STUDY ON PERFORMANCE OF PHOTOTHERAPY UNIT IN RSU HAJI SURABAYA

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Abstract

Phototherapy unit is healthy instrument that give lighting with certain spectrum that can make level bilirubin’s blood of newborn baby that suffer hyperbilirubin lower. Therapy given with radiation blue light shape with the wavelength of 430-490 nm with radiation level of about 13770 µW/cm². There was an improper procedure in the use of phototherapy apparatus type My Life MP-71 at RSU Haji Surabaya, specifically in determining distance between the apparatus and the object. Beside this, the evaluation on the reliability is required considering that the apparatus has been used frequently. In this final project, the effective distance between the apparatus to the object has been investigated considering required radiation. It is shown that for required radiation intensity of 1321 µW/cm² the radiation distance is ±20 cm. On the other hand, from the quantitative evaluation of apparatus performance it can be shown that the total reliability is 0,824 at the 20th days while the inherent availability total is 0,994.

Keyword: Measurement, Reliability, Phototherapy unit.