Home UVB Phototherapy Selection Guide

INTRODUCTION

There are THREE CHOICES to be made when choosing a SolRx UVB phototherapy device:

1. Which Device Family (SolRx Series): 1000, 500 or 100 Series?
2. Which Waveband of Ultraviolet Light: UVB-Narrowband or UVB-Broadband?
3. How many ultraviolet bulbs? (fluorescent lamps)

It is important that you discuss with your physician the best choices for you, and your physician's advice shall always take priority over these selection guidelines. A physician's prescription is required for all products, regardless of intended use.

Each device family, or SolRx "Series", is uniquely designed to perform a different type of phototherapy treatment, generally based on the device's treatment area shape and size. Within each device family are several "device models" that share the same basic construction and features, but differ in the quantity of bulbs, and the wavelength of ultraviolet light they produce. (UVB-Narrowband or UVB-Broadband).

Use these colour-coded charts to gain a better understanding of the relative size and power of the devices. Then read the three choices that follow.
Full Body
(A large percentage of head to toe involvement)
When there is a large percentage of affected area, or there are many small lesions evenly distributed, the SolRx 1000 Series is the usual choice. These powerful units can irradiate a large area and efficiently provide head to toe treatments in a reasonable amount of time, typically 1 to 10 minutes per side. The charts above show that the 1000 Series has much greater treatment area and power than the other device families. If necessary, the treatment area can be reduced by blocking the light using clothing. These machines use exactly the same type of 6 foot long fluorescent bulbs as commonly used by full body machines at phototherapy clinics. The 1000 Series is not readily portable, but can be moved by one person if necessary. Most installations are semi-permanent in the home. Some stay in one location in the home for decades. Machine weights range from about 70 to 100 pounds. The SolRx 1000 Series is Solarc's most common device family.

Hand & Foot Treatment
Hand & Foot treatments are best given using the 500 Series, as it is designed specifically for this capability. The unit is supplied standard with a "hood" to reduce light leakage, just like at the clinic. The hood can be removed quickly and the unit rotated downward to treat the tops of the feet, or any other area of the body. The 500 Series has a grab handle, built tough and very easy to transport. The removeable hood requires no tools for its use. Machine weights range from about 15 to 25 lbs. The 500 Series is available as a rental-purchase, so people can test if UVB-Narrowband is effective before committing to a purchase.

Spot Targeting (Isolated patches)
For spot targeting, there are two possible device family selections, based on the size and number of treatment sites. If there are only a few small isolated patches, such as elbows and knees, the 12.5 sq.in. treatment area, high irradiance and targeting capabilities of the 100 Series may be the best choice. If the patches are larger, the more powerful 500 Series can be used without the hood, to provide about 234 sq.in. (1.6 sq.ft.) of treatment area, which considerably reduces the total treatment time. The mounting yoke allows the unit to rotate any direction. If there are many small isolated patches, using the small 100 Series to treat them individually may be too time consuming. Consider instead grouping the areas together and using the 500 Series, or even the 1000 Series. If you are treating vitiligo, the Aperture Plate system of the 100 Series may be beneficial. The hood of the 500 Series does not require any tools for its installation or removal.

Scalp Treatment - The SolRx Light Brush™
The 100 Series is the only device with the ability to treat the scalp, using the optional patented Light Brush. Scalp treatment is a formidable task. Treatment times can be long. Please carefully review the SolRx Light Brush web-page.
UVB-Waveband selection is determined by your physician based on the disease being treated. Psoriasis and eczema/atopic dermatitis can be treated using UVB-Narrowband or UVB-Broadband. Vitiligo is generally treated with UVB Narrowband only. Waveband selection for other skin diseases such as CTCL, PMLE, pruritus and others are strictly by physician guidance.

Your physician is required to decide which waveband you should be using, and this must be indicated on your prescription.

**1000 Series Full Body**
The 1000 Series is available as either UVB-Broadband or UVB-Narrowband. Solarc's UVB-Narrowband models have an "UVB-NB" suffix in the model number, such as 1740UVB-NB. UVB-Broadband models have the "UVB" suffix only, such as 1760UVB. All 1000 Series models can be interchangeably fitted with either waveband type bulb at a later date, by simply changing the bulbs. A labeling change is required to comply with the medical device regulations.

**500 Series Hand/Foot & Spot Treatment**
The 500 Series is available UVB-Narrowband only. These UVB-Narrowband models have an "UVB-NB" suffix in the model number, such as 530UVB-NB.

**100 Series Hand-Held Spot Targeting**
The 100 Series is available as either UVB-Narrowband or UVB-Broadband. The UVB-Narrowband models have an "UVB-NB" suffix in the model number, such as 120UVB-NB. UVB-Broadband models have the "UVB" suffix only, such as 120UVB. UVB-Broadband may have a role in the clearing phase of scalp psoriasis using the SolRx Light Brush™. All 100 Series models can be interchangeably fitted with either waveband type bulb at a later date, by simply changing the bulbs. A labeling change is required to comply with the medical device regulations.

The number of bulbs has one primary influence: to reduce treatment time. There is a direct relationship between the light output of a device (Irradiance), Dose and Time, as expressed by the equation:

\[
\text{TIME} = \frac{\text{DOSE}}{\text{IRRADIANCE}}
\]

Increasing the number of bulbs increases the Irradiance and therefore reduces the treatment time.

**Comment:** Assuming that the goal is to reduce treatment times, it follows that, when comparing devices of similar size and function, the best equipment value can be generally be determined by simply calculating the cost per watt of total bulb power. For instance, by simply dividing the price in dollars by the total bulb wattage. This, of course, assumes that the devices being compared have the same features such as digital timer, switchlock, reflectors and other accessories.

The second last number in the SolRx model number denotes the number of bulbs. For instance, a 1740UVB has 4 bulbs and a 530UVB-NB has 3 bulbs. The only exception to this is the 10-bulb 1790UVB-NB. The 100 Series is stocked only as the twin-bulb model 120UVB-NB and 120UVB. However, Solarc has the capability and regulatory license to build a single-bulb model 110; available on request.

The choice of number of bulbs is greatly influenced by the skin condition to be treated and, in the case of psoriasis, your skin type (I-VI). For other skin conditions, please consult your Physician. Solarc may also be able to provide information from our library.

Continued…
Psoriasis
For full body UVB Narrowband treatment of psoriasis, the six or eight bulb units (1760UVB-NB & 1780UVB-NB) have become the most popular. Based on feedback from our after sale follow-ups, they provide reasonable treatment times (1-10 minutes per side) and work well for most people. For full body psoriasis patients that require higher dosages, such as dark skinned people or perhaps determined by experience from the phototherapy clinic, the 10-bulb 1790UVB-NB may be a good choice. It provides the lowest treatment times and has the lowest cost per bulb. For very fair skinned people, the 4-bulb 1740UVB-NB may provide reasonable treatment times.

500 Series model selection is similar, with the 3-bulb 530UVB-NB being about as popular as the more powerful 5-bulb 550UVB-NB. For hand & foot treatments, the 550UVB-NB may be a better selection because it has more uniform light output at the recommended hand & foot treatment distance, which is closer than the spot treatment distance. Also, hand & foot treatments often require higher dosages due to the thicker skin. The 500 Series is available as UVB-Narrowband only.

For full body UVB Broadband treatment of psoriasis, the 4-bulb 1740UVB is our most popular. The 6-bulb 1760UVB is a good choice if you might change waveband types at a later date. UVB-Broadband devices usually have fewer bulbs than UVB-Narrowband devices because UVB-Broadband has considerably greater potential to cause erythema (burning), theoretically by a factor of 4 to 5 times. All 1000 and 100 Series units can be interchangeably fitted with either waveband type bulb. A labeling change is required to maintain medical device regulation compliance.

Vitiligo
Practical experience has shown that vitiligo patients can use the models with the least number of bulbs (such as the 1740UVB-NB / 1760UVB-NB and 520UVB-NB / 530UVB-NB ), since great care and lower dosages are needed when treating depigmented skin. Vitiligo is normally not treated with UVB Broadband.

Eczema / Atopic Dermatitis
Treatment times for eczema / atopic dermatitis are less than that for psoriasis, but more than that for vitiligo. Any number of bulbs could be chosen.

More Questions?
If you have any more questions, contact us toll free at 1-866-813-3357. We can also be reached by fax at 705-739-9684 or by email at info@SolarcSystems.com. Our website is www.SolarcSystems.com. We will do our best to help.

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