

Ivermectin for difficult-to-treat scabies

Information for the public
Published: 18 March 2014

www.nice.org.uk

About this information

This information explains the evidence summary about the unlicensed use of ivermectin for treating scabies. The evidence summary is an overview of the available information about this medicine. It aims to help prescribers and patients when they are considering whether or not to use an unlicensed or off-label treatment. The summary does not contain recommendations from NICE on whether the medicine should be used.

Licensing medicines

In the UK, medicines need to have a licence before they can be marketed. To get a licence, the manufacturer of the medicine has to provide evidence that shows that the medicine works well enough and is safe enough to be used for a specific condition and for a specific group of patients, and that they can manufacture the medicine to the required quality. Medicines can be prescribed without a licence (an 'unlicensed medicine') if there is no suitable licensed alternative and it is likely to benefit the patient.

A medicine can also be prescribed 'off-label'. This means the prescriber wants to use it in a different way than is set out in the terms of its licence. This could mean using the medicine for a different condition or a different group of patients, or it could mean a change in the dose or that the medicine is taken in a different way. There is more information about licensing medicines on [NHS Choices](#).

What is scabies?

Scabies is an extremely itchy skin disorder that leads to a rash. It is caused by a tiny parasite, the scabies mite, getting into the skin. Most of the symptoms of scabies are due to the body's response to the saliva, eggs and waste products of the mite.

People who are unable to feel an itch or who cannot scratch for some reason, or who have immune system disorders (for example, HIV), can have more mites than in a normal infection. This causes 'crusted scabies'. In crusted scabies, the outer layer of the skin thickens and forms scaly patches or crusts.

A person can get scabies from close physical contact with someone with scabies (for example, by hand holding for a long time, by having sexual intercourse, or by sharing a bed). People with crusted scabies can spread the disease more easily because they have more mites. People can get scabies from people with crusted scabies through contact with their bedding, towels, clothes, and upholstery.

Scabies needs to be treated as it won't get better on its own. However scabies can be cured.

If a person has scabies, the people that they live with, as well as people they have had close contact with also need to be treated for scabies. Everyone needs to be treated at the same time (in the same 24 hours), even if they do not have any symptoms. This is because people can pass on scabies to others before they get any symptoms. Not everyone needs to receive the same treatment for scabies for the treatment to work.

About ivermectin

Ivermectin is a drug that kills parasites. It is taken by mouth (orally), usually just as one single dose. Ivermectin isn't licensed for treating scabies or any other condition in the UK – this means that ivermectin is unlicensed.

Treatments that are licensed in the UK for treating scabies are permethrin, malathion and benzyl benzoate, which are creams or lotions. Permethrin cream is the usual first choice of treatment for people with scabies. Malathion lotion can be used if people can't use permethrin (for example if they are allergic to it). Benzyl benzoate is not used much anymore. Permethrin cream and malathion lotion are applied all over the body for a long time before being washed off. This is done twice, 1 week apart. Special attention is paid to the fingers and toes and under the nails.

Ivermectin is sometimes used to treat scabies that is difficult to treat. It has been used to treat crusted scabies. Ivermectin has also been used to treat people who have scabies but who can't use creams or lotions, or these haven't worked.

Summary of possible benefits and harms

How well does ivermectin work?

In normal scabies, 1 study found that ivermectin worked better than a dummy treatment (this is also known as a 'placebo' and doesn't have any active ingredient).

Studies that compared ivermectin with permethrin (the first choice treatment for scabies) have produced mixed results. There have been 6 studies: ivermectin didn't work as well as permethrin in 3 studies, and was found to be about as good as permethrin in 3 studies.

Ivermectin has also been compared with benzyl benzoate (but this isn't used much anymore). Ivermectin worked better than benzyl benzoate in 1 study, was about as good as benzyl benzoate in 3 studies, and didn't work as well as it in 1 study.

No studies have compared ivermectin with malathion.

No studies have compared ivermectin with other treatments in people with crusted scabies. Small studies have found that ivermectin can cure crusted scabies, but people often took 2 or 3 doses of ivermectin 1 or 2 weeks apart, or took ivermectin and also applied a cream or lotion (for example, permethrin) to their body.

What are the possible harms or side effects?

In the studies, fewer than 1 in 10 people who were taking ivermectin to treat normal scabies had any of the following side effects:

- symptoms getting worse (including itching)
- irritation of the skin
- headache
- feeling sick
- rash
- cellulitis (a skin infection)
- tummy pain
- mild diarrhoea.

Please note that the results of the research studies only indicate the benefits and harms for the population in the studies. It is not possible to predict what the benefits and harms will be for an individual patient being treated with ivermectin.

Prescribing ivermectin

If a prescriber wants to use an unlicensed or off-label medicine, they must follow their professional guide, for example for doctors the General Medical Council's [good practice guidelines](#). These include giving information about the treatment and discussing the possible benefits and harms so that the patient has enough information to decide whether or not to have the treatment. This is called giving informed consent.

A [full version of the summary aimed at healthcare professionals](#) is available on the NICE website. The summary for healthcare professionals does not contain recommendations from NICE on whether the medicine should be used.

Questions to ask

- Why am I being offered an unlicensed medicine?
- What does the treatment involve?
- What are the benefits I might get?
- How good are my chances of getting those benefits?
- Could having the treatment make me feel worse?
- Are there alternative treatments?
- What are the risks of the treatment?
- Are the risks minor or serious? How likely are they to happen?
- What may happen if I don't have the treatment?

More information

The evidence summary and this information for the public were produced for NICE by Bazian Ltd.

NICE has published [information](#) about how evidence summaries for unlicensed and off-label medicines are developed.

Copyright

© Bazian Ltd, 2014. All rights reserved. This material may be freely reproduced for educational and not-for-profit purposes. If you wish to reproduce this information for use by commercial organisations or for commercial purposes, please email [NICE](#).

ISBN: 978-1-4731-0523-2