3M | Prevena™ Incision Therapy

PRM | Proactive Risk Management (PRM) with 3M™ Prevena™ Therapy

Sternotomy patients that used 3M™ Prevena™ Therapy experienced significant reduction in wound infection

Clinical evidence (level II): Cardiothoracic surgery

Reduction in the incidence of wound infection after median sternotomy in high-risk, obese patients

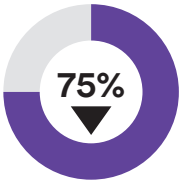
Summary of study[1] findings

Closed incision negative pressure therapy (ciNPT) reduces the rate of post sternotomy wound infection in high-risk, obese patients.

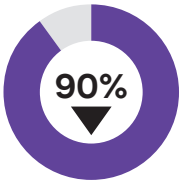
In addition to the above clinical outcomes, an illustrative hypothetical economic model relying on this[1] and other[2] study data showed a potential 69% reduction in mean per patient cost for SSI in high risk patients.[3]

Potential per patient cost of $2,404 Prevena Therapy vs. $7,635 SOC[3]

RESULTS



Reduced rate of SSI
4% (3/75) Prevena Therapy vs. 16% (12/75) SOC (p=0.0266)*



Reduced rate of wound infection with gram-positive skin flora*
1.3% (1/75) Prevena Therapy vs. 13.3% (10/75) SOC (p=0.0090)*

Calculation(s) are derived based on relative patient group incidence rate reported in this study * Statistically significant (p<0.05)

Study design

Prospective, single-center, controlled trial (Level II)

Study purpose

To evaluate negative pressure wound dressing treatment (Prevena Therapy) for infection prevention

Methods

- The study included 150 consecutive obese patients who underwent a median sternotomy at a single site in Germany between April 2010 and October 2011.
- Inclusion criteria was a body mass index ≥ 30 kg/m2
- The control group, (conventional wound dressings) consisted of 75 patients. Post Op dressing change day 1–2.
- ciNPT (Prevena Therapy) group consisted of 75 patients. Placed immediately after suturing. Post Op dressing removal at day 6–7.
- The primary end point was wound infection within 90 days.

1. Grauhan O, Navasardyan A, Hofmann M et al. Prevention of post sternotomy wound infections in obese patients by negative pressure wound therapy. J Thorac Cardiovasc Surg 2013;145:1387-1392.

2. Hou Y. Incidence and impact of surgical site infections on length of stay and cost of care in open surgical procedures. HEOR-2021-003-DAR.

3. 3M modeling based on selected study data from citations 1 and 2, and reasonable product cost estimates, to illustrate cost estimates/potential savings for use of Prevena Therapy versus Standard of Care. This model is an illustration and not a guarantee of actual individual costs, savings, outcomes or results. Results are based on selected study data, estimated costs; they may not be typical and individual prices may vary. The model is meant as an illustration only to assist in an overall assessment of products and pricing.

Effect of surgical incision management on wound infections in post sternotomy patient population

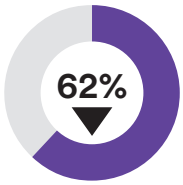
Summary of study[4] findings

Application of surgical incision management using ciNPT on clean, closed surgical incisions reduced the rate of post sternotomy wound infection.

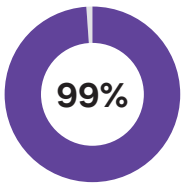
In addition to the above clinical outcomes, an illustrative hypothetical economic model relying on this[4] and other[2] study data showed a potential 32% reduction in mean per patient cost for SSI in all patients.[5]

Potential per patient cost of $1,099 Prevena Therapy vs. $1,618 SOC[5]

RESULTS



Reduced rate of SSI
1.3% (3/237) Prevena Therapy vs. 3.4% (119/3508) SOC (p=0.05)*



Primary wound closure at day 6/7 on removal*
98.7% (234/237) Prevena Therapy

Calculation(s) are derived based on relative patient group incidence rate reported in this study * Statistically significant (p<0.05)

Study design

Prospective study with retrospective historical control, single-center study (Level II)

Study purpose

To evaluate Prevena Therapy vs. conventional wound dressings over closed surgical incisions in reducing wound infections

Methods

- The study group (Prevena Therapy) included ALL prospective patients undergoing median sternotomy from September–October 2013 totalling 237 patients.
- The control group (conventional wound dressings) included ALL median sternotomy patients retrospectively analysed for the period of January 2008 – December 2009 totalling 3,508 patients.
- No defined High Risk Inclusion Criteria
- Prevena Therapy placed immediately after suturing. Post Op dressing removal at day 6–7.
- The primary end point was wound infection within 30 days.

4. Grauhan O, Navasardyan A, Tutkun B, et al. Effect of surgical incision management on wound infections in a post sternotomy patient population. Int Wound J. 2014;11:6-9.

5. 3M modeling based on selected study data from citations 4 and 2, and reasonable product cost estimates, to illustrate cost estimates/potential savings for use of Prevena Therapy versus Standard of Care. This model is an illustration and not a guarantee of actual individual costs, savings, outcomes or results. Results are based on selected study data, estimated costs; they may not be typical and individual prices may vary. The model is meant as an illustration only to assist in an overall assessment of products and pricing.

Understanding relevant risk factors for cardiothoracic procedures

Patient Risk Stratification

How to identify the patient as high risk for surgical site infection or complication:

Clinical data[1] suggests that patients should receive Prevena Therapy if they have a BMI > 30 kg/m2 or **two or more** of the following risk factors:

- Age ≥ 80
- Chronic obstructive pulmonary disease (COPD)
- Diabetes

Scan this QR code to learn more about when to use Prevena Therapy.

1. Grauhan O, Navasardyan A, Hofmann M, Muller P, Stein J, Hetzer R. Prevention of post sternotomy wound infections in obese patients by negative pressure wound therapy. J Thorac Cardiovasc Surg. 2013;145:1387-1392.

Advancing the Standard of Care.

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Web 3M.com/Medical

3M™ Prevena™ 125 Therapy Unit and 3M™ Prevena™ Plus 125 Therapy Unit manage the environment of closed surgical incisions and remove fluid away from the surgical incision via the application of 125mmHg continuous negative pressure. When used with legally marketed compatible dressings, Prevena 125 and Prevena Plus 125 Therapy Units are intended to aid in reducing the incidence of seroma; and, in patients at high risk for post-operative infections, aid in reducing the incidence of superficial surgical site infection in Class I and Class II wounds.

The effectiveness of Prevena Therapy in reducing the incidence of SSIs and seroma in all surgical procedures and populations has not been demonstrated. See full indications for use and limitations at mykci.com.

NOTE: Specific indications, limitations, contraindications, warnings, precautions and safety information exist for these products and therapies. Please consult a clinician and product instructions for use prior to application. Rx only.

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