

# A 10 Patient evaluation of a new active debridement system

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## Introduction

Wound debris and sloughy/necrotic tissue make an ideal breeding ground for bacteria, possibly leading to wound infection. The rapid removal of this debris and devitalised tissue improves wound healing outcomes and reduces the overall treatment time and costs. The active debridement system\* I applied, enables rapid debridement of wounds and hyperkeratotic tissue from surrounding skin. Historically, wound debridement has been achieved by means of either autolysis, sharp debridement, myiasis or high pressure water. All these methods have associated problems, including cost and longevity of treatment, plus several of these treatment methods are not available in the community setting. Some of the methods stated are also only suitable with specialist nurse input or for use in specialist wound care clinics.

The aim of this study was to evaluate this new debridement system in the management of patients with hyperkeratotic skin and/or a chronic wound of the lower leg containing devitalised tissue.

## Method

10 patients in total were treated with the new debridement system and the information was compiled in the form of data collection spreadsheets.

### Data collected included:

- patient history and aetiology
- photographs analysed using the WITA system
- pain scores before, during and after treatment
- debridement time

Patients were followed up within the clinic setting one week post debridement. All patients were treated with the new debridement system according to the manufacturer's instructions. By using this product to debride the hyperkeratosis skin +/- the chronic wound, results were impressive.

The results were very impressive by implementing this debridement system into the management of hyperkeratotic skin and debridement of devitalised tissue.

## Results

- 10 patients in total;
- 2 venous leg ulcers
  - 3 neuro-ischaemic foot ulcers
  - 2 mixed aetiology leg ulcers
  - 1 neuropathic foot ulcer
  - 1 digital amputation
  - 1 skin prep prior to amputation

### Healing rates:

- 2 venous leg ulcers healed within 2 weeks
- 1 neuro-ischaemic ulcer healed within 6 weeks
- 1 neuro-ischaemic heel pressure ulcer lost to follow up (patient dies)
- 1 neuro-ischaemic ulcer ongoing
- 2 mixed aetiology leg ulcers healed within 6 weeks.
- 1 neuropathic foot ulcer healed within 3 weeks
- 1 digital amputation ongoing
- 1 skin prep prior to below knee amputation healed with no wound complications

6 Female - 4 Male

Age range 60 - 75 years

In all cases the quick and easy debridement of the hyperkeratotic skin and/or the chronic wound facilitated healing or significant difference to the wound. Average time spent on debridement was 4 mins. Range 2 minutes – 10 minutes.

Pain scores remained low even during the debridement period, with most patients scoring the same pre, during and post procedure.

## Conclusion

This new debridement system provides a quick, easy and painless method of debridement, often with immediate results. It will make a useful addition to the wound care tool box and will require limited resources for training staff on its application. This will be invaluable in the community setting, especially for the general nurse, as very little extra training is required to use the new debriding system, plus the short debridement time will not significantly impact on the time allocated for the patient treatment.

Further work needs to be carried out to confirm if skin preparation with this new debridement system reduces amputation wound healing complications.

\* Debrisoft® – Activa Healthcare

## Before



Case Study 1 68 year old male. Neuroischaemic tissue damage to left heel. Previous right below knee amputation. Malodorous. Not suitable for sharp/surgical debridement. Declined amputation. Use of Debrisoft reduced malodour by reducing necrotic tissue and therefore increased quality of life.

## After



Case Study 2 72 year old female. Longstanding mixed aetiology leg ulceration. Debrisoft debrided sloughy and hyperkeratotic tissue resulting in complete epithelialisation 2 weeks post debridement.



Case Study 3 58 year old male Type 2 diabetic non compliant. recurrent foot sepsis requiring several surgical debridements. Autonomic neuropathy resulting in formation of hyperkeratotic skin.



Case Study 4 60 year old male with connective/immunology disease. Previously left below knee amputation. Non healing painful right 5th toe amputation site. Appearance suggestive of underlying infection. Debridement with Debrisoft was painless and removed all non viable tissue thus improving healing outcomes.

