**A quality improvement project to reduce hypothermia in preterm infants on admission to the neonatal intensive care unit**

**Dr Pranali Zala, Dr Jatin Mistri, Dr Anuj Grover, Dr Ravi Parikh**

**Setu Newborn Care Centre, Ahmedabad**

**Introduction :**

Hypothermia is a major risk factor for morbidity and mortality in neonate in preterm infant. We performed a quality improvement (QI) project to reduce hypothermia at admission.

**Aim & Objective:**

To reduce the incidence of hypothermia at admission (<36°) in preterm VLBW infants on admission using a multi intervention quality improvement project in our unit.

**Methods**

Total 63 Preterm infants with birth weight of < 1.5 kg who were admitted in the neonatal intensive care unit were enrolled in this study over 6 months. Axillary temperature recorded after admission. Pre study analysis involved investigating risk factors for hypothermia and staff understanding of hypothermia prevention.

The QI project was conducted and tested by two PDSA (Plan-Do-Study-Act) cycles. The QI initiative changes in form of early setting up of radiant warmer prior to arrival at delivery, easy accessibility of appropriate size hats, and use of polythene bags in babies below 1.5 kg, were implemented during 1st cycle. In second cycle, changes were in form of increasing delivery room temperature to 25° c, use of warm gel packs in transport and staff training & awareness.

**Results:**

The mean temperature rose from 35.7°C to 36.4 °C. The incidence of hypothermia decreased from 30% to 22% after 1st cycle, and 11% from 22% after 2nd cycle. Hyperthermia was not recorded in our study.

**Conclusion :**

We demonstrated significant decrease in incidence of admission hypothermia on NICU following the introduction of standardised QI protocols.