

## **NEONATAL SERVICES DIVISION**

Approved by Safety & Quality Committee May 2022

## **TransWarmer**®

This Local Operating Procedure is developed to guide safe clinical practice in Newborn Care Centre (NCC) at The Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this Local Operating Procedure.

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## INTRODUCTION

The TransWarmer® is a gel-filled, disposable thermal mattress designed to provide up to two hours of warming for safe management of hypothermia in infants.

## 1. AIM

 To guide safe use of the TransWarmer® at birth or during transport of infant from delivery suite/Operating Theatre/MRI or during clinical procedures

## 2. PATIENT

• Infants with axillary temperature <36.5 degrees

#### NOTE:

The TransWarmer® is indicated when other methods of keeping the infant warm are insufficient or not available (eg. during transport)

## 3. STAFF

• Medical and nursing staff

## 4. EQUIPMENT

• TransWarmer® mattress

NOTE:

Lay the infant on the fabric (non-instruction) side of the Transwarmer® mattress. Switch off any heating mattress to avoid skin burns.

# 5. CLINICAL PRACTICE

## Procedure

- 1. Identify the infant requiring TransWarmer® mattress. Common indications include:
  - a. Preterm infants <28 weeks or <1000 g at delivery when axillary temperature <36.5 degrees despite NeoHelp
  - b. Preterm infants for transport to NCC when axillary temperature <36.5 degree prior to moving
  - c. Infants for transport to/from Operating Theatre or MRI with axillary temperature <36.5 degrees
  - d. Infants undergoing a clinical procedure with axillary temperature <36.5 degrees
- 2. Ensure TransWarmer® is clear and has not been activated prior to use.
- 3. Locate the metal disc in the mattress (Picture 1 [mark X]).
- 4. Bend and flex disc rapidly to activate until the gel slowly turns milky white (Picture1 [mark Y]).
- 5. Knead the pack to increase activation (indicated by pack turning completely white).
- 6. Mold TransWarmer® mattress with the palm of hand to form a small "nest"/indentation in the fabric side.
- 7. Place infant on the fabric side of activated TransWarmer® (Picture 1).
- 8. Check infant's temperature after 10 minutes of using TransWarmer® mattress (avoid hyperthermia [temperature >37.5 degrees).
- 9. Remove TransWarmer® mattress when euthermia is achieved.



Picture 1

#### NOTE:

If using NeoHelp<sup>™</sup> or freezer bag, leave the infant in the bag while using the Transwarmer ® mattress (Picture 2).

Remove and replace NeoHelp<sup>™</sup> if there is excessive fluid in the bag over an extended period post-resuscitation.

## 6. DOCUMENTATION

- eMR
- Neonatal Observation Chart
- NICUS database

## 7. EDUCATIONAL NOTES

- The TransWarmer<sup>®</sup> consists of two activatable materials, anhydrous sodium acetate and hydroxyethyl cellulose, which warms within 90 seconds and maintains 40 degrees for up to two hours.
- The gel is non-toxic and does not irritate the skins or eyes, in case direct contact is made.
- Designed for single use to minimise the risk of cross-contamination and is also radiolucent and MRI compatible.
- Ensure any surface heating mattress (in the incubator) is turned off whilst TransWarmer® to avoid overheating and burns.
- Do not place TransWarmer® directly on cold surfaces as heat is conducted to cold surfaces, reducing its efficiency.
- TransWarmer® provides warmth for two hours only. Remove from under the infant after two hours of use to prevent recurrence of hypothermia.
- Activate TransWarmer® immediately prior to use to maximise use.
- TransWarmer® is to be stored at room temperature.

#### 8. RELATED POLICIES/PROCEDURES/CLINICAL PRACTICE LOP

- RHW NCC Medical LOP Preterm Infants Delivery Management for Extremely Preterm Infants less than 26 Weeks Gestation
- RHW NCC Nursing LOP Neohelp
- RHW NCC Nursing LOP Humidified and heated gas for preterm infants at birth

## 9. RISK RATING

Medium

## **10. NATIONAL STANDARD**

- Standard 1 Clinical Governance
- Standard 5 Comprehensive Care
- Standard 8 Recognising and Responding to Acute Deterioration

## **11. ABBREVIATIONS AND DEFINITIONS OF TERMS**

NCC	Newborn Care Centre	MRI	Medical Resonance Imaging

## **12. REFERENCES**

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- Chawla S, Amaram A, Gopal SP, et al. Safety and efficacy of Trans-warmer mattress for preterm neonates: results of a randomized controlled trial. J Perinatol. 2011;31:780-4
- Lui YQ, Lei MJ, Liu TT, et al. Efficacy and safety of the heated gel mattress for the prevention of hypothermia in preterm in infants during intra-hospital transport: a meta-analysis TMR Integr Nurs. 2018;2:132-40
- McCall EM, Alderdice F, Halliday HL, et al. Interventions to prevent hypothermia at birth in preterm and/or low birth weight infants. Cochrane Database of Systematic Reviews 2018;2: CD004210

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## **REVISION & APPROVAL HISTORY**

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