FACEBOOK LIVE

HARD-TO-HEAL WOUNDS:
THE NEED FOR EARLY INTERVENTION

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THURSDAY
7 OCTOBER
7.30-8.30

FACEBOOK LIVE

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THE BURDEN OF HARD-TO-HEAL WOUNDS

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INCREASING NUMBER OF PATIENTS WITH WOUNDS

In the UK in 2017/18:

- 3.8 million patients received treatment for a wound
- **71% increase** in annual prevalence of wounds over five years.

An increasing use of resources:

- 399% more community nurse visits
- 100% more outpatient visits
- 164% more GP visits.

ECONOMIC BURDEN OF WOUND MANAGEMENT

48% increase in wound care management costs

81% of costs incurred in community-based services:

- Chronic wounds: 85% of expenses
- Acute wounds: 68% of expenses

Mean treatment costs:

- Healed wound = £1500
- Unhealed wound = £3700

(Guest et al, 2020)

CASELOAD BURDEN OF HARD-TO-HEAL WOUNDS

One out of three patients have a wound for longer than one year:

- United Kingdom = 30% (Guest et al, 2020)
- England = 18% (Ousey et al, 2013)
- Sweden = 18% (Lindholm et al, 2021)

Non-healing wounds:

- Often increase in size
- Increased risk of infection
- More frequent dressing changes

IMPACT ON THE PATIENT

- Pain and discomfort
- Anxiety
- Loss of independence
- Disrupted daily routine
- Perception of self
- Social isolation
- Depression
- Absence from work

(67% of patients under 65 years) (Guest et al, 2020)

INTERVENING WITH SINGLE-USE NEGATIVE PRESSURE WOUND THERAPY (SNPWT)

International research project: four countries; seven sites;
52 patients

- Identified wounds not showing signs of healing for at least four weeks
- sNPWT was used for 14 days
- Wounds were followed over the following 10 weeks

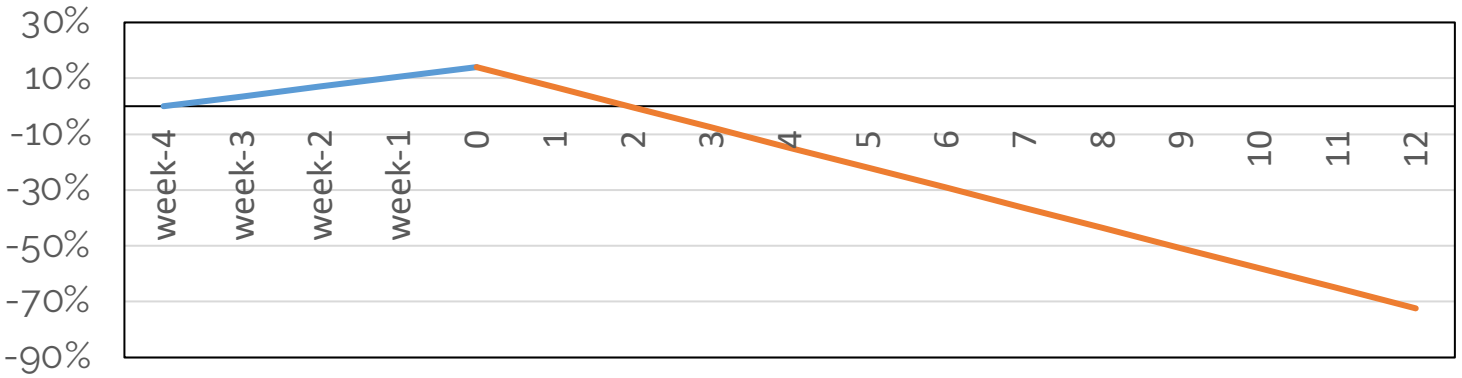
Developed a pathway for use of sNPWT to 'kick start hard-to-heal wounds'

(Dowsett et al, 2017)

WEEKLY WOUND AREA REDUCTION RATE (%)

Mean pre-PICO baseline
= increase by 3.5%

Mean post baseline
= reduction 7.2%



Weekly wound size reduction:

- With PICO◊ = av. **13.4 % more** than the pre-PICO rate (**p=0.006**).
- 12 weeks post baseline = av. **9.4% more** than the Pre-PICO rate (**p=0.001**).

(Dowsett et al, 2017)

sNPWT PATHWAY — EARLIER HEALING

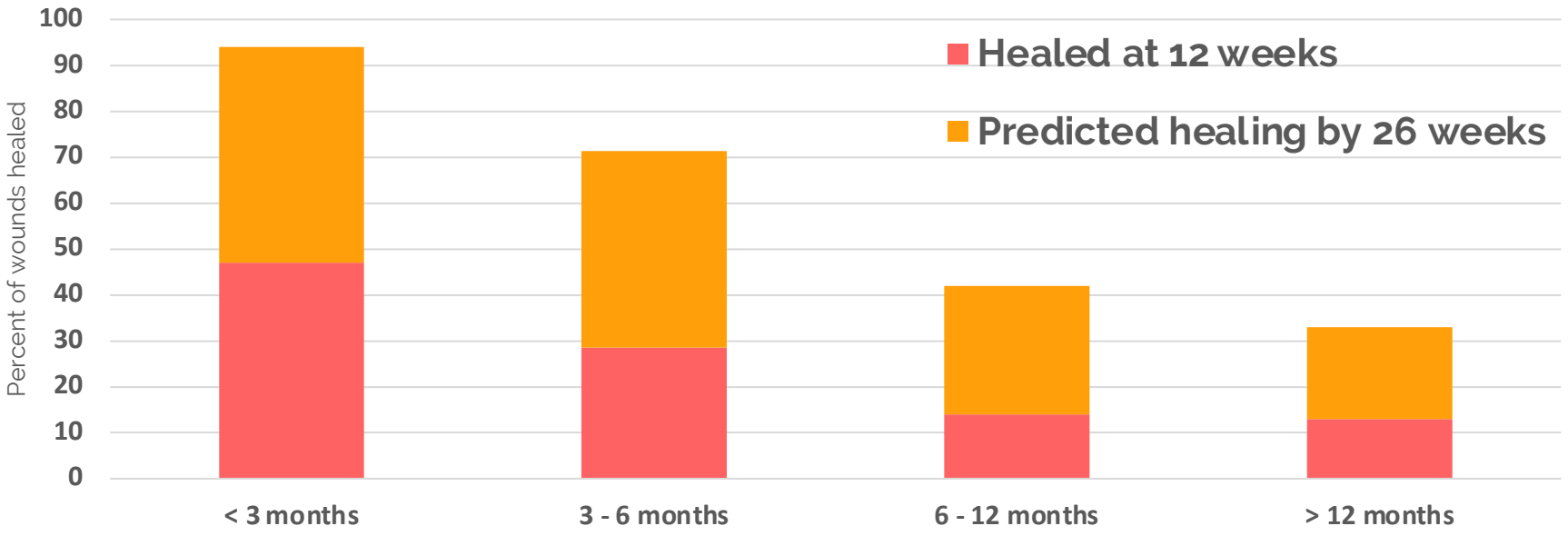
Under standard care — four wounds predicted to heal in 26 weeks

sNPWT pathway:

- 14 wounds healed within 12 weeks — **26.9%**
- A further 18 wounds predicted to heal within 26 weeks — **34.6%**
- Potential to heal **61.5%** of hard-to-heal wounds

(Dowsett et al, 2017)

WOUND DURATION AND POTENTIAL FOR HEALING



Don't wait – assess risk - intervene

(Dowsett et al, 2017)

RISK FACTORS FOR POTENTIAL DELAYED HEALING

- Older age
- Co-morbidities
- Diabetes
- Smoking

- Wound size reduction is less than 10% per week (Dowsett et al, 2017)
- Wound infection suspected (biofilm)

EARLY INTERVENTION WITH SNPWT — RISK ASSESSMENT

Case one

- 91-year-old woman. Trauma wound under knee
- Poor mobility, smoker
- Leg oedema — will NOT consider compression
- Dressing change on alternate days

Day 4 since initial injury

Day 5 (removed coagulated blood)

Day 9 (PICO started)

(Dowsett et al, 2017)

EARLY INTERVENTION WITH SNPWT — RISK ASSESSMENT

Case one cont.

sNPWT used for seven days without changing the dressing

Day 7
PICO plaster

After 7 days with PICO
No cavity

2 weeks post PICO
Standard dressing product x 2 weekly

(Dowsett et al, 2017)

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EARLY INTERVENTION WITH SNPWT — RISK ASSESSMENT

Case two

- 83-year-old man with a pressure ulcer on sacrum, after a fall at home
- Hospitalised for three days before coming home again
- Lives alone and has a poor nutritional status

1 week after coming home
Wound bed preparation

2 weeks later
Start PICO

After 14 days
with PICO

(Dowsett et al, 2017)

SURGICAL WOUNDS CAN BE HARD-TO-HEAL

14% surgical wounds not healed within the year (Guest et al, 2020)

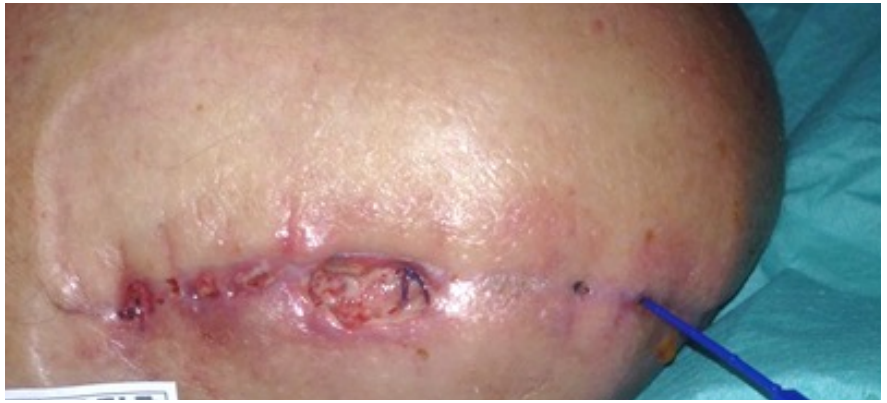
In Aarhus Community Health organisation:

- 40% required treatment longer than three weeks
- **16% take longer than eight weeks to heal (Data from Aarhus community improvement project, 2020)**

FEMUR AMPUTATION: PATIENTS REFERRED TO AARHUS COMMUNITY HEALTH CARE

Problem (2018):

- 32 amputations
- 50% not healed at four weeks
- 25% not healed at eight weeks



Interventions (2019):

- Shared project between orthopædic dept. and community nursing
- Community tissue viability team informed of patients' discharge
- TVN follow-up with community nurse
- sNPWT started with first sign of exudate or defect in closed incision

(Hampton, 2021)

QUICKER HEALING WITH PICO AFTER FEMUR AMPUTATION

Factor	Usual care 2018 (32 amputations)	Project (2020) Use of PICO (27 amputations)
Delayed healing:	**16 amputations**	**11 amputations**
• Healed between 4 and 8 weeks	50% *Av. 6.5 weeks*	64% *Av. 5.5 weeks*
• **80 % healed**	**17 weeks**	**10,5 weeks**

(Hampton, 2021)

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DON'T WAIT — INTERVENE EARLY

Early identification of a challenging wound

↓

Early implementation of PICO

↓

Earlier healing of the wound

↓

Reduce the burden on the patient
AND
healthcare providers

MANAGING COMPLEX WOUNDS WITH SINGLE-USE NPWT

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COMPLEX WOUNDS / HARD-TO-HEAL WOUNDS

Wound healing parameters in literature utilise healing rates:

- Diabetic foot ulcers (DFU) <50% reduction in four weeks (Sheehan et al, 2003)
- Venous leg ulcers (VLU) <40% reduction in four weeks (Serena et al, 2015)
- Pressure ulcers <20–40% reduction in four weeks (Bates-Jensen, 1997).

COMPLEX WOUNDS / HARD-TO-HEAL WOUNDS

- Any wound not healed by 40–50% after four weeks of standardised care should be considered a hard-to-heal wound
- Alternative strategies should be sought, often via referral to a wound care specialist or multidisciplinary team (MDT) (Atkin et al, 2019).

OUTCOMES

Healing is not the only outcome

For patients with wounds that may be unlikely to heal, or where healing is not the priority:

- Non-healing outcomes must be considered and measured to demonstrate improvement (Enoch and Price, 2004).

OUTCOMES

Patient-reported outcome measures (PROMs) and patient-reported experience measures (PREMs) are used to assess health gain and the quality of healthcare experiences, focusing on patients. (National data collection in some specialties.) (NHS England, 2018)

Need to determine national and local patient outcomes to help demonstrate effective care, in addition to healing for healthcare providers and commissioners.

PATIENT BURDEN OF COMPLEX WOUNDS

Reduced quality of life:

Physical:

- Persistent pain/excessive exudate/odour/impaired mobility
- Lack of sleep/fatigue/wound infection

Emotional and spiritual wellbeing

- Distress/depression/anxiety

Social/economic

- Increased cost/outgoings/reduction in income
- Social isolation
- Covid pandemic

SINGLE-USE NPWT

CASE STUDY SERIES

COLLATED FROM TISSUE VIABILITY AND COMMUNITY NURSING SERVICE

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CASE STUDY ONE

68-year-old gentleman

Past medical history (PMH):
Peripheral arterial disease (PAD)/polymyalgia rheumatica /
Deep vein thrombosis (DVT)

Within 10 days x 3 operations:
Right tibial angioplasty
Amputation of right 2nd/3rd/4th digits (day 3)
Trans-metatarsal amputation — day 10

Previous treatment:
Larvae/topical oxygen/other advanced therapies
Analgesia 30 minutes before dressing change

Initial presentation

CASE STUDY ONE CONTINUED

Initial presentation

5 months — advanced therapies

CASE STUDY ONE CONTINUED

sNPWT initiated

CASE STUDY ONE CONTINUED

27 days – 10 dressing changes

SUMMARY

Limb salvage — avoid AMPUTATION!

Patient factors:

- Plays football
- Holiday
- Shower
- Pain-free dressing changes
- Self-manage
- *update 2 ½ years on — remains healed

CASE STUDY TWO

28-year-old lady

- PMH: nil
- Emergency C section — first baby
- Dehisced — day 9
- Five weeks of daily dressings at GP surgery
- No change to wound dimensions or exudate volume
- Referral to tissue viability dressing clinic
- No clinical signs of infection
- ? mechanical cause
- No shower/recreation

COVID pandemic

Initial presentation

CASE STUDY TWO CONTINUED

Day 1: sNPWT applied

Day 3: first dressing change

SUMMARY

Five weeks of non-healing vs 16 days of treatment

- Daily dressings vs twice weekly
- 35 dressing changes vs five
- Patient outcomes — showering day one
- Post healing check — remains healed
- Now pregnant again

Day 16

CASE STUDY THREE

67-year-old gentleman

- PMH: hypertension/diverticulosis
- Cancer of the rectum
  Lower anterior resection of colon — ileostomy — gastric anastomotic leak
- Discharge referral to community nursing team — daily dressing changes

Covid pandemic

CASE STUDY THREE CONTINUED

Community nurse team refused

GP practice refused

Daily visits to ward for re-dressing

*Referral to dressing clinic – run by tissue viability

CASE STUDY THREE CONTINUED

sNPWT initiated

Day 4: first dressing change

CASE STUDY THREE CONTINUED

sNPWT initiated

Day 4: first dressing change

CASE STUDY THREE CONTINUED

Day 7:
second dressing change

Day 16:
discharged

SUMMARY

Four weeks of daily dressing changes vs
two weeks of twice weekly dressing changes

- 28 dressing changes vs three
- 28 hospital visits vs four clinic visits

Patient outcomes:

- Showering
- Own time management
- Reduced stress — shielding

CASE STUDY FOUR

71-year-old man

- Smokes 20–40
- Traumatic wound
- A&E x two episodes of cellulitis
- Haematoma excised post four weeks
- Debrided by vascular team
- Compression started and referral to plastics for grafting

CASE STUDY FOUR CONTINUED

At presentation:

- Wound dimensions: 5.7x3 cm
- Depth: 3cm deep
- Very painful
- Good perfusion — no PAD

CASE STUDY FOUR CONTINUED

Initial presentation —
sNPWT initiated

45 days — sNPWT
11 dressing changes
Includes one week's holiday

SUMMARY

Patient outcomes:

Avoidance of plastic surgery
Showering before dressing changes
Pain reduction
Ability to travel/portable (family)
Reduction in dressing changes.

Note:

sNPWT discontinued by team - day 45 - six weeks / 1.5 months.

Full closure achieved – further 3.5 months with compression and primary dressing

CLINICAL IMPACT

Wound related:

- Choice of filler – if required
- Extended tissue support/ bolstering: 'zone of therapy'
- Rapid tissue regeneration
- Ability to reduce dressing changes without tissue adherence compared to traditional negative wound pressure therapy (tNPWT)

CLINICAL IMPACT

- Risk reduction to wound bed if pump stops working compared to tNPWT
- Ease of use/instructions
- Confidence and assurance

*SHARED CARE WITH PATIENT / CARER & OTHER SETTINGS

*SIMPLIFIES PATIENT PATHWAYS – continuity/ funding

ORGANISATIONAL IMPACT

Covid

Reduction in dressing changes / Increased wear time = ↓ cost

↑ Quality and healing rates

Reduction in clinician activity = ↓risk & ↓cost

Reduction in harm = ↓

Ability for patient to self-care/troubleshoot

NB: Extended earlier intervention range of wounds types

National Wound Care Strategy Programme
Excellence. Every Patient. Every Time.

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SUMMARY


Hard-to-heal wounds can be referred to under a number of different names
Hard-to-heal wounds
Hard-to-heal wounds are challenging for patients, clinicians and the health economy
Use evidence-based interventions to help reduce time to healing and improve patient outcomes
Need to identify patients who are likely to be hard to heal early

CONTACT US...

For further information on PICO™ sNPWT or the evidence presented please contact us by:

Email: **AskAboutPICO@smith-nephew.com**

Visit: **www.smith-nephew.com/PICO**

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