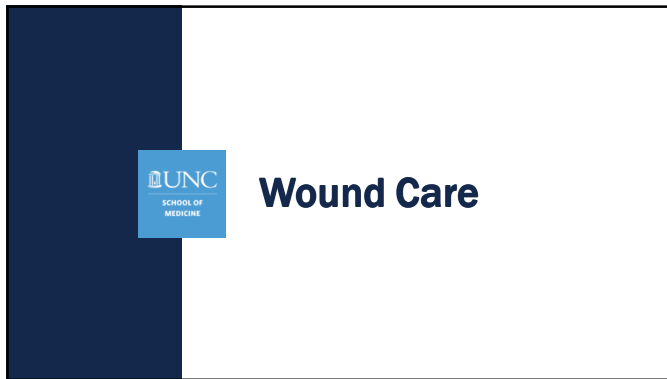
Methods: Carifolin II and Carifolin II were double-blind, randomized, controlled pivotal phase 3 studies of sofopironium topical gel, 12.45% versus vehicle gel (1:1 randomization) for daily application to the axillae for 6 weeks.

Results: The combined Phase 3 studies included 353 subjects in the treatment groups and 348 subjects in the control groups. For the co-primary endpoint of ≥2-point improvement from baseline to end of treatment on Hyperhidrosis Disease Severity Measure-Axillary-7, pooled analyses showed significantly better results for treatment versus control (*P* < .0001). For the pooled co-primary endpoint of axillary sweat production at treatment end, the treatment group had greater reduction in sweat production (*P* = .0002). Secondary endpoints also showed a statistically significant benefit for sofopironium topical gel versus control. Treatment was well-tolerated.

Limitations: Short treatment and follow-up periods.

Conclusion: Sofopironium topical gel, 12.45%, applied topically once daily before bedtime is effective and well-tolerated for treatment of primary axillary hyperhidrosis in patients ≥19 years old. (J Am Acad Dermatol 2025;93:82-6.)

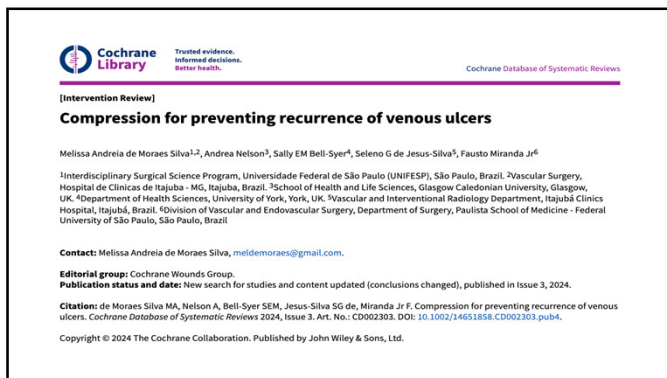
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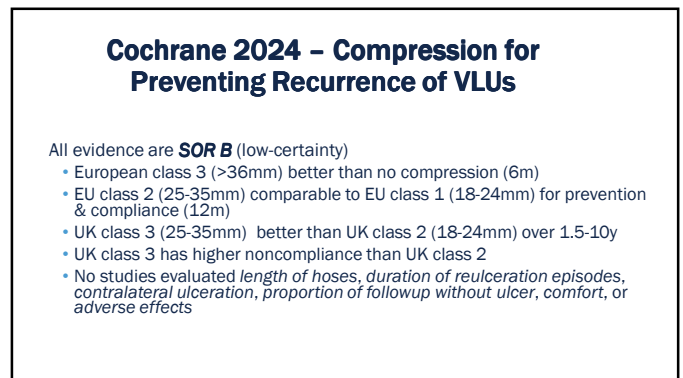
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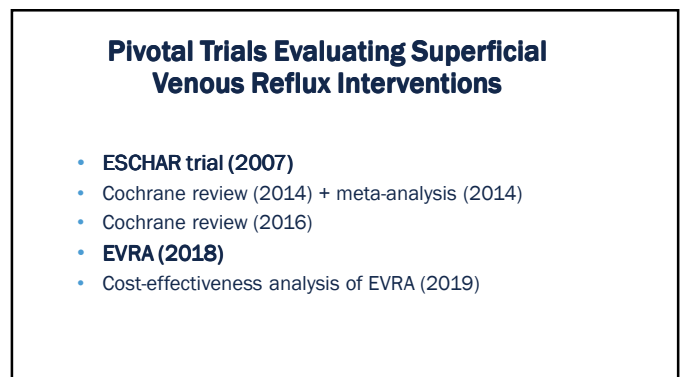
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Cochrane 2023 – Endovenous Ablation for VLUs

- 2 RCTs (N=506): **EVRA (N=450)**, VUERT (N=56)
- Conclusions:**
 - EVLA/RFA + compression improves **time to complete ulcer healing** (pooled HR 1.41, 95% CI 1.36 to 1.47; $I^2=0\%$) – **SOR A** (high-certainty)
 - Cost-effective** at 1 year (99% probability at £20,000/QALY) – **SOR A** (moderate-certainty)
 - Unclear effects on recurrence (1 yr) and complications (VTE) – **SOR B** (low-certainty)

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Negative pressure wound therapy versus usual care in patients with surgical wound healing by secondary intention in the UK (SWHSI-2): an open-label, multicentre, parallel-group, randomised controlled trial

Catherine Arnold, Louise Mandefield, Caroline Fairhurst, Kipito Baird, Athanasios Gkikas, Pedro Seemang, Ian Chetter, on behalf of the SWHSI-2 Trial Investigators*

Summary

Background Surgical wound healing by secondary intention (SWHSI) presents a substantial management and financial challenge. Negative pressure wound therapy (NPWT) has increasingly been used as a treatment despite an absence of comparative evidence of effectiveness. We evaluated the effectiveness of NPWT compared with usual care for improving time to wound healing in patients with an SWHSI.

Methods We did a pragmatic, open-label, multicentre, parallel-group, randomised controlled trial in 29 UK National Health Service Trusts. Participants aged 16 years or older with an SWHSI appropriate for both study treatments (NPWT or usual care) were randomly assigned (1:1) by a centralised web-based system. Randomisation was stratified by wound location, wound area, and study centre. Participants were followed up for 12 months. Participants and clinical and research teams could not be masked to treatment. Assessors masked to treatment reviewed wound photography to verify the outcome. The primary outcome was time to wound healing (days from randomisation to complete epithelial cover), analysed via intention to treat using Kaplan-Meier survival curves and a proportional hazards Cox regression model. The trial was registered with ISRCTN, ISRCTN26277546.

Findings Between May 15, 2019, and Jan 13, 2023, 686 participants with an SWHSI were randomly assigned to receive NPWT (n=349) or usual care (n=337). All participants were included in the primary analysis. Most participants were diabetic (n=549; 80.0%) and had a single SWHSI (n=632; 90.7%), located on the foot or leg (n=620; 90.4%), arising after vascular surgery (n=619; 90.2%). There was no clear evidence that NPWT reduced the time to wound healing compared with usual care (hazard ratio 1.08 [95% CI 0.88–1.31], p=0.47). There were 448 adverse events, of which 14 were serious (nine participants in the NPWT group and five participants in the usual care group); 134 were deemed potentially related to treatment. NPWT was found not to be cost-effective compared with usual care.

Interpretation In patients with a lower limb SWHSI, including those with complications of diabetes, there is no clear evidence that NPWT reduced the time to wound healing compared with standard dressings. These findings do not support the use of NPWT to augment SWHSI healing.

Lancet. 2024; May 12;403(12001):1089–1099.

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Systematic Review

Association of Digestible Carbohydrate Intake With Cardiovascular Disease, Type 2 Diabetes, Obesity, and Body Composition

Executive Summary

Main Points

Rockville (MD) Agency for Healthcare Research and Quality (AHRQ) 2023. Report No. 23-00102B.

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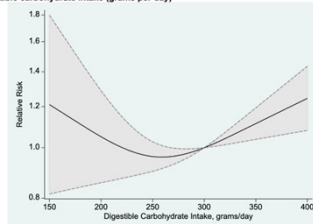
AHRQ 2025 – Association of Carb Intake with CVD, T2DM, Obesity, Body Composition

- Risk of CVD
- Risk of T2DM
- Risk of Obesity; association w/ Body Composition

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Risk of CVD – **SOR B (low)**

Figure 1. Nonlinear dose-response relationship between the incidence of cardiovascular disease and digestible carbohydrate intake (grams per day)

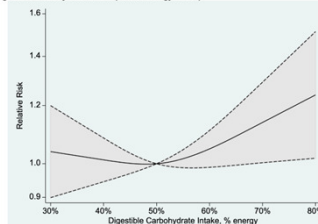


The solid line represents the nonlinear dose response, and the dotted lines represent the 95% confidence interval.

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Risk of CVD – **SOR B (low)**

Figure 2. Nonlinear dose-response relationship between the incidence of cardiovascular disease and digestible carbohydrate intake (% total energy intake)

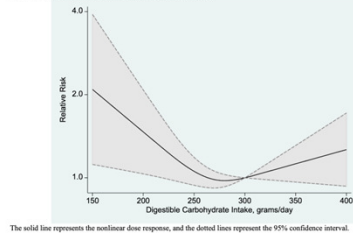


The solid line represents the nonlinear dose response, and the dotted lines represent the 95% confidence interval.

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CVD-related mortality – **SOR B (low)**

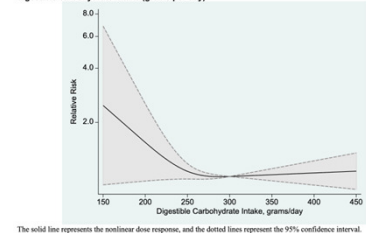
Figure 5. Nonlinear dose-response relationship between cardiovascular disease-related mortality and digestible carbohydrate intake (grams per day)



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Risk of T2DM – **SOR B (low)**

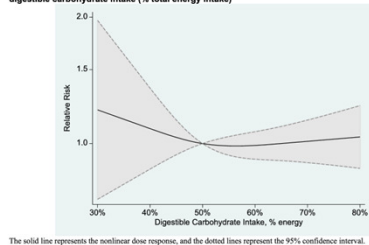
Figure 9. Nonlinear dose-response relationship between the incidence of type 2 diabetes and digestible carbohydrate intake (grams per day)



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Risk of T2DM – **SOR B (low)**

Figure 10. Nonlinear dose-response relationship between the incidence of type 2 diabetes and digestible carbohydrate intake (% total energy intake)



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Practice Recommendations

- Topical **benzyl benzoate** may be more effective than **permethrin** for scabies ($NNT=2$), but transient, mild to moderate, local irritation may be more common ($NNTH=3$). (**SOR B**)
- For moderately severe eczema, **dupilumab** and **cyclosporine** appear more effective than methotrexate; **cyclosporine** seems most effective for severe eczema. (**SOR B**)
- Low-dose **oral minoxidil** may be as effective as **topical minoxidil** in the intermediate-term for male AGA, but hypertrichosis is more common ($NNTH=4$). (**SOR B**)
- Compared to placebo, oral **deuruxolitinib** may be effective for AA over 6 months, but longer studies with active comparators, better CVD risk stratification, and assessment of treatment cessation effects are needed. (**SOR B**)
- For primary axillary hyperhidrosis, topical **solfiponium** appears more effective than placebo in the short-term, but may cause systemic anticholinergic adverse events. Comparison to known effective treatments is crucial before this treatment is recommended. (**SOR B**)

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Practice Recommendations

- Among high-risk diabetics, use of **chlorhexidine washes** is no better than **soap & water** in preventing diabetic foot complications. (**SOR A**)
- **Strong (25-35mm Hg) compression** may be as good or better in preventing VLU than **medium (18-24mm Hg) compression**, but adherence may be lower. (**SOR B**)
- **Endovenous ablation** decreases VLU healing time (HR 1.41) and appears to be cost cost-effective at 1 year. (**SOR A**)
- Do not use **NPWT** for lower limb surgical wounds as they do not improve healing compared to standard dressings. (**SOR A**)
- CVD mortality may be lowest with carb intake of 250-300g/d. (**SOR B**)

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