

## Use of the CosyTherm™ Hot Cot

### Background

**Management of body temperature in neonates is often challenging. The tendency for hypothermia is well documented and can have serious implications. Active warming of pre-term and low birth weight babies can therefore reduce complications and improve outcomes.**

The use of the CosyTherm™ Hot Cot is to provide an optimal environment for thermoregulation when weaning a baby from an incubator into an open cot whilst allowing them to still maintain good weight gain. It also allows parents to become more involved with their baby's care and is seen as "progress".

The mattress is designed to provide the baby with pressure relief using an integral foam pad which will cushion the baby. The heat is given off through a special conductive heating material which will only provide heat when pressure is applied to the mattress.

### Criteria for transfer to Hot Cot

- Well premature or LBW babies who are maintaining their axillary temperature between 36.6°C – 37.2°C in an incubator set at  $\leq 32.0^\circ\text{C}$
- Current baby weight  $\geq 1.4\text{kg}$  with adequate weight gain (average approximately 15-25g/kg/day)
- Ensure the baby is not septic and their observations are stable prior to getting them dressed
- Consider their respiratory support. Babies can be nursed on Vapotherm or CPAP but they would need to be in a larger cot whose sides can collapse to prevent water rising up the tube
- Ensure the baby is stable enough to be dressed

### How does it work?

The CosyTherm™ Hot Cot has 3 different temperature ranges increasing by increments of 0.5°C:

- 28°C – 35°C
- 33°C - 37°C – **please ensure that the control unit is set to this range**
- 32°C - 39°C

To change the temperature range, press the right hand alarm button on the control unit. Once the safety checks have taken place, press and hold the left hand button and scroll through using the middle button to select the correct temperature range.

### Preparing the CosyTherm™:

- Secure the control unit to the side of the cot and plug into the mains supply
- Ensure the mattress is placed into the cot with the printed side underneath away from the infant
- Switch the control unit on by pressing the green power switch on the right hand side of the machine
- The machine will perform a series of safety checks

- Start the Hot Cot at a temperature of 37°C. The mattress should only take a couple of minutes to reach the set temperature
- When the system is first turned on it will default to the most recent temperature range and setting
- Select the correct temperature setting and wait for it to set prior to transferring the infant
- Cover the mattress with one single sheet. Do not use a nest as it will cause too many layers between the infant and the mattress. If you do need to provide a boundary, use a towel or a 'bendy'.

### **Benefits include**

- Allowing the family to be more independent with their baby's care
- Takes up less room in the nursery
- Is perceived as 'progress'

### **Best practice points when nursing an infant in a Hot Cot**

- Dress the baby using one layer of clothing to enable the heat to get through to the baby (hats may be used on small infants)
- If the baby is unable to maintain their temperature with the Hot Cot set at 37°C then transfer back into an incubator
- As you reduce the hot cot temperature, increase the layers of clothing
- Cover the mattress with **one sheet** to allow the heat to reach the baby
- A maximum of **3 sheets or blankets** should be used to cover the baby. If the baby is not able to maintain their axilla temperature then consider putting them back into an incubator
- Ensure an axilla temperature is taken a minimum of 4 hours and the Hot Cot adjusted accordingly

### **Weaning an infant from a Hot Cot into an Open Cot:**

- Adjust the Hot Cot by 0.5°C at a time and assess the baby's temperature
- Nurse the baby in a single layer of clothing until the Hot Cot has been reduced to 36.0°C then add a vest underneath the babygro
- Once the Hot Cot has been reduced to 33.0°C, add a cardigan if required and turn the Hot Cot off.
- The baby can be nursed on the mattress when it is switched off. Keep the baby on the mattress until you are happy that it is no longer required

### **Cleaning and storage**

- Ensure the unit is removed from the power supply before cleaning
- Clean the control unit and mattress with detergent wipes as per local policy
- Store the mattress flat in the store cupboard or in a clean cot ready for use. You do not need to keep the units plugged in

- Always check the mattress and control unit are in good condition prior to use

### **Problem Solving**

- If the Hot Cot control unit displays a warning message please consult the operating instructions or quick reference guide for further instructions
- If the fault cannot be rectified, put the unit out of use, attach a yellow label stating the fault and include your signature so that confirmation of the problem can be clarified. Notify the NICU housekeeper to arrange for repair.

### **References**

Inditherm Medical Cosytherm™ Operating Instructions

Inditherm Medical Competency Statement

### **Guideline**

Prepared by Sr. Rachel Potter, Neonatal Sister & Educational Support

Reviewed by Neonatal Band 6 and Band 7 nursing staff, comments incorporated

Reviewed by Dr. Peter Reynolds, minor amendments

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Reviewed by Sara Robertson NICU Matron, minor additions.

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