What is TLC for wounds?

Chaired by Kath Vowden

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The challenge of pain management at dressing change

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Glasgow Caledonian University
Aims

- Discuss pain at dressing change and its impact on the patient and the clinician
- Consider treatment strategies
- Explore relevant literature
More attention now paid to pain - emphasising the need for adequate management.

Previously, concerns focussed on the dangers of over-prescription of analgesia.

Wound pain models, assessment tools, guidelines on management, Position Document¹, Atraumatic Dressings².

A basic understanding of the physiology of pain will help anyone involved in a wound dressing related procedure to understand the patient’s pain experience³.

EWMA Position Document 2003 Pain at Wound Dressing Change
Definition

• Pain is a complex phenomenon influenced only in part by the degree of tissue insult.

• Patients perception of pain are influenced by the factors such as the meaning of pain to them (Waugh 1990).

• Chronic wound pain is not well understood (Price et al 2007).

• Complexity of factors surrounding pain which can make it difficult to assess.
Patients’ descriptions of wound pain

• Like lightning

• Electric shock

• “I’ve had shooting pains so strong that I’d almost describe it as having a knife or an axe in my ulcer”

• “The pain comes out of the blue it comes from somewhere in the middle of the ulcer then moves up my leg and just carries on hurting…it takes a couple to three days before it dies down”

• “I can’t bear to have to the duvet on me….all in all I am sleeping no more that, well, maybe an hour at two at night”

www.worldwidewounds.com/2006/april/Flanagan/Ibuprofen-Foam-Dressing
Prevalence of pain

• Leg and foot Study of demographics of leg ulcer patients in Sweden
  Survey Ebbeskog et al., 1996 (38)
  ❖ questionnaires on 294 patients presenting with leg ulcers
  ❖ pain reported by patients:
    o 47% in venous leg ulcers;
    o 80% in arterial leg ulcers;
    o 94% in mixed ulcers;
    o 48% in diabetic ulcers;
    o 51% in other ulcers;
    o combined all day and dressing

• Observational study (5850 patients presenting with acute/chronic wounds)
  ❖ 80% of the patients in both groups experienced pain at dressing changes irrelative of the type of dressing used before
### Effects of pain

<table>
<thead>
<tr>
<th>On wound healing</th>
<th>On the patient’s quality of life</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Loss of appetite</td>
<td>• Negative effects on professional and social life</td>
</tr>
<tr>
<td>• Nausea $\rightarrow$ poor nutritional intake $\rightarrow$ collagen synthesis decreased</td>
<td>• Altered self-image</td>
</tr>
<tr>
<td>• Mobilization $\rightarrow$ decreased poor circulation and tissue oxygenation</td>
<td>• Stress and anxiety</td>
</tr>
<tr>
<td></td>
<td>• Depression</td>
</tr>
</tbody>
</table>
pseudomonas
Strategies to avoid or reduce pain

• Look for causes of pain: infection, debridement, tight bandage etc

• Assess the pain

• Provide adequate analgesia (other pharmaceutical interventions)

• Look for allergies

• Warm cleansing solution

• Non pharmaceutical interventions: Relaxation, acupuncture, TENS

• Choose the right non-adherent dressing
Wound Pain Management Model®

(WPM)® 2008

Types of wound pain

Persistent/chronic pain
- Pain at rest
- Pain with activity
- Pain at night

Management of wound pain

Local treatment
- Non-pharmacological treatment
  - Pain & Wound Specific
    - Low dose local sustained release ibuprofen foam
    - Autolytic debridement
    - Cleanse with warm water, saline
    - Compression strategy (oedema control)
  - Pain Specific
    - Allow procedural time-outs
    - Avoid excessive irrigation forces
    - Avoid adhesive, adherent dressings
    - Minimise wound exposure
  - Wound Specific
    - Moisture-balanced dressings
    - Protect surrounding skin
  - Other therapies
    - TENS, Acupuncture

Psychosocial
- Encourage patients to organise their day (socialisation, exercising, relaxation)

Oral/Systemic treatment
- If predominantly nociceptive pain
- If predominantly nociceptive pain

WHO Clinical Ladder

Step 1:
- NSAIDs (Non Steroidal Anti-Inflammatory Drugs)
- Acetaminophen
- Paracetamol

Step 2:
- Mild opioids (e.g., codeine, tramadol)

Step 3:
- Strong opioids (morphine, hydromorphone, transdermal fentanyl)

If mixed nociceptive/neuropathic pain => combination therapy

Notes:
1. For all drugs, please refer to individual product monographs.
How to assess pain?

Wound Pain Management Model®

(PWM® 2008)

Wound Assessment
Preventive and treatment strategies

Local Wound Management
Preventive and treatment strategies

Wound Pain
Assessment

Painful chronic wounds

Venous leg ulcers
Consider:
- Compression stockings
- Compression therapy
- Elevation

Ischaemic ulcers
Consider:
- Bypass grafting
- Balloon angioplasty

Pressure ulcers
Consider:
- Risk assessment
- Pressure distribution/redistribution
- Repositioning
- Preventive skin care

Diabetic foot ulcers
Consider:
- Proper diabetic control
- Preventive foot care
- Pressure downloading/offloading
- Removal of callus and debridement of wound

Miscellaneous (examples)
Consider:
- Infection (cellulitis, osteomyelitis)
- Inflammation (vasculitis, pyoderma gangrenosum)
- Malignancy
- Rheumatoid arthritis

Devitalized tissue
Consider:
- Cleansing
- Debridement (surg., autoly, enzyme, mech., biol.)

Critical colonization/clinical infection
Consider:
- Wound cleansing/debridement
- Exudate management
- Antimicrobials
- Antibiotics

Pressure ulcers
Consider:
- Topical medications (immune modifiers)

Exudate/Oedema
Consider:
- Dressing selection
- Compression
- Elevation
- Devices

Peri wound skin
Consider:
- Skin sealants/barriers
- Creams, ointments
- Topical medications
- Allergy

Location
- Within or around wound
- Referred pain

Duration
- Days/weeks/months
- Persistent pain
- With activity
- At rest
- Temporary pain
- Dressing change
- Cleansing
- Debridement

Intensity
- VAS/FRS/VRS/NRS
- Descriptive questionnaires
- Beral
- Functional limitation

Description
- Nociceptive (throbbing or growing pain)
- Neuropathic (shooting or stabbing pain)
- Mixed

QoL/ADL
- Sleep disturbances
- Mood/Anxiety/Depression
- Mobility
- Appetite

TLC Technology

A range of dressings to promote **pain-free wound care**

- Contact layers with TLC (**Urgotul** range)
- Foam dressings with TLC (**UrgoCell** range)
- Also available with silver for antibacterial protection
- Also available with NOSF (Nano-OligoSaccharide Factor) to promote faster healing
Observational study on TLC

- **5850 patients** (2914 with acute pain; 2936 with chronic pain)

- **Objectives**
  - To determine the proportion of patients with chronic and acute wounds who experienced moderate to severe pain during dressing change
  - 79.9% and 79.7% (acute and chronic wounds) reported moderate to severe pain during medical screening visit

The importance of pain reduction through dressing selection in routine wound management: the MAPP study 656 primary care physicians
Switch to Urgotul

Urgotul® significantly reduces pain

Acute wounds

- 95 %

Chronic wounds

- 88 %

Urgotul® significantly reduces pain
Use of TLC in children

- 2 non-comparator multicentre studies
- 100 patients (16 centres) presenting with 77 burns and 23 other wounds
- 4 week follow up
- Results
  - Dressing was very easy / easy to remove in 92% of cases
  - Dressing was non-adherent in 91% of cases
  - Dressing removal non-traumatic inducing very limited pain
  - 84% of children were smiling at dressing changes (Faces scale)

Using a new lipocolloid dressing in paediatric wounds: results of French and German clinical studies JWC 13;6:
Pain-free wound care
Conclusion

- Pain management is complex and challenging

- Clinical evidence of reduction in pain with evidence of efficacy are the main objectives in wound care

Ref Wound Management Model
Evidence and its relationship to the clinical impact of TLC products

Keith F Cutting

Visiting Professor
Buckinghamshire New University
Important to remember

dressings do not heal wounds!

◆

dressings reduce the amount by which the wound healing process is impaired by wound symptoms or other factors.

◆

there is no one product that does it all for every wound, every time! Yet!
Evidence from clinical trials

- Is the product used appropriately?
- Conditions for use – when, how long?
- What does the dressing achieve in clinical outcomes?
What form of evidence is most relevant to wound care?
The notion that evidence can be reliably placed in hierarchies is illusory.
Rawlins 2008
Hierarchies place RCTs on an undeserved pedestal

The contribution that qualitative evidence can make in informing decision makers about the use of interventions is becoming increasingly recognised.
Continuum of evidence

- Expert opinion
- Case studies
- Case cohort studies
- Systematic review of case cohort studies
- RCT
- Meta analysis of RCTs
well-designed, well-executed, well-analysed clinically relevant studies
Let’s look at some of the clinical evidence
**Clinical Research on TLC**

- 140 medical and surgical wards across Europe
- 380 clinical investigators
- 1,500 patients involved in Urgotul, Urgotul Silver and Urgotul Start, UrgoCell Clinical Evaluations
- Approximately 30,000 patients in Observational Studies
- In vitro studies to validate the efficacy of TLC products
  - Fibroblast proliferation increased by 45%
  - Collagen production increased by 43%
<table>
<thead>
<tr>
<th>Product</th>
<th>Number of studies</th>
<th>Design</th>
<th>Number patients</th>
<th>Type of patients/wounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urgotul</td>
<td>14</td>
<td>O, R, NR</td>
<td>6576</td>
<td>Children</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Acute and chronic</td>
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<td></td>
<td>EB</td>
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<td></td>
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<td></td>
<td></td>
<td>Under VAC</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>With compression bandaging</td>
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<td>O, NR</td>
<td>5911</td>
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<tr>
<td>Urgotul SSD</td>
<td>2</td>
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<td>2623</td>
<td>Acute wounds</td>
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<td>Urgotul Silver</td>
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<td>O, C, R</td>
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<tr>
<td>Urgotul Start</td>
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<td>O, R</td>
<td>117</td>
<td>VLU with compression</td>
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<tr>
<td>UrgoCell</td>
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<td>Acute and chronic</td>
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<tr>
<td>UrgoCell Silver</td>
<td>1</td>
<td>O, NC</td>
<td>45</td>
<td>VLU with compression</td>
</tr>
<tr>
<td>UrgoCell Start</td>
<td>2</td>
<td>O, NR</td>
<td>2984</td>
<td>Acute and chronic</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>Approximately 30,000 patients</strong></td>
</tr>
</tbody>
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O: Open, NC: Not controlled, C: Controlled, NR: Not randomised, R: Randomised
Randomised Controlled Trial

- RCT conducted in the UK and France

- 117 patients presenting with venous leg ulcers
  - Duration (months) : $11.2 \pm 7.4$ (median : 10.0)
  - Recurrence : 60.7 %
  - Large surface (cm$^2$) : $10.9 \pm 9.3$ (median : 8.1)
  - Stagnation (50.4 %) or Worsening (17.9 %)
  - Mixed aetiology : 28.2 %
  - ‘Unhealthy’ peri-wound skin : 88.0 %
  - Treated with compression bandaging

- 12 weeks follow up

- Objective: to assess the efficacy, tolerance and acceptability of URGOTUL ® START (TLC-NOSF) versus a comparative MMP inhibitor dressing
54.4% reduction in wound surface area after 12 weeks versus 13%

With very good tolerance of the dressing: pain-free dressing removal in 97% of cases
Case study

82 year old female
With high blood pressure
11 month old leg ulcer
8.71cm$^2$

Wound surface area reduced by 71% to 2.49cm$^2$ after 12 weeks
Case study

38 year old male patient with chronic venous insufficiency
8 month old ulcer, 5.55cm²

Wound healed after 10 weeks
Observational study

- 2052 patients included, presenting with venous leg ulcers, pressure ulcers, diabetic foot ulcers…with an average age of 3 months

- 6 weeks follow up

- Objective: to assess the efficacy, tolerance and acceptability of URGOCELL® START

(Munter 2008)
75% reduction in wound surface area after 6 weeks
90.1% of the wounds healed or improved
Venous leg ulcer

Patient comment on dressing
Very comfortable/comfortable – 96%
Very satisfied/satisfied – 93.5%
Case studies on UrgoCell® START

61 yr old female
Pressure ulcer present for 12 months

Week 0 – 2.9cm²
Week 5 – healed

9 patients av. age 61.5yrs, presenting with DFU

Week 0
Week 10 - healed
Clinical challenge

- Deslough
- Manage exudate/leakage
- Promote healing - compression not available
Outcomes

• Benefits to the patient

• Dressing changes \downarrow

• No leakage - consider secondary dressing

• Desloughing capability

• Healing \uparrow
A range of evidence is available in a variety of wound types

- Good clinical outcomes achieved, including
- Reduction in wound size/healing
- Patient acceptability
- Pain free dressing removal >95% patients
- Reduction in number of dressing changes
- Reduction in nursing time
References

Rawlins M.D. 2008. DE TESTIMONIO - On the evidence for decisions about the use of therapeutic interventions. THE HARVEIAN ORATION Delivered before the Fellows of The Royal College of Physicians of London on Thursday 16 October 2008 by Professor Sir Michael David Rawlins
The Results of the New Soft Adherent Foam Dressing with TLC- NOSF (UrgoCell® START TLC) to promote faster healing

David Gray
Clinical Nurse Specialist
Department of Tissue Viability
Grampian Health Services
Aberdeen
Overview

- Two centres, Aberdeen and Stoke
- 14 patients recruited
- Sue Masson Poster Presentation
Cohort

- 14 patients
- 8 Females and 6 Males
- Age Range 24-83

Wound Type
- 6 Surgical
- 3 Trauma
- 3 Leg Ulcers
- 2 Pressure Ulcers
Aims and Objectives

Aim
• To gain an understanding of the clinical outcomes associated with New Soft Adherent Foam Dressing with TLC- NOSF (UrgoCell® START TLC)

Objectives
• To observe the impact of the dressing in the prevention of chronicity
• To observe the impact of the dressing in the healing of wounds identified as chronic in nature
Case Presentations

• 1 case where underlying conditions pointed towards chronicity in the wound developing

• 3 cases where the wounds had been static for between 6 months and 5 years

• Presentation of clinical outcomes and impressions from clinicians
Case 1

Surgical wounds at risk of developing chronicity

Wound 1
9.5cm x 3.5 cm (33.25cm²)

Wound 2
1.8cm x 0.8cm (1.44cm²)
After 3 weeks of treatment

Wound 1 - Week 3
6.2cm x 3.3 cm (20.46 cm²)
38% reduction in wound surface area

Wound 2 – Week 3
0.5 cm x 0.5 cm (0.25 cm²)
82% reduction in wound surface area
Case 2

Trauma wound on a hernia - static for 6 months

At inclusion
2.5cm x 2.8cm (7cm²)
Week 1 and Week 2

Week 1

Week 2
4 weeks Treatment

At inclusion
2.5cm x 2.8cm (7cm²)

Week 4
2.0cm x 2.0cm (4cm²)
43% reduction in wound surface area
Case 3

Leg ulcer resistant to treatment over 5 years

At inclusion
3.5cm x 2.5cm (8.75 cm²)
After 1 week
Pre and Post Versajet
After 2 weeks treatment
Review – Week 2

At inclusion
3.5cm x 2.5cm (8.75 cm²)

Week 2
Week 1 - 3

At inclusion
3.5cm x 2.5cm (8.75cm²)

Week 3
At inclusion
3.5cm x 2.5cm (8.75cm²)
Case 4

Leg ulcer resistant to treatment for 2 years

At inclusion
2.2cm x 1.6cm (3.52cm²)
1 week treatment

Week 1
1 week treatment

Week 1
After 2 weeks of treatment

Week 2
After 3 weeks of treatment

At inclusion
2.2cm x1.6cm (3.52cm²)

Week 3
Conclusion

- Trends relate to the impact on chronic wounds
- Changes noted after 1-2 weeks of treatment, practitioners and patients should be aware of changes
- Reduction in pain in wounds where pain was present
- Outcomes successful where used as part of an overall treatment package
What is TLC for wounds?

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