



Scratching the Surface: What is the most effective treatment for scabies?

CLINICAL QUESTION

For adults and children with classic scabies, how effective are treatment options and what is the duration of treatment?

BOTTOM LINE

At 4 weeks, treatment success for scabies occurs in 89-93% of patients treated with topical permethrin 5% cream versus 72-86% treated with oral ivermectin. Permethrin should be applied to entire body (may include face and scalp), including skin folds and under nails. Two doses (day 0 and day 7-14) generally recommended, especially if mites present at 7-14 days. Pruritus can persist for weeks after treatment. Adverse effects similar between groups (4-6%).

EVIDENCE

- Results statistically significant unless indicated.
- Cluster-randomized controlled trial (RCT), (1075 participants; 289 cases with dermoscopy-confirmed clinical scabies, 786 household contacts). Topical permethrin 5% cream or oral ivermectin 200 mcg/kg (applied to entire body overnight (>8 hours), including scalp and face), on days 0 and 10. Treatment success at 28 days:¹
 - Index case: 92% (permethrin) versus 77% (ivermectin), number needed to treat (NNT)=7.
 - Contacts: 94% (permethrin) versus 85% (ivermectin), NNT=11.
 - ≥1 cutaneous adverse effects (itching, burning, eczema): 4-6% (both groups).

- Two systematic reviews (15 RCTs each, 1896-2172 participants): Oral ivermectin (200 mcg/kg, 1-3 doses) or topical permethrin 5% cream (1-3 treatments):²⁻³
 - Treatment success (14 RCTs, 1691 participants): 90% (permethrin) versus 86% (ivermectin), NNT=25.³
 - Other systematic review: Similar.²
 - Adverse events: No differences.
- Limitations: Patients with crusted scabies excluded; adverse events poorly reported.

CONTEXT

- Infestation caused by *Sarcoptes scabiei* mite. Crowded environments (e.g., long-term care facilities, shelters, child-care facilities, prisons) increase transmission risk.⁴
- Treatment indicated for household and sexual contacts of index cases, even if asymptomatic.^{4,5}
- Guidelines:^{4,5}
 - Based on potential fomite transmission: ^{4,5}
 - Clothing, bedding: Hot water wash, dry on hot cycle; or store in plastic for 3-7 days.
 - Vacuum mattress.
 - First line (>3 months old): Permethrin 5% cream, 1-2 treatments, 7-14 days apart.
- Permethrin applied to entire body from neck down.⁵
 - Consider scalp coverage (particularly young infants/toddlers) and face.^{1,5}
 - Overnight then wash off in morning.
- Post-scabetic pruritus can persist for several weeks after treatment.
- Cost (two treatments): Ivermectin \$20-115 (weight-dependent), permethrin \$45 (2x30g tubes).⁶

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*Authors do not have any
 conflicts of interest to declare.*

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