



TECHNOLOGY

Colon-Rectum Temperature Management Devices and Methods

OVERVIEW

Over the last years, the medical community has accepted that induced therapeutic hypothermia or targeted temperature management as a possible method to achieve cardio-protection and neuro-protection. During emergency care and surgery, inducing hypothermic state may help to reduce swelling, blood loss, and other adverse bodily reactions.

This technology is a device and method for performing colo-rectal cooling using a long flexible device with an internal cooling, irrigation system. This system will additionally have oval-shaped balls to guide the device through the colon turning areas and to inhibit propulsion backwards by pressure or bowel movements. This system may have a temperature cooling system and external pump to allow exchange of the circulating fluid within the device.

APPLICATIONS

Therapeutic hypothermia (also called targeted temperature management) refers to deliberate reduction of the core body temperature, typically to a range of about 32° to 34° C (89.6° to 93.2° F). Current applications for therapeutic hypothermia include patients who don't regain consciousness after return of spontaneous circulation following a cardiac arrest. Targeted temperature management have been shown to improve survival and brain function following [resuscitation](#) from cardiac arrest. Targeted temperature management following [traumatic brain injury](#) has shown mixed results with some studies showing benefits in survival and brain function while other show no clear benefit. Additional research is needed to confirm the benefit of targeted temperature management, as well as, improved methods to deliver such treatments.

ADVANTAGES

- Ø Decreased metabolic rates
- Ø Inhibition of CA²⁺⁺ influx and glutamate accumulation
- Ø suppression of ischemia-induced inflammatory cytokines

STAGE OF DEVELOPMENT

(RB- 8/2/16)

LICENSING POTENTIAL

UM seeks to develop and commercialize by an exclusive or non-exclusive license agreement and/or sponsored research with a company active in the area.

CONTACT INFO

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PATENT STATUS

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LICENSE STATUS

Available for licensing

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