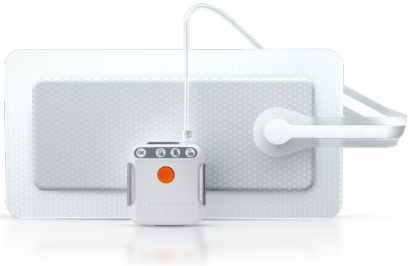
Control your risks, control your outcomes

PICO◊ sNPWT has been shown to help reduce the incidence of **surgical site complications**[1,] **length of stay**[1,] and overall **cost** of care[3] following primary total joint arthroplasty (TJA)*



Smith+Nephew

PICO◊ 7

Single Use Negative Pressure Wound Therapy System

Helping you get **CLOSER TO ZERO**◊ surgical site complications[16]

smith-nephew.com/pico

*compared with standard care

PICO◊ INCISIONAL ORTHOPAEDIC SURGERY

The real-world impact of oedema?

Physiologically, oedema compromises the diffusion of waste and nutrients between the capillaries and the cells, which puts the patient at risk of **delayed healing, infection, skin breakdown and cell damage**[46]

Oedema

Haematoma **Seroma**

Prolonged drainage

FOLLOWING TJA PROLONGED DRAINAGE CAN LEAD TO:

29%[5]
reduction in knee extension strength

29-42%[4]
increase risk of surgical site infection (SSI)

Surgical site complications (SSC)

Average length of stay (LoS) increases following an SSI

Total hip arthroplasty (THA)
= **13.4 days**[8]

Total knee arthroplasty (TKA)
= **9.7 days**[8]

An SSC following primary TJA can have significant real-world impact

Reattendence	Readmission	Reoperation
Up to **6.1%**[6]	Up to **23.2%**[6,7]	Up to **40%**[6]

Is your patient high risk?

Multi-morbid patients with common risk factors are more susceptible to developing SSCs[8], which can have significant real-world impacts[6,7]

BMI ≥ 40

Significantly more likely to suffer **prolonged drainage** following THA*[4]

BMI ≥ 35

4.5x times more likely to suffer an **SSC** following TKA or THA surgery†[3]

ASA ≥ 3

8x times more likely to suffer an **SSC** following TKA or THA surgery‡[3]

Operative time

SSI risk increases by **11%** every 15 minutes during TKA§[9]

Revision

Deep or organ space SSI can nearly **quadruple** with revision hip arthroplasty compared with primary procedures[10]

Emergency

Up to **16%** SSI rate following peri-prosthetic hip fracture[11, 12]

*Compared with normal weight; p = 0.001. †Compared with BMI < 35. ‡Compared with patients with ASA < 3. §Where operative times had a significant independent effect on SSI rates (adjusted OR 1.007, 95% CI 1.004-1.011, P < .001;) which corresponded to an 11% (95% CI 6-17) increase in SSI risk with every 15-minute increase in operative time.

Is your patient high risk?

The risk of developing a post-operative SSC depends on the type of surgery and patient risk factors[14,15]

The presence of just **1 major risk factor or 2** or more moderate risk factors, places patients at high risk of an SSC and means you should consider **PICO◊** sNPWT[14]

Category	Patient-related risk factor	Procedural-related risk factor
Major risk factor *presence of 1 = high risk of surgical site complication*	BMI ≥ 40kg/m² or ≤ 18kg/m²	Extended surgery
	Uncontrolled insulin dependent diabetes mellitus	Emergency surgery
	Renal dialysis	Hypothermia
Moderate risk factor *presence of 2 ≥ high risk of surgical site complication*	ASA physical status >II	Anaemia / blood transfusion
	Age < 1 year or > 75 years	High wound tension after closure
	BMI 30–39.9kg/m²	Dual antiplatelet treatment
	Immunosuppression	Suboptimal timing or omission of prophylactic antibiotics
	Smoking (current)	Tissue trauma / large area of dissection / large area of undermining

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[14]

Defined as >T (hours) 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

Control your risks, control your outcomes

PICO◊ sNPWT has shown to help reduce the incidence of **SSCs**[1], **LoS**[1] and overall **cost** of care[3] following primary TJA*

*compared with standard care

Control your risks, control your outcomes

In an RCT of **209 patients** undergoing primary THA and TKA:

4-FOLD REDUCTION IN SSCs

76% relative reduction

PICO◊ sNPWT reduced the incidence of SSCs by 76%*[1]

CHANGE YOUR PRACTICE, NOT DRESSINGS

PICO◊ sNPWT significantly reduced both wound exudate*†[1] and the number of dressing changes by 40%*‡[1]

*compared with standard care; n = 107 (std care) v 102 (PICO system)
†Grade 4 exudate: 4 vs 16%; p = 0.007 ‡2.5 vs 4.2; p = 0.002

Ask for
Evidence in Focus publication summary

Control your risks, control your outcomes

In a prospective study of **296 patients** undergoing primary TKA:

The prophylactic use of **PICO**◊ sNPWT significantly reduced the incidence of **SSCs** by

37% *45

THIS INCLUDES

Hyperaemia,† **skin necrosis**‡ **and wound dehiscence***§

which resulted in a significant reduction in the incidence of **re-operation** by 76%‖

Ask for Evidence in Focus publication summary

All compared with standard care; *28.5% v 45.7%, p = 0.001; †14.7% v 40.2%, p = 0.01; ‡2.1% v 8.5%, p = 0.04; §3.1% v 10.1%, p = 0.03 and v2% ‖ 8.5%, p = 0.001.

High risk, low LoS

In an RCT of **209 patients** undergoing primary THA and TKA:

REDUCED LoS

PICO◊ sNPWT reduced mean LoS by an average of 0.9 days[*1]

Extremes of LoS were also reduced significantly with patients who received **PICO** sNPWT[†1]

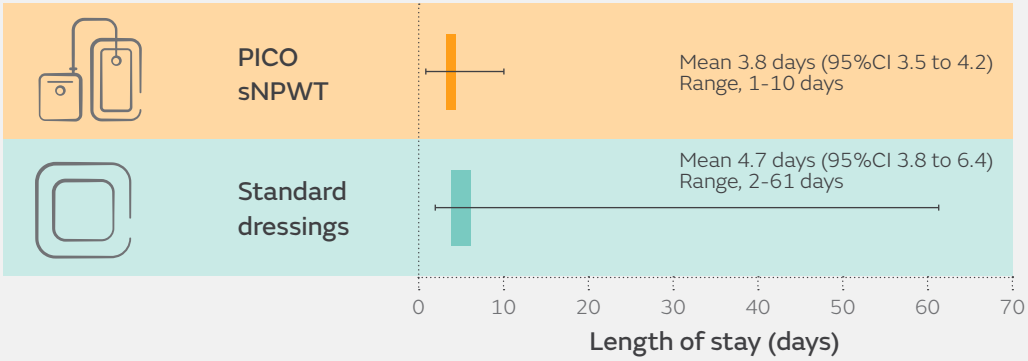


Figure. Mean LoS (and range) with PICO sNPWT and standard dressings

*compared with standard care; n = 107 (std care) v 102 (PICO system) † p = 0.003

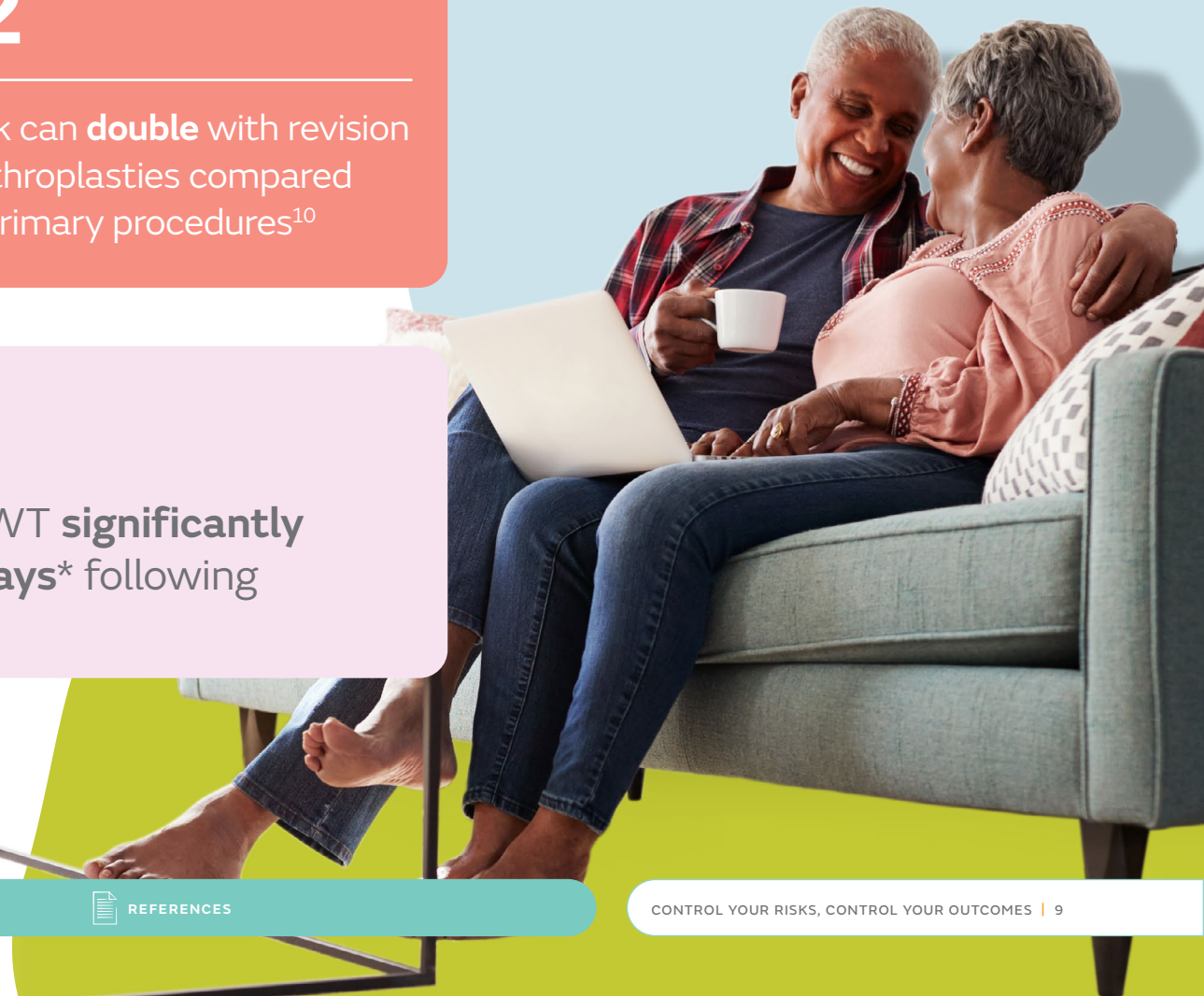
Prolonged operative time can increase the risk of SSI[14]

Revision hip arthroplasty can take, on average, **78 mins longer** compared with primary procedures[51]

X2

SSI risk can **double** with revision hip arthroplasties compared with primary procedures[10]

The prophylactic use of incisional NPWT **significantly reduced LoS** by an average of **1.87 days*** following **revision hip and knee arthroplasties**[2]



*Compared with standard care; 6.71 days v 8.58 days; p = 0.019

Seize the cost opportunity

Reductions in dressing changes, SSCs and LoS with **PICO**◊ sNPWT demonstrated an estimated **£1,049 per patient** cost savings following primary **TJA**[*3]

Ask for

Evidence in Focus publication summary

Figure 1. *Estimated total mean costs per patient associated with PICO sNPWT and standard dressings*

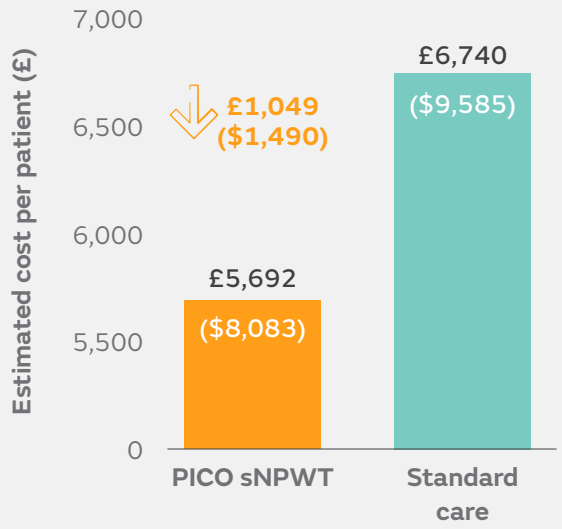
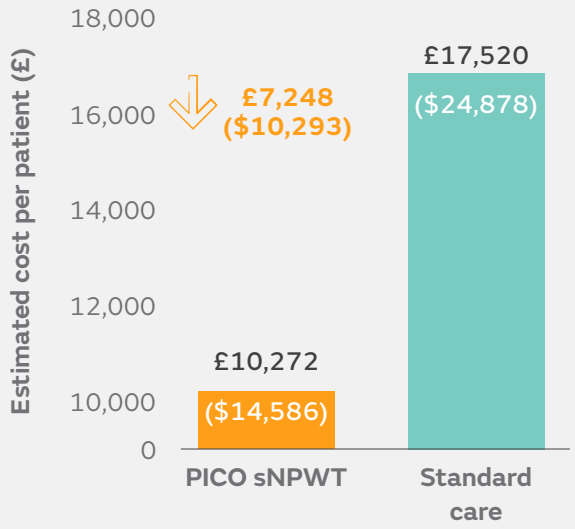
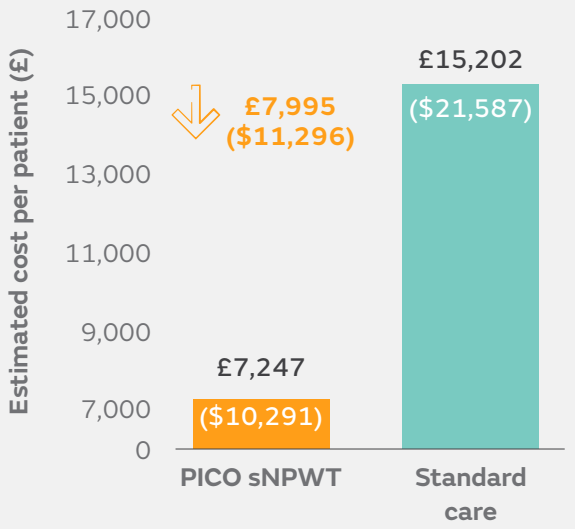


Figure 2. *Sub-group analysis ASA ≥ 3 and BMI ≥ 35, deterministic results, sNPWT compared with standard care, mean costs,outcomes*



Sub-group analysis ASA ≥3



Sub-group analysis BMI≥35

Abbreviations: sNPWT, single use negative pressure wound therapy; BMI, body mass index; ASA, American Society of Anesthesiologists.

*compared with standard care

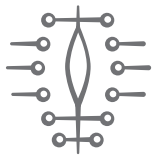
High quality evidence for high risk patients

In a meta-analysis[16] of **29 studies** in a variety of surgical indications; including **11 randomised controlled trials** (RCTs) with a total of **5,614 patients**, PICO◊s NPWT was found to:

63%↓

In SSI risk with **PICO◊** sNPWT compared with standard care[16]

30%↓



In dehiscence risk with **PICO** sNPWT compared with standard care[16]

77%↓

In seroma risk with **PICO** sNPWT compared with standard care[16]

1.75 DAYS↓

In length of hospital stay seen with **PICO** sNPWT compared with conventional dressings[16]

NICE guidance demonstrates that PICO sNPWT provides better outcomes than standard care for preventing surgical site complications in high-risk patients with closed surgical incisions[17]

Incremental acquisition costs of PICO sNPWT is more than offset by savings in the treatment of SSIs[17]

Is your patient high risk?

Certain patient factors correlate with SSI development following primary and revision arthroplasty[13].
Pre-operative identification can determine the probability of an SSI developing post-operatively[13].

Procedure				
TJA procedure	Primary hip	Primary knee	Revision hip	Revision knee
Score	0	1	3	3

Chronic obstructive pulmonary disease		
Presence	Yes	No
Score	1	0

Diabetes		
Presence	Yes	No
Score	1	0

Long term insulin use		
Presence	Yes	No
Score	1.5	0

Rheumatoid arthritis or inflammatory arthropathy		
Presence	Yes	No
Score	1.5	0

Tobacco use		
Presence	Yes	No
Score	1.5	0

Lower-extremity osteomyelitis or pyogenic arthritis		
Presence	Yes	No
Score	2	0

Pelvis, thigh, leg traumatic fracture		
Presence	Yes	No
Score	2	0

Lower-extremity pathologic fracture		
Presence	Yes	No
Score	2.5	0

Morbid obesity (BMI ≥ 40)		
Presence	Yes	No
Score	2.5	0

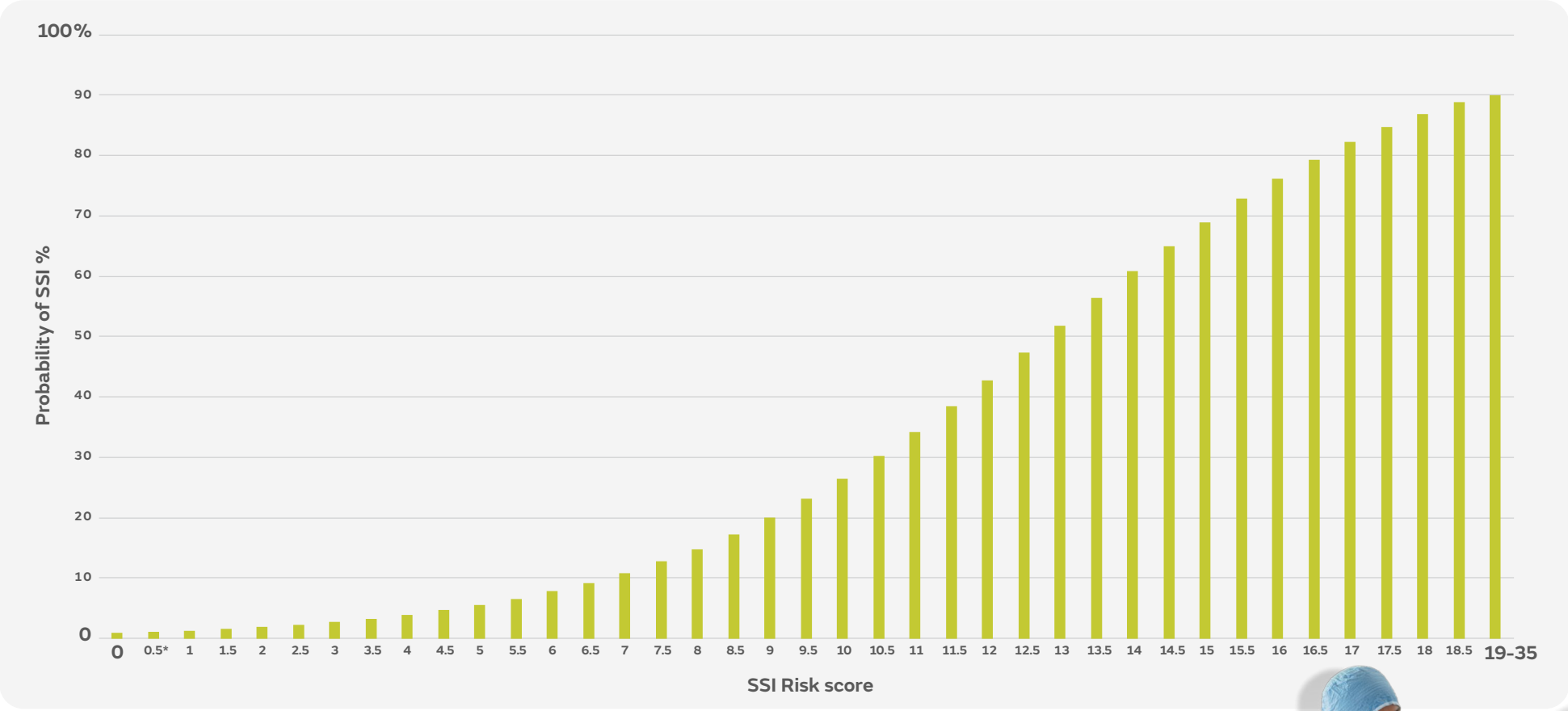
Primary bone cancer		
Presence	Yes	No
Score	4	0

Reaction to prosthesis or implant within 3 years		
Presence	Yes	No
Score	4	0

Staphylococcal septicemia		
Presence	Yes	No
Score	4.5	0

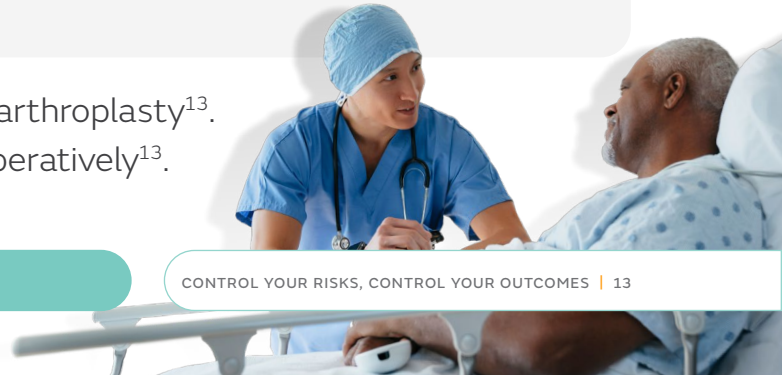
TOTAL PATIENT SCORE:

SSI risk score and corresponding probability of SSI



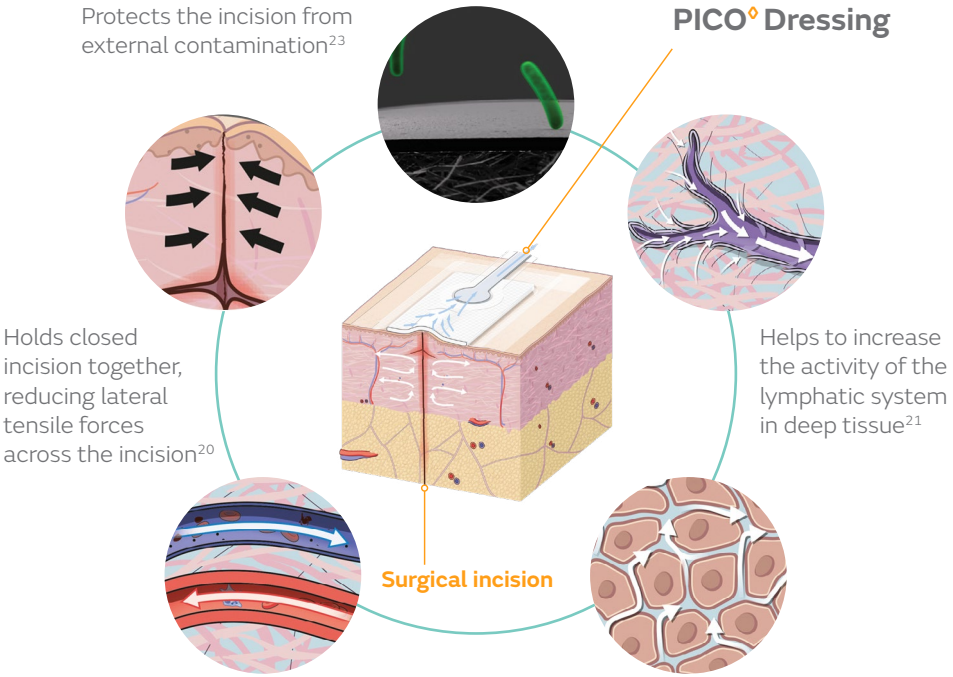
Certain patient factors correlate with SSI development following primary and revision arthroplasty[13]. Pre-operative identification can determine the probability of an SSI developing post-operatively[13].

*Interpolated value. A score of 0.5 is not a possible result of any combination of positive risk factors



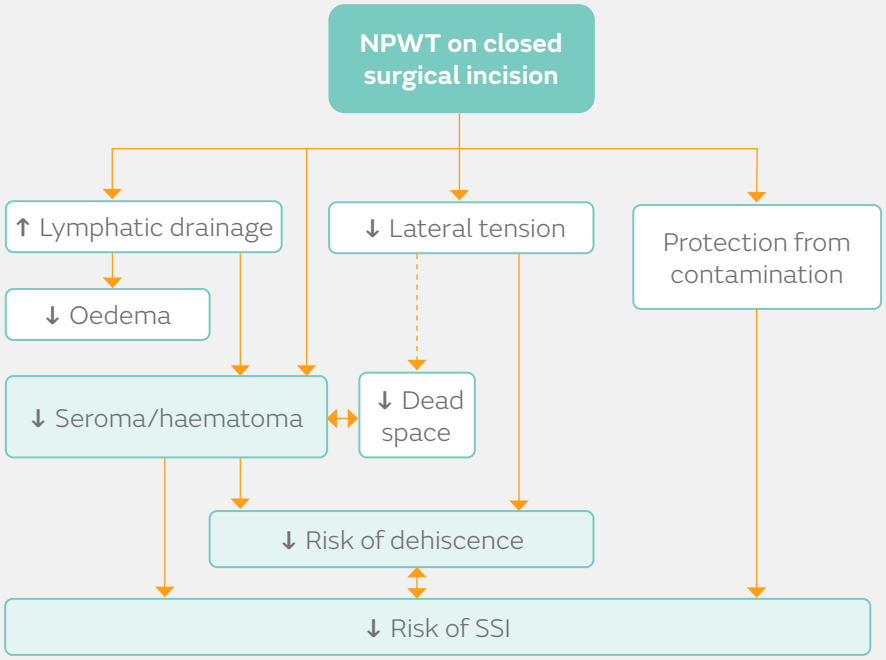
Negative pressure wound therapy (NPWT):

NPWT has multiple mechanisms of action that can help improve the speed, strength and quality of incisional wound healing which can minimise surgical site complications[18-23]



Maintains an efficient blood supply to the wound (perfusion), which helps to support the immune response[31-33]

Has been shown to increase the efficiency of functional lymph vessels helping to reduce oedema[28-30]



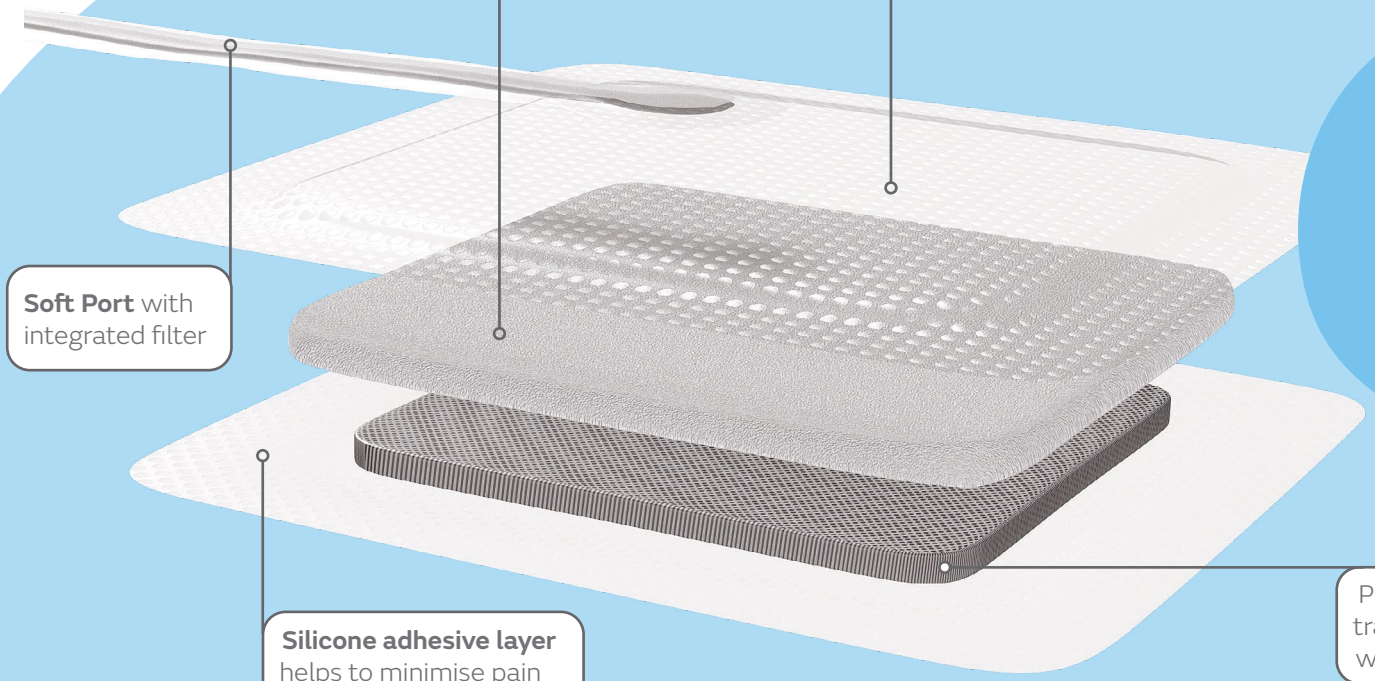
This pathway is adapted from the WUWHS guidelines document and it shows how NPWT can help reduce SSCs and lateral tension while increasing lymphatic drainage. This effect is likely to contribute to faster and stronger healing, and a reduced risk of infection and dehiscence[14]

One unique differentiator

AIRLOCK◊ Technology for consistent delivery of negative pressure, protecting the incision and treating the wider zone of injury. Only **PICO**◊ sNPWT dressings have **AIRLOCK** Technology

Up to
80%
of the exudate is lost by evaporation[21]

Whilst
20%
is absorbed in the dressing[21]



Super absorbent core locking exudate away from wound[21,44]

Top film layer has a high moisture vapour transmission rate and protects the wounds from external contamination[23,38]

Soft Port with integrated filter

Silicone adhesive layer helps to minimise pain on removal [37,39-42]

Pioneering **AIRLOCK Technology** transmits pressure evenly across a wider zone of treatment[24]

PICO◊ 7 System

Completely portable and clinically effective in the treatment of surgical, chronic and acute wounds

PICO◊ 7

Single Use Negative Pressure Wound Therapy System

Features:

Improved device performance*

- Enhanced management of air leaks helping to support healthcare professionals in delivering negative pressure and could potentially be used in problematic 'hard to seal' awkward areas[25]

Improved ease-of-use

- New user interface with a 'dressing full' indicator, optimising dressing changes[41]
- Area to write start date of therapy, helping with healthcare protocols

Designed to improve patient quality of life

- Now even quieter pump than before[26]
- New transparent belt clip for greater portability[27]

Increased flexibility

- New multipacks of five dressings now available, allowing therapy to be tailored to patients' clinical needs

*compared with standard care

PICO◊ 14 system

Designed to challenge hard-to-heal wounds

If more than 7 days of sNPWT is clinically indicated, 14 day therapy can be used at HCP discretion for high risk patients undergoing high-consequence surgical procedures and hard-to-heal acute and chronic wound.

Features:

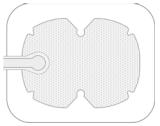
- Pump duration of up to 14 days[34]
- Aimed for use on deep wounds with use of a filler[35] and high-risk patients undergoing high-consequence procedures
- An enhanced pump to aid use in large wounds with less user intervention[36]

*compared with standard care

PICO◊ 14
Single Use Negative Pressure Wound Therapy System

Product ordering codes

The **PICO**◊ sNPWT portfolio is compatible with **ACTICOAT**◊ **FLEX** Antimicrobial Barrier Dressing, our silver-coated antimicrobial wound contact layer. ACTICOAT FLEX Dressing can be used for up to 3 days on closed surgical incisions at high risk of infection and open wounds with signs and symptoms of infection.[47-50]

		PICO 7 system + 1 dressing	PICO 7 system + 2 dressings	PICO 14 system + 2 dressings	Multipack with 5 dressings	PICO 7Y device + 2 dressings
Dressing sizes		**Code**	**Code**	**Code**	**Code**	**Code**
	Multisite small 15cm x 20cm	66802010	66802000	66802040	66802020	–
	Multisite large 20cm x 25cm	66802011	66802001	66802041	66802021	66802031
	10cm x 20cm	66802012	66802002	66802042	66802022	–
	10cm x 30cm	66802013	66802003	66802043	66802023	–
	10cm x 40cm	66802014	66802004	66802044	66802024	–
	15cm x 15cm	66802015	66802005	66802045	66802025	–
	15cm x 20cm	66802016	66802006	66802046	66802026	–
	15cm x 30cm	66802017	66802007	66802047	66802027	–
	20cm x 20cm	66802018	66802008	66802048	66802028	–
	25cm x 25cm	66802019	66802009	66802049	66802029	–

Consumables			**Code**
	Foam dressing filler	10cm x 12.5cm	66801021
	5 Antimicrobial Gauze Rolls + 1 SECURA◊ NSBF Wipe	11.4cm x 3.7m	66802127

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.

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AWM-AWD-29513 | GMC1162

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.

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