BrainCool's IQool™ System Aligns with New American Heart Association Guidelines

New Technology Provides Optimal Cardiopulmonary Resuscitation (CPR) and Emergency Cardiovascular Care (ECC) forTargeted Temperature Management Patients

BrainCool IQool System Logo

ANNAPOLIS, MD, USA, November 24, 2020 /EINPresswire.com/ -- BrainCool Inc, a subsidiary of BrainCool AB, a Swedish medical device innovator and world leader in medical cooling technology, announced today that its flagship device The IQool™ System is aligned with new AHA recommendations pertaining to all phases of temperature management therapy.

Citing the necessity for early initiation of targeted temperature management (TTM) for "all patients who do not follow commands after return of spontaneous circulation (ROSC)," the new AHA Guidelines reinforce the need for immediate TTM intervention for both In-Hospital Cardiac Arrest and Out of Hospital Cardiac Arrest with the aim to increase potential for minimizing post-anoxic brain injury and potentially significant improvement in neurological outcomes. The Guidelines medically validate the use of TTM as an integral part in the chain of survival during emergency cardiac episodes.

A recent study published in the journal Critical Care proposes the novel concept of "high-quality TTM" and advocates for therapeutic intervention with devices using "a temperature feedback system (TFS) that provides a more rapid time-to-target temperature, less temperature variability and accurate and slow re-warming, when compared to external methods, such as ice packs, Ice pads, or cold fluids." The study, led by Dr. Fabio Silvio Taccone, et al, provided foundational evidence to support the new AHA recommendations. With an intuitive interface, informative graphics and an automatic feedback loop that allows clinicians to manage their patients rather than a device, BrainCool's IQool™ System, one of three advanced TTM systems on the market in the U.S., provides the most high-quality TTM functionality available on the market today.

"These new 2020 AHA Guidelines set an important new standard of care for emergency medicine in the U.S.," said Martin Waleij, Chief Executive Executive Officer of BrainCool, maker of The IQool™ System. "High-Quality, precision cooling at the earliest possible moment during

resuscitation will significantly improve survival and neurological recovery for patients. We are excited to be at the forefront of this medical advance and applaud the AHA for their strong recommendations."

In addition to the above, the American Heart Association recommendations strongly advised use of targeted temperature management in the following critical situations, for adults not following commands after return of spontaneous circulation (ROSC):
- Outside the hospital, with any initial cardiac rhythm
- In-hospital, with initial non-shockable rhythm
- In-hospital, with initial shockable rhythm

Performance guidelines strongly advised for TTM use by AHA include:
- Selecting and maintaining a constant temperature between 32°C and 36°C during TTM
- TTM can be reasonably maintained for at least 24 hours after achieving target temperature
- It may be reasonable to actively prevent fever in comatose patients after TTM
- Routine use of rapid infusion of cold IV fluids for pre-hospital cooling of patients after return of spontaneous circulation (ROSC) is not advised.

As medical professionals and healthcare organizations incorporate the AHA Guidelines into best practices at the nation's most prestigious medical centers, a new supply chain is quickly evolving to make TTM technology available for cardiac and other patients across a variety of medical scenarios.

"Intalere has partnered with BrainCool Inc., and is pleased to offer The IQool™ System as an option for emergency interventions indicated in the new AHA treatment guidelines," said Tamara Kesselring, Category Lead, Intalere. "When it comes to providing our clients with safe and effective Targeted Temperature Mangement solutions, we've chosen to offer the IQool System to our members for both clinical and financial advantages."

"Previously published studies have shown that early cooling, intra-arrest or shortly after ROSC, in the ambulance with administration of cold intravenous fluids, entails great risks for the patient since the extra fluid may cause strain on the heart and lead to hemodynamic adverse events and new cardiac arrest," says Per Nordberg, MD, PhD, Center for Resuscitation Science, Karolinska Institutet, Principal Investigator for the PRINCESS Trial and several TTM studies.

BrainCool has introduced a portfolio of medical cooling devices, each designed to dramatically advance standard of care practices in a particular clinical use, including stroke, sudden cardiac arrest, oral mucositis, migraine, and (mild) traumatic brain injury within sports medicine. In addition to IQool™ System, the RhinoChill™ System, pending FDA approval under a De Nov 510 k process, has a cooling method that has been evaluated in well over thousand patients in Europe, and is helping to expand use of TTM technology across several medical disciplines.

"RhinoChill™, another BrainCool TTM device, is unique in many ways, notably for patients in

cardiac arrest because treatment can begin intra-arrest cooling at the site of the arrest, or at the latest, in the ambulance. Together with the new AHA Guidelines, this is important new information for all medical professionals working with cardiac emergency care. The PRINCESS Trial demonstrates that we now have a safe and effective method for intra-arrest cooling available for use in the ambulance that allays previous concern for serious side effects," says Leif Svensson, Professor of Cardiology, Center for Resuscitation Science, Karolinska Institutet, one of the lead researchers in the PRINCESS Trial of Out-of-Hospital Cardiac Arrest Treatment with Intra-Arrest Therapeutic Hypothermia technology.

“After resuscitation from cardiac arrest,” says Benjamin Abella, MD MPhil, Professor of Emergency Medicine and Director, Center for Resuscitation Science at University of Pennsylvania, many people go on to suffer significant brain injury. Our goal at UPenn is to not only get patients back home alive, but to give them the quality of life that they seek. The AHA’s updated guidelines are an important step toward reaching that goal.”

“This is such an exciting time in the field of medical cooling technology,” adds BrainCool CEO Waleij. “Not only are we making major inroads with targeted therapeutics in cardio and emergency medicine, a pilot study we did this summer in Intensive Care Units at Södersjukhuset (“SÖS”) in Stockholm Sweden, shows great potential for the application of TMM patients suffering from COVID-19. Clearly this is medical technology with broad applications for the future.”
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