Reducing surgical complications and achieving rapid recovery following caesarean section

Supporting new mums #TimeToBond

Getting you closer to zero surgical site complications

smith&nephew
PICO° 7
Single Use Negative Pressure Wound Therapy System

Supporting healthcare professionals
Challenges in obstetric surgery

Patient profiles are increasingly more diverse.

1 in 3 babies in Australia are born by C-Section\(^1\)

27.5\% overall complication rate for emergency C-Sections\(^2\)

27\% of Australian women are obese\(^3\)

\(\geq 30\) 49\% Wound complication rate in women with BMI \(\geq 30\)\(^4\)
Predictable outcomes in obstetric surgery

Patient challenges

Surgical procedures are progressively more complex and high risk patients are increasingly common:

**Obesity**

There is a relationship between SSI and obesity, and C-Section is more common in obese women. The risk of SSI after C-Section is 2.4 times higher in obese women.

**Diabetes**

5% of women in Australia have diabetes and this number has tripled since 1989. The risk of SSI for women with diabetes following C-Section is 15.6%.

Certain patient groups have at least double the risk of acquiring an SSI and suffering from delayed wound healing post-surgery.

Key risk factors are:
- BMI ≥ 35
- Previous C-Section
- Diabetes
- Smoking

Incisional closure complications following C-Sections in high-risk patients can include:
- Surgical site infection
- Delayed healing and recovery
- Dehiscence
- Extended length of stay and readmissions
- Increased cost of treatment
- Dissatisfied patient
- Impact on mother and baby bonding
Wound complications following obstetric surgery are a major challenge, in particular for high risk patients.

31% of patients with an SSI need to be re-admitted to hospital.9
Improving outcomes with incisional Negative Pressure Wound Therapy (NPWT)

Negative Pressure Wound Therapy has multiple mechanisms of action that improve the speed, strength and quality of incisional wound healing. This minimises wound complications such as oedema, seroma and haematoma formation as well as dehiscence.\(^\text{10}\)

The benefits of Negative Pressure Wound Therapy are:

- **Protects** the incision from external contamination.\(^\text{11}\)
- Holds closed incision edges together and helps reduce tensile forces across the incision.\(^\text{12}\)
- Reduces seroma and haematoma fluid collections.\(^\text{13,14}\)
- Helps improve perfusion.\(^\text{15}\)
- Helps reduce oedema.\(^\text{15}\)
PICO™ 7 with AIRLOCK™ Technology: improved single-use NPWT

The elements

- Single-button operation for ultimate simplicity
- Indicator for vacuum leak
- Soft port
- Belt clip NEW
- Operates on 2x Alkaline AA batteries
- Dressing change indicator NEW
- Indicator for low battery
- Gentle silicone dressing

Operates on 2x Alkaline AA batteries
PICO™ 7 dressings with AIRLOCK™ Technology: leading the way in NPWT for closed surgical incision sites

Evaporation\(^{15}\)  
On average 80% of the exudate is lost by evaporation

Absorption\(^{15}\)  
Approximately 20% fluid still remains in the dressing

Absorbent core
locking exudate away from wound\(^{15,16}\)

Top film layer
has a high moisture vapour transmission rate\(^{15}\) and protects the wounds from external contamination\(^{17}\)

Pioneering AIRLOCK Technology
transmits pressure evenly across whole wound bed\(^{15,18}\)

Silicone adhesive layer
protects the wound environment and helps to reduce pain on removal\(^{17,18}\)

For patient outcomes, this changes everything

\(*\) In vitro testing.

†ALLEVYN™ dressing has the identical silicone adhesive wound contact layer, with the same properties as the PICO dressing.
Surgical site complications (SSCs) are common
Identifying patients at high risk of wound complications

The risk of developing a post-operative wound complication depends on the type of surgery and patient risk factors. The presence of just 1 major risk factor or 2 or more moderate risk factors, places patients at high risk of surgical site complication and means you should consider NPWT.

<table>
<thead>
<tr>
<th>Category</th>
<th>Patient-related</th>
<th>Procedure-related</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major risk factors</strong></td>
<td>• BMI ≥40kg/m² or ≤18kg/m²</td>
<td>• Extended duration of surgery*</td>
</tr>
<tr>
<td>Presence of 1 = high risk of</td>
<td>• Uncontrolled insulin dependent diabetes mellitus</td>
<td>• Emergency surgery</td>
</tr>
<tr>
<td>surgical site complication</td>
<td>• Renal dialysis</td>
<td>• Hypothermia</td>
</tr>
<tr>
<td><strong>Moderate risk factors</strong></td>
<td>• ASA Physical Status &gt;II</td>
<td>• Anaemia/blood transfusion</td>
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<tr>
<td>Presence of ≥2 = high risk of</td>
<td>• Age ≤1 year or &gt;75 years</td>
<td>• High wound tension after closure</td>
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<tr>
<td>surgical site complication</td>
<td>• BMI 30–39.9kg/m²</td>
<td>• Dual antiplatelet treatment</td>
</tr>
<tr>
<td></td>
<td>• Immunosuppression</td>
<td>• Suboptimal timing or omission of prophylactic antibiotics</td>
</tr>
<tr>
<td></td>
<td>• Smoking (current)</td>
<td>• Tissue trauma/large area of dissection/large area of undermining</td>
</tr>
</tbody>
</table>

Table adapted from World Union of Wound Healing societies Consensus, 2016. The risk factors represented in this table are examples only and not an exhaustive list. *Defined as >1 hour which is dependent on the type of surgical procedure, and is the 75th centile of duration of surgery for a particular procedure, e.g. coronary artery bypass graft has a T of 5 hours and caesarean section has a T of 1 hour

The Consensus on the Management of Closed Surgical Incisions by the World Union of Wound Healing Societies and World Health Organisation Guidelines recommend the use of NPWT for inpatients who are at high risk for SSC.
PICO° – helping you reduce wound complications and achieve predictable outcomes

In an RCT of 876 obese women undergoing C-section with pre-pregnancy BMI ≥30, the PICO system has been proven to significantly reduce the relative risk of SSI by 50% compared to care with standard dressings (p=0.007).²²

![Graph: Incidence of SSIs (%)](#)

- Number needed to treat: 22
- Results were similar when adjusted for potential risk factors

**50% relative risk reduction with PICO’s NPWT (p=0.007)**

**Pain reduction**

As part of a post-operative care regime, the prophylactic use of the PICO° system in obese women following caesarean delivery demonstrated a statistically significant reduction in pain scores, compared to standard care on post-operative day.²³
ACTICOAT° Flex Antimicrobial Silver Barrier Dressing
Proven antimicrobial protection

• Fast acting - ACTICOAT rapidly kills bacteria in as little as 30 minutes.24-27
• Effective against 150+ broad pathogens including MRSA, CRE, VRE and fungi.24,25,28-32
• Sustained release of silver providing efficacy up to 3 or 7 days.29,31
• Open weave design allows easy fluid migration and exudate passage making it an ideal primary wound contact layer under negative pressure wound therapy.33

CICA-CARE° Silicone gel sheet
For scar reduction

CICA-CARE is a self-adhesive silicone gel sheet designed to soften, flatten and fade red, dark or raised scars34-36 on any part of the body.

This includes scars resulting from:
• Surgery
• Accidents
• Cuts
• Burns

CICA-CARE could give you results in as little as 2 months.36 Plus CICA-CARE Gel Sheets can work on scars up to 20 years old.37

Silicone sheets and gels are recommended in international guidelines as ‘gold standard’, non-invasive therapies for both the prevention and treatment of hypertrophic scars and keloids.38
# Ordering information

## PICO™ 7

<table>
<thead>
<tr>
<th>Dressing</th>
<th>Dressing size</th>
<th>2x dressing kit*</th>
<th>1x dressing kit**</th>
<th>Multipacks***</th>
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<tbody>
<tr>
<td></td>
<td>10cm x 20cm</td>
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<td>66802012</td>
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### Consumables

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<tr>
<th>Dressing size</th>
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<tr>
<td>Foam dressing filler 10cm x 12.5cm x 1.5cm</td>
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<td>Gauze dressing filler 11.4cm x 3.7m</td>
<td>66802127</td>
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* 2 x dressing kit = 2 dressings + 1 pump; ** 1 x dressing kit = 1 dressing + 1 pump; *** Multipacks = 5 dressings only

## ACTICOAT™ Flex 3

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Items per unit</th>
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## ACTICOAT™ Flex 7

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