



An Effective Enhancement to your Multimodal Pain Management Program

Integrating evidence-based practices that include patient preference; patient, family, and staff satisfaction; pain control; patient safety; and cost into our care plans supports improved outcomes for both patient recovery and expenses in the current healthcare climate of declining reimbursements and emphasis on patient experience (1).

Cold Compression Therapy is a drug-free portion of your multi-modal post-op pain control program that may have an immediate impact in reducing pain, edema, bruising, and muscle spasms while improving range of motion (2,3,6).

Post-op cold therapy is not a new concept; however, there are ongoing discussions to find a method of delivery that is effective at promoting comfort while offering significant improvements in patient outcomes and compliance.

When evaluating cold therapy products and processes for your inpatient and outpatient programs. The following questions must be asked:

- Does the modality allow patients to continue with around-the-clock application of cold after discharge to assist in pain management (4)?
- Is there high patient/staff satisfaction & compliance?
- Is it cost effective for the patient and/or institution?
- Is there confidence that the modality helps contribute to the elimination of some pain medication? (4,5)

If the answer to any of the above questions is “no,” then reevaluation may be warranted.

Traditionally, three different types of products are available for cold therapy in the post-operative space:

- Electric/gravity-fed cooling machines:
 - Excellent at relieving pain and swelling through continuous cold therapy.
 - Can be cumbersome, expensive, and inhibit early patient ambulation and mobility.
 - Safety & patient/staff compliance issues.
 - Wet surgical sites and infection control concerns.



- Bags of crushed ice:
 - Effective for minor injuries (sprains, strains, etc.).
 - Offer no compression or method of cold delivery into the affected area to gain the full effects of cold therapy.
 - Safety & patient/staff compliance issues.
 - Wet surgical sites and infection control concerns.
- Traditional wraps and gel bags:
 - Can be uncomfortable and provide up to two hours of cold. Although, industry standard is 20-30 minutes.
 - Ineffective compression straps that often allow the wrap to migrate and limit early mobilization.
 - Patient/Staff compliance issues.

Additionally, there may be a lack of an effective, proven process for staff within the facility. Without clear clinical data, many clinicians must aimlessly develop an appropriate process to ensure the best results.

In September 2016, a clinical study was authored by Mark Schinsky, MD, Christine McCune, RN,BSN,CNRN,ON, and Judith Bonomi, RN,MSN,OCN,NE-BC, titled, *“Multifaceted Comparison of Two Cryotherapy Devices Used After Total Knee Arthroplasty”*. The study was a direct comparison of the SMI Knee Cold Compression Wrap and electric cooling machines and followed 100 patients undergoing primary total knee arthroplasty by a single surgeon. Dr. Schinsky concluded that the Knee Cold Compression Wrap, featuring long-lasting gel bags, was noninferior to the electric cooling machine in any outcome measured until 6 weeks after surgery while showing average pain level at 6 weeks post-op as significantly less. Additional enhancements included decreased costs, increased staff satisfaction, and less concern for patient safety.

SMI Cold Therapy products combine the efficacy of electric cooling machines with the ease of a wrap and gel bag. Clinicians currently using the product and following the process reported some of the following quotes from the October 2020 Customer Satisfaction Survey conducted by Market Pulse, inc:

“Patients love them and they help reducing narcotic use“– Nevada Joint Replacement Program

“Patients love them for their convenience and comfort. The surgeons love the patient compliance with the product and benefit from cold therapy.”– Florida Joint Replacement Program



“This by far my favorite product in regards to cold therapy. I worked with (cooling machines) for years and found these to be messy, cumbersome, and aggravating. (These) are easy to use, slim and compact, and their simplistic design eliminates malfunction. Patients find the wraps user friendly and practical – Tennessee Joint Replacement Program

This article is sponsored by SMI Cold Therapy, LLC, DBA Solution Matrix. SMI is known for the highest quality cold compression therapy products, program/process implementation, and maintenance at over 400 ortho/neuro programs nationwide that range from university medical centers to small ambulatory surgery centers. All products are manufactured in the USA out their Virginia based headquarters. For more information, please go to smicoldtherapy.net.

References:

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