NORMOTHERMIC TARGETTED TEMPERATURE MANAGEMENT GUIDELINE FOR VENTILATED NEURO-INTENSIVE CARE PATIENTS

For TBI, SAH or ICH patients, monitor Temperature hourly

(preferably core temperature – e.g. oesophageal)

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IF TEMP ≥ 37.5°C, CONSIDER ACTIVE COOLING:

FIRST LINE: Paracetamol

SECOND LINE: Try fanning and cool bath if low grade pyrexia

THIRD LINE: If unresponsive to the above two within 1 hour, consider using the Arctic Sun for Normothermic TTM (Targeted Temp Management)

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USE THE ARCTIC SUN DEFAULT NORMOTHERMIA PROGRAMME, TARGETING A TEMPERATURE OF 37°C

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SHIVERING MANAGEMENT:

COUNTERWARMING: From initiation of cooling, employ counterwarming measures to reduce risk of shivering - cover hands and feet with dry towels, consider Bair Hugger @ 43°C

SEDATION: If shivering present despite counterwarming, consider adding in or increasing sedation, or discontinuing cooling pads

NEUROMUSCULAR BLOCKADE: If shivering does not subside despite increased sedation, consider cisatracurium infusion

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WHEN TO STOP TTM TREATMENT:

When the patient is consistently normothermic and the device water temperature consistently indicates that it is not having to work hard to achieve normothermia.

NON-SEDATED PTS MAY ALSO BE CONSIDERED FOR ACTIVE COOLING

CONSIDERATION AND COMMENCEMENT OF TTM CAN BE NURSE LED, BUT THERE MUST BE CONSULTATION WITH SENIOR MEDICAL STAFF

DAILY MONITORING:

WCC/CRP

SEPTIC SCREEN - including CSF if EVD in situ

(to exclude infective cause)

4-6 HOURLY MONITORING:

Partially unpeel the pads to observe for pressure area damage.

Consider discontinuing if direct pressure area damage observed.

HOURLY MONITORING:

Water temperature (this shows how hard the machine is having to work to counteract the patients hyperthermic drive, providing a surrogate measure of pyrexia)

- Record measurements in "Neuro Nursing" tab on MetaVision, in the "Hypothermia" drop down menu

Tympanic temperature (this helps to confirm the accuracy of the core temperature, from which the treatment is derived)

Shivering- BSAS scale

CONTINUOUS MONITORING:

Core Temperature (preferably oesophageal, unless basal skull #)

BEDSIDE SHIVERING ASSESSMENT SCALE (BSAS)

0 – NONE: No Shivering

1 – MILD: Shivering localised to neck/thorax, may be seen only as artefact on ECG or felt by palpation

2 – MODERATE: Intermittent involvement of the upper extremities +/- thorax

3 – SEVERE: Generalized shivering or sustained upper/lower extremity shivering

STOPPING TTM

If the water temp ≥ 23 ^{o}C consistently over 24 hrs, it may be appropriate to discontinue device.

Prior to detatching pads, remember to follow the "empty pads" procedure on the machine.