

# The Ottawa Home Phototherapy Study

## Are Narrow-band Ultraviolet B Home Units a Viable Option for Continuous or Maintenance Therapy of Photoresponsive Skin Diseases?

Original article by Kay-Anne Haykal and Jean-Pierre DesGroseilliers

From the University of Ottawa Division of Dermatology; Phototherapy Clinics, Ottawa Hospital Civic Campus; and Sisters of Charity Ottawa Health Service, Elisabeth Bruyere Health Centre, Ottawa, Ontario, Canada.

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### BASIC/CLINICAL SCIENCE

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**Background:** Phototherapy is an effective treatment for several photoresponsive diseases. Many patients are unable to attend hospital-based treatment and prefer home phototherapy.

**Objectives:** The purpose of this study is to survey patients who were prescribed home phototherapy to determine the viability of narrow-band ultraviolet B home units in the continuous or maintenance treatment of photoresponsive diseases.

**Methods:** A patient questionnaire was prepared focusing on different areas of interest: the reason for choosing home therapy, appropriate teaching, previous medical treatment, present exposure therapy, improvement of the condition, side effects, regular dermatologic follow-ups, and the effectiveness of this approach. Twenty-seven patients who attended the photodermatology clinics at the Sisters of Charity of Ottawa Health Service at the Elisabeth Bruyère Health Centre in Ottawa and the Ottawa Hospital Civic Campus were contacted, and they completed a questionnaire by telephone or electronic mail.

**Results:** Twenty-five patients completed the questionnaire. One refused to participate, and one was out of the country. The main reasons for choosing home phototherapy were time (40%), travel expenses (25%), difficulty with work schedule (17%), and recommendation by a physician (6%). Other reasons included loss of earnings, personal stress, knowledge that the disease recurs when phototherapy is discontinued, moving from the city, personal stress, and the convenience of being at home. Regarding the effectiveness of the home phototherapy, 24 patients (96%) viewed the home unit approach to be effective. All patients agreed that they would continue the treatment; they would repeat it, and they would recommend it. Few patients reported side effects, such as erythema (36%), blisters (1%), pruritus (8%), and dryness (1%). Fourteen patients (56%) reported not experiencing any side effects.

**Conclusion:** Narrow-band ultraviolet B home phototherapy was found to be an effective form of maintenance therapy for photoresponsive diseases. It is safe and presents few side effects when patients receive appropriate guidelines, teaching, and follow-ups.

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### STUDY SUMMARY:

In 2006, after several years of prescribing Narrowband UVB home phototherapy for patients that "had already responded favorably to phototherapy" at one of the Ottawa clinics, this independent medical study was undertaken to assess "the viability and safety of such treatment".

It was concluded: "NB-UVB home phototherapy was found to be very effective in comparison with hospital therapy. It is safe and presents few side effects when patients receive appropriate guidelines, teaching and follow-ups. Not only is it convenient, it also provides effective savings for the patients who are unable to attend the hospital owing to time, travel, and interference with work schedule. All patients on home therapy were satisfied with their treatment, plan to continue it, and recommend it to others in similar situations."

**A summary of the article's FACTS are:** (With direct quotes from the article in "quotation marks".)

- Twenty-five patients took part in the study; 12 women and 13 men.
- The mean age was 49 years. Ages ranged from 10 to 72 years old.
- Of the 25 patients; 20 had psoriasis, 2 had vitiligo, 2 had mycosis fungoides, and 1 had atopic dermatitis.
- "The duration on home therapy varied from 2 weeks to 1.5 years, and the number of treatments to date was in the range of 10 to 200 treatments."
- All patients "had already responded favorably to phototherapy" at one of the Ottawa clinics.
- All patients used Narrowband UVB home phototherapy devices with Philips /01 311 nm bulbs.
- All patients used Solarc/SolRx home phototherapy devices exclusively.
- Of the Solarc/SolRx devices used; 18 were 1000 Series full body panels (1760UVB-NB and 1780UVB-NB) and 7 were 500 Series Hand/Foot & Spot devices (550UVB-NB).
- The survey consisted of approximately 30 questions. See the Appendix in the article for the actual questions.
- "Solarc Systems Inc. provided no financial support for this study."

**A summary of the article's FINDINGS are:** (With direct quotes from the article in "quotation marks".)

- "Twenty-four (96%) viewed the home unit approach to be effective, and only one patient was not yet convinced." (That patient had the device only for 2 weeks.)
- "All patients agreed that they would continue the treatment; they would repeat it, and they would recommend it."
- "Few patients reported any side effects."

Continued

- "12 patients (48%) described their improvement to be marked, 12 patients said that it was average and only 1 patient reported that it was minimal." (That patient had the device only for 2 weeks.)
- "In comparison between home versus hospital phototherapy, 6 patients (25%) regarded home treatment to be superior, 12 patients (48%) had similar results, and 7 patients viewed the hospital therapy as more effective."
- "Twenty-four patients (96%) believed that the information received by SolArc Systems Inc. was helpful."
- "Twenty-three patients (92%) felt that the ease of operation of the home unit was high, and only two patients said that it was average."
- "Nurses and dermatologists who do not operate a phototherapy center should be aware of the detailed instructions provided by SolArc Systems Inc.. Their role becomes more one of professional follow-up rather than one of education on the operation of the home unit." (Acknowledging the usefulness of the Solarc/SolRx Users Manual.)
- "Over time, it seems that all patients achieve appropriate clearing and recommend home treatment."
- "More than half of the patients were on maintenance treatment as they have achieved resolution of the lesions. It appears that long-term maintenance can be achieved with doses less than one-quarter the minimum erythema dose." (Suggesting that once clearing is achieved, only low UVB-NB doses are needed to maintain substantially lesion-free skin.)
- "The main reasons for choosing home phototherapy were fewer travel expenses, less time required, less difficulty with work schedule, and recommendation by the dermatologist."
- "Sixteen patients (64%) felt that the home phototherapy generated fewer expenses, with the monthly savings varying from \$20 to \$600 depending on the distance traveled and associated expenses and on the work hours missed."

These findings are consistent with the customer feedback Solarc has received in our **Testimonials** section.

Solarc Systems would like to thank Dr. Kay-Anne Haykal, Dr. Jean-Pierre DesGroseilliers and all the staff at the Elisabeth Bruyere and Ottawa Civic Hospitals for completing this study, and their purity of purpose.

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