Bioactive Microfibre Gelling (BMG™) Technology to Support Patient Self Care. A Case Study.

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Aim

Self-care is the ability of individuals to care for themselves, allowing them to take an active role to achieve, maintain or optimise their health and wellbeing. It refers to the collaborative partnership between clinicians and patients to support individuals to manage their ongoing health conditions themselves (Blackburn et al, 2021; Martínez et al, 2021).

Our skin integrity team strives to support patient self-care and sought dressing options to enable this. We present a case study of a Bioactive Microfibre Gelling (BMG™) technology dressing for a 23-year-old female with pilonidal sinus of 5 years duration with episodes of healing, and then non healing, alongside 4 surgeries over 5 years.

Results

The BMG dressing's haemostatic properties facilitated the opportunity for optimisation of wound healing by facilitating rapid haemostasis.

Medical images depict increased granulation and epithelisation from 10.07.23 to 21.09.23 with complete healing by 31.10.23.

The dressing managed fluctuating levels of exudate extremely well with no periwound maceration. Further future surgical intervention avoided. The patient was able to manage the dressing changes herself.

Conclusion

This case study demonstrates improved quality of life in this patient centred approach with patient engagement in both the evaluation and dressing decision-making process.

Further patients have been identified to continue this approach, with consideration being given to now include the BMG dressing for specialist inclusion within our wound care formulary.

Case Study: Chronic Pilonidal Sinus

The Patient

A 23-year-old female, Sally*, presented with a non-healing pilonidal sinus of 5-year duration, present since the patient was 17 years old.

Despite four surgical interventions and other conventional dressing treatments over the years, the wound had never previously progressed to complete healing.

Sally lived with her partner, worked within the legal system, and struggled with practice nurse appointments due to work commitments.

She was unable to exercise and found socialising difficult due to pain from the wound and was in discomfort with dressings.

The wound was malodourous, causing distress for this young woman.

Previous Treatment

Previous treatment included 4 surgical interventions for excision and drainage and 1 episode of wound suturing which failed.

Negative pressure wound therapy (NPWT) had also been attempted, alongside conventional dressings and long-term use of antibiotics.

NPWT had been unsuccessful due to struggling to maintain dressing seal, and had resulted in over-granulation of the wound bed.

Sally was concordant with every dressing regime proposed, desperate for the wound to heal.

Treatment Aims

The wound was very changeable, would bleed easily and surrounding tissue would become inflamed due to long term dressing use and was excoriated due to exposure to wound exudate.

The BMG dressing was commenced with treatment aims to achieve wound closure, reduce bacterial load and effects of critical colonisation, prevent bleeding and manage exudate levels.

The patient's partner was taught to change the BMG dressing on alternate days, to reduce bleeding and bacterial load, for patient comfort.

A silicone bordered foam dressing was selected as a secondary dressing, as Sally had previously experienced a reaction to other adhesive dressings.

Results

The BMG dressing managed exudate levels well, where previous dressings had failed to do so. The dressing managed episodes of bleeding from critical colonisation by reducing bacterial load.

Following initial advice from clinicians, Sally's partner found the BMG dressing easy to apply, allowing him to confidently undertake dressing changes. Having previously taken long periods away from work to attend practice nurse appointments, this was invaluable for Sally, allowing her to continue to work.

Sally found the dressing soft and comfortable, conforming to the wound bed well. Pain levels reduced quickly. No odour was reported which had previously been a concern for this young woman.

Cost implications; the wound healed for the first time in 5 years, less nursing appointments needed, reduced need for antibiotics, no further hospital admissions.

Initial Assessment: 15.06.23

Wound measurements: 50mm (l) x 50mm (d)

Wound critically colonised, bleeding easily. Wound bed pale and devitalised. High exudate levels.

Commenced BMG dressing. Daily dressing change due to wound location with silicone border secondary dressing.

Assessment 2: 03.07.23

Wound measurements: 45mm (l) x 30mm (d)

Wound shows healthier granulation tissue, reduction in wound depth, less bleeding, less painful.

Dressing changes reduced to alternate days.

Assessment 3: 10.07.23

Wound measurements: 40mm (l) x 25mm (d)

Wound continues to improve with a reduction in exudate and reduction in pain levels.

Final Assessment: 31.10.23

Full wound closure with healthy periwound skin.

Bioactive Microfibre Gelling (BMG) dressing used in this evaluation was MaxioCel.
*Not the patient's real name.

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References: Blackburn J, Ousey K, Parfitt G (2021) Exploring concepts and current evidence of shared and self-care in the management of lower limb wounds. *Wounds UK* 17(4): 36-44, Martínez N, Connelly CD, Pérez A, Calero P (2021) Self-care: A concept analysis. *Int J Nurs Sci* 8(4): 418-25