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Research Letter

Management of scabies in children under 15 kg and pregnant or breastfeeding women: recommendations supported by the Centre of Evidence of the French Society of Dermatology

Dear Editor, Scabies is a growing public health issue worldwide and a neglected tropical disease as defined by the World Health Organization.[1] Young children are the most susceptible to scabies.[2] Questions concerning safety, tolerance and formulation persist in young children weighing under 15 kg and in pregnant or breastfeeding women.[3,4] Therefore, the Centre of Evidence of the French Society of Dermatology undertook to formulate specific recommendations, using a strict methodology.[5] A 17-member working group (WG) was created, including dermatologists, infectious disease paediatricians, gynaecologists, parasitologists, pharmacotoxicologists and methodologists. Its members declared no conflicts of interest. Firstly, a systematic review of the literature was conducted to compile references including any therapeutic, drug safety and cluster management studies on scabies with children under 15 kg (or, if weight was unspecified, we considered children under 5 years of age by default) and pregnant or breastfeeding women. The WG analysed the studies (at least two independently for each question) by describing the effect of estimates, biases and harms, and then graded their level of evidence from A (several multicentric double-blind studies with concordant positive results and acceptable risks) to D (no direct research evidence) after reaching a consensus.[6] We used the AGREE-2 grid. Further details are available from this Figshare link: https://doi.org/10.6084/m9.figshare.26083516.v1.

Secondly, eight experts were interviewed and their comments were incorporated into the recommendations if appropriate. The synthesis was then submitted to a multidisciplinary panel of 30 reviewers who graded each recommendation from 1 to 10, based on the agreement of at least 80% of the panel members.

After final proofreading by the WG, these recommendations were used to design a practical decision-making algorithm for infants/children according to age (Figure 1), published on a dedicated open-access website to provide a user-friendly and practical tool featuring fast, step-by-step navigation according to clinical situations (https://reco.sfdermato.org/en/).

The main points of the recommendations are as follows:

1 10% benzyl benzoate, 5% permethrin and oral ivermectin are effective in children. Little data are available for pregnant women. Therapeutic choices are guided mainly by tolerance data.
2 For reasons of better tolerance, permethrin is preferred to benzyl benzoate in patients under 1 year, or in cases involving damaged or facial skin to avoid irritation of the mucous membranes (expert advice).
3 Ivermectin can be proposed as first-line treatment from 2 years on, especially if in doubt about compliance, damaged skin, or in grouped cases (grade B). Ivermectin can also be proposed as second-line treatment, if necessary, after 2 months (grade C). However, the formulation makes the dosage difficult to adapt.
4 Profuse and/or hyperkeratotic scabies in children and pregnant or breastfeeding women requires treatment on a case-by-case basis (hospitalization, repeated combined treatments) (expert advice).
5 Permethrin, benzyl benzoate and ivermectin can be prescribed as first-line treatment in the second and third trimesters of pregnancy. As a precautionary measure, ivermectin is proposed only as second-line treatment in the first trimester (expert advice).
6 In breastfeeding women, permethrin, benzyl benzoate and ivermectin are proposed as first-line treatment (expert advice).
7 Scabies in preschool or daycare structure (grade C):
   - If only one case of classic scabies is identified: treat only people having prolonged, close, skin-to-skin contact.
   - If two or more cases of classic scabies are identified: treat the close environment of residents, e.g. households and staff, according to the characteristics of the structure and the type of contact between people (bed sharing, dormitories). Treating people occasionally attending the institution or visiting the patient's home is not indicated.
   - In case of severe scabies: treating people occasionally attending the institution or visiting the patient's home should be discussed.
   - Follow-up for 6–12 weeks is required, depending on the extent of the outbreak.
8. Treatment of pregnant women in contact with a case of scabies is strongly recommended, particularly in the third trimester of pregnancy to avoid contamination of the newborn. Local treatment or ivermectin may be prescribed, depending on previous recommendations and the term of the pregnancy. Close clinical monitoring could be a possible alternative in the first or second trimester of pregnancy (expert advice).
9. Treatment of breastfeeding women in contact with a case of scabies is suggested according to previous recommendations (expert advice).

Finally, we would like to emphasize the importance of the patient's skin condition in decision-making, as local tolerance and compliance may be impaired. Moreover, a paediatric oral formulation of ivermectin is mandatory. Future

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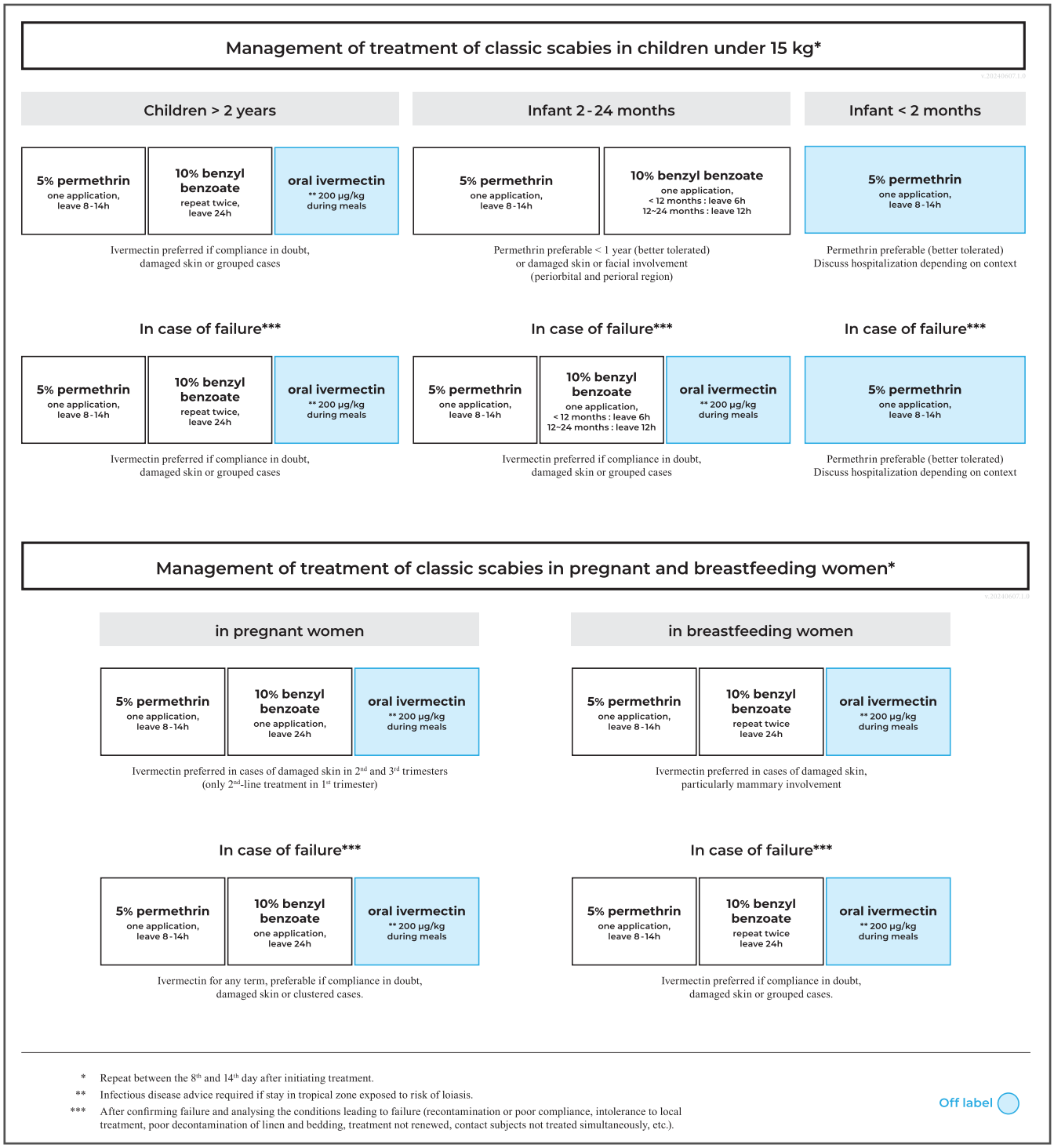

Figure 1 Management of treatment of classic scabies in children under 15 kg, pregnant women and breastfeeding women.

recommendations should take account of ongoing randomized clinical trials and resistance data on antiscabietic drugs.

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Data availability: The data underlying this article will be shared on reasonable request to the corresponding author.

Ethics statement: Not applicable.

Patient consent: Not applicable.

Supporting Information

Additional Supporting Information may be found in the online version of this article at the publisher's website:

Appendix S1 Full list of authors and affiliations.

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