Ideal For Variety Environments Application

Used in a variety of environmental conditions, such as in neonatal intensive care unit (NICU), baby room and it also could be used at home.

Specifications and Performance

Performance				
Configuration of fiber blanket	Irradiance Level	Effective irradiation area(mm)	The average total bilirubin irradiance (μw/cm²/nm)	Maximum total bilirubin irradiance (μw/cm²/nm)
Large fiber blanket	High	171 x 270	⩾ 37	⩾ 58
	Low		⩾ 23	⩾ 40
Small fiber blanket	High	141 x 222	⩾ 50	⩾ 83
	Low		⩾ 33	⩾ 53

Uniformity of total bilirubin in effective irradiance area: ⩾0.4
Noise grade: ⩽40dB

Alarm: Equipment overheating alarm, Fan failure alarm
Function timing: Patient timing, LED timing of life

Physical Parameters		Operating Environment		Transport, Storage Environment	
Light source box dimension	16cm(W) × 22cm(D) × 16cm(H)	Environmental Temperature	+5℃ ~ +30℃	Environmental Temperature	−40℃ ~ +55℃
Fiber-optic blanket face size (large blanket)	19cm (W) × 42cm (L)	Humidity	10%RH ~ 93%RH, no condensation	Humidity	10%RH ~ 93%RH
Fiber-optic blanket face size (small blanket)	14cm (W) × 34cm (L)				
The total weight of light source box	⩽2.0Kg	Atmospheric Pressure	70kPa ~ 106kPa	Atmospheric Pressure	50kPa ~ 106kPa
Total length of Fiber-optic blanket overall	180cm ± 5cm				

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Specifications are changed without notice for performance improvement. Printed date: JUN 2017 Version No.: 1

NBP-I

NEONATE BILIRUBIN PHOTOTHERAPY EQUIPMENT

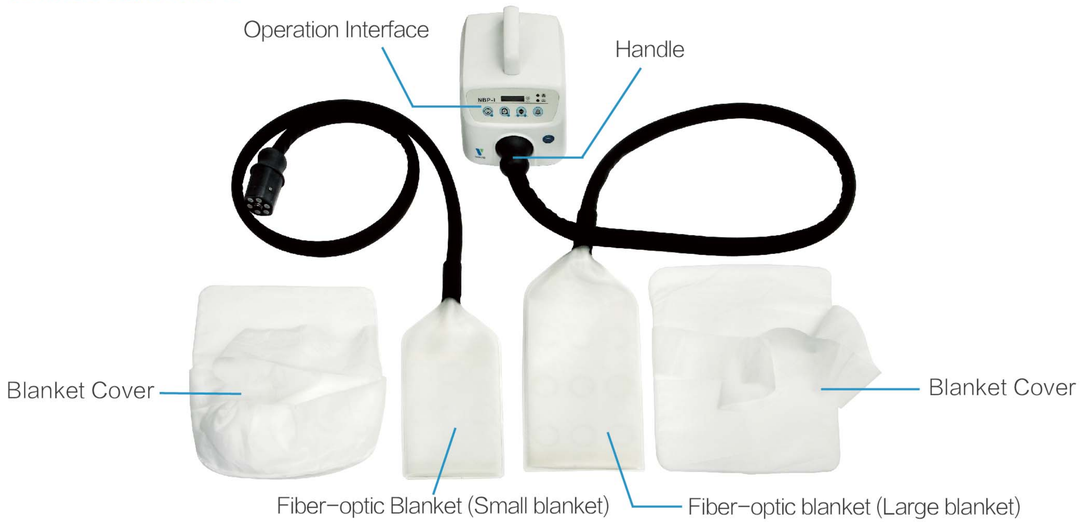
- Small & Portable
- Infant-parent Bonding
- Intensive Phototherapy System
- Shorter Time Therapeutic Process

Brief Introduction

NBP-I is designed to be used in any environment such as NICU, Baby Nursery Center or at home as an excellent treatment solution for newborns with indirect hyperbilirubinemia (usually called Neonatal Jaundice).

DAVID
Stock code[300314]

Product Structure



Product Characteristics

As a new generation of jaundice treatment (Intensive Phototherapy)equipment, the product is equipped with the high power & narrow-band LED and fiber-optic conduction technology, professional solution for neonatal hyperbilirubinemia treatment, to give newborns safer and efficient medical care in a soft-flexible design. The product is in full compliance with the American Pediatric Association (AAP) Clinical Guidelines * on Intensive Phototherapy guidelines.

- **Narrow-band LED light :** Light source main wavelength range: 430-470 nm;
- **High Spectral Irradiance:** Total bilirubin total irradiance ≥30 μ W/cm^2/nm;
- **Increased Surface Area:** Large enough effective area of radiation;
- **Infant-parent Bonding:** The blue LED light emits from the back of the infant. The infant skin directly contacts with the irradiated surface to allow the parents or caregivers to hold the swaddled or covered baby with blanket throughout the whole therapeutic process.

*American Academy of Pediatrics, clinical practice guideline, subcommittee on hyperbilirubinemia: Management of hyperbilirubinemia in the newborn infant 35 or more weeks of gestation, 2004; 297-316

Clinical Features

Advantages compared with traditional bilirubin phototherapy equipment:

Fiber-optic Conduction Technology, Direct Skin Contact

The product is placed underneath the newborns, which is directly contact to the infant skin, to deliver intensive phototherapy through high power & narrow-band blue LED source and fiber-optic blanket. Allow repeated intermittent treatment to improve the therapeutic effect. Blue LED is cold light source, which is no damage to the infant skin.

Clinical Features

Advantages compared with traditional bilirubin phototherapy equipment:

Synchronous Treatment

The NBP-I can be applied in conjunction with the radiant warmer, incubator, and infant bed for the synchronous treatment, without any interference.

Small and Soft Blanket, Portable System

The fiber-optic blanket is designed to comply with the human factor engineering, which is soft and comfortable to the small patient with no skin irritation.The whole system is small size, easy to carry around, exceptionally convenient for home application.

Turn Infant-parent Bonding into Reality

Allow the parents or caregivers to hold the swaddled or covered baby with blanket throughout the whole therapeutic process. Facilitate mother breast feeding the newborn baby, and build up the interactive intimate relationship between each other, to meet the infant's physical and psychological needs.

Safe

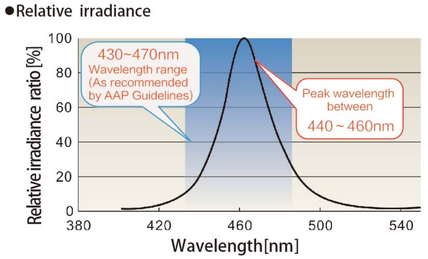
a. The narrow band LED does not emit light in the range of UV and IR, the emitted light is always within stable light wavelength spectrum;

b. Small side effect on infant (such as fever, irritability crying, vomiting, diarrhea, rash, riboflavin deficiency and hemolysis and bronchial disease, etc.), convenient for processing medical care;

c. Infant can be covered with blanket to avoid the light pollution to the surrounding environment and people.

Intensive Phototherapy, Shorter Time Therapeutic Process

The light source emits blue light in the 440-460nm spectrum (The peak absorption wavelength 458 nm at which bilirubin is broken down). The light source is kind of high power and narrow band LEDs.

Light Source

Phototherapy light source	Blue LED light
Light source effective using life	not lower than 10000 hours
Light source life	not lower than 50000 hours
Dominant wavelength	430～470nm (Crest 440～460nm)