

# Service Evaluation Of Cinnamon Anti-odour Dressing\* For Malodorous Wounds

K. Bowling<sup>1</sup>, H. Harwood<sup>2</sup>, V. Michaels<sup>3</sup>, S. Pramod<sup>4</sup>, A. Thompson<sup>5</sup>, and J. Tickle<sup>6</sup>

1. Tissue Viability Nurse, The Christie NHS Foundation Trust, Wilmslow Road, Manchester, United Kingdom. [k.bowling1@nhs.net](mailto:k.bowling1@nhs.net)
2. Enhanced Wound Care Nurse (EWCN), New Milton Integrated Community Team (ICT), Southern Health NHS Foundation Trust, Lymington, United Kingdom. [Hannah.Harwood@southernhealth.nhs.uk](mailto:Hannah.Harwood@southernhealth.nhs.uk)
3. Project Manager, Cemag Care, Paris, France. [v.michaels@cemagcare.com](mailto:v.michaels@cemagcare.com)
4. Tissue Viability Specialist Nurse, The Christie NHS Foundation Trust, Wilmslow Road, Manchester, United Kingdom. [Susy.Pramod@nhs.net](mailto:Susy.Pramod@nhs.net)
5. Independent Tissue Viability Nurse, Leicestershire, United Kingdom. [alizon365@outlook.com](mailto:alizon365@outlook.com)
6. Tissue Viability Nurse, St Mary's Hospital, Newport, Isle of Wight, United Kingdom. [joy.tickle1@nhs.net](mailto:joy.tickle1@nhs.net)

## Introduction

Common clinical symptoms associated with wounds include pain, odour, bleeding, and production of exudate; however, malodour is recognised as one of most distressful aspects of many wounds (Gethin et al, 2014). Malodorous wounds are complex and can be very challenging for both healthcare professionals (HCPs) and patients. High levels of exudate and wound odour are challenging in terms of dressing selection. In the case of malodorous wounds, the ideal solution would be to reduce (or neutralise) bad odour and modify any residual odour so that it becomes more pleasant.

## Method

Ten patients with malodorous wounds participated in the study which was conducted in four clinics across the UK.

HCPs collected patients' wound information (including odour intensity), and questions on dressing use before using the cinnamon containing dressing (at day 0, and 14 days after using the cinnamon dressing). The cinnamon containing dressing was used as required over a period of 14 days. The number of dressing changes varied depending on the characteristics of the patient's wound.

### Wound Type

- Malignant wound - 4 (36%)
- Mixed aetiology leg ulcer - 1 (9%)
- Pressure ulcer - 1 (9%)
- Surgical wound - 1 (9%)
- Traumatic wound - 2 (18%)
- Venous leg ulcer - 2 (18%)

### Location of wound

- Chest/breast - 3 (27%)
- Foot/heel - 1 (9%)
- Groin - 1 (9%)
- Hand/arm - 1 (9%)
- Leg - 3 (27%)
- Sacrum/buttocks - 2 (18%)

## Aim

Malodour can often lead to social isolation from family and friends impacting negatively on quality of life (Lo et al, 2012).

This study was designed to evaluate the performance of a cinnamon containing anti-odour secondary dressing in a primary care setting and how it may be used in clinical practice.

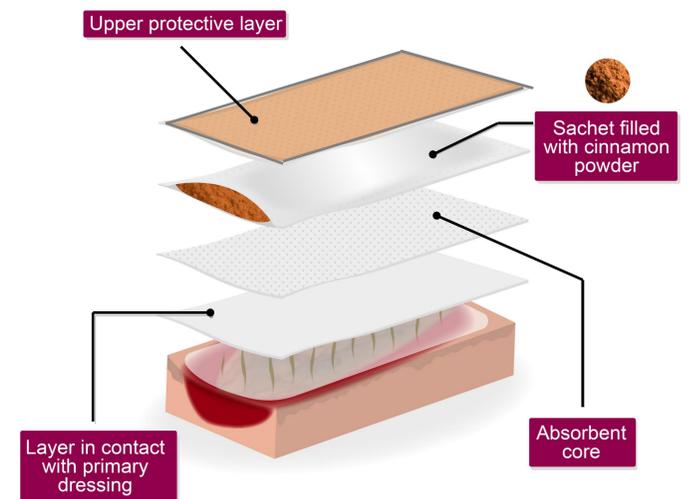


Figure 1: Cinnamon dressing composition

## Results

Three main results were observed:

1. The cinnamon containing non-adhesive secondary dressing was used in combination with different primary dressings depending on wound type, location and exudate levels (Table 1).
2. The cinnamon containing dressing has a superior effectiveness in managing malodour than previous dressing regimens (Figure 2).
3. Changing the dressing 3-times per week reduced malodour successfully. HCPs unanimously agreed that the cinnamon containing dressing was very easy to use (Table 2).

### 1 The cinnamon dressing can be used in combination with different primary dressings

Table 1: Family of Primary Dressings used

Aquacel	5 (50%)
Exufiber	1 (10%)
Flamazine	1 (10%)
Inadine	1 (10%)
Maxiocol	2 (20%)

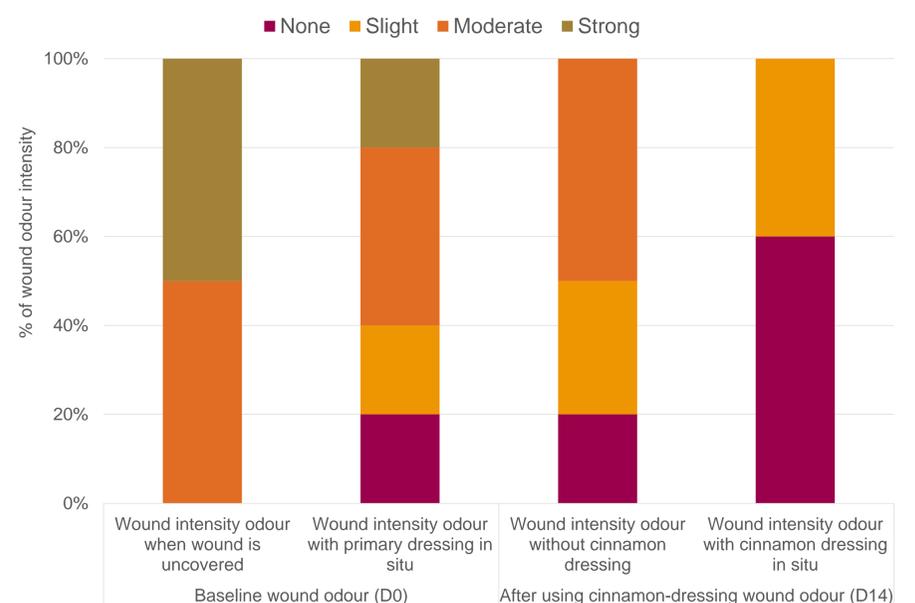
### 3 A dressing change frequency of 3-times per week seems to be adequate to reduce of the malodour

Table 2: Wound odour intensity (n (%))

Change frequency	None	Slight
3-times per week	4 (40%)	3 (30%)
Every day	2 (20%)	1 (10%)

### 2 The cinnamon dressing has a superior effectiveness in managing malodorous wounds than previous dressing regimens

Figure 2: Wound odour assesement at two time-points (Baseline – D0 and after 14 days using cinnamon dressing - D14) n=10



## Discussion

The cinnamon containing odour controlling dressing is a non-adhesive secondary dressing designed to eliminate unpleasant odours and absorb exudate. It consists of an absorbent layer together with a sterile sachet containing cinnamon.

Cinnamon adsorbs unpleasant-smelling volatile organic compounds emanating from the wound and masks residual odours with the spice's natural fragrance. The cinnamon containing dressing components allow the passage of air and moisture to prevent maceration. The cinnamon powder used in the odour controlling dressing was selected from several varieties for its specific olfactory and absorption properties after multiple sensory perception tests and chemical analysis.



"The scent boosted the patient's mood, which ultimately helps with wound improvement"  
Patient #10

## Conclusion

Healthcare Professionals unanimously agreed that the cinnamon containing dressing was very easy to use as well as effectively controlling odour. They reported that the cinnamon containing dressing was more effective in managing malodour than previous dressing regimens, and that changing the dressing just 3 times per week reduced wound malodour successfully.

For patients, the use of a cinnamon dressing was essential to improve their quality of life: they found the dressing regimen comfortable, and they felt less anxious during family visits.

## References

- This work has been made possible by sponsor from CEMAG Care.
- G Gethin, P Grocott, S Probst, E Clarke (2014) Current practice in the management of wound odour: an international survey. *Int J Nurs Stud*;51(6):865-74.
- Lo S-F, Hayter M, Hu W-Y, et al. (2012) Symptom burden and quality of life in patients with malignant fungating wounds. *Journal of Advanced Nursing* 68(6):1312-1321.