

SCIP Accepts HotDog Patient Warming Technology

Conductive Fabric Warming Included In Standard

FACT SHEET

What is SCIP?

The Surgical Care Improvement Project (“SCIP”) measures are part of the 46 quality measures that must be reported on in 2010 for hospitals to receive the full “market basket update” for FY 2011. SCIP is sponsored by the Centers for Medicare and Medicaid Services (CMS) in collaboration with a number of other national partners including the American Hospital Association (AHA), Centers for Disease Control and Prevention (CDC), Institute for Healthcare Improvement (IHI), the Joint Commission and others. SCIP is an extension of a previous CMS initiative called the Surgical Infection Prevention Project (SIPP).

What is SCIP-Inf-10?

SCIP Infection 10 - Surgery Patients with Perioperative Temperature Management.

This standard measures the proportion of patients of all ages undergoing surgical procedures under anesthesia of more than one hour for whom either active warming was used intraoperatively for the purpose of maintaining normothermia or who had at least one core body temperature equal to or greater than 96.8° F/36° C recorded within the 30 minutes immediately prior to or the 15 minutes immediately after anesthesia end time.

What does “active warming” mean?

The definition appears in Release Notes 3.0c, dated November 6, 2009, and specifically includes Hot Dog conductive fabric warming as follows:

“Active warming is limited to forced-air warming, conductive, over-the-body active warming, or warm water garments. If conductive warming blankets are used, there must be documentation that the resistive heating blanket was placed over the patient.”

Previously, only forced-air warming and warm water garments were included in the definition.

Why was conductive warming added?

The technical advice underlying SCIP-Inf-10 and the Release Notes was provided by the American Society of Anesthesiologists and confirmed by CMS and the Joint Commission.

The reason for the change is confidential to CMS and the Joint Commission. HotDog USA, however, believes the change was influenced by the following:

- (1) research shows conductive fabric warming is equally effective as forced-air¹⁻⁸
- (2) SCIP essentially recommends warming all surgical patients, requiring a reusable alternative to costly disposables
- (3) the “green” movement for more sustainable healthcare practices is gaining national prominence; the waste-reduction and lower energy consumption of reusable conductive fabric warming is consistent with “going green”
- (4) the market demanded an alternative to noisy, potentially contaminated forced air blowers
- (5) recent evidence reveals that waste forced air destroys the protection of laminar flow systems⁹

To whom does the measure apply?

The new normothermia measure applies to all patients, regardless of age, undergoing surgical procedures under general or neuraxial anesthesia lasting 60 minutes or more.

How will this measure affect a facility?

Facilities that report on the quality measures, including SCIP-Inf-10, will receive the full “market basket update” for FY 2011. Those that do not will receive only 98%.

Therefore, facilities may warm more patients than previously.

Why is maintaining normothermia important?

Research has established that surgical patients with core temperatures outside the range of normal are exposed to a variety of adverse risks. There is a correlation between unintended hypothermia and impaired wound healing, adverse cardiac events, altered drug metabolism and coagulopathies.¹⁰ A *New England Journal* study showed that patients with even mild perioperative hypothermia are three times more likely to acquire surgical site infections than normothermic perioperative patients.¹¹

Furthermore, beginning in 2008 and expanding for FY2009 IPPS, CMS stopped paying for many hospital acquired conditions (HACs) including several types of surgical site infections (SSIs). A meta-analysis found that these adverse outcomes from unintended hypothermia resulted in prolonged hospital stays and increased health expenditures by \$2,500 to \$7,000 per patient.¹² Actively warming patients and maintaining normothermia is an inexpensive and effective way to reduce complications resulting from hypothermia.

Why is the inclusion of conductive blankets beneficial?

Maintaining patient normothermia with conductive fabric warming improves the overall quality of care provided for patients by hospitals.

With conductive fabric warming, all patients can be warmed throughout the perioperative process, maintaining a patient temperature “flatline,” safely (by not blowing air), effectively and inexpensively.

Safe, effective, and inexpensive warming can all be accomplished while decreasing the impact of patient warming on the environment.

What other conductive blankets are available?

The HotDog patient warming system has the only conductive warming blanket made with ThermAssure™ technology.



What should facilities do now?

Begin measuring and monitoring patient temperatures.

Unintended hypothermia (<36° C) is more common than most people think. Some estimate more than 50 percent of surgical patients are hypothermic upon admission to the recovery room.¹³

Make warming patients a priority

Risks associated with unintended hypothermia include higher mortality rates¹⁴, longer hospital stays¹¹, and increased rate of wound infection¹¹. By prioritizing hypothermia prevention, hospitals can reduce these adverse outcomes.

Begin warming early

The only way to prevent redistribution temperature drop—the main cause of unintended hypothermia in anesthetized patients¹⁵—is to actively pre-warm patients.¹⁶ Pre-warming also improves patient comfort and reduces anxiety.¹⁷

Decide what is most important to your facility

Do you need to improve patient temperature outcomes? Looking to expand warming for all patients? Reduce costs? Use more sustainable healthcare practices? Reduce contamination risk in ultra-clean operating theatres? If the answer to any of these questions is yes, then it is time to look at conductive fabric warming.

Use conductive fabric warming

All facilities want to prevent and treat hypothermia for all surgical patients safely and without excessive cost. Conductive fabric warming with HotDog technology is the best option.

Where can I find more information about SCIP?

Information about SCIP can be found on the Quality Net website operated by CMS. Search SCIP or “Specifications Manual.” Be sure to see the latest version. www.qualitynet.org

HotDog® conductive fabric patient warming was developed by Dr. Scott Augustine and the engineering team at Augustine Biomedical + Design—the same team that invented forced-air warming with Bair Hugger®¹⁸ more than 20 years ago. HotDog patient warming is the next generation of warming technology.

HotDog patient warming utilizes patented ThermAssure™ conductive fabric technology to safely and effectively maintain patient normothermia before, during, and after surgery.

HotDog warming delivers 300% more normothermia per dollar than forced-air warming. Meanwhile, it's better for the environment and doesn't blow hot—often contaminated—air around patients.

To learn more about the benefits of HotDog conductive fabric warming, contact your local patient warming specialist or call Customer Service at 1-888-439-2767. More information about the value of the Next Wave in Patient Warming™ is also available on our website www.hotdog-usa.com.

- 1 Kimberger O, et al. Resistive Polymer Versus Forced Air Warming: Comparable Heat Transfer and Core Rewarming Rates in Volunteers. *Anesthesia & Analgesia*. 2008; 107(5): 1621-1626
- 2 Kimberger O, et al. *Accepted for Publication in Anesthesia & Analgesia, Issue Pending, 2009*
- 3 Camus Y, Delva E, Just B, Lienhart A, Leg Warming Minimizes Core Hypothermia During Abdominal Surgery, *Anesth Analg* 1993;77:995-9.
- 4 Matsuzaki Y, Matsukawa T, Ohki K, Yamamoto Y, Nakamura M, Oshibuchi T, Warming By Resistive Heating Maintains perioperative Normothermia as Well as Forced Air Heating, *British Journal of Anaesthesia* 2003;90:689-91.
- 5 Negishi C, Hasegawa K, Mukai S, Nakagawa F, Ozaki M, Sessler DI, Resistive-Heating and Forced-Air Warming are Comparably Effective *Anesth Analg* 2003;96:1683-7.
- 6 Ng V, Lai A, Ho V, Comparison of Forced-Air Warming and Electric Heating Pad for Maintenance of Body Temperature During Total Knee Replacement, *Anaesthesia* 2006;61:100-1104.
- 7 Pathi V, Berg GA, Morrison J, Cramp G, McLaren D, Faichney A, The Benefits of Active Rewarming After Cardiac Operations: A Randomized Prospective Trial, *J Thorac Cardiovasc Surg* 1996;111:637-41.
- 8 Scheck T, Kober A, Bertalanffy P, Aram L, Andel H, Molnar C, Hoerauf K, Active Warming of Critically Ill Trauma Patients During Intrahospital Transfer: A Prospective, Randomized Trial, *Wien Klin Wochenschr* 2004;116:94-97.
- 9 <http://www.heat-rises.blogspot.com>
- 10 American Society of PeriAnesthesia Nurses. Clinical Guidelines for the Prevention of Unplanned Perioperative Hypothermia. www.aspan.org; 2001.
- 11 Kurz, A. Sessler, DI. Lenhardt, R. Perioperative normothermia to reduce the incidence of surgical-wound infection and shorten hospitalization. *N Engl J Med*. 334:1209-1215, 1996.
- 12 Mahoney, C. Odom, J. Maintaining intraoperative normothermia: a meta-analysis of outcomes with costs. *AANA Journal*. 67: 155-164, 1999.
- 13 Young, V. Watson, M. Prevention of Perioperative Hypothermia in Plastic Surgery. *Aesthetic Surgery Journal*. 2006; 551-571.
- 14 Tryba, M. Leban, J., et al. Does active warming severely injured trauma patients influence perioperative morbidity? *Anesthesiology*. Vol. 85; 1996: A23.
- 15 Sessler, DI. Current concepts: mild perioperative hypothermia. *N Engl J Med*. 1997;336(24):1730-1737.
- 16 Sessler, DI. Schroeder, M. Merrifield, B. Matsukawa, T. Cheng, C. Optimal Duration and Temperature of Prewarming. *Anesthesiology*. Mar 1995; 82(3); 674-681.
- 17 Wagner, D. BByrne, M. Kolcaba, K. Effects of Comfort Warming on Preoperative Patients. *AORN*. 2006; 84(3); 427-447.
- 18 Bair Hugger is a registered trademark of Arizant Healthcare Inc.

