Does a Higher Ambient Temperature in the Delivery Room Prevent Hypothermia in Preterm Infants < 1500 g?

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Aim Postnatal hypothermia as well as hyperthermia in VLBW infants is known to cause an increase in morbidity and mortality in the newborn period. Therefore it is essential to maintain an adequate body temperature in preterm infants. To prevent hypothermia, various methods such as warming respirator gas, warmed blankets, sterile polyethylene bags, etc. have been investigated and proven. Because no general recommendation on the ideal ambient temperature in the delivery room exists, we investigated whether a higher ambient temperature (34°C vs. 28°C) in the delivery room may help prevent hypothermia in VLBW infants.

Methods Comparison of the rectal temperature of VLBW infants on admission to the NICU. Population 1 vs. Population 2: delivery room ambient temperature 28°C vs. 34°C.

Results Population 2 (VLBW infants born in the delivery room at an ambient temperature of 34°C) showed a lower number of hypothermic infants on admission (rectal temperature <36.0°C), but also an increase in hyperthermic preterm babies (rectal temperature >37.5°C).

Conclusion To prevent hypothermia in preterm infants, one essential factor may be a higher ambient temperature in the delivery room. Further studies are needed to confirm these findings and perhaps recommend an ideal temperature for the delivery room.