

# CASE STUDY: Using Larvae Debridement Therapy on a Pre-tibial Haematoma Wound to Improve Quality of Life for a Palliative Patient

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## Case Study

An 80 year old lady with terminal cancer who sustained a pre-tibial haematoma to her left leg was referred to the specialist Skin Integrity Team for wound assessment and management plan.

As the patient was not medically fit for surgical debridement, evidence-based practice indicated Larvae Debridement Therapy (LDT) as a viable and cost-effective option for wound bed preparation.

## Treatment Aims

- Debride the haematoma
- Promote quality of life for the patient and family in the precious last few weeks.

## Wound Bed Preparation Using LDT

Debridement is referred to as a form of wound bed preparation and it is the process of removing adherent, dead or contaminated tissue, including haematoma from a wound (EWMA, 2013).

The aim of debridement is to have a wound bed of entirely healthy tissue (Gottrup and Jorgensen, 2011). "While haematomas are not truly necrotic, they do represent non-viable tissue that requires removal from the wound bed to enable healing" (Rafter, 2012).

LDT is a type of "selective-debridement" using a mode of action of both mechanical and biochemical techniques, which not only helps remove devitalised tissue, but also reduces the bacterial load and biofilm presence on the wound bed (Gottrup and Jorgensen, 2011).

## Method

The Skin Integrity Team consulted with the patient and her family regarding the treatment options, and she consented to have the recommended treatment.

A hydrogel dressing was applied daily for 3 days to the haematoma to soften the eschar, and then LDT was applied as per guidelines using a Maggot Larvae in BioBag applied to the wound every 3-4 days.

Training and support was provided by the Skin Integrity Team and a BioMonde Clinical Advisor to support the nursing staff. The Skin Integrity Team reviewed the patient's wound twice weekly to assess wound healing outcomes.

## Results

After two applications of LDT the wound was successfully debrided.

This enabled the patient to progress with her rehabilitation and was in turn discharged home from the Rehabilitation Ward to spend the last weeks of her life at home. There were no complications relating to the wound during the treatment and the patient had reported no pain during the therapy.

## Benefits of LDT

- Positive anti-microbial effect eradicating biofilms and stimulating healing (EWMA, 2013)
- Cost benefit of using LDT versus surgical debridement (Bennett et al 2013)
- Clinically safe option with limited contraindications and cautions (Gottrup and Joresnson, 2011).



Day 1: Hydrogel applied



Day 3: 1st Maggot BioBag applied



Day 7: Review - 25% debridement achieved



Day 10: 2nd Application of Maggot BioBag



Day 13: 100% Debridement achieved



Day 13: 100% Debridement achieved

## Discussion

The use of LDT on the haematoma met the clinical aims to debride the wound for healing.

Had the wound not been debrided, the patient may have experienced increased pain, exudate, malodour associated with the wound and would be more susceptible to infection.

LDT may have been seen as second option to surgical debridement in the patient's case, however by assessing the patient holistically LDT had shown overwhelming benefits for both the patient and her family.

## Conclusion

Larvae Debridement Therapy can be an effective alternative to surgical debridement and this case study is an example of how specialist nursing leadership can have a meaningful and positive impact on patient care.

This case demonstrates that by ensuring treatments are used in line with evidence-based practice, we are ensuring that we are providing "a high quality and financially stable service which delivers Better Outcomes; Better experiences; Better use of Resources" set out by the Leading Change, Adding Value (2016) document in addition to using a patient centred approach.

*Skin Integrity Team*

## References:

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