

ABSTRACT

Phototherapy is a method to cure icterus or hiperbilirubin which has function to prevent the increase of bilirubin level then the exchange transfusion doesn't need to do. According to study from M. Jeffrey Maisels (Pediatrics Vol. 98, No, 2, Agustus 1996: Why use Homoeopathic Doses of Phototherapy), the efficacy of phototherapy depends on three factors are the spectrum of the light, power output of the light, and the surface area of the infant expose to phototherapy. On this device 'Bilibed Phototherapy Unit' the spectrum of light is delivered by bluelight lamp with waveleght specification 400-550 nm on 10 cm distance from the lamp. This device has four timmer settings are 6 hours, 12 hours, 18 hours, and 24 hours which set by up and down push button.

This 'Bilibed Phototherapy Unit' uses stopwatch to calibrate and luxmeter. The error value are 0,0185% at 6 hours, 0,0004% at 12 hours, 0,0021% at 18 hours, and 0,0006% at 24 hours. And the strongest intensity of light is 3910 lux and the most weak intensity is 3664 lux. According to the measurement data result, the conclusion is the 'Bilibed Phototherapy Unit' can to be used as theurapetic device.

Keywords : Phototherapy, Spectrum of light, Timer.