

Cooling - Tecotherm Neo Setup				
ROYAL HOSPITAL FOR WOMEN - PROCEDURE GUIDELINE				
DATE DEVELOPED 03/2013	DATE EFFECTIVE 03/2013	DATE FOR REVIEW 26/5/2020	RISK RATING Low	WRITTEN BY J.Blaeck
DATE REVISED 26/5/2015	REVISED BY J.Blaeck			
APPLICABLE TO	Newborn Care Centre Staff – Nursing & Medical			
IMPLICATIONS	To be included in induction training of all new staff.			
APPROVED BY Newborn Care Centre Quality Committee June 2015				
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ABBREVIATIONS & DEFINITIONS OF TERMS				

INTRODUCTION

The Tecotherm Neo is designed for controlled cold treatment for neonates who have Hypoxic Ischemic Encephalopathy and are cooled over a 72 hour period.

AIM:

To safely and accurately set up the Tecotherm Neo for the purposes of therapeutically cooling a neonate with Hypoxic Ischemic Encephalopathy.

EQUIPMENT

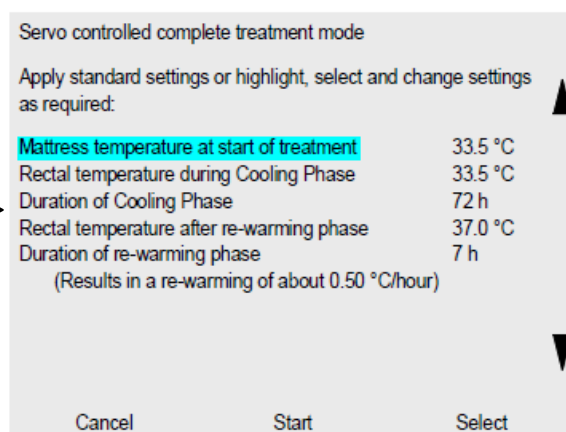
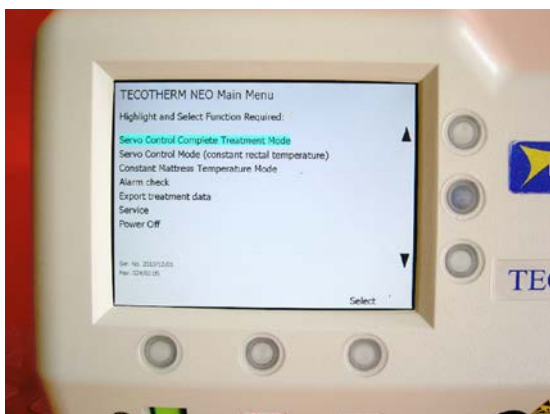
Tecotherm Neo
Mattress
Tecomed fluid and fill-up bottle
Connecting hoses

PROCEDURE

1. Confirm with medical staff and ward policy that the neonate meets the criteria for therapeutic cooling.
2. Inform parents.
3. Collect the "COOL" trolley.
4. Ensure the Tecotherm Neo and the mattress is filled with the TECOmed solution. To do so:
 - Connect the fill-up bottle to the mattress – turn the bottle upside down and higher than the mattress.
 - A minimum of 250 mls must be filled into the mattress.
5. Place the neonate on the mattress.
6. Insert the rectal probe and secure to the neonates thigh.

To Start Treatment:

7. Ensure the mattress hose is connected to the machine.
8. Ensure the temperature probe is connected to the machine.
9. The machine will do a safety check – confirm using the buttons when you hear the alarm.
10. Select the first treatment mode: servo-controlled treatment. Change the last function using the arrow keys – *Rewarm*. Change this time to 12 hours.



11. To start: push the 'Start' key.
12. A display feature DIAGRAM with treatment parameter boxes will display. Treatment will then start. 60 seconds later a display featuring a LARGE SIZE NUMBER will appear displaying the current rectal temperature. Tecotherm Neo takes about 25 – 35 minutes to reach the set rectal temperature of 33.5°C (R1).



Refilling of Solution During Operation:

- 13 A symbol will appear on the display screen accompanied by an audible alarm. Connect solution bottle to the machine. Squeeze solution in the bottle to fill.

Cleaning and Disinfecting the Machine

- 14 Prior to cleaning and disinfecting:-
 - switch off system and unplug mains.
 - Wipe over using neutral detergent and then viraclean. Wipe the hoses, mattress and machine.

Storage of Tecotherm Neo

- 14 TECOMed fluid is supplied in plastic containers. Keep container sealed and closed. TECOMed is non inflammable. It contains 30 vol. % ethanol and 0.33 vol % of the denaturing agent Methyl- Ethyl- Ketone.

RATIONALES	
R1	When the set rectal temperature is reached, the system automatically keeps this temperature for the preselected time of 72 hours.

References
MEDICAL EQUIPMENT for HYPOTHERMIA of NEONATE and INFANTS, Instructions for Use, April 2010