Tidsskriftet
DEN NORSKE LEGEFORENING

Scabies – a public health problem

LEDER

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The author has completed the ICMJE form and declares no conflicts of interest.

The incidence of scabies is increasing, and its treatment is complicated and expensive.

Many family doctors and dermatologists would agree with the following statement: scabies has become a public health problem. Scabies causes intense and widespread pruritus which disrupts sleep and, over time, affects performance at school and at work and interferes with family life. It is embarrassing and shameful, and can lead to social isolation. It has the potential to greatly reduce quality of life, and on top of all that there is the financial cost of treatment. My impression is that health authorities are downplaying the rise of this small mite in the population and the consequences that implies.

Scabies is not defined as a sexually transmitted disease. It can be transmitted through *all* forms of direct skin contact, but most often through intimate contact. The condition is not related to poor hygiene, and it occurs in all social strata and age groups, in families with young children, in students living in shared accommodation, and in nursing homes. Scabies is not notifiable, so there are no data on its incidence. We do have data, however, on the number of medical consultations in which scabies was diagnosed, as well as on the number of packs of permethrin cream sold. These figures were published by the Norwegian Institute of Public Health in 2019 and show a formidable increase in the incidence of scabies (1). In 2012, there were just under 2 000 consultations for scabies in Norway; in 2018 this number had increased to 6 000. Anecdotal reports from the Norwegian Institute of Public Health, family doctors and dermatologists provide no evidence that this trend has reversed, quite the contrary.

In parallel with the increased incidence of scabies, reports of treatment failure are emerging from all sides. This is true not only in Norway, but worldwide. The first-line treatment for scabies is permethrin cream or benzyl benzoate liniment (2). While in the past it would often be sufficient to apply permethrin cream for eight hours, it now appears that the cream must be kept on for a minimum of 12–24 hours to have an effect. This increase in the tolerance of the scabies mite to permethrin is also reflected in a marked increase in the prescribing of ivermectin tablets, which are used as second-line treatment (3). In vitro studies with permethrin and ivermectin have shown reduced sensitivity, but no resistance (4, 5). The demand for permethrin cream, benzyl benzoate liniment and ivermectin tablets is so great that pharmacy shelves are constantly empty due to difficulties with the supply chain (6).

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The treatment of scabies can be very expensive and none of the costs are reimbursed. Permethrin cream and benzyl benzoate liniment are available over-the-counter, and their price therefore varies from pharmacy to pharmacy. A tube of permethrin cream (Nix) costs NOK 339 at pharmacies in the Apotek 1 chain, for example, whereas Vitus-chain pharmacies charge NOK 475. A pack of ivermectin tablets (Scatol, 4 pcs) costs NOK 552. Neither permethrin cream nor benzyl benzoate liniment are reimbursed, and at the present time it is not possible to apply, pursuant to section 3 of the Blue Prescription Regulation, for individual reimbursement for ivermectin, although this is probably because the drug is being evaluated by the Decision-making Forum of the Norwegian Ministry of Health and Care Services.

Allow me to present a fictitious, but typical, example from our dermatology outpatient clinic: An adult man requires two tubes of permethrin cream to achieve adequate coverage of his entire body. He will then need two further tubes, as the treatment must be repeated after a week. In addition, his wife and three children must also be treated twice. In total, the father must purchase 12 tubes of cream to perform the standard first-line treatment of scabies. He will thus have to pay about NOK 4 068–5 700 for the entire family. But it turns out that whole-body application is difficult to achieve in practice, and as a result the treatment is only partially effective. Following this treatment failure, the patient must be given ivermectin tablets. He weighs 90 kg and requires three packs, costing a total of NOK 1 656. Meanwhile, the children's grandparents, who have been providing childcare, become infected, and they in turn re-infect the youngest son. The family must now go through an additional round of treatment, this time with a combination of permethrin cream and ivermectin tablets. The total cost is approximately NOK 10 000.

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These are major expenses for most of us. Some are simply unable to afford the treatment: the student in shared accommodation or the single parent without regular employment, for example. The fact that patients do not treat scabies because it is too expensive to do so is extremely unfortunate and contributes to a negative spiral of infection.

The health authorities have a special responsibility to prevent and treat infectious diseases. I suspect that the lack of attention to scabies and the absence of reimbursement schemes for its treatment are a result of scabies' low position in the disease prestige hierarchy. Although scabies is not dangerous, it is a disease that can greatly impair quality of life. Given the extent of the disease at present, scabies must be considered a public health problem. Our health authorities should consider the following measures to combat the problem: prepare information campaigns on scabies aimed at both the general public and health professionals, ensure pharmacies have adequate supplies of permethrin, benzyl benzoate and ivermectin, and establish reimbursement schemes to make treatment more affordable for patients.

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Published: 26 October 2020. Tidsskr Nor Legeforen. DOI: 10.4045/tidsskr.20.0799
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