Enthermics Medical Systems
WARMING PATIENTS INSIDE & OUT

enthermics.com | ISO 13485:2003 certified company | ivnow.com
Agenda

• Welcome and Company Overview
• Product Line Overview
• EC Series
• ivNow Details
• DC Series Details
• Questions and Market Discussion
Company Overview
Manufacturing Capabilities
Quality Policy

Enthermics Medical Systems is committed to maintaining the effectiveness of the quality management system, meeting our customer expectations through dedication to improvement, and providing high quality, innovative products with outstanding service from the company you can trust.

Karen Hansen, President/CEO

11-13-13

Date

Revision 3
Effective: November 13, 2013
Product Overview

World premier leader in warming equipment manufacturing for the medical industry. Categories of equipment include blanket warmers, solution warmers, IV bag warmers and custom warming solutions.
Hypothermia is defined as having a core body temperature of less than or equal to 36 degrees Celsius or 96.8 degrees Fahrenheit, is associated with several complications and an increased risk of death.

**Did you know?**
Some patients report that shivering and being cold are worse than surgical pain. Hypothermia can cause a vigorous shivering response, which increases carbon dioxide production and increases oxygen consumption 400 to 500 percent.¹⁰
Types of Patient Warming

Methods of Patient Warming

- Warm IV Fluids
- Conductive Warming Devices
- Warming Blankets
- Forced Air
- Circulating Water Garments
- Increased Operating Room Temperature
So What!?

By Utilizing Enthermics Medical Systems suite of warming technologies to warm fluids and blankets hospitals can streamline the patient warming process to improve patient safety, patient satisfaction, regulatory compliance, clinical outcomes while spending less time and money in the process.
Blanket Warming Temperature Standards and The Joint Commission

Are there blanket warming temperature standards set by The Joint Commission?

• No, Joint Commission standards EC.6.10 and EC.6.20 for medical equipment do not have any prescriptive requirements for warmed blanket temperatures

• Manufacturer recommendations should be referenced for:
  – Temperature set-points
  – Temperature validation
  – High temperature safety shut-offs

• Per Joint Commission standards, a risk assessment should be performed referencing applicable codes, guidelines, and standards
**SCIP-Inf-10**

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<thead>
<tr>
<th>Measure</th>
<th>Rationale</th>
<th>Strategy</th>
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| SCIP-Inf-10 | Surgical patients should be actively warmed during surgery or have at least one recorded body temperature equal to or greater than 96.8°F within 30 minutes prior to the end of anesthesia to 15 minutes after anesthesia end time. (Patients with intentional hypothermia are excluded from this measure.) | Research has correlated impaired wound healing, adverse cardiac events, altered drug metabolism, and coagulopathies with unplanned perioperative hypothermia. A study by Kurtz, et al. (1996), found that incidence of culture-positive surgical site infections among those with mild perioperative hypothermia was three times higher than the normothermic perioperative patients. | • Use aggressive warming measures during surgery.  
• Ensure accurate documentation of post-operative temperature. |
Clinician Challenges

• Having to leave the surgery to get an iv bag from cabinet.
• JAHCO Compliance—Are they keeping temperature records?
• Patient Safety: is the temperature on the display the actual fluid temperature?
• Is the bag expired? FIFO?
• In-line warming set up takes time.
• Blanket Warmer Set Temperature: Is it the hospital standard?
• Blankets are not warm enough at 130F / 54C for patients to feel warm.
Hospital Challenges

- Paradigm Shift
- Regulatory Compliance
- Wasted Efficiencies?
- Billing for every bag?
- Too many blankets
- Disposable expenses associated with in-line fluid warming and forced air warming
- Medical Waste
- Redundant Medical Equipment
- Total Cost of Ownership
Product Offerings

EC Series

DC Series

ivNow
EC series fluid & blanket cabinets: Halo Heat® technology

Patented warming technology distributes warmth evenly throughout warming cavities through an electrothermal cable array(s) in the sides and bottom of the cabinet.

EC series warming cabinet are made of stainless steel.
Safety

• All of our products are UL approved to IEC 61601-1
• Every unit has multiple safety features to prevent overheating
Blanket Warmers

- No moving parts/fans
- Ensure comfortable, pleasant patient experience
- Improve patient satisfaction
- Blankets warmed with safe, full-wall heating
- Can be set as high as 93°C/200°F
  - 28°C/50°F higher than competitive units to keep blankets warmer longer
Fluid Warmers

- Patented heating system
- Air mixing fan ensures accurate set-point temperature
- Multiple safety features
- Fluids kept at proper temperature
- Eliminates expense and set-up time of in-line warming systems
ivNow Benefits

• Warms in 25 minutes
• Tracks expiration date of iv bag
• No disposable
• Versatile
• Location
• Footprint
• Inventory management
ivNow® Fluid Warmers

- Modular configuration
  - 1-6 pods
- Multiple mounting options
  - Wall-mounted
  - Countertop-mounted
  - Pole-mounted
- Anodized aluminum heating plate
- Lightweight, medical grade plastic
- Dual temperature sensors
- Heats to 40°C/104°F in less than 30 minutes
- Accurate to +0°/-2°C (+0°/-3°F)
ivNow Temperature Profile

ivNow Temperature Profile (Set Point = 104°F)

Fluid Temp

Ambient Temp

Temperature °F

Time (min)
ivNow tilt stand

• For 3 liter fluid bags a tilt stand can be used to improve product support and performance
• Countertop or wall mountable
• For ivNow-1 through ivNow-3
ivNow

When placed in the appropriate locations the ivNow can eliminate almost all fluid warming disposables.

- Next to Pixis (Billing)
- Behind Anesthesiologist in Surgery
- Multiple other Areas
Baxter Fluid Warming Specifications

- Solutions can be warmed in their over pouches to temperatures not exceeding
  - 45°C/113°F and for a period no longer than 14 days, or
  - 66°C/150°F and for a period no longer than 72 hours
Why Buy ivNow?

• **It’s easy to use**
  – Place IV bag in the ivNow to activate the unit
  – Fluid automatically warmed to 40°C/104°F in less than 30 minutes

• **It’s good to the environment**
  – Eliminates need for disposables associated with in-line fluid warmers
  – Reduces disposable waste
  – Activates only when an fluid bag is on cradle, reducing electrical costs

• **It saves money**
  – Save thousands of dollars annually on captive disposables required for in-line warmers
DC Series
Blanket and Fluid Warming Cabinets

- Intelligent zone heating system prevents overheating of fluid and scorching or discoloration of blankets.
- Heat pads operate independently from each other.
- Easy open push button door design
- Stackable
DC Series Models

Blanket warmers come in 1.5, 2.5, 3.5, 4.0 and 7.5 cubit foot capacity.

Fluid warmers come in 2.5 and 4.0 cubit foot capacity.
DC Series Stacking
Questions and Market Discussion

• What trends have you seen in the warming market?
• Are there any product modifications that would add value to our customers?
• Are there any new products that you would like us to offer?
• How can we help you to provide more value to our customers?