A comparative study on the temperature recording by infrared thermometer and axillary electronic thermometer

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Measuring temperature is an essential part of nursing care and has been widely accepted as an indication of a patient’s clinical condition. There are various ways and methods to measure the temperature and each has its own advantages and disadvantages. The present study was done in Special Newborn Care Unit of Christian Hospital Chhatarpur to compare the temperature recording in different part of the body using electronic and infrared thermometer (Multifunctional Infrared thermometer PC808). After due permission from the IRB and the ethics committee, a specially trained neonatal intensive care nurse measured the temperature at axilla by electronic thermometer, and in forehead, chest and abdomen by the Infrared Thermometer (IRT) by convenience sampling. The results were entered in Microsoft Excel and analyzed by standard deviation and mean. A total of 25 sample were collected of which 18 (75%) were preterm, 5 (20%) post-dated and the 5% were term. The mean temperature by axillary measurement was 36.9±0.52 whereas the IRT head, IRT Chest and IRT abdomen were 36.9±0.42, 36.9±0.42 and 37.4±0.46, respectively. The most accurate measurement of IRT is the temperature measurement from forehead.

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