



ACADEMIA ESPAÑOLA  
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# ACTAS Dermo-Sifiliográficas

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## CASE AND RESEARCH LETTER

### [Translated article] Survey on Scabicides: Prescribing Habits and Perceived Effectiveness



#### Resultados de una encuesta sobre prácticas de prescripción y percepción de eficacia de escabicidas

To the Editor,

According to a recent epidemiologic study, the number of scabies cases diagnosed in Spain has maintained an upward trend,<sup>1</sup> which seems to have intensified since the start of the COVID-19 pandemic.<sup>2</sup> A number of authors have also questioned the effectiveness of permethrin,<sup>3,4</sup> currently considered the first-line treatment for scabies.<sup>5</sup> These considerations, together with comments heard in dermatology meetings, forums, and conferences suggesting increased treatment difficulties, led us to conduct a scabicides survey to learn more about prescribing habits and perceived effectiveness of these drugs.

Drawing on the survey model used by Hackenberg et al.<sup>6</sup> in Germany in 2018, and with the support of the Spanish Academy of Dermatology and Venereology (AEDV), we designed an anonymous survey with 12 compulsory multiple-choice questions focused mainly on aspects of scabies treatment. The survey was emailed to 2970 members of the AEDV in May 2022. The respondents rated perceived effectiveness of the different treatments as very good (80%-100%), good (60%-80%), moderate (40%-60%), poor (20%-40%), or very poor (0%-20%).

The questionnaire was completed by 383 dermatologists (13%) (Table 1). Proportional responses were received from across the autonomous communities in Spain. Overall, 45% of dermatologists estimated that they had seen more than 10 patients with scabies a month over the previous 3 months. In addition, 79% stated that more than 40% of patients presenting for the first time had received previous treatment with a scabicide for the same episode.

Permethrin was the first-line treatment for 79% of dermatologists, and its effectiveness was rated as moderate, poor, or very poor by 70% of the overall group. Ivermectin, by contrast, was rated as good or very good by 81%. The second-line option after failure of permethrin was ivermectin as monotherapy (43%) or combined with a topical scabicide (37%). Just 6.5% of dermatologists opted for a second cycle of permethrin. Answers on the perceived effectiveness of sulfur 6% in petroleum and benzyl benzoate were not analyzed due to the small number of dermatologists using these products.

The main reason attributed to treatment failure was lack of adherence to hygiene measures or nontreatment of cohabitants (68%), followed by mite resistance to scabicides (21%). In fact, 52% of dermatologists thought that resistance was extremely or very probable.

To our knowledge this is the first survey of its kind conducted in Spain. The estimated number of cases treated and the percentage of patients previously treated for the same episode highlight the burden of scabies and perceived treatment difficulties.

Permethrin was the most widely used first-line treatment, and the prescribing rate, 79%, was similar to that reported in the German survey<sup>6</sup> (74%), reflecting adherence to guidelines among dermatologists. The effectiveness of this treatment, however, was rated as moderate, poor, or very poor by 71% of respondents, compared with 19% of German dermatologists surveyed in 2018.<sup>6</sup> The 4-year difference between the surveys is notable, as articles questioning the effectiveness of permethrin and pointing to the possible development of a resistant strain of *Sarcoptes scabiei*, were published after 2018.<sup>3,4</sup> The high perception of effectiveness reported for ivermectin explains why this drug is the preferred treatment after failure to respond to an initial cycle of permethrin. Aguado et al.<sup>2</sup> also reported an increasing use of ivermectin after the pandemic in their series.

Our findings regarding treatment failures and scabies recurrence are similar to those observed in the survey by Hackenberg et al.,<sup>6</sup> although the German dermatologists ascribed these failures to misapplication (32.8%) and lack of adherence and inadequate hygiene measures (29.6%). Considering the above, we consider that provision of written information and discussion of the different aspects of treatment during clinical visits are crucial to improved adherence rates. A recent article published in

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**Table 1** Summary of Survey Items and Responses Regarding Scabicide Prescribing Practices Among Dermatologists in Spain.

Item	Responses, %
<i>1/ Estimated number of patients seen monthly for scabies in the past 3 months (do not quantify treatment of cohabitants)</i>	
0	0.26
1-5	27.68
6-10	27.15
11-15	16.19
16-20	9.40
> 20	19.32
<i>2/ Estimated percentage of patients seen for the first time who had been previously treated with a scabicide for the same episode</i>	
80%-100%	24.28
60%-80%	22.98
40%-60%	31.33
20%-40%	14.10
0%-20%	7.31
<i>3/ What first-line treatment do you generally use?</i>	
Permethrin	79.37
Ivermectin	9.14
Benzyl benzoate	0.26
Sulfur in petrolatum	1.57
Combination of topical and systemic treatments	9.66
<i>4/ Perceived effectiveness of permethrin administered as 2 applications separated by a week (European guideline recommendation)</i>	
Very good (80%-100%)	5.48
Good (60%-80%)	24.02
Moderate (40%-60%)	44.91
Poor (20%-40%)	18.02
Very poor (0%-20%)	7.57
<i>5/ Perceived effectiveness of ivermectin administered as 200 µg/kg separated by a week (European guideline recommendation)</i>	
Very good (80%-100%)	32.20
Good (60%-80%)	48.83
Moderate (40%-60%)	14.10
Poor (20%-40%)	1.83
Very poor (0%-20%)	1.04
<i>6/ If the first cycle of permethrin fails, what treatment do you generally use?</i>	
Another cycle of permethrin	6.53
Ivermectin	42.56
Ivermectin combined with permethrin	33.94
Benzyl benzoate	0.78
Benzyl benzoate combined with ivermectin	1.31
Sulfur in petrolatum	3.39
Sulfur in petrolatum combined with ivermectin	11.49
<i>7/ What do you think is the main reason for treatment failure?</i>	
Application errors	11.49
Lack of adherence to hygiene measures (fomites) or nontreatment of coinhabitants	67.62
Mite resistance	20.63
Reinfestation	0.26
<i>8/ Do you think there is resistance to currently available scabicides administered according to recommended regimens?</i>	
Extremely likely	8.36
Very likely	43.34
Somewhat likely	42.82
Not at all likely	5.48

*Actas Dermo-Sifiliográficas*, presented an updated protocol for scabies treatment.<sup>7</sup>

This survey has some limitations inherent to any retrospective survey-based study.

Our findings support recent reports of a lack of effectiveness for permethrin and raise questions about current guideline recommendations. We believe that well-designed studies are needed to evaluate resistance to scabicides and inform the design of guidelines adapted to current clinical practice.

## Conflicts of Interest

The authors declare that they have no conflicts of interest.

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