Predictable outcomes in orthopaedic incision management
There is increasing focus on clinical effectiveness and reduction in hospital length of stay.
In a study on surgical site infections (SSIs) at Plymouth Hospitals NHS Trust in the UK, of 980 hip replacement and 970 knee replacement procedures between April 2010 and March 2012, SSIs significantly impacted on length of stay and subsequently the cost of surgery.²

- **Hip replacement SSI**
  - Additional 17 days in hospital

- **Knee replacement SSI**
  - Additional 8 days in hospital

Prevention of complications is cheaper than the cure

1. Reference
2. Reference
There are a number of factors which can increase the risk of surgical site infection following orthopaedic surgery\(^2\):

- Revision Surgery
- BMI > 30
- Duration of operation
- ASA Score > 3

The period of post-operative treatment before surgical wounds are completely closed remains a key window during which the application of innovative technologies can minimise complications.

One such technology is the use of **Negative Pressure Wound Therapy (NPWT)** to manage and accelerate healing in the closed incision.\(^3\)

**Incisional NPWT multi-modal mechanism of action**

- Protects the incision from external contamination
- Holds closed incision edges together and helps reduce tensile forces across the incision
- Helps improve perfusion
- Helps reduce oedema
- Reduces seroma and haematoma fluid collections
Predictable outcomes in orthopaedic incision management

Introducing PICO

PICO is a canister-free, single-use system offering the ultimate in portable, accessible and affordable Negative Pressure Wound Therapy (NPWT).

Delivers active therapy for 7 days.

Patient friendly indicators
Indicator for low battery and low vacuum

Complete mobility
Operates on 2 x AA batteries that lasts for a full 7 days of therapy

Gentle
Silicone adhesive wound contact layer minimising pain at dressing change

Ultimate simplicity
Single-button operation for ultimate simplicity

Comfort
Top film with high moisture vapour transmission rate to transpire exudate, so patients do not have to wear a bulky dressing

Confidence
Absorbent layer manages the fluid without the need for a canister

Innovative
Airlock layer maintains 80mmHg negative pressure across wound bed
Holds structure under pressure so device remains functional, even when dressing is compressed
CASE STUDY

PICO in Hip Replacement

**Background**
- 65-year-old woman with osteoarthritis, plus hypertension and type-2 diabetes

**PICO intervention**
- 10 x 30cm PICO dressing applied to the sutured surgical incision
- Patient discharged on day five with PICO in place
- Wound progressing well at day seven, showed no exudate or infection
- PICO discontinued at day 9 as wound closed.

See the difference PICO can make in complex Orthopaedic surgery.
Predictable outcomes in orthopaedic incision management

A 10 x 30cm PICO kit was used on this hip incision line. Due to the length of the incision the surgeon used a film dressing on the final part of the incision. In this image you can see the incision line after the first dressing change.

Leaky incisions caused by oedema post-surgery can extend patient hospital stay.
Length of stay is an important component of resource consumption in a hospital trust.
PICO reduces oedema compared with treatment.
Increased confidence in maintaining surgical reputation and avoiding prolonged discharge.

A 10 x 30cm PICO kit was used on this hip incision line. Due to the length of the incision the surgeon used a film dressing on the final part of the incision. In this image you can see the incision line after the first dressing change.

Image courtesy of Mr Karlakki, Consultant Orthopaedic Surgeon from Robert Jones and Agnes Hunt hospital.

PICO helps you take control of patient outcomes, even after discharge.
Predictable outcomes in orthopaedic incision management

For patients. For budgets. For today.

References


7. PICO – the early studies, Smith & Nephew, March 2011.


12. Selvaggi F et al., New Advances in Negative Pressure Wound Therapy (NPWT) for Surgical Wounds of Patients Affected with Crohn's Disease. Surgical Technology International XXIV; 83-89.