



NCCU CLINICAL GUIDELINES  
SECTION: 4

## THERMOREGULATION

Section: 4 Thermoregulation  
Admission of infants onto radiant warmer less than 30weeks gestation  
or 1500gms birth weight  
Date Revised: July 2011

Neonatology Clinical Guidelines  
King Edward Memorial/Princess Margaret Hospitals

Perth Western Australia

---

### ADMISSION OF INFANTS TO A RADIANT WARMER LESS THAN 30 WEEKS GESTATION OR 1500GMS BIRTH WEIGHT

---

#### EQUIPMENT

- Radiant warmer,
- Plastic Wrap
- Temperature probe
- Hat
- Thermal tunnel
- Plastic sheeting with sticky tape (only for intubated infants)
- Plastic cling wrap
- External humidification unit and tubing (2-3 may be required)
- Humidification set up, base and tubing
- hypotonic water for injection ( 1000ml bag)
- Aluminium foil

#### PROCEDURE

- On admission, weigh the infant (*this may be done on portable scales or a radiant warmer with fitted scales.*) *The infant should be weighed with blankets fused at delivery if using portable scales.*
- Place the infant on a pre-warmed radiant warmer, which is set at 36.6<sup>0</sup>C, on infant servo control (ISC).
- Plastic wraps may be left around the infant to reduce heat loss or a pre warmed wrap be placed over the infant to prevent heat loss.
- Place a pre-warmed hat on the infant.
- Attach the skin temperature probe (ISC) on the lateral abdomen.
- Check the infant's axilla temperature. Ascertain correlation with the skin Temperature probe.

- Humidification is to be provided as quickly as possible to infants born <30 weeks gestation when admitted onto a radiant warmer.
- Set up 2- 3 external humidifier units with the base temperatures set at 37<sup>0</sup>C, each attached to airflow of 10L/min of air. (*this should be done prior to the admission for all infants under 30 weeks gestation, the lower the gestation the more humidifiers required*)
- Cover the infant with a pre-warmed Perspex thermal tunnel. If the infant is ventilated attach a sheet of plastic to each end of the tunnel using sticky tape. Warmed plastic sheet may be used as an effective cover for keeping infants warm when the tunnel requires removal
- Position the humidifier tubing so that it directs humidified air inside the tunnel. Never have the humidified air directed straight at the infant and always on the opposite side to the face, as burns may occur.
- Stretch the plastic cling wrap from one wall of the radiant warmer to the opposite wall. Continue this procedure along the length of the radiant warmer bed until it is completely covered, **(only if the infant is ventilated)**.
- **Observe the heater output reading to ascertain effectiveness of external humidity .**
- Observe minimal handling principles. When access is needed to the infant, remove as little of the plastic coverings as possible.
- Transfer the infant to an incubator when the admission procedure is completed.
- Plastic thermal tunnels can limit the radiant heat transfer to the infant and therefore require more heat generation from the radiant warmer. Thermal tunnels are only to be used on radiant warmers in conjunction with humidifiers.
- Per Axilla temperature should be checked hourly until within normal limits
- **Documentation should include the infants PA admission temperature along with the heater output, radiant heater set temperature and the temperature probe reading.**