Home ultraviolet B phototherapy for psoriasis

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Home ultraviolet B phototherapy for psoriasis: discrepancy between literature, guidelines, general opinions and actual use.
Results of a literature review, a web search, and a questionnaire among dermatologists

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None declared.

Summary

Background Home ultraviolet B (UVB) phototherapy is a debated treatment. It is currently being prescribed for patients with psoriasis, although literature on the subject is scarce. Despite the apparent contradiction between clinical practice and literature, no systematic study of either has been conducted.

Objectives To assess and compare the available publications and guidelines about home UVB phototherapy for psoriasis with the actual opinions and use of this therapy.

Methods The literature and guidelines were searched using databases, search engines and e-mail. A postal survey of 343 Dutch dermatologists and 142 dermatologists from 32 other countries was carried out; 255 and 102 dermatologists respectively responded. Outcome measures were the reported advantages, drawbacks and prescription rates of home UVB phototherapy.

Results Fourteen publications (nonrandomized) and six guidelines concerning home UVB phototherapy for psoriasis were identified. Most were reticent about the use of this treatment. Publications describing nonclinical research (7/14) reported most of the drawbacks mentioned (24/31). Home UVB phototherapy was prescribed to 5% (median) of all patients with psoriasis in the Netherlands who required UVB. However, 28% (68/244) of the Dutch dermatologists prescribed home UVB in 20 to 100% of their cases. Dermatologists from other countries reported that 0–10% of UVB treatments were offered at home. For both Dutch and other dermatologists, the most important reasons for prescribing home UVB concerned time and travel distance (80%, i.e. 163 of 205 and 75%, i.e. 33 of 44). Therapy-related drawbacks (such as poor service and equipment) were the objections mentioned most often (55%, i.e. 103 of 186 and 63%, i.e. 57 of 91). Concerns about the medicolegal liability of home UVB were rarely expressed by individual respondents, but frequently mentioned in the various reports.

Conclusions A discrepancy exists between the actual use of home UVB phototherapy and the general opinions found in publications. The treatment is prescribed for a considerable number of patients despite the fact that literature and guidelines advise caution. Personal and nonevidence-based opinions on this therapy are widespread while randomized clinical studies have thus far not been conducted.

Home ultraviolet B (UVB) phototherapy was introduced in the late 1970s.[1–4] Since then it has been successfully used, mainly for the treatment of psoriasis.[3–10] However, several dermatologists have raised concerns, in particular about its safety and effectiveness, as well as patient compliance with this form of therapy.[5,6,10–15] Surprisingly, very little research on home

UVB phototherapy has been conducted to justify or dismiss these concerns. As such, the use of home UVB phototherapy for psoriasis remains debated in dermatology.

In the Netherlands too, varying opinions exist as to the advisability of prescribing home UVB phototherapy. Recently the Netherlands Society for Dermatology and Venereology published an official national guideline on the use of photo(chemo)therapy in patients with severe psoriasis, in which prescription of home UVB phototherapy is explicitly discouraged.[11,16] However, many Dutch dermatologists do prescribe home UVB phototherapy. Informal evidence indicates that two home care institutions are successfully providing equipment and supervision for about 1400 Dutch psoriasis patients annually (unpublished registry data from the home care institutions and one published magazine article).[9] Likewise, it has been estimated for the U.S.A. and Germany that respectively at least 5000 and 3000 home UV phototherapy machines (full body length panels) have been sold to date (unpublished sales figures from four manufacturers in Europe and four in the U.S.A.).

It appears that home UVB phototherapy for psoriasis may be prescribed more often than is generally recognized. The opinions of dermatologists who use this therapy may diverge from the more cautious messages encountered in the sparse literature on this subject. Despite the apparent contradiction between clinical practice and the general tenor of the literature, neither has been the subject of a systematic study. As such, it may be useful to compare the actual opinions of dermatologists about this treatment with those postulated in the literature. Therefore the aim of this study was to assess and compare the available publications and guidelines for home UVB phototherapy for psoriasis with the opinions and actual use of this therapy among dermatologists.

Materials and methods

Literature and guidelines

The search of literature and guidelines on the subject of home UVB phototherapy for psoriasis was performed using PubMed/Medline, Embase, Cochrane, a web browser (Google), and cross-reference searches. The following search terms were used: phototherapy, home, home care, psoriasis, ultraviolet therapy, UV, UVB, treatment, guidelines, protocol, clinical protocols and treatment protocol. Single search terms and combinations of terms were used. In addition, the national dermatological societies of 25 countries were contacted by e-mail in order to inquire whether national guidelines on the use of (home) phototherapy or on psoriasis were available.

Questionnaires

The Netherlands

All Dutch dermatologists ($n = 343$) received a questionnaire concerning home UVB phototherapy for psoriasis. In order to achieve a high response rate, we developed a short one-page form with open questions. One question addressed the respondent's frequency of prescription of home UVB phototherapy (as a percentage of his/her total number of prescriptions of UVB phototherapy for psoriasis). Other questions related to the advantages and drawbacks of this therapy as perceived by the respondent. Where respondents indicated that they did prescribe home UVB phototherapy, we asked them to state their most important reasons for doing so. All questions concerned only total body home UVB phototherapy for patients with psoriasis, thus excluding UVA therapy, small or hand-held devices, and indications other than psoriasis.

Other countries

To discover the extent of home UVB phototherapy use for psoriasis in other countries, a comparable questionnaire was sent to a selection of dermatologists from around the world. For this purpose, the original Dutch questionnaire was translated into English. However, we did not ask our foreign respondents to describe their own practice, but rather to estimate the prescription frequency for their country and to give their country's view of home UVB phototherapy. A list of recipients was compiled from several sources: the European Society for PhotoDermatology, the Photomedicine Society, several national dermatological societies, the American Academy of Dermatology and the internet. Whenever possible, we selected dermatologists who specialize in psoriasis or in phototherapy. In total, questionnaires were posted to 142 dermatologists from 32 countries. Appendix 1 presents the number of recipients and respondents per country.

Analysis

The results of the questions concerning the prescription rate of home UVB phototherapy are presented as percentages of the total number of UVB phototherapy prescriptions for psoriasis. The answers to the other open questions were recorded and coded. We used summary terms such as 'therapy-related advantages', 'dermatologists' objections' and 'convenience' to reflect the different categories of reported advantages, drawbacks and reasons for prescribing home UVB. Results are presented as percentages; i.e. the number shown is equal to the percentage of the respondents mentioning this specific reason, advantage or drawback. Differences between the Netherlands and the other countries with regard to the response categories were estimated by calculating the differences in proportions with a 95% confidence interval (95% CI). To establish whether differences between the Netherlands and other countries can be accounted for by differences in experience, we calculated the differences between 'experienced' dermatologists and 'inexperienced' dermatologists for both groups. Experienced dermatologists were those prescribing home UVB (or reporting the use

of home UVB in their country), and 'inexperienced' dermatologists were those not prescribing (or reporting) home UVB.

Results

Literature

The literature search revealed a total of 25 articles relating to home phototherapy, of which only 14 specifically concerned home UVB treatment for psoriasis. The most important features of these 14 publications are shown in Table 1. Interestingly, only seven of these articles describe clinical research, of which only two compare two groups of patients. Neither was a randomized study.[8,15] Twelve publications mention drawbacks of home UVB phototherapy, and all but one report advantages. Drawbacks are mentioned more often in comments, reports and position papers, and less often in clinical studies. Important objections include the lack of medical supervision, higher risks (including phototoxicity), and uncontrolled use of the equipment after the treatment period. Benefits related to time and travel (reduction in absenteeism, saving of time) and to convenience and reduced medicalization are the most frequently mentioned advantages of home UVB. Potential benefits related to costs are also mentioned many times.

Of the additional 11 publications on home phototherapy, five investigated the use of commercial sunbeds.[17–21] Another six publications dealt with home phototherapy for diseases other than psoriasis.[1,2,22–25]

Guidelines

Despite a very extensive search, we found only one national guideline explicitly dealing with home UVB phototherapy. This guideline is the report of the British Photodermatology Group 1996 workshop on home phototherapy.[12] Several official national guidelines on psoriasis or phototherapy were found, but only four of these contained some information on home UVB phototherapy.[16,26–28]

From Germany we obtained a copy of a consensus letter written on 18 February 1999 on behalf of two German dermatological societies and the German psoriasis confederation. This mutual statement concerns home UV phototherapy for patients with psoriasis and was addressed to the association of German health insurance companies (not published, copy can be obtained from first author).

In general, all the guidelines are reticent about home UV phototherapy, and recommend restricting its use as well as a careful selection of patients. Only four guidelines specify what they presume are the hazards of home UVB. Three of them suggest that the medical supervision is insufficient, that the treatment gives suboptimal results and has higher attendant risks, and mention medicolegal liability as a point of concern. A summary of the most important issues contained in these guidelines is displayed in Table 2.

Questionnaires

Response

From 9 September 2003 to 31 January 2004, 255 Dutch dermatologists (74%) completed and returned the questionnaire. Of the 255 respondents, 19% were working in a university hospital, 77% in a nonuniversity hospital, and 2% in private practice. Comparable percentages for the original population ($n = 343$) were 23%, 72% and 3%, respectively.

Regarding the worldwide survey, 102 questionnaires (72%) were completed and returned between 13 November 2003 and 9 March 2004. From each selected country at least one completed questionnaire was obtained (100% response for the countries).

Home ultraviolet B prescription rates

Of the 255 responding Dutch dermatologists, 38 (15%) never prescribed home UVB phototherapy for patients with psoriasis, and 211 (83%) prescribed this treatment to a variable extent. Six respondents (2%) did not prescribe UVB treatment at all. A total of 244 Dutch respondents calculated their prescription rate of home UVB as a percentage of their total number of UVB prescriptions for psoriasis. Likewise, 98 of the 102 respondents from abroad estimated the home UVB prescription frequency for their country. A graphical representation of the distribution of these prescription rates is presented in Figure 1. The median prescription rate of home UVB phototherapy in the Netherlands was 5% of all UVB treatments for psoriasis. However, 28% (68/244) of the Dutch dermatologists prescribed home UVB for at least 20% of their UVB-treated psoriasis patients, and nearly 12% of the Dutch dermatologists (30/244) prescribed home UVB in 50% or more of their cases. Nine of 244 Dutch dermatologists (4%) prescribed home UVB phototherapy to 95–100% of their patients requiring UVB treatment. Concerning the other countries (Fig. 1b), the majority of the respondents (56%, 55/98) reported that home UVB phototherapy was not prescribed in their country at all. Another 18% (18/98) estimated that home UVB in their country is prescribed to 5% or more of the patients receiving UVB treatment. The maximum estimated prescription rate was 10%, estimated by three dermatologists.

Opinions

The different categories of reasons for, and advantages and drawbacks of, prescribing home UVB phototherapy mentioned by both groups and their distribution are displayed in Table 3. The flowchart in Figure 2 shows the different numbers of respondents for all items.

We found that the most important reasons for prescribing home UVB concerned 'time, travelling and obligations': 80% (163 of 205 Dutch respondents) vs. 75% (33 of 44 respondents from other countries). Although these figures appear

Table 1 Characteristics and outcome of studies on home UVB phototherapy for psoriasis

			Study and therapy specifications				Therapy effect		Expressed opinions on home UVB phototherapy		
Author, year	Study type	Type of UV	N	Study group	N	Control group	Study group	Control group	Drawbacks	Advantages	Eligibility criteria[a]
Cameron,[8] 2002	Prospective study with historical controls	UVB (TL-01)	33	(a) 3× weekly, at home (n = 23) (b) 3× weekly in hospital (n = 10)	NR	Departmental audit data	(a) 18/23 reached clearance or MRA in 22·5 exposures and 9·84 J cm^{-2} (b) 7/10 reached clearance or MRA in 18 exposures and 10·38 J cm^{-2}	Median 18 exposures and 9·33 J cm^{-2} to reach clearance or MRA	ML	CE, LA, S, TS	Reliable, competent and compliant. Understand the therapy
van Vloten,[7] 1993	Prospective study	UVB (TL-01)	100	3–4× weekly, at home, by home care institutions	–	–	PASI at start 4·8–41·9, PASI at end 0·0–4·8	–	LSC	DM, LA, TS	–
Paul,[15] 1983	Prospective study	UVB	20	3× weekly, in hospital, start Jan–March 1981, LISUP	20	3× $week^{-1}$, in hospital, start Oct–Nov 1980, UVB	8/20 reached clearance, 5/20 improved	18/20 reached clearance, 1/20 improved	PT	CV, HF	–
Jordan,[4] 1981	Prospective study	UVB + tar	56	6–9× weekly, at home. Goeckerman regimen	–	–	51/56 reached clearance	–	–	CE, HF	Conscientious and motivated
Larkö,[3] 1979	Prospective study	UVB (solarium)	28	7× weekly, at home	–	–	20/28 reached clearance, 6/28 improved	–	–	LC, TS	–
Feldman,[6] 1996	Retrospective study	UVB	22	2–7× weekly, at home	–	–	NA[b]	–	AM, ID, UC	LC, GC	–
Biella,[29] 1985	Prevalence survey	UVB (solarium)	–	Self treatment	–	–	NA	–	MS	CV, TS	–
Matto,[9] 2003	Magazine article, describing	UVB (TL-01)	–	–	–	–	–	–	AM, MS	CV, LA, TS	Motivation and discipline. Able to perform self treatment
Gerritsen,[11] 2000	Review	UVB	–	–	–	–	–	–	A, HR, ID, ML, MS, PT, SO, UC	–	Intelligent enough to take responsibility. Sufficient comprehension of therapy
Sarkany,[12] 1999	Report on workshop review	UVB	–	–	–	–	–	–	AM, HR, ML, MS, PT, SO	DM	Understand and accept responsibility
Prince,[13] 1994	Comment	UVB	–	–	–	–	–	–	HC	DM, LA, TS	–
Lowe,[5] 1992	Position paper	UVB	–	–	–	–	–	–	HR, ML, UC	DM, LC	Reliable and compliant. Willing to be examined regularly

Table 1 Continued

			Study and therapy specifications				Therapy effect		Expressed opinions on home UVB phototherapy		
Author, year	Study type	Type of UV	N	Study group	N	Control group	Study group	Control group	Drawbacks	Advantages	Eligibility criteria[a]
NPF,[10] 1991	Position paper, survey	UVB	–	–	–	–	–	–	ML, UC	CE, CV	–
Abel,[14] 1985	Position paper	UVB	–	–	–	–	–	–	ML, MS	CE, CV	Reliable, conscientious and motivated

Abbreviations: NR, Not reported; NA, Not applicable; LISUP, Low-intensity selective UV phototherapy; MRA, Minimal residual activity; PASI, Psoriasis Area and Severity Index.
Drawbacks Code: A, Abuse by relatives; AM, Adequate maintenance of equipment necessary; HC, Higher costs; HR, Higher attendant risks; ID, Inaccurate dosimetry (also: higher cumulative doses); LSC, Loss of social contacts with healthcare professionals; ML, Medicolegal liability; MS, Medical supervision is crucial for treatment effect (also: lack of control by dermatologists); PT, Phototoxicity; SO, Suboptimality; UC, Unsupervised continuation of irradiations after treatment course.
Advantages Code: CE, Cost-effective; CV, convenient; DM, Demedicalization (also: less sense of invalidism); GC, Good compliance; HF, Higher treatment frequency possible; LA, Less absenteeism (work/school); LC, Lower costs; S, Safe; TS, Time saving.
[a]Eligibility criteria: only criteria concerning the patient's personality.
[b]This study reported use of home UVB equipment in the past 2 years, but reported Self-Administered PASI at the time of the questionnaire.

almost identical, a different distribution across the subcategories was observed. For 64% (131/205) of the Dutch dermatologists 'work/study/school' was the most important subcategory, but for dermatologists from other countries the main subcategory was 'long travel distance/long travel time' (64%, 28/44).

Likewise, analysing the objection of 'poor/suboptimal service and equipment' (the Netherlands 35% vs. other countries 37%), we found that Dutch dermatologists ascribed this objection mainly to human error: 'poor service/supervision/feedback' (30% vs. 18%), while foreign dermatologists saw more hazards in the equipment ('poor/inadequate dosimetry', 9% vs. 24%).

When Dutch dermatologists mentioned some issues significantly more or less often than their colleagues from other countries, the difference is shown with a 95% CI. For instance, non-Dutch dermatologists assumed higher risks of complications and higher costs of treatment, respectively 22% and 20% more frequently than did their Dutch colleagues.

Of all the statistically significant differences between both groups, only three are possibly attributable to differences in experience: the advantage of 'convenience', 'therapy-related advantages' and the fear of 'higher risks'. The first two were mentioned significantly more often by experienced Dutch dermatologists than by their inexperienced Dutch colleagues, while the fear of higher risks was mentioned less often by experienced Dutch dermatologists. Within the group of respondents from other countries, no statistically significant differences were shown between dermatologists reporting the use of home UVB in their country and those reporting no use of this therapy.

Eligibility criteria

Some respondents indicated that, when prescribing home UVB, they impose some eligibility criteria upon their patients, such as intelligence, compliance, motivation and experience. Of the Dutch dermatologists, 18% (44/245) reported using such eligibility criteria (95% CI = 13·2–22·8), compared with 14% (14/97) of the respondents from other countries (95% CI = 7·4–21·4).

Medicolegal liability

As the medicolegal liability of home UVB phototherapy was mentioned both as a possible drawback as well as a question posed to the investigator, this aspect was analysed separately. Only 22 of 245 Dutch dermatologists (9%, 95% CI = 5·4–12·6), and 14 of 97 respondents from other countries (14%, 95% CI = 7·4–21·4) expressed concerns about this aspect.

Discussion

A discrepancy exists between the actual use of home UVB treatment and the opinions found in the literature and guidelines. Home UVB is prescribed for a considerable number of patients

Table 2 Characteristics and outcome of guidelines concerning home UVB phototherapy for psoriasis

Publication			Expressed opinions on home UVB phototherapy		
Country, type, year	Subject	Advice	General drawbacks	Medico-legal liability[a]	Eligibility criteria
U.K., Report on BPG workshop,[12] 1999	Home phototherapy	…should be discouraged unless departments are prepared to invest time and effort to make home treatment as safe and effective as hospital treatment … should be restricted to those with overwhelming difficulties in attending hospital therapy	HR, MS, PT, SO, UC	Yes	Understand and accept the responsibility
Netherlands, Guideline,[16] 2003	Photo(chemo)therapy and systemic therapy for psoriasis	…should be restricted to patients with overwhelming difficulties in attending hospital therapy	AM, HR, ID, MS, PT, SO	Yes	1. Motivated with sufficient comprehension of the therapy 2. Intelligent enough to take responsibility 3. Willing to be regularly examined
Ireland, Guideline,[26] 1997	Photo(chemo)therapy	…is not recommended as patient safety and optimisation of therapeutic regimens would not be possible	AM, HR, SO	–	–
U.S.A., Guideline,[27] 1994	Photo(chemo)therapy	…should be restricted mainly to patients who have difficulty in attending on-site therapy	MS	–	1. Intelligent, motivated and reliable 2. Attend for regular evaluations
U.S.A., Guideline,[28] 1993	Psoriasis	…is inappropriate … should only be used with great caution under the direction of the patient's physician	–	–	–
Germany, Consensus letter, 1999	Home UV phototherapy for psoriasis	1. Invariably, UV phototherapy under direct supervision of a dermatologist (i.e. outpatient therapy) remains preferable 2. Insurance companies should reimburse the costs of home UV phototherapy in exceptional cases like immobility, long travel distances, occupational reasons and being indispensable at home	–	Yes	Intellect and compliance

Drawbacks Code: AM, adequate maintenance of equipment necessary; HR, higher attendant risks; ID, inaccurate dosimetry; MS, medical supervision is crucial for treatment effect (also: lack of direct control by dermatologists); PT, phototoxicity; SO, suboptimality; UC, unsupervised continuation of irradiations after treatment course.
[a]Medico-legal liability was mentioned as a point of concern. BPG, British Photodermatology Group.

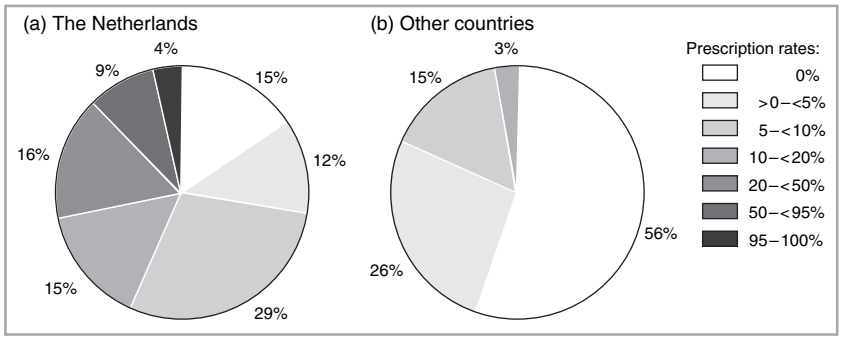

Fig 1. Home ultraviolet B (UVB) phototherapy prescription rates for patients with psoriasis. The figure presents home UVB prescription rates in the Netherlands and in other countries. Dutch dermatologists estimated to what extent they prescribed home UVB phototherapy for their psoriasis patients requiring UVB. Dermatologists from other countries estimated the prescription rate for their country.

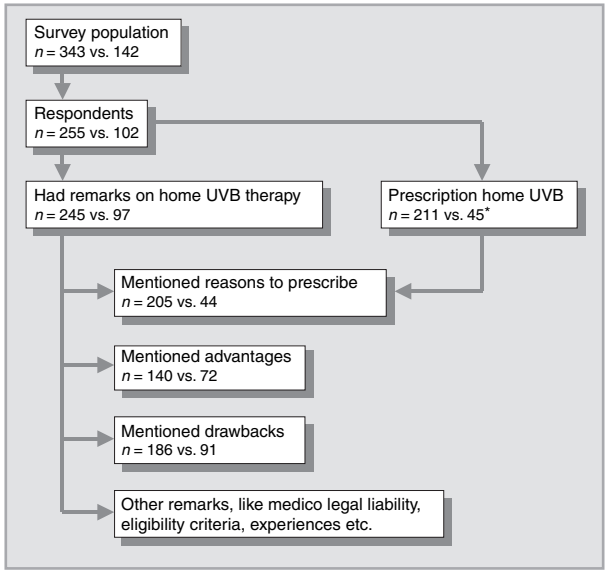

Fig 2. Flowchart: numbers of respondents from the Netherlands vs. respondents from other countries. *The Netherlands: number of respondents prescribing home UVB phototherapy. Other countries: number of respondents reporting the use of home UVB treatment in their country.

while the literature and guidelines suggest that it should be used with caution. In reality, very little is known about this therapy. No randomized research has yet been conducted, and only two observational studies comparing two groups of patients have been performed.[8] Nevertheless, home UVB is currently being prescribed in appreciable frequencies and personal and nonevidence-based opinions on this therapy are widespread.

In this study of home UVB phototherapy we included and analysed all available literature on the topic and every relevant guideline found or brought to our attention. Therefore, to the best of our knowledge, the review of literature and guidelines is complete. The questionnaire survey allowed for an exploration of the actual use of home UVB phototherapy for psoriasis as well as the personal opinions of dermatologists. Neither had been investigated previously. The response rates to the questionnaire were high, 74% and 77%, respectively. On the other hand, the questionnaire was not standardized and validated. Also, categorizing the answers to the open questions left room for interpretation. Another point of consideration is that the questionnaire was sent to all Dutch dermatologists (343), but to only a relatively small selection of dermatologists from other countries (142). Consequently, dermatologists from other countries were asked to give answers concerning their country as a whole, while the answers given by the Dutch dermatologists reflect their personal situation and opinion. It is not unlikely that some of the differences shown between both groups of dermatologists were caused by this difference in selection.

All guidelines and the majority of the literature are reserved about the use of home UVB phototherapy. Interestingly, the nonclinical publications[5,9–14] report far more drawbacks of home UVB than do the clinical studies.[3,4,6–8,15,29] For both the nonclinical publications and the guidelines we conclude that the expressed opinions are largely negative and mostly repeat the statements made in earlier publications. To a large extent these are personal views based on opinion and belief rather than on evidence from clinical research. The clinical studies seem to generate more positive conclusions, mentioning more advantages than drawbacks. Still, these authors also offer mostly personal opinions rather than evidence-based conclusions.

Regarding the questionnaire, almost all of the objections raised by our respondents are related to fear (poor dosimetry, lack of confidence in patients, fear of losing control, fear of more and/or more serious complications, etc.), while only a few objections have been verified through experience or medical evidence. This is consistent with the results from our study of the literature and guidelines. The opinions on home UVB reported by individual dermatologists, however, only partially agreed with those cited in the literature and guidelines. For instance, financial advantages were frequently mentioned in the literature,[3–6,8,10,14] but were reported by only a minority of our respondents. On the other hand, therapy-related benefits were quite frequently mentioned by the individual respondents (mainly Dutch), but not at all in the literature.

Table 3 Reasons for prescribing home ultraviolet UVB phototherapy, perceived advantages and drawbacks. The different response categories and subcategories are shown. The numbers shown are percentages[a] of respondents who gave an answer in (one of) the categories. When the difference between the Netherlands and the other countries was statistically significant, this difference is shown with its 95% confidence interval (95% CI)

			Differences		
Response categories	The Netherlands (%)	Other countries (%)	%	95% CI	Explanations and examples
Reasons for prescribing	**(n = 205)**	**(n = 44)**			
Convenience	30·2	20·5			Convenience, flexibility, freedom, demedicalization
Time, travelling and obligations	79·5	75·0			
Long travel distances/long travel time	23·9	63·6	−39·7	−24·7 to −54·8	… to the clinic
Work, study, school	63·9	25·0	38·9	22·8 to 55·0	Difficult or impossible to take time off
Home bound/no transportation	22·0	11·4			Immobility, also because of small children/family, etc.
Time-saving and saving travel costs	9·8	4·5			
Therapy-related reasons	3·9	2·3			Good effectiveness, good service, high patient compliance, higher treatment frequency possible
Dermatologists' reasons	8·3	0·0	8·3	0·1 to 16·5	No UVB equipment available, not enough personnel
Other reasons	16·6	27·3			e.g. patient's request
Advantages	**(n = 140)**	**(n = 72)**			
Convenience	68·6	54·2	14·4	0·7 to 28·1	Convenience, flexibility, freedom, demedicalization
Time and travelling	41·4	43·1			
Less travelling (distance/time)	17·1	29·2	−12·0	−23·6 to −0·4	
Less absenteeism (work/school/study)	17·1	8·3			
Time-saving and saving travel costs	17·9	17·1			
Therapy-related advantages	28·6	11·1	17·5	5·6 to 29·4	
Good effectiveness	17·1	8·3			Including: higher treatment frequency possible
Good service and supervision/good care	13·6	0·0	13·6	5·5 to 21·7	
High patient compliance	4·3	4·2			
Other advantages	11·4	18·1			e.g. cheaper than therapy in the clinic, less work for personnel in the clinic

Table 3 Continued

Response categories	The Netherlands (%)	Other countries (%)	Differences		Explanations and examples
			%	95% CI	
Drawbacks	**(n = 186)**	**(n = 91)**			
Therapy-related drawbacks	55·4	62·6			
Poor effectiveness	9·1	8·8			
Poor/suboptimal service and equipment	34·9	37·4			Poor service/supervision/feedback, poor or inaccurate dosimetry due to equipment
No confidence in capability of patients	30·1	34·1			Incorrect use (underdosage, overdosage, too frequent etc.), poor patient compliance, unsupervised continuation of irradiations after the treatment
Dermatologists' objections	54·3	44·0			
(Fear of) losing control	50·5	41·8			No control of therapy and (side-) effects, loss to follow-up, no influence on quality of UVB devices
Loss of earnings, labour-intensive	8·1	6·6			Also: difficult to arrange, a lot of paperwork
Time-related drawbacks	11·3	0·0	11·3	4·7 to 17·9	Waiting times for home UVB equipment, delay before a certain effect is accomplished
Higher risks	10·8	33·0	−22·2	−31·9 to −12·6	e.g. burns, side-effects, carcinogenesis, photoageing
Financial drawbacks	12·4	31·9	−19·5	−29·3 to −9·7	Home UVB more expensive for patients, for society and/or insurance companies than UVB in the clinic
Other drawbacks	8·1	14·3			e.g. lack of space at home, abuse of UVB equipment by relatives

[a]Some respondents gave more than one comment, so percentages may add up to more than 100%.

Also, the presumed higher risks of home UVB were an important objection in both the literature and the guidelines,[5,11,12,15,16,26] but only one of 10 Dutch dermatologists considered home UVB to carry a higher risk of complications. While the first of these three differences (the question of costs) may be explained by the somewhat wider perspective taken in the literature compared with individual opinions, the other two differences (therapy-related benefits, higher risks) may be attributed to the relatively broad experience of present-day (Dutch) dermatologists compared with the authors of most of the publications at the time of publication.

Last, but not least, the question of medicolegal liability regarding home UVB phototherapy was an important concern expressed in almost half of the literature and guidelines,[5,8,10–12,14,16] but only a minority of the respondents mentioned it. We conclude that whereas the medicolegal liability with regard to home UVB phototherapy seems important in theory, in practice it is not perceived as such.

Despite the differing opinions, the results of the questionnaires showed that a considerable number of dermatologists prescribes home UVB phototherapy, especially in the Netherlands. This is probably due to the easily accessible system in the Netherlands: home UVB phototherapy equipment can, on prescription from a dermatologist, be rented from home care companies. In addition to the high prescription rates that we found, four previous studies revealed that 25–50% of the psoriasis patients apply self treatment with commercial sunbeds.[19,20,29,30] Based on these facts we conclude that home (UVB) phototherapy is an important therapy for many psoriasis patients, despite the more guarded opinions of professionals.

In conclusion, despite the scarcity of literature and guidelines on home UVB phototherapy, personal and nonevidence-based opinions on this therapy are widespread. Moreover, a considerable proportion of (particularly Dutch) dermatologists prescribes home UVB phototherapy to many of their patients. However, according to the official opinion, home UVB phototherapy should still be used with caution. Home UVB phototherapy remains a contentious and debated treatment, especially with regard to issues like effectiveness, side-effects, quality of life and cost-effectiveness. Only randomized research into the benefits and drawbacks of home UVB phototherapy as compared with UVB phototherapy administered in an outpatient setting will resolve the issue.

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Appendix 1

Number of questionnaire recipients and respondents per country.

Table A1 Number of dermatologists addressed per country and number responding: country (*n* recipients/*n* respondents)

Argentina (5/1)	Germany (10/6)	Norway (3/2)
Australia (4/2)	Greece (3/1)	Philippines (3/1)
Austria (3/3)	Hungary (6/1)	Portugal (3/2)
Belgium (7/4)	Iceland (3/2)	South Africa (3/2)
Canada (5/4)	Ireland (3/3)	Spain (6/5)
China (2/1)	Israel (4/4)	Sweden (4/4)
Czech Republic (2/2)	Italy (7/5)	Switzerland (3/3)
Denmark (4/2)	Japan (3/2)	Thailand (3/2)
Egypt (3/3)	Korea (3/2)	Turkey (3/2)
Finland (3/2)	The Netherlands (343/255)	U.K. (6/6)
France (12/10)	New Zealand (3/3)	U.S.A. (10/10)