## Orthopedic surgery:

# Hip and knee arthroplasties



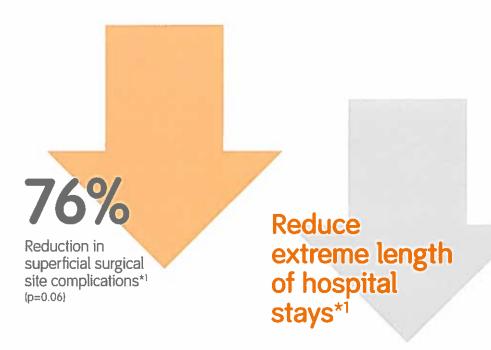
Single Use Negative Pressure Wound Therapy System

Supporting healthcare professionals for over 150 years

Our patient population is growing and we are seeing an increased number of elderly patients, higher rates of obesity and additional comorbidities. Post-operative surgery complications and hospital stays are increasing.

With PICO 7 sNPWT, together we can aim to get CLOSER TO ZERO° surgical site complications and extreme hospital stays.

A recent RCT found that patients undergoing primary hip and knee arthroplasties saw a reduction in superficial surgical site complications, compared to standard of care, helping to significantly reduce length of hospital stays.<sup>1</sup>



\*Reduction in surgical site complications: 220 patient study, PICO 2.0%, control group 8.4%.

NPWT has multiple mechanisms of action that can help improve the speed, strength and quality of incisional wound closure.2 PICO 7 offers a unique mode of action Helps hold 0000 closed incision Helps protect edges together help the incision. and helps reduce from external reduce tension edema<sup>§</sup> Helps support contamination3 across the improved reduce incision4 perfusion5 seroma and hematoma fluid collections63

## Case Studies with PICO°

### Case 1 Knee replacement

#### Background<sup>6</sup>

74-year old female with type II diabetes and arthritis, underwent her third knee replacement procedure following recurrent infections.

#### PICO intervention

- Patient developed a dehiscence and 14 days post-surgery the incision site failed to show signs of improvement
- The decision was made to apply PICO. After seven days of treatment with PICO, the progression of the surgical wound was favorable
- All of the staples were removed. PICO was removed and the patient was discharged

When PICO is used on infected wounds, more frequent dressing changes may be required. Regular monitoring of the wound should be maintained to check for signs of infection

Beginning of treatment



Application of PICO



Progression after 7 days



## Case 2 | Hip implant

#### Background9

A 53-year old man suffering from osteoarthritis had surgery for a hip implant. His wound, closed by suture and Steri-Strips<sup>TA</sup> measured 17,5cm x 0,5cm.

#### PICO intervention

- He was given a PICO System with the dressing measuring 10cm x 30cm
- A routine dressing change was performed on day three
- · At this point, his wound was progressing to closure with no infection and light exudate
- . The patient remained comfortable, although on day five, some bruising was noted around the lower aspect of the dressing, which remained for a few days
- At the routine dressing change on day ten, the wound was found to be closed
- · Overall the clinician was very satisfied with the treatment

Individual results will vary

Sharp edges or bone fragments in a wound must be covered or removed prior to using PICO due to the risk of puncturing organs or blood vessels white under negative pressure

Beginning of treatment



Wound on day 3 before application



day 3, after



Progression after 10 days



#### Key studies to reference:

Karlakki et al., (2016)

Incisional Negative Pressure Wound Therapy dressings (iNPWId) in routine primary hip and knee arthroplasties: a randomized control trial

Nherera et al., (2017)
Cost-effectiveness analysis of single-use negative pressure wound therapy dressings (sNPWT) to reduce surgical site complications (SSC) in routine primary hip and knee replacements

## More ways to learn about PICO 7:

Customer Care/NPWT Clinical Hotline: 1-800-876-1261

Reimbursement Hotline: 1-888-705-0061

www.possiblewithpico.com

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Use (IFU) prior to use.

For more instructions on electromagnetic immunity and electromagnetic emissions see: www.mypico.com.or ask your Smith & Nephew representative for a hardcopy.

Pump Placement Warning

#### Supporting healthcare professionals for over 150 years

References. 1 Karlakki t., et al. Incisional negative pressure wound therapy dressings (iNPWT) in routine primary hip and knee arthroplasties. A randomized controlled trial. Bone & Joint Research | 2016) Vol. 5 (Issue 8) pp. 328-337 doi:10.1302/2046-3758.58 BJR-2016-0022 Rt. 2. Gomoli AH, Lin A, Harris MB. Incisional vacuum-assisted closure therapy. J Orthop Trauma. 2006; 20(10) 705-709. 3 tumb H. Bacterial barrier testing (wet-wet) of PICO dressing with a 7 day test duration against S. marcescens. 4 Wilkes RP, Kilpad DV, Zhao Y, Kazala R. McNully A. Closed incision management with negative pressure wound therapy (CIM) biomechanics. Surg Innov. 2012, 19(1): 67-75. 5. Karlakki S, Brem M, Giannini S, Khanduja V, Stannard J, Martin R. Negative pressure wound therapy for management of the surgical incisions in orthopedic surgery A review of evidence and mechanisms for an emerging indication. Bone Joint Res. 2013, 20(2): 276-284. 6. Canonico S, Campitiello F, Della Corte A, et al. Therapeutic possibilities of portable NPWT initial multidisciplinary observations with the negative pressure therapy device. Acta Vulnol. 2012, 10(2): 57-66. 7. Selvaggi F, Pellino G, Sciaudone G, et al. New advances in negative pressure wound therapy INPWT for surgical wounds of patients affected with Crohn's disease. Surg Technol Int. 2014;24: 83-89. 8. PICO Case Study Book PCCC-01-0511-NAE 9. Lerate PR, de la Corte PM. Application of the PICO Single Use Negative Pressure Wound Therapy system to prevent complications from the surgical wound for all-risk patients. Data on file; 2013: case study 45208