

### Cooling and Warming From the Inside Out

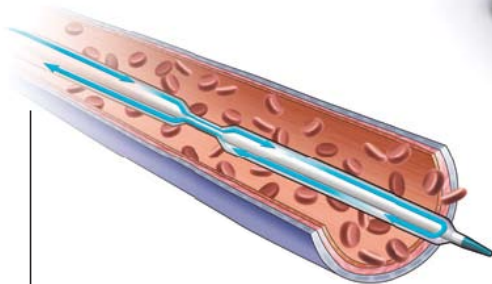
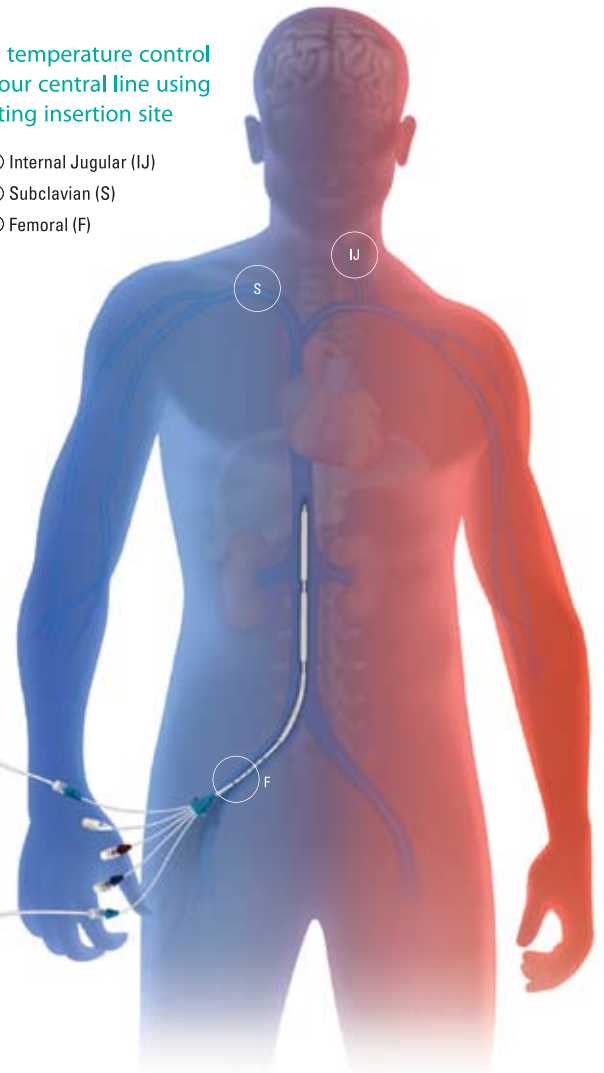
External methods of cooling or warming are clinically inefficient, labor intensive and hinder access to critically ill patients. So Alsius IVTM™ goes beneath the surface to manage core body temperature from the inside out.

- Superior temperature control\*
- Improved patient access\*
- Reduced nursing time\*
- Triple lumen central venous access

Add temperature control to your central line using existing insertion site

- Internal Jugular (IJ)
- Subclavian (S)
- Femoral (F)

THERMOGARD **XP** 



Cool or warm saline is circulated through multiple balloons of the Alsius Catheter in a closed loop design. The patient is cooled or warmed as venous blood passes over each balloon.

\* References on file at Alsius.

# Alsius IVTM™

## Proven Superior to External Methods

A recent study comparing the efficacy of commercially available cooling devices demonstrates the superior power and control of Alsius IVTM™ in reaching target temperature and keeping patients within the target range.<sup>1</sup>

	Alsius System ICY Catheter	Medivance Arctic Sun	Cincinnati Subzero Blanketrol II	Medeco Caircooler	Conventional	
Cooling Method	Intravascular Heat Exchange	External Gel-coated Pads	External Water Circulating Pads	External Air Circulating Pads	Cold Saline, Ice bags, etc.	
<b>More Power</b>	Cooling Rate (°C/hr)	1.46	1.04	1.33	0.18	0.32
<b>More Control</b>	% Of Time Patient Was At Target Temperature (+/- 0.2° C)	96.8	55.8	49.5	25.9	30.2

## Frequently Asked Questions about Alsius IVTM™

**What is IVTM and how does it work?** IVTM (Intravascular Temperature Management) provides precise and rapid temperature control plus central venous access...in one-step. The Alsius catheter goes inside the body to manage core body temperature from the inside-out. Cool or warm saline is circulated through the multiple balloons on the catheter in a closed-loop design. The patient is cooled or warmed as venous blood passes over each balloon.

**Why is IVTM preferred over surface cooling or warming?** IVTM is an advanced temperature management system that provides the most precise and rapid control of a patient's core body temperature without any bulky blankets or pads that restrict patient access or cause skin integrity issues. The Alsius intravascular catheters are a fast, accurate, easy-to-use, and cost-effective way to control body temperature in critical care and surgical patients.

**How fast does IVTM cool or warm patients?** The Alsius IVTM System cools or warms patients 2 to 3 times faster than cooling blankets or gel pad skin surface systems.<sup>2</sup>

**How effective is Alsius IVTM?** In multiple published clinical studies, 100% of patients achieved target temperature with the Alsius System.<sup>2</sup> In a multicenter, randomized controlled study of cardiac arrest patients, sponsored by a gel pad company, only 69% of patients treated with their system achieved target temperature within 4 hours.<sup>3</sup>

**How do the Alsius catheters work?** The Alsius IVTM catheters are inserted, maintained, and utilized exactly like other standard central venous catheters (CVC) and have triple lumen access for medication delivery, blood sampling and pressure measurement. The majority of critically ill patients that receive advanced temperature management will have a requirement for a CVC. There are Alsius catheters available for Femoral, Subclavian, and Internal Jugular vein insertion, depending on clinician preference and patient need.

**How will using the Alsius System impact our nursing staff?** Nurses report that the Alsius System requires significantly less nursing time than external methods to reach and maintain target temperatures.

**JOIN THE GROWING NUMBER OF HOSPITALS THAT HAVE RECOGNIZED THE SUPERIORITY OF IVTM OVER SURFACE METHODS.**

**FOR INTERESTING PATIENT STORIES AND MORE INFORMATION, GO TO: [www.alsius.com](http://www.alsius.com)**

1 Hoedemaekers CC, Ezzahti MM, et al: Comparison of different cooling methods to induce and maintain normo- and hypothermia in ICU patients: a prospective intervention study. Crit Care 11:R91, 2007.

2 Data on file at Alsius.

3 Heard K, et al: The RESCUE study group: "A Randomized, Controlled Trial Comparing the Arctic Sun to Standard Cooling for Hypothermia After Cardiac Arrest", presented at the American Heart Association Meeting, November, 2007.