

Worldwide Differences in Clinical Management Practices of Scabies: a Survey Using Clinical Vignettes

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Dear Editor,

Scabies has been designated a Neglected Tropical Disease by the World Health Organization (WHO) (1). We wished to evaluate variations in the management of scabies among clinicians caring for scabies worldwide. Members of dermatology and scabies organisations completed an online survey including selecting the treatment they would recommend in six scabies vignettes with uncomplicated and crusted scabies, and including adults, elderly and infants, in different settings (pregnancy, homeless, nursing home). All scenarios focused on management of individual cases not whole communities. Consensus was defined *a priori* at 75% or more of respondents in agreement.

Thirty-nine of 46 practitioners (84.7%) completed the survey. Study participants were from five of the six WHO regions: Europe n=27 (58.7%), Western Pacific n=8 (17.4%), Africa n=6 (13%), the Americas n=4 (8.7%) and South-East Asia n=1 (2.2%). Thirty-eight out of 46 (82.6%) participants were dermatologists.

Most respondents (71.1% to 78.6% depending on vignette) reported that they would perform dermoscopy in the given scenarios, likely related to respondents being largely dermatologists. The hypothetical first-line treatment proposed in response to each vignette varied widely (Table 1). Oral ivermectin was preferred for cases of crusted scabies with consensus achieved for the adult woman (84.9%) but not the elderly resident of a nursing home (71.8%). Oral ivermectin was the preferred choice (61.5%) for the homeless man with common scabies. Permethrin 5% cream was the most popular treatment for the other cases.

We found high agreement when oral ivermectin and any topical agent was a therapeutic option in crusted scabies for both the adult woman (93.5%) and the nursing home resident (76.9%). Very few participants proposed combined therapy for the infant (9.5%) or the pregnant woman (7.7%). Respondents agreed that contacts should be treated in all six cases but differed in treatments proposed (Table 1).

Lack of consensus surrounding first-line and contact treatment recommendations in our study reflects the need for robust safety and efficacy data of both oral and certain topical therapies such as lindane. Our results suggest a continued, misguided reluctance to use oral ivermectin in elderly individuals (2,3). Randomised controlled trials comparing 5% permethrin cream and oral ivermectin have proved inconclusive in terms of superiority compared to each other or presented conflicting results at least at individual level (4). However, they both demonstrate

high efficacy (5). Studies should assess efficacy, adherence, acceptability, cost-effectiveness and the effects of age, pregnancy and scabies type. Differences in treatments proposed are likely to be significantly influenced by availability and guidelines (4,6). The treatment of contacts is essential (7) however the variation of responses concerning which contacts should be treated illustrates a practical clinical problem (8) (Table 2). Studies are required to examine the effect of treatment for different contacts on reinfestation rates. Consensus was reached for simple decontamination measures for all six cases, with greater support in crusted scabies (97.5% to 100%) compared to common scabies (87.2% to 94.9%). Respondents felt it more necessary to decontaminate items with prolonged skin contact such as clothing, towels, bedding and fomites in the nursing home resident's room (92.1% to 100% agreement) compared to other fomites such as mattresses and bassinets (all cases 31.6% to 58.7%). The use of decontamination is clearly widespread despite its doubtful value in managing common scabies (9). Our study has several limitations. We used a vignette-base survey which may lack key clinical elements in the description of the cases. Importantly, respondents were identified through list of clinicians with an interest in scabies and consisted predominantly of dermatologists from high income settings. Data from other locations and cadres of healthcare workers where treatments and approaches may differ would be of value.

FUNDING INFORMATION

None.

CONFLICT OF INTEREST

O. Chosidow is a consultant for Medicines Development for Global Health, PI of the Phase 2 moxidectin trial, C. Bernigaud was a non-remunerated consultant to Medicines Development for Global Health, Sanofi R&D employees and may hold stock and/or stock options in the company (as of September 2021) (not an employee at the time the research was conducted), S. L. Walker: No conflicts to report, L. Paucard: No conflicts to report, M. Marks: No conflicts to report.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

ETHICS STATEMENT

The study was approved by the London School of Hygiene and Tropical Medicine Research Ethics Board (LSHTM Ref 25920). Study participants provided written informed consent.

Table 1. First-line and contact first preferred treatment options for each vignette. Other mentioned treatments not selected by study participants included: topical bioallethrin 0.6% and topical tea tree oil 5%

Vignette	n	Benzyl benzoate 10%	Benzyl benzoate 25%	Ivermectin cream 1.87%	Ivermectin lotion 1%	Crotamiton 10%	Lindane 1%	Permethrin 5%	Sulphur 2-10%	Oral ivermectin	Phenothrin 5%	Salicylic acid 5%	Treatment if symptoms	Other
Common scabies in an adult man														
First-line	46	3 (6.5%)	2 (4.4%)	0	0	0	0	25 (54.4%)	0	16 (34.9%)	0	0	N/A	0
Contact	46	1 (2.2%)	3 (6.5%)	0	0	0	0	23 (50%)	0	18 (39.1%)	0	0	0	1 (2.2%)
Crusted scabies in an adult woman														
First-line	46	2 (4.4%)	0	0	0	0	0	1 (2.2%)	1 (2.2%)	39 (84.9%)	0	1 (2.2%)	N/A	2 (4.6%)*
Contact	46	2 (4.4%)	3 (6.5%)	0	0	0	0	15 (32.6%)	0	26 (56.5%)	0	0	0	0
Common scabies in an infant														
First-line	42	4 (9.5%)	3 (7.1%)	0	0	0	0	28 (66.7%)	4 (9.5%)	2 (4.8%)	1 (2.4%)	0	N/A	0
Contact	42	2 (4.8%)	3 (7.1%)	0	0	0	0	21 (50%)	0	15 (35.7%)	0	0	1 (2.5%)	0
Common scabies in a homeless man living in a shelter														
First-line	39	1 (2.6%)	2 (5.1%)	0	0	0	1 (2.6%)	11 (28.2%)	0	24 (61.5%)	0	0	N/A	0
Contact	39*	1 (2.6%)	3 (7.7%)	0	0	0	1 (2.6%)	13 (33.3%)	0	19 (48.7%)	0	0	1 (2.4%)	0
Crusted scabies in an elderly woman living in a nursing home														
First-line	39	1 (2.6%)	2 (5.1%)	0	0	0	0	5 (12.8%)	1 (2.6%)	28 (71.8%)	0	1 (2.6%)	N/A	2 (5.1%)
Contact	39	1 (2.6%)	2 (5.1%)	0	0	0	1 (2.6%)	12 (30.8%)	0	23 (59%)	0	0	0	0
Common scabies in a pregnant woman														
First-line	39	6 (15.4%)	3 (7.7%)	1 (2.6%)	0	0	0	23 (59%)	4 (10.3%)	1 (2.6%)	1 (2.6%)	0	N/A	0
Contact	39	2 (5.1%)	3 (7.7%)	0	0	0	1 (2.6%)	17 (43.6%)	1 (2.6%)	14 (35.9%)	0	0	1 (2.6%)	1 (2.6%)

*1 missing value

Table 2. Proportions of different individuals or groups of individuals selected by participants as being contacts requiring treatment for each vignette.

Type of contact	N (%)
Common scabies in adult man (N = 46)	
Household members	44 (95.7%)
Family members	10 (21.7%)
Close friends	21 (45.7%)
Co-workers	7 (15.2%)
Caretaker and healthcare providers	17 (37%)
Recent sex partners	35 (76.1%)
Past sex partners	6 (13%)
Other individuals	30 (65.2%)
None	1 (2.2%)
Crusted scabies in adult woman (N = 46)	
Household members	46 (100%)
Family members	31 (67.4%)
Close friends	35 (76.1%)
Co-workers	24 (52.2%)
Caretaker and healthcare providers	36 (78.3%)
Recent sex partners	38 (82.6%)
Past sex partners	14 (30.4%)
Other individuals	28 (60.9%)
None	0
Common scabies in infant (N = 42)	
Household members	38 (90.5%)
Family members	13 (31%)
Other infants (e.g. kindergarten)	31 (73.8%)
Caretakers and healthcare providers	24 (57.1%)
Breast feeding mother	40 (95.2%)
Nanny or babysitter	34 (81%)
Other individuals	30 (71.4%)
None	1 (2.4%)
Common scabies in homeless man living in a shelter (N = 39)	
Individuals sharing a room with the patient	35 (89.7%)
Individuals living on the same floor as the patient	10 (25.6%)
All individuals living in the shelter	10 (25.6%)
Close friends	23 (59%)
Co-workers	6 (15.4%)

Caretakers and healthcare providers	20 (51.3%)
Recent sex partners	33 (84.6%)
Past sex partners	8 (20.5%)
Other individuals	27 (69.2%)
None	3 (7.7%)
Crusted scabies in the elderly woman living in a nursing home (N = 39*)	
Frequent visitors	25 (64.1%)
Patients living on the same floor as the patient	21 (53.9%)
All patients living in the nursing home	18 (46.2%)
All healthcare staff	14 (35.9%)
All staff (i.e. healthcare, cooks, cleaners, laundry staff)	11 (28.2%)
Only healthcare staff in contact with the patient	19 (48.7%)
Only staff in contact with the patient	15 (38.5%)
Recent sex partners	30 (76.9%)
Past sex partners	6 (15.4%)
Other individuals	24 (61.5%)
None	0
Common scabies in pregnant woman (N = 39)	
Household members	38 (97.4%)
Family members	10 (25.6%)
Close friends	19 (48.7%)
Co-workers	6 (15.4%)
Caretaker and healthcare providers	15 (38.5%)
Recent sex partners	21 (79.5%)
Past sex partners	8 (20.5%)
Other individuals	26 (66.7%)
None	1 (2.6%)

*1 missing value

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