

+ Evidence in focus

Publication summary: O'Leary DP, et al. *Ann Surg* (2017)*

Smith+Nephew

PICO[◇] Single Use Negative Pressure Wound Therapy System (sNPWT) helps to reduce the incidence of surgical site infections (SSIs) and hospital length of stay (LoS) compared with standard dressings in laparotomy patients

+ Plus points



74% relative reduction
in SSI incidence with PICO sNPWT
versus standard dressings (8.3 vs 32.0%; $p=0.043$)



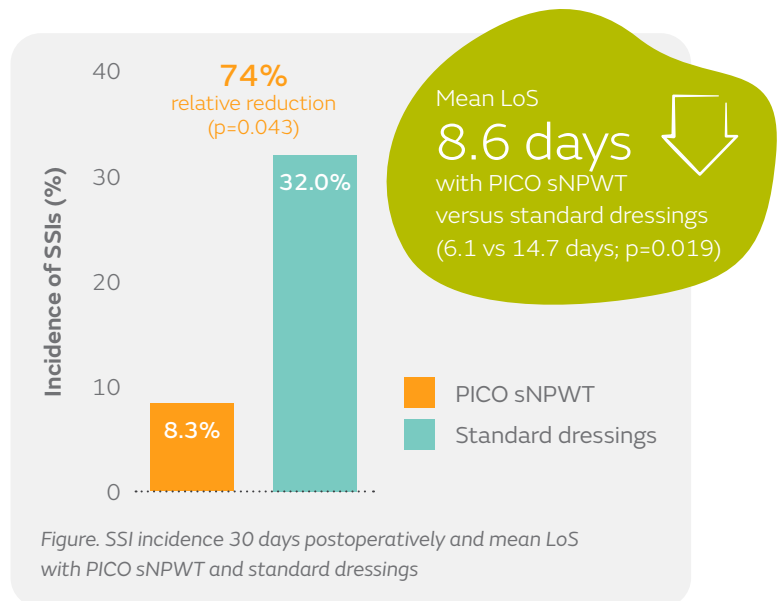
8.6 days reduction
in mean LoS with PICO sNPWT
versus standard dressings

Overview

- A single-center randomized controlled trial comparing SSI incidence with prophylactic use of PICO sNPWT ($n=24$) and standard dressings ($n=25$) in patients undergoing laparotomy surgery
- Median age was 58 years for PICO sNPWT group and 63 years for standard dressings
- Median American Society of Anesthesiologists (ASA) score was 2 in both groups; 35% (17 of 49) of patients were obese

Results

- SSI incidence was significantly reduced by PICO sNPWT compared to standard dressings 30 days postoperatively (74% relative reduction; $p=0.043$; Figure)
 - SSI incidence on day 4 was lower with PICO sNPWT (4.1 vs 8.0%; $p=NS$)
- Mean LoS was significantly shorter with PICO sNPWT (6.1 days) compared with standard dressings (14.7 days, $p=0.019$; Figure)
- Patient satisfaction were similar in both groups



Conclusions

Prophylactic use of PICO sNPWT in patients undergoing laparotomy surgery significantly reduced the incidence of SSIs and mean LoS compared with standard dressings.

Citation

*O'Leary DP, Peirce C, Anglim B, et al. Prophylactic negative pressure dressing use in closed laparotomy wounds following abdominal operations. *Ann Surg*. 2017;265(6):1082–1086.

Available at: [Annals of Surgery](https://www.annalsurgery.com)

Important Safety Information

The PICO pumps contain a MAGNET. Keep the PICO pumps at least 4 inches (10 cm) away from other medical devices at all times. As with all electrical medical equipment, failure to maintain appropriate distance may disrupt the operation of nearby medical devices. For full product and safety information, please see the Instructions for Use.