

Body Temperature Changes of Newborns Under Fluorescent Versus LED Phototherapy: Correspondence

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To the Editor: We read with great interest the article by Aydemir et al. [1] that compared the body temperature (BT) changes of newborns under conventional phototherapy with fluorescent lamps and light emitting diodes (LED) phototherapy at different irradiances. The authors suggest that LED phototherapy of $\geq 60 \mu\text{W}/\text{cm}^2/\text{nm}$ intensity significantly increases BT in hyperbilirubinemic newborns. Furthermore, they reported that all patients receiving LED phototherapy at high intensity had at least one BT measurement of $\geq 37.5^\circ\text{C}$ and 77 % had BT of $\geq 38^\circ\text{C}$. And also, interestingly, there no any case with hyperthermia in conventional phototherapy group. But, as stated in the article, best to our knowledge the LED based devices produce minimal heat while generating high irradiance [2]. We think these hyperthermia rates are very high based upon our knowledge and daily clinical practice.

In addition, because LED based devices do not produce much heat, hypothermia may be a problem for small and sick newborns, and also in environments without temperature control, for example in an open crib. Therefore, in such situations, closer temperature monitoring, and also an external heat source may be required [3].

Our conclusion is that more studies are required to confirm that LED phototherapy causes more side effect of hyperthermia than conventional phototherapy in newborns.

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Conflict of Interest None.

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