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HEALING BEYOND THE SCAB: A CMT BREAKTHROUGH IN LONG-TERM CARE

Resolving Recurrent Scabbing and Delayed Wound Closure in a High-Risk Geriatric Resident: A Case Study

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NANOTESS CATALYZING HEALING

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Key Sources & Acknowledgements

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Consistency and diligence of care were critical to outcomes in this case.
This case study is shared with informed consent and kind permission from the family.

INTRODUCTION

Wound management in the geriatric population remains a significant challenge in long-term care, particularly among residents with multiple comorbidities, reduced mobility, and in this case, complicated by structural foot deformities. Wounds affecting the toes are especially prone to delayed healing due to ongoing pressure, friction, and impaired tissue perfusion. Standard treatments, including antimicrobial dressings, may support granulation tissue formation but can fail to prevent recurrent scabbing, wound breakdown, and prolonged healing. Repeated scab formation is a common barrier to closure, as disruption of fragile tissue delays epithelialization and increases the risk of infection and pain.

CTM is a proprietary catalytic technology made by NanoTess and available in NanoSALV Catalytic. CTM provides broad spectrum antimicrobial and anti-inflammatory effects, which may help create a more optimal environment for wound healing, particularly in complex or treatment-resistant wounds.

OBJECTIVE

To assess the impact of CTM (in NanoSALV Catalytic) on wound healing progression, epithelialization, and symptom relief in a complex geriatric wound, complicated by pressure due to deformity, that is unresponsive to conventional treatment.

METHODOLOGY

This case describes a 97-year-old long-term care resident with a complex wound located on the right second toe. The resident had multiple comorbidities, including aortic valve stenosis, hypothyroidism, hyperlipidemia, osteoporosis, and reduced mobility, as well as significant toe deformities with overlapping digits, contributing to localized pressure and delayed healing.

The wound was present on admission and remained unhealed for approximately 10–12 weeks despite standard interventions. Initial wound size was 0.5 × 0.5 cm, progressing to 1.5 × 1.0 cm with moderate to heavy serosanguinous and occasional purulent drainage. Conventional management included offloading, nutritional supplementation, and diligent wound hygiene, including the use of antimicrobial dressings. Despite these interventions, the wound demonstrated recurrent scabbing, breakdown, and delayed epithelialization, at one point progressing close to bone.

RESULTS/FINDINGS

FIGURE 1: JANUARY 27, 2026 – ADMISSION

The wound initially presented as a small superficial lesion measuring approximately 0.5 × 0.5 cm on the right second toe. A simple dry dressing was in place prior to full assessment.

FIGURE 2: JANUARY 30, 2026

An antimicrobial product was initiated due to suspected local infection, characterized by erythema and increased exudate.

FIGURE 3: FEBRUARY 2, 2026

Early signs of granulation tissue were observed; however, healing remained inconsistent despite ongoing antimicrobial use.

FIGURE 4: MARCH 7, 2026

Wound condition significantly deteriorated, increasing in size to approximately 1.5 × 1.0 cm and progressing close to bone. Exudate was moderate to heavy serosanguinous with intermittent purulent drainage.

FIGURE 5: MARCH 10, 2026

The wound developed recurrent scabbing, with repeated cycles of scab formation and disruption, preventing effective epithelialization and closure.

FIGURE 6: APRIL 2, 2026 - 1 WEEK OF NANOSALV

NanoSalv was initiated following prolonged non-healing. Application protocol included a thin layer applied directly to the wound, initially combined with existing dressings.

FIGURE 7: APRIL 7, 2026

Notable improvement in tissue quality and reduction in scabbing was observed within 6 days. Dressing regimen was simplified to NanoSalv alone, reflecting improved wound stability.

FIGURE 8: MAY 20, 2026

Wound achieved closure with healthy pink epithelial tissue. Pain previously associated with dressing changes resolved following initiation of NanoSalv.

ANALYSIS/CONCLUSION

This case highlights the complexity of managing geriatric wounds in the presence of comorbidities, deformity-related pressure, and impaired healing capacity. Despite appropriate conventional interventions, the wound remained stalled, with recurrent scabbing identified as a key barrier to closure, contributing to repeated breakdown and delayed epithelialization. Following initiation of CTM (in NanoSALV Catalytic), a clear shift in the wound healing trajectory was observed. Rapid reduction in scabbing, improved tissue quality, and progression to stable epithelialization occurred within days, ultimately resulting in complete wound closure. Pain associated with dressing changes also resolved, reflecting improved quality of life.

Overall, CTM was associated with successful healing of a complex, treatment-resistant geriatric wound. This case supports its potential role in addressing recurrent scabbing and promoting effective wound closure in long-term care, aligning with the concept of “healing beyond the scab.”