

# The effects of MIST Therapy on the debridement of an ulcer to a lower limb extremity

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## Introduction

With cost efficiency savings of £15-20 billion to be made in the NHS within the next 3 years, clinicians will still need to be able to offer patients high quality, safe effective care whilst maintaining cost savings. Wound management is one area that can deliver a reduction in costs whilst providing high quality care. In the United Kingdom an estimated financial expenditure of £2.3 - 3.1 billion is spent on wound care. In order to promote optimum efficacy in wound management appropriate assessment of both patient and their wound is vital to ensure that the correct cost effective treatment is selected.

## Background

This is a case study of a 27 year old female diagnosed with Systemic Lupus Erythema who developed an ulcer to her lower right leg; subsequently the patient was immune suppressed and required long term steroid therapy to manage symptoms of Systemic Lupus Erythema. Effective wound management meant that these complications contributed to recurrent wound infections that had previously been treated with antibiotic therapy, and the wound bed remained critically colonised with bacteria contributing to delayed healing. The district nursing team had been visiting the patient every day for a fourteen day period. In an attempt to debride the wound they had selected a Hydrogel dressing covered with a foam dressing. Despite their attempts the wound remained static and the patient was referred for specialist assessment. Following a full holistic assessment MIST Ultrasound Therapy was discussed with the patient and it was agreed that this would be a suitable option. The treatment was started immediately and was followed by a further 3 treatments over a 10 day period.



## Management aims

MIST Therapy is not used as a primary method of debridement, however it was considered appropriate for this patient as MIST Therapy has been shown to reduce bacteria by 50% over 6 treatments. This was beneficial in the ongoing management in order to reduce the bacterial burden. Through active cell stimulation, MIST Therapy has been shown to reduce inflammation in non-healing wounds, and improve healing; MIST Therapy also reduces the amount of bacteria within and below the wound bed to improve healing whilst promoting effective and cost efficient wound management.

## Outcome

When referred for specialist assessment and treatment the priority was to debride the wound and reduce the bio-burden. Following four treatments of MIST therapy the wound was completely debrided of devitalized tissue and the patient commenced multi-layer compression therapy.