THERMOGARD XP TEMPERATURE MANAGEMENT DEVICE SET UP

Plug in the power of Thermogard & Select SYSTEM

Prepare patient

Place the internal cooling catheter
the ICY catheter in the femoral vein
using normal Seldinger technique

Place a temperature probe (bladder,
oesophageal or rectal in the patient)

Prepare system

Select new patient (download
previous patient data if required).

Set target temperature 33-36°C

System will complete a series of self
checks. The system set-up screen will
then appear.
Dark Grey = OK
Light grey = ignore
Red = Needs attention

Spike 500 ml bag of saline. Insert
and Prime the Start-Up Tubing Kit in
the Coolgard system (Appendix 1)

Attach temperature probe to T1 at front of machine.

Connect ICY catheter to Start Up Kit using aseptic technique

The main interface screen should now be visible.

Press run, you will then see a yellow warning screen alerting user that only one temperature probe is being used, provided in another capacity the patients core temp is being measured press OK.

Wait for any excess air from the catheter to run into the bag of saline and then put thermal jacket in place. Ensure that flow rate indicator on tubing is turning.
1. INTRODUCTION

The Thermogard (also known as the Alsius Coolguard 3000) set up guide is to be used in conjunction with the BSUH ICU management of patients post cardiac arrest guidelines.

2. PROCESS

<table>
<thead>
<tr>
<th>Recommendation (Action)</th>
<th>Justification (Rationale)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 The aqua marine ports do not provide IV access</td>
<td>They are for cooling only.</td>
</tr>
<tr>
<td>2 The aqua marine coloured ports must be connected together when cooling is not in use e.g. going to theatre.</td>
<td>To avoid people unfamiliar with the catheter using the ports for access</td>
</tr>
<tr>
<td>3 The aqua marine coloured ports must be clearly labelled ‘Not for IV access. Cooling only’.</td>
<td>As above</td>
</tr>
<tr>
<td>4 Remaining three ports (brown, white and blue) can be used for IV Access, and treated as a triple lumen central line.</td>
<td></td>
</tr>
<tr>
<td>5 Mannitol must not be given through the Alsius central line</td>
<td>Crystals may form due to the extreme low temperature</td>
</tr>
<tr>
<td>6 Monitor and record tympanic temperature hourly unless contraindicated</td>
<td>This is to monitor for thermistor (cooling equipment) failure.</td>
</tr>
<tr>
<td>7 Before removing the Alsius central line, both aqua marine coloured ports MUST be unclamped and open.</td>
<td>In the unlikely event of a balloon bursting, the patient will receive up to 350ml sterile saline and then the machine will automatically stop.</td>
</tr>
<tr>
<td>8 The saline circulates through the tubing and a balloon on the outside of the central line.</td>
<td>It does not come in contact with the patient</td>
</tr>
<tr>
<td>9 There have been no reports of the balloon bursting</td>
<td>This is to allow saline to drain and prevent trauma to the vessel</td>
</tr>
<tr>
<td>10 No battery. Mains use only</td>
<td></td>
</tr>
<tr>
<td>11 The machine is MR compatible and latex free. The catheter is radio-opaque</td>
<td></td>
</tr>
<tr>
<td>13 The patient can be actively rewarmed</td>
<td>Once the cooling period is complete the patient can be actively rewarmed to normothermia. (Appendix 2)</td>
</tr>
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</table>

3. RESOURCES

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Video of set-up instructions

Date: May 2018
Revision Date: May 2020
Author: Paul Martin
APPENDIX 1 THERMOGARD XP TUBING SET-UP

1. Always check coolant level.

2. Power switch

3. Start-Up kit tubing set

4. Place coil into coolant.

5. Secure coldwell lid and put air trap in its holder.

6. Open lid of roller pump.

7. Undo the tubing bundle containing the spike. The large section of tubing goes into the roller pump.

8. Manually rotate the pump into this position to facilitate loading of tubing.
9. Load tubing into pump.

Prime switch

Side of tubing with flange fits into the slot on the right side of the roller pump housing.

10. After spiking the saline bag, lift out the air trap from its holder and turn it upside down. Press and hold down the Prime Switch until the air trap and tubing are completely full of saline. (This will take approximately 2 minutes.)

11. Final configuration of the CoolGard 3000. Note that the coolant lid is rotated so that the tubing exits from a 3:00 o'clock position.

Caution: Limited by law for sale by or on the order of a physician.
APPENDIX 2: REWARMING TO NORMOTHERMIA

Put System into Standby

Select Target Temp button on the head and set to 36.5°C

Press Deg/Hour button on display head and select controlled rate

Set controlled rate to 0.25°C per hour. Press enter

Press Run

Leave patient to return to normothermia

Once patient is at target temperature leave the ICY catheter in place and continue to control temperature for a further 48 hours

Important: Catheter removal

When removing the ICY catheter after the therapy has finished it is very important that you ensure that neither of the green inflow or green outflow ports is blocked with a bung or that they are connected together. The two ports must be open to allow the saline to naturally aspirate and drain from the catheter as it is removed from the femoral vein.

Failure to follow this will result in patient injury.

The ICY catheter can be left in place for 4 days following insertion; the start up kit can be used for up to 14 days but must be changed with each new patient.

Please leave the machine in the technician’s room with the patient name and bed number on it to allow data download. If the machine is required urgently for another patient ignore this step, select new patient and use.