Radiant Warmer

Radiant warmers use overhead heating elements to provide radiating heat and prevent hypothermia.

**USE FOR**
- Resuscitation
- Patient assessment & stabilisation
- Hypothermia treatment
- Undertaking invasive procedures

**STANDARD OF CARE**
A normal neonatal temperature is 36.5°C to 37.5°C.

**ASSESSMENT & PREPARATION**

1. **ASSESS PATIENT**
   - Select appropriate mode:
     - **Prewarm** provides constant low heat to warm cot bedding before patient is placed on the device.
     - **Automatic** (servo or baby mode) adjusts heating to maintain patient’s temperature within normal range. Servo/automatic mode should always be used with a temperature probe.
     - **Manual** provides constant heat set by the user.

2. **PREPARE DEVICE**
   - **A** Select manual setting at 25% OR prewarm setting to warm cot bedding
   - **B** Plug temperature probe into temperature probe port
   - **C** Hold temperature probe in hand directly under heating element to check for heat

3. **PREPARE PATIENT**
   - **Follow handwashing protocol**
   - **Select servo/automatic mode**
     - **A** Position patient in middle of cot, being careful to keep any tubing in place
     - **B** Place temperature probe directly on the patient’s liver and secure with tape

4. **MONITOR TREATMENT**
   - Monitor patient’s temperature 5 minutes after starting on radiant warmer and pay close attention to these alarms:
     - **Temperature:** recorded temperatures below OR above the safe range for the patient
     - **System failure:** problem with system no longer providing heat OR no longer monitoring the patient
     - **Probe failure:** temperature probe is not secured appropriately OR the probe has malfunctioned
     - **Power failure:** mains power to device has been disconnected or failed

5. **REMOVE PATIENT FROM DEVICE**
   - Power off and unplug radiant warmer
   - Move infant to KMC, incubator or swaddle as appropriate
   - **Disinfect and wipe** temperature probe, control panel, power button, cot including walls and mattress and base with 70% alcohol
   - Check patient’s temperature after **30 minutes** to ensure normal body temperature is maintained

**COMPLICATIONS**
- hyperthermia and heat stress
- hypothermia and cold stress
- sensor site trauma
- Baby falling from radiant warmer

**DISINFECTION & INFECTION PREVENTION**
- Clean hands with soap and water or alcohol before and after handling materials that will be used on a patient
- Ensure bedding, both sides of the mattress, the cot and probes have been cleaned before use
- Store all probe cables by wrapping loosely and securing in a clean, dry location
- Ideally use device and temperature probe on ONE PATIENT at a time
- Refer to the General Infection Prevention Module

**NEST360**

**Thermal Management — Radiant Warmer (MTTS)**

**Clinical Job Aid**
Radiant Warmer

Radiant warmers should be plugged into their own socket with a surge protector if available. Warmers should be away from any windows to avoid air currents providing the potential for additional convective heat loss. Windows are preferably kept closed.

**DAILY MAINTENANCE**

Always wipe the radiant warmer and probe with alcohol using gauze before first use and between patients.

**PREVENTIVE MAINTENANCE**

Test heating elements and temperature probe weekly.

Do weekly power loss alarm tests: while the radiant warmer is plugged in and turned on, turn off power at wall socket.

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If the radiant warmer is not turning on

- Check the power cable is firmly plugged in and the power switch on the back of the device is turned on.
- If the radiant warmer does not turn on replace the power cable.

If the radiant warmer display is turning on but is not heating properly

- If **power failure alarm** is showing on the display, check power switch, power source and cable.
  - If **system failure alarm** is showing, contact your maintenance department.
  - If **in manual mode**, make sure power setting is set to a value above 0%.
  - If **probe alarm** is showing, replace probe with a spare or contact your maintenance department.

If the radiant warmer display is turning on but temperature probe is not reading patient’s temperature

- Hold the temperature probe in the palm of your hand and watch temperature reading to see if it changes.
  - If the temperature does not change replace the probe.

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**CONTACT A TECHNICIAN OR MAINTENANCE DEPARTMENT IF DEVICE CONTINUES TO NOT WORK PROPERLY AFTER ADDRESSING THE COMMON ISSUES**