

Clinical Guide – SHR Module

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1. Introduction

The Spa SHR system with the **SHR Near Infrared (NIR)** module is indicated for the removal of unwanted hair and to effect stable long-term or permanent hair reduction.

Warning

The appropriate protective eyewear should be worn by both the operator and the patient when using this module.

2. Module Operation

The module may be operated under 3 different time intervals: 1, 3 and 30 seconds. In the 1- and 3-second interval the module is used in **Stationary** technique. In the 30-second interval the module is used in the **In-Motion** technique. The 1- and 3-second intervals are used on small areas (face - mustache, chin etc). The 30-second interval is used on larger areas (body – arms, chest, back, legs, axilla, bikini line etc).

The SHR NIR module's spot size is 3 cm² and the pulse repetition rate is fixed at 3 Hz. Ultrasonic gel should be used in both techniques. Appropriate eye protection for the client and the operator is mandatory.

3. Pre-Treatment

3.1. Patient Evaluation

Before hair removal procedures, the patient should be evaluated/documentated for the presence of conditions that may cause hypertrichosis:

- Hormonal
- Familial
- Drugs (i.e., corticosteroids, hormones, immunosuppressive self or spousal use of minoxidil)
- Tumor
- Photosensitizing drugs (gold therapy, etc.)

3.2. Contraindications

- History of local or recurrent skin infection
- Pregnancy (including IVF procedure)
- History of herpes simplex, especially perioral
- History of genital herpes, important when treating the pubic or bikini area
- History of keloids/hypertrophic scarring
- Implantable device (pacemaker, AICD etc.)
- Isotretinoin – past and present
- Epilepsy
- History of Koebnerizing skin disorders, such as vitiligo and psoriasis
- Previous treatment modalities – method, frequency and date of last treatment, as well as response
- Recent (less than 2 weeks) suntan or exposure to a tanning bed
- Tattoos or nevi present on the treated area.
- Past or ongoing medical condition (diabetes, epilepsy, high or low blood pressure, or others)

3.3. Skin Test

Always perform a skin test on the intended treatment area before the first treatment session according to the parameters in Table 1.

The treatment parameters for hair removal depend on the skin type, hair color, hair type, and the density and depth of the hair. Initially, shave the treatment site to eliminate any surface hair that could interfere with the treatment. Mark a grid (using a red pen) on an area of 10x10 cm (100cm²). Treat with the **In-Motion** technique within each treatment grid.

*Table 1: SHR Skin Test Parameters**

Skin Type (Fitzpatrick I-VI)	Fluence (J/cm²)	Total Energy [kJ] *
I	7	2.0
II	7	2.0
III	7	2.0
IV	6	2.0
V	5	2.0
VI	5	2.0

The 1-second and 3-second time intervals are indicated for the **Stationary** technique.

(*) **In-Motion** technique; the total energy is adjusted for a 100cm² area.

4. Treatment

Treatment can begin after the SHR NIR module is connected and the treatment parameter (fluence) and interval is selected according to Table 2.

1. Shave the treatment site to eliminate any surface hair that could interfere with the treatment; remove any hairs debris with adhesive tape.
2. Clean the skin to remove perfumes, cosmetics and sunscreens.
3. Mark a grid (using a red pen) on an area of treatment of about 10x10 cm. Mark additional adjacent grids as needed based on the area size.
4. Provide appropriate eye protection (OD>5) goggles for the patient and the staff in the enclosed treatment room.
5. Apply a thin layer (usually 1-2mm thick) of refrigerated (43-50°F / 6-10°C) cooling ultrasonic gel to the treatment site. The gel will provide: a) a thermal sink for the absorbed and reflected energy, thus providing some cooling to the skin itself; b) comfort to the patient during treatment and; c) friction reduction/lubrication during the **In-Motion** technique.
6. Set the initial fluence and operation time interval (1, 3 or 30 sec) parameter according to the skin test results and the size of the treatment area.
7. In most cases, operation time intervals should be set for 30 seconds for large areas; the 1- and 3-second interval should be selected for very small areas on the face, like the upper lip and chin (using the **Stationary** technique rather than the In-Motion technique).
8. Place the module perpendicular to the skin and touch the skin to ensure a good seal. Do not apply excessive pressure on the skin.
9. Treat within the grid area in an **In-Motion** technique according to the recommended parameters and passes.
10. **In-Motion Technique:**
 - Move the module on the surface of the skin and, only when the module is in full contact and "in-motion", then trigger the footswitch.
 - Move the module in continuous linear or circular motions, to cover the entire grid area. This repeated pattern may last several minutes, depending on the recommended total energy (**kJ**) you wish to deliver in the grid area.
 - After completing a single interval, raise the module from the skin, re-position at the point where you began treatment in this grid and repeat another interval on the entire grid area.
 - After completing the recommended number of intervals, move to the contra-lateral side and repeat as above.
 - Check skin reaction; if the skin reaction is not apparent - repeat. Repeat until clinical end points are visible.

- Observe for erythema or perifollicular erythema/edema (i.e., end points).
 - Examine the treatment site for change of skin color and morphological changes around the follicles (erythema/edema). The smell of burnt hair may sometimes be detected, although its absence does not necessarily indicate that the present parameters are ineffective.
- 11. Stationary Technique:** apply ultrasonic gel to the treatment area.
- In the **Stationary** technique, use the 1- or 3-second interval; up to 10% overlapping is an acceptable tolerance.
- 12.** Set the fluence parameters according to the parameters indicated in Table 1 (provided that the patient has tolerated the skin test).
- 13.** Trigger a pulse by continuously pressing the footswitch for the entire time interval; the module will stop emitting light automatically unless interrupted by the operator (releasing the footswitch). In order to continue, the footswitch must be pressed again.
- Check skin reaction; if the skin reaction is not apparent - repeat. Repeat until clinical end points are visible.
 - Observe for erythema or perifollicular erythema/edema (i.e., end points).
 - Examine the treatment site for change of skin color and morphological changes around the follicles (erythema/edema). The smell of burnt hair may sometimes be detected, although its absence does not necessarily indicate that the present parameters are ineffective.
- 14.** If there are no noticeable changes on the skin (Skin Types IV-VI) or near the hair follicles, do not repeat.
- 15.** If adverse skin effects occur (such as excessive reddening) before the desired follicular response is achieved, adjust the treatment parameters to reduce the aggressiveness of the treatment.
- 16.** After treatment it is recommended to cool the area immediately with cold (water based) cloth or gauze, and apply Aloe Vera gel.

5. Suggested Setup Parameters

The treatment parameters for hair removal depend on the skin type, hair color, hair type and the density & depth of the hair. Treat using with the **In-Motion** technique within each treatment grid.

Table 2: SHR Suggested Setup Parameters

Skin Type (Fitzpatrick I-VI)	Fluence (J/cm²)	Total Energy [kJ] *
I	7	3.2
II	7	3.2
III	7	3.2
IV	6	3.2
V	5	2.8
VI	5	2.8

- (*) The total energy is adjusted for a 100cm² area at 30 sec intervals. The 1- and 3-second operation is indicated for the **Stationary** technique. In the Stationary mode multiple pulses/repetitions should be employed until clinical end-points are visible.

Table 3: Suggested Total Energy (kJ) delivered per Anatomic Area

Anatomic Area	Number of Grids	Total Energy (kJ)
Chest & Abdomen	12	38 – 40
Axilla	1	3.2
Back	12	38 – 40
Bikini	1	3.2
Upper Arm	6	18 – 20
Lower Arm	5	16 – 18
Upper Leg	10	32 – 34
Lower Leg	8	25 – 27

6. Follow-Up

Measures presented below are only the manufacturer's recommendations for follow-up. They may serve as a basis for defining your treatment regimen.

- Patients should return for examination of the treatment site between six to eight weeks after treatment and for additional treatment, if necessary.
- If no additional treatment is necessary, the patient should return for an additional re-examination three to four months later, or when any new hair has grown in the treatment area.

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- If there has been partial hair clearance, treatment should be continued and the patient should return between six to eight weeks for examination and for additional treatment, if necessary.
- If no change is noted, treatment parameters and the amount of total energy (i.e. number of passes) should be changed. With multiple treatments, increase the time intervals between treatment sessions (after the second one), to allow any new hair to grow in the treatment area. New growth will vary based on the body area (growth cycle) and on the individual patient (gender, hormonal problems, etc.).
- Patients should be instructed to avoid sun exposure for several days after treatment.
- Treatment intervals: treatment is reapplied (assuring there have been no adverse reactions) at 4-8 week intervals.