## LIVE ON FACEBOOK

## TRANSFORMING WOUND CARE. SIMPLIFYING VENOUS LEG ULCER MANAGEMENT

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## Transforming wound care. Simplifying venous leg ulcer management

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## Learning objectives

- Why we need to transform wound care
- Understanding the current national lower limb management guidelines
- Supporting patient self-management
- Opportunities for shared care and sharing best practice
- Partnership working





## **Current challenges in wound care**



Community nurses: 14% since 2009<sup>1</sup>

District nurses: 45% since 2009<sup>1</sup>



## The impact of chronic wounds

Projected annual NHS cost of wound management at 11% growth<sup>2</sup> Are your resources increasing at 11% annually?





## **Recent drivers for transformation**



## Patient impact – Betty's story<sup>4</sup>







## **Betty's story**

- Highlights inequalities in care for patients with leg ulcers
- Delays in assessment
- Failure to implement evidence-based treatments
- Compression therapy for venous leg ulcers <sup>5, 6</sup>
- Poor patient outcomes







## National Wound Care Strategy Programme<sup>7</sup>



- Opportunity to improve healing rates and reduce patient suffering
- Recommendations for Clinical Care based on evidence and existing guidelines
- Focus on immediate and necessary care, including red flags
- Diagnosis and treatment
- Ongoing care and review



### Lower limb recommendations

### Immediate and Necessary Care

For people with one or more wounds below the knee.

Leg wound- originating on or above the malleolus (ankle bone) but below the knee. Foot wound - originating below the malleolus.

### **RED FLAGS**

- Acute infection of leg or foot (e.g. increasing unilateral redness, swelling, pain, pus, heat).
- 🥦 Symptoms of sepsis.
- Acute or chronic limb threatening ischaemia.
- 🏴 Suspected deep vein thrombosis (DVT).
- Suspected skin cancer.
- Treat infection.
- · Immediately escalate.
- For people in the last few weeks of life, seek input from their other clinicians.

### Immediate care

- Cleaning and emollient.
- Simple low-adherent dressing.
- · Leg wounds, first line mild graduated compression.
- Supported self-care (when appropriate).

### Assessment times for diagnosis and treatment

- In hospital with diabetic foot wound refer to MDT within 24 hours.
- Any other type of foot wound refer to MDT within 1 working day.
- Leg wounds assess within 14 days.

### Wounds on the Foot One or more wounds below the malleolus

For further information, please refer to the full NWCSP Lower Limb Recommendations at NationalWoundCareStrutegy.net

Lower Limb - recommendations for clinical care

### **Diagnosis and treatment**

1 Assess and identify contributing causes for non-healing

### 2. Diagnose cause of non-healing and formulate treatment plan People with confirmed or suspected

- Graphic foot ulceration
   Refer to diabetic foot team.
- Provide care in line the NICE
   Guideline for Diabetic Foot Probler

### People with confirmed or suspected peripheral arterial disease

 Refer for vascular surgical opinion.
 Provide care in line the NICE Guideline for Peripheral Arterial Disease

### Ongoing care and review

### Review at each dressing change and at weekly intervals

- Monitor healing at 4-week intervals (or more frequently if concerned).
- If unhealed at 12 weeks, reassess.

### Wounds on the Leg One or more wounds above the malleolus

### Diagnosis and treatment

1 Assess and identify contributing causes for non-healing

### 2. Diagnose cause of non-healing and formulate treatment plan

### Leg wounds with an adequate arterial supply and no aetiology other than venous insufficiency

- Refer for venous surgical/endovenous interventions.
- Strong compression therapy.

### Leg wounds with signs of arterial disease

- Refer for vascular surgical/endovenous interventions and advice on compression.
- Pending vascular opinion, if no symptoms of arterial insufficiency, continue with mild graduated compression.

### Leg wounds of other or uncertain aetiology

- Refer for dermatology opinion (or other specialist depending on symptoms and service arrangements).
- Pending specialist opinion if no symptoms of arterial insufficiency, continue with mild graduated compression.

### Lymphoedema

 Refer for expert diagnosis and advice about lymphoedema.



### **Ongoing care and review**

### Review at each dressing change and weekly intervals

### Monitor healing at 4-week intervals (or more frequently if concerned)

 If deteriorating or no significant progress towards healing, escalate.

### If unhealed at 12 weeks, reassess

- If progressing to healing but still unhealed, undertake comprehensive re-assessment.
- If deteriorating or no significant progress towards healing, escalate.

### ollowing healing

### Venous Leg Ulceration

### Compression hosiery.

- 6-monthly review for replacement of compression garments and ongoing advice.
- If changes in lower limb symptoms or skin problems relating to hosiery, undertake comprehensive re-assessment.



## Wounds on the leg



- Comprehensive patient assessment within 14 days
- Wound assessment
- Lower limb assessment
- Diagnose cause and formulate treatment plan
- Application of compression for venous leg ulcers
- Where possible, people with leg wounds should be encouraged to self-care with support





## **Supported self-care**

'Transforming venous Leg ulcer management: Opportunities for self-care and shared care' Dowsett (2020)

Submitted for publication

- National surveys tell us more than 40% of people want to be more involved in decisions about their care
- 40% of people living with a long-term condition want more support to manage their health<sup>8</sup>





## Which patients with leg ulcers are suitable for self-care?

- Important to consider the complexity of the patient and the complexity of their ulcer
- Is the patient willing and able to self-care with support?
- Is there significant oedema in the leg?
- Ulcer size and wound bed status?





## Simple and complex venous leg ulcers<sup>9</sup>

### 'Simple' VLU

- ➢ ABPI 0.8−1.3
- Area <100cm<sup>2</sup>
- Present for <6 months</p>

### Manage in primary care/community-based setting

If clinicians competent in compression therapy are not available, refer to a specialist service that manages VLUs

### 'Complex' VLU

- ABPI 0.8–1.3
- Area <u>>100cm<sup>2</sup></u>
- $\succ \quad \text{Present for } \underline{>} 6 \text{ months}$
- Controlled cardiac failure
- Current infection and/or history of recurrent infections
- History of non-concordance
- Wound has failed to reduce in size by 20–30% at 4–6 weeks despite best practice

### **Refer to specialist service that manages VLUs**

Depending on local service provision, this may be specialist wound management clinic/service, a community-based service (e.g. leg club) or a dermatology, phlebology or vascular service. Further investigations may include duplex scans CONSENSUS RECOMMENDATIONS

Wounds

SIMPLIFYING VENOUS LEG

- Miss J 20 years old presented with an ulcer on the lower leg
- Family history of leg ulcers and had her first ulcer aged 16
- Full leg ulcer assessment and ABPI 1.1 both legs
- Diagnosis of venous leg ulcer
- Simple venous leg ulcer pathway: silicone foam
- Referral to vascular services



Images copyright of Caroline Dowsett



- Simple venous leg ulcer pathway
- Biatain<sup>®</sup> silicone foam dressing
- Compression hosiery
- Education to enable supported self-care
- Follow-up and review virtually
- Healed in six weeks
- Prevention pathway



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- Mr P 63-year-old man
- Referred to the lower limb service
- History of diabetes and arthritis
- Recurrent ulcer on right leg
- Full leg ulcer assessment ABPI 0.98 on the right and 1.0 on the left leg
- Diabetes well controlled



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- Simple venous leg ulcer pathway
- Biatain silicone foam dressing
- Compression hosiery kit
- Education and supported to enable supported self-care
- Follow-up and review virtually
- Healed in four weeks
- Prevention pathway





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## Norma's Story





Norma, wound patient, UK



## When a dressing doesn't fit perfectly, a Gap can form underneath it<sup>10,11</sup>



	Managing the gap healing in chronic an international c	wounds —	Meeting report			
Antheor David Hongs, Kimberly Bain, Orkindher Hallmann, Teny Swansen, Caraline Dowsett, Jone J. Lidzen-Martines, Inney Johnson, Karl-Ortsian Mörner, Marsolo Rustinnann, Übernis de Maung, Mary & Reinnan, Habert Wagnet, Alssandho Greco, Wen Blog and Mark Bain	Non-healing wounds negatively impact healthcare systems and patients' quality of life (Sen et al. 2009). Epithy-five wound specialists developed an interactional consensus on how to assess and test choice usuads to decrease the bundler on both patients and healthcare systems. Consensus assesshed on health patients and healthcare systems. Consensus assesshed on health patients and healthcare systems. Consensus assesshed on health patients and healthcare systems the wound bed and the wound decrease wound healing time.			Closing the gap between the evidence and clinical practice — a consensus report on exudate management		
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Author details on p59	with chronic wounds.	healing (Keast et al. 2014; Braunwarth et al.	and that information was only gathered directly from the providers, who concentred to the process and the information collected.	process and is usually clear or amber-coloured fluid (Adderley, 2010), which contains proteins, enzymes (especially matrix metallopeptidases or MMPs), leucocytes (granulocytes, macrophages),	maceration and potential intection (subbaild et al, 2000; Adderley, 2010; Benbow and Stevens, 2010). Exudate pooling can also occur when the exudate is not absorbed by the wound dressing	
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## **Biatain Silicone in clinical practice**





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### Absorbency under compression data<sup>12</sup>

### **Optimal Exudate Management – Retention, fluid** handling and conformability to the wound bed Authors: Lorentsen B. & Andersen M.B. Coloniast A/S. Humleback Denmark

The ideal solution to reduce exudate pooling Optimally, a wound dressing should manage exudate in a way that keeps the wound moist, controls exudate, retains the liquid to keep the periwound skin dry, and eliminates dead space by filling all cavities with dressing material i.e. conforming to the wound bed.<sup>1</sup> These abilities can be quantified/measured in-vit ied/measured in-vitro by To camp indicate the containing to use reaction determines contacts can be space to the second structure of the second struc

Recently, total fluid handling capacity (measured as the sum of absorbency and moisture vapour loss of silicone foam dressings were measured and compared with Biatain<sup>4</sup> Silicone showing the highest fluid handling capacity.<sup>2</sup> Fluid retention is just as important to keep exudate retained in the dressing rather than paoling in the wound or creating leakage and macration of the wound edges and perivound skin. The capacity to retain fluid differs between the available silicone foam on the market.

Here tests of absorbency and retention performed at an independent laboratory are presented against dressings from other brands.

### Test of fluid absorbency and retention

Less Of Tuild absorbency and Fukl Retention was determined by an external laboratory using the INF reas Swall Assorption Capacity and Fukl Retention was determined by an external laboratory using the SMIT. Less method TML-404.<sup>4</sup> In this test, the dressing was weighed using a calibrate blaince then immersed in a tank containing a test solution (sodium/calicum chioride test solution 142 mmol/litre solium ions and 25 smmol/litre calicum ione) warmed to the required temperature. The tank (with dressing) was then incubated for 30 minutes. Following incubation, the dressing was transferred into an empty receiving tray and allowed to drain for 30 seconds, then weighed to calculate the absorption capacity of the dressing. Using the dimensions of the roised padded active area, a rigid template and mass with a pressure equivalent to 40 mm<sup>-1</sup>g was then applied to the dressing for 30 seconds. The mean active area of the five dressing samples was used to calculate the mass required. The dressing was then re-weighed to calculate the fluid retention capacity of the dressing.

### esting was performed on five replicates.

I ne testing was performed on twe repicates. Eight different bordered silicone foam dressings were tested Tielle<sup>™</sup> Plus, Allevyn Gentle Border, Allevyn Lifo, Mepilez<sup>®</sup> Border, Mepilez<sup>®</sup> Border Fiex (Mepilez<sup>®</sup> Border Comfort), Urao Foam Border, AQUACEL<sup>™</sup> Adhesive Border and Biatain<sup>®</sup> Silicone

Products The included products were bordered silicone foam dressings indicated for moderate to highly exuding wounds. Biatain<sup>®</sup> Silicon 56.39 Allevyn Life 12.9x12.9 Allevyn Gentle Border Tielle™ Plus\* 58.06 48.42 11x11 Urgo Foam Border Mepilex\* Border Flex 41.99 10x10 Mepilex\* Border AQUACEL" Adhesive Foam 10x10 48.56

Fluid retention



Biatain Silicone had both a significantly better absorbency and retention (t-test, p<0.01) compared to the

seven other bordered silicone foam dressings. Between the highest and lowest performing dressing, both free swell absorption capacity and fluid retention was more than four times greater.

Clinical implication Biatain Silicone shows to deliver the ability to conform to the wound bed, absorb vertically and retain exudate at highest performance.

Sponsored by 🛑 Coloplast

Presented at Wounds UK 2020

Ekid bandling capacity and retention of fluid may have implication for the begling and begling time of the wound. Wound fluid escaping the wound reaching the periwound skin may cause maceration which causes enlargement of the wound area. This is directly leading to a delay in wound healing.<sup>1</sup> Another problem with exultate pooling between the wound bed and dressing is the risk of infection.

In 2019 Hoffman & Røn presented how Riatain Silicone products swell and conform after absorbina fluid. The wound bed conformability is defined by a relative value of swelling height over diameter of wound cavity.

For Biatain Silicone and Biatain Silicone Ag products swelling heights are measured up to 2 cm. Another publication at Wounds UK 2020 presents how the wonto bed conformability is defined and quantified. Here it is validated how the products care capable of adsorbing fluids producing a relative swelling height (swelling height by wound diameter) of more than 0.2.2

Despite the areat variability in performance on both fluid handling capacity, fluid retention and free swel respective great variability in period mance of load in an individual popularly, and recention and new sweat isosrption, all the included dressings are indicated for moderately to highly exualing wounds and all (except fepilex Border) have a wear time of up to 7 days depending on the level of exuadate.



Conclusion The capacity to absorb and retain differs significantly between products. Between the highest and lowest The copacy to assore down teran artise significantly between products, serviven the ingres and averse performing dressing, both the swell down provides on a performing dressing more than to art times greater. Retention of exudate within the destantly pass implication for the maceretion of the pervisorul shin and thereby healing time.<sup>3</sup> These results show Battani Stachers ship performance on retentions. Smilerly, extensive in vetro data supports Battani Stachers can label solution to reduce exudate pooling having high absorption and the ability to confere to the wound bed.

References: Refer



Free swell absorption capacity 1.6 1.4 1.2 1.0 0.8 0.6 0.4 0.2 0.0 Biatain Silicone Figure 2. Free swell absorption of eight dressings.

## Norma — living with a leg ulcer



Norma, venous leg ulcer patient

'It's an excellent dressing, it's so easy you can do it yourself. It gives you the independence to look after yourself.'





## Simplicity





# Opportunities for self-care and shared care solutions







### Published data from MPFT<sup>13</sup>



## Patient information pack and support materials

atient Shared Care - Inform	ation Pack		About your wound care Wound Type:	
			Dressing: Biatain Silicone Other (Please S	
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		For further g	LEISENTEF	

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**JCN**<sup>2</sup>



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### In summary

## Transformation

## Simplicity





## Further information

### For further information and access to resources discussed in tonight's session, please visit: www.coloplast.co.uk/wound











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