

+ Evidence in focus

Publication summary: Nherera L, et al. *J Cardiothorac Surg* (2018)*

Smith+Nephew

PICO Single Use Negative Pressure Wound Therapy System (sNPWT) was estimated to be cost saving and helped to reduce the incidence of surgical site complications (SSCs) compared with standard care in sternotomy wounds of patients undergoing coronary artery bypass grafting (CABG)

+ Plus points



Overview

- A cost effectiveness evaluation of PICO sNPWT and standard care in reducing the incidence of SSCs (superficial and deep infections or dehiscence) of sternotomy wounds in patients undergoing CABG surgery (Germany Insurance payer perspective)
 - A 12-week time horizon enabled any superficial and deep infections to manifest
- The economic model used data from a single-centre, randomised, controlled trial,¹ to estimate expected outcomes and costs
- Mean age of modelled patients was 65 years
- SSCs were assumed to result in hospital readmission and in some cases revision surgery

Results

- Estimated total mean treatment costs per patient were lower with PICO sNPWT than with standard care (Figure)
- Use of PICO sNPWT was estimated to avoid more wound-related complications (0.989 vs 0.952) and provide more Quality Adjusted Life Years (QALYs; 0.8904 vs 0.8593) compared with standard care
- In high-risk patients (BMI $\geq 30\text{kg/m}^2$, patients with diabetes and smokers) PICO sNPWT was estimated to provide greater savings versus standard care than in those with standard risk

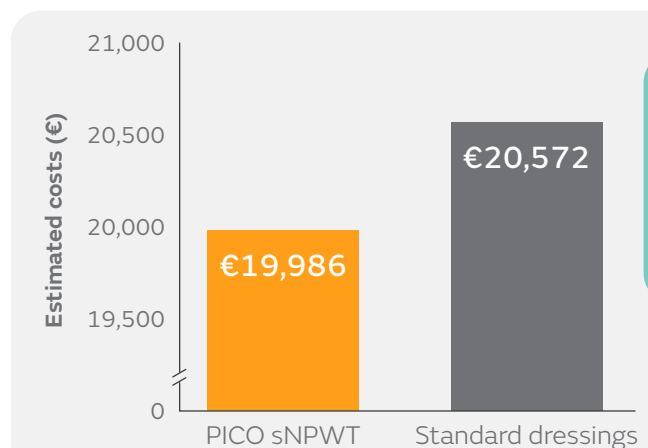


Figure. Estimated mean intervention costs (Euros) per patient for PICO sNPWT and standard care for sternotomy (CABG) wounds



Conclusion

Prophylactic use of PICO sNPWT was estimated to be less costly and more effective than standard care for sternotomy wounds in patients undergoing CABG when analysed from a German payer perspective; the magnitude of savings increased in high-risk patients.

Citation

*Nherera LM, Trueman P, Schmoeckel M, Fatoye FA. Cost-effectiveness analysis of single use negative pressure wound therapy dressings (sNPWT) compared to standard of care in reducing surgical site complications (SSC) in patients undergoing coronary artery bypass grafting surgery. *J Cardiothorac Surg*. 2018;13:103.

Available at: [Journal of Cardiothoracic Surgery](https://www.jcsn.org/) 

For detailed product information, including indications for use, contraindications, precautions and warnings, please consult the product's applicable Instructions for Use (IFU) prior to use.

Reference: 1. Witt-Majchrzak A, Żelazny P, Snarska J. Preliminary outcome of treatment of postoperative primarily closed sternotomy wounds treated using negative pressure wound therapy. *Pol Przegl Chir*. 2015;86(10):456-465.