

BrainCool AB (publ): New Consensus Guideline Recommendations by The Neuroprotective Therapy Consensus Review Group published

The newly published guidelines by **The Neuroprotective Therapy Consensus Review Group (NTRC)** a group of leading researchers from the UK and Italy, (<https://www.sciencedirect.com/science/article/pii/S0007091223002052>) aim to improve the quality of targeted temperature management for patients with neurological fever after intracerebral haemorrhage, aneurysmal subarachnoid haemorrhage, and acute ischaemic stroke in critical care.

These recommendations have been approved by the Neuro Anaesthesia and Critical Care Society (NACCS), UK and have been published in the British Journal of Anaesthesia.

CEO Martin Waleij comments:

“The new guideline recommendation, that is being implemented in the UK will serve yet another important tool for the development of TTM within ICU and pave the way to similar guidelines in Europe.

In the US market, guidelines by the US Neurocritical Society was implemented already in 2017 (https://www.neurocriticalcare.org/Portals/0/Docs/Resources/TTM_Guideline.pdf)

The need for the use of high quality TTM system is highlighted in the new UK guidelines, which further will benefit BrainCool as well on the US market. The quick development of treatment of neurological fever serves as a solid foundation for strong growth in the TTM space the coming years.

There are approximately 7,000 acute and critical care hospitals in the United States, of which 2,000 hospitals have more than 100 ICU beds and more advanced care so there is a large potential to process. The average utilization rate, i.e, the number of treated patients per system, has increased significantly. “

Fever is commonly found in patients admitted to neurocritical care. It has been found to increase the risk of complications and is often associated with unfavourable clinical outcome. Specifically, fever occurs in up to 40% of patients with ischemic stroke[1] and intracerebral hemorrhage[2] and up to 70% of all patients with severe traumatic brain injury (TBI)[3] or subarachnoid hemorrhage (SAH)[4] within the first 10 days following injury.[5] Regardless of its cause, it is linked to higher mortality, poor neurological outcome, and prolonged length of stay in the intensive care unit (ICU) and hospital.[6, 7]

Accordingly, it is recommended that fever should be aggressively controlled by continuously monitoring the core temperature and targeted temperature management (TTM) commences within 1 h of the first fever with temperature maintained between 36.0°C and 37.5°C using automated feedback-controlled devices, with shivering managed to limit the risk of secondary injury. The group agreed that the maximum temperature variation that these patients should experience during TTM for

normothermia is ideally less than plus or minus 0.5°C per hour, and <1°C per 24-h period. Practically, this translates as a recommendation to initiate TTM when core temperature exceeds 37.5°C, and to select a target temperature between 36.5°C and 37.0°C. Also, it recommends against the use of non-automated methods of temperature control.

References:

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3. Rincon, F., et al., *Brain injury as a risk factor for fever upon admission to the intensive care unit and association with in-hospital case fatality: a matched cohort study.* J Intensive Care Med, 2015. **30**(2): p. 107-14.
4. Fernandez, A., et al., *Fever after subarachnoid hemorrhage: risk factors and impact on outcome.* Neurology, 2007. **68**(13): p. 1013-9.
5. Oliveira-Filho, J., et al., *Fever in subarachnoid hemorrhage: relationship to vasospasm and outcome.* Neurology, 2001. **56**(10): p. 1299-304.
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7. Diring, M. N., et al., *Elevated body temperature independently contributes to increased length of stay in neurologic intensive care unit patients.* Crit Care Med, 2004. **32**(7): p. 1489-95.

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About Us

About BrainCool AB (publ)

BrainCool AB (publ) is an innovative medical device company that develops, markets, and sells leading medical cooling systems for indications and areas with significant medical benefits within the healthcare sector. The company focuses on two business segments, Brain Cooling and Oncology. BrainCool AB (publ) is based in Lund, Sweden, and its share is listed on Nasdaq First North Growth Market, named "BRAIN".

Eminova Fondkommission AB is the company's Certified Adviser.

Attachments

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