



# A comparative *in vitro* study to assess the performance characteristics of several Lite Foam dressings

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## Introduction

Lite foam dressings are suitable for the management of wounds with low levels of exudate. It is vital the thin polyurethane dressing is conformable and breathable whilst providing a moist wound environment and preventing wound exudate from macerating the peri-wound area. The Lite foam dressing is also designed to minimise patient pain and trauma on removal. The two new Lite foam dressings (Dressing A and Dressing B) has been compared against several Lite foam dressings (Dressings C, D, E and F) assessing *in vitro* performance characteristics.

Dressing A – A new Silicone Lite Foam Border Dressing.  
Dressing B – A new Silicone Lite Foam Non-Border Dressing.

Dressing C – A Lite Foam Border Dressing  
Dressing D – A Lite Foam Non-Border Dressing  
Dressing E – A Lite Foam Border Dressing  
Dressing F – A Lite Foam Non-Border Dressing

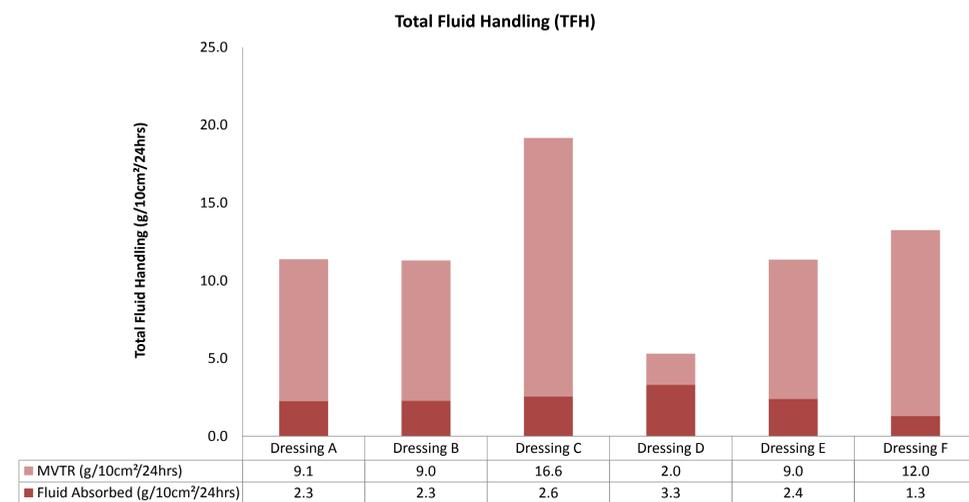
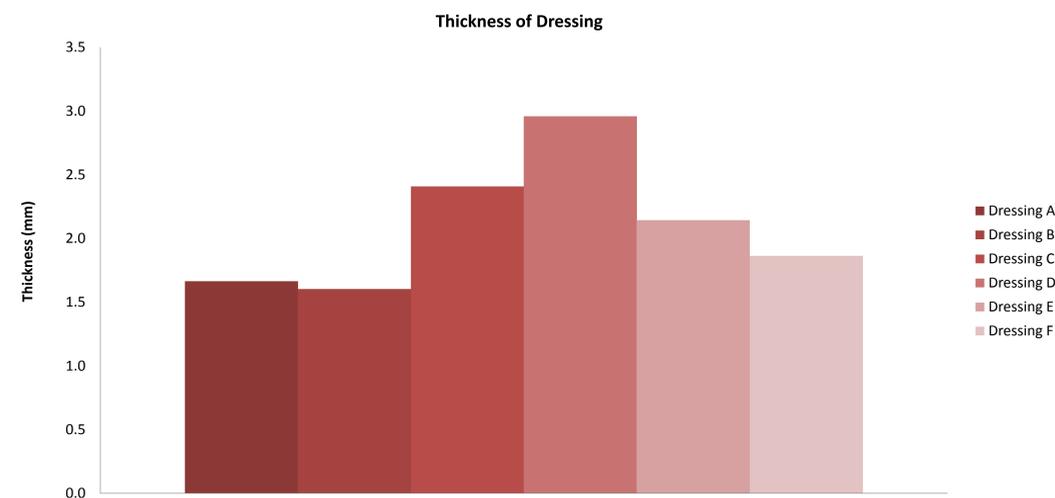
## Methods

Total fluid handling capacity<sup>1</sup> – Samples are placed in a clean dry cylinder, solution A is added and the absorption, moisture vapour transmission and the overall fluid handling capacity is measured.

Breathability<sup>1</sup> (often referred to as the MVTR or Moisture Vapour Transmission Rate) – The moisture vapour transmission across the moisture permeable backing layer is measured.

Thickness – The profile of the dressing is determined by removing the release liners of the dressing and measuring the thickness of the dressing with calibrated callipers.

## Results



## Discussion

Dressing A and Dressing B are the lowest profile Foam Lite dressings when compared to Dressing C, D E and F. The reduced thickness may improve patient comfort and increase conformability.

Dressing A and B (Border and Non-Border respectively) provide equivalent total fluid handling capabilities which show comparable performance to other commercially available dressings (Dressing C, D E and F). For dressings indicated for non to low exuding wounds this is critical. Selecting a dressing with a too high total fluid handling may cause the wound to dry out while selecting a dressing with too low TFH may result in an increased risk of dressing maceration.

Dressings A and B provide a suitable TFH and breathability (MVTR) for Non to Low exuding wounds with a consistent performance between the Border and Non Border versions.

Effective exudate management can reduce time to healing, reduce exudate related problems such as periwound skin damage and infection, improve patient's life, reduce dressing change frequency and clinician input, and so, overall, improve healthcare efficiency<sup>2</sup>.

## Conclusion

Dressing A and Dressing B are Lite Foam Border and Non Border dressings which feature the lowest profile when comparison to other commercially available Lite Foam Dressings whilst still demonstrating comparable fluid handling performance.

Based on the *in vitro* physical properties observed for Dressing A and B, it can be concluded that Dressing A and B may provide a cost effective solution for the management non to low exuding wounds.

## References

1. Total Fluid Handling – BS EN13726-1:2002 Test methods for primary wound dressings – Part 1: Aspects of absorbency.
  2. M Romanelli, K Vowden, D Weir. Exudate Management Made Easy. Wounds International 2010; 1(2)
  3. Dressing A is Silicone Foam Lite Border commercialised by ActivHeal®.
  4. Dressing B is Silicone Foam Lite Non-Border commercialised by ActivHeal®.
- ActivHeal® is a registered trademark of Advanced Medical Solutions Ltd. All other dressings are registered trademarks of their respective companies. Data available on file

5. Dressing C is Kliniderm Foam Silicone Lite commercialised by H&R Healthcare Ltd.
6. Dressing D is Kliniderm Foam Silicone Lite Border commercialised by H&R Healthcare Ltd.
7. Dressing E is Advazorb Silfix Lite commercialised by Advancis Medical
8. Dressing F is Advazorb Border Lite commercialised by Advancis Medical

