



# Journées 2024 CICATRISATIONS

21 - 23 JANVIER 2024  
PALAIS DES CONGRÈS DE PARIS



WWW.CICATRISATIONS2024.ORG

## Case study on the effectiveness of a cinnamon dressing in reducing offensive smell from malodorous tumor wounds

Clémence Desjardin<sup>1</sup>, Helen Vincente<sup>2</sup>

<sup>1</sup>CEMAG Care, Paris, France; [contact@cinesteamcare.com](mailto:contact@cinesteamcare.com)

<sup>2</sup>IPO, Portuguese Institute of Oncology of Lisboa, Lisbon, Portugal



### INTRODUCTION

Tumour wounds present specific challenges for healthcare professionals and patients, owing to associated symptoms such as exudate, malodour, and pain (Lo et al., 2012).

The intensity, discomfort, and subjective experience of these unpleasant odours can vary greatly among individuals. However, malodours can lead to discomfort, anxiety, and a diminished quality of life for patients (Gethin et al., 2014). Currently, a wide range of anti-odour treatments are available, underscoring the complexity and challenge of managing such conditions (Gethin et al., 2023).

Addressing chronic wound malodour is crucial for patient comfort and healing. This case study assesses the effectiveness of a cinnamon-based anti-odour dressing in treating odours emanating from a breast tumour wound, within a specialised clinic in Portugal.

### Clinical history:

39-year-old patient Maria (pseudonym):

- Was diagnosed with inflammatory breast carcinoma in 2021,
- Underwent mastectomy, neoadjuvant chemotherapy, and trastuzumab treatment,
- Experienced a carcinoma relapse in February 2022,
- Developed a malignant wound measuring 10 x 30 x 2 cm.

### Therapeutic treatment

Palliative radiotherapy, alongside a comprehensive wound management protocol, includes:

- Polyhexamethylene Biguanide Hydrochloride (PMHD)
- Non-adherent tulle
- Gelling fiber dressing and secondary absorbent layer

### METHOD

- The Cinnamon Secondary Dressing (Cinesteam®) was incorporated into Maria's therapeutic regimen for a duration of 10 days, with the dressing being replaced every two days.
- Discomfort associated with wound odour was evaluated using a scale from 0 to 10 (where 10 represents the most significant discomfort), utilising the Toronto scale (Maida et al., 2009). Assessments were conducted on the initial day of treatment (Day 0), as well as 48 and 72 hours following the application of the secondary dressing. The evaluation of odour was carried out simultaneously by two nurses and the patient.

### RESULTS

#### Perception of smell by nurses

The cinnamon dressing significantly diminished the discomfort associated with the wound's odour, reducing scores from 2-4 to 0, while the condition of the wound remained unchanged (Table 1). Beginning 48 hours after initiating the use of Cinesteam®, nurses reported perceiving a cinnamon aroma upon entering the room.

		J0	+ 48h	+ 72h
1) Room entrance	With mask =	0	NC	0
	Without mask =	0	NC	0
2) Near the patient with dressing	With mask =	2	0	0
	Without mask =	3	0	0
3) Near the patient without dressing	With mask =	2	1	0
	Without mask =	4	2	0

Table 1. Assessment of odour-related discomfort by nurses using a scale of 0 to 10 (NC: Not Communicated)

#### Patient's perception of smell

The patient was unable to quantify the odour using a numerical scale. However, she described the odour perceived on Day 0 (D0) as intense, and then at +48 hours and at +72 hours, she noted it as minimal.

#### Satisfaction with using cinnamon dressing

Maria reported an enhancement in her psychological well-being and comfort following the use of the cinnamon dressing. Healthcare professionals found the dressing straightforward to use, but most importantly, they rated its odour control properties as "very good" (Figure 1).

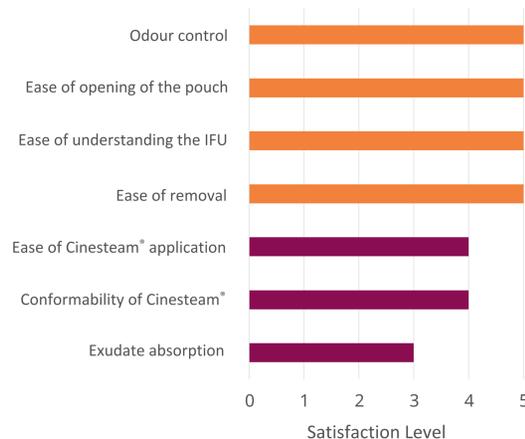


Figure 1. Evaluation of satisfaction with using Cinesteam® on a scale from 1 = "Very bad" to 5 = "Very good".

### DISCUSSION

- Cinesteam® is a non-adhesive secondary dressing designed for the dual purposes of eliminating unpleasant odours and absorbing exudates. It comprises an absorbent layer and a sterile sachet filled with cinnamon (Figure 2).
- The cinnamon within the dressing adsorbs malodorous volatile organic compounds released by the wound and overlays any residual odours with the spice's natural fragrance. The specific variety of cinnamon powder utilised in the dressing was chosen for its distinct olfactory and adsorption properties, following extensive sensory perception tests and chemical analyses. The composition of the cinnamon anti-odour dressing permits air and humidity circulation, thereby preventing maceration.
- The Cinesteam® dressing successfully managed odours, enhancing patient well-being and offering caregivers an improved working atmosphere.

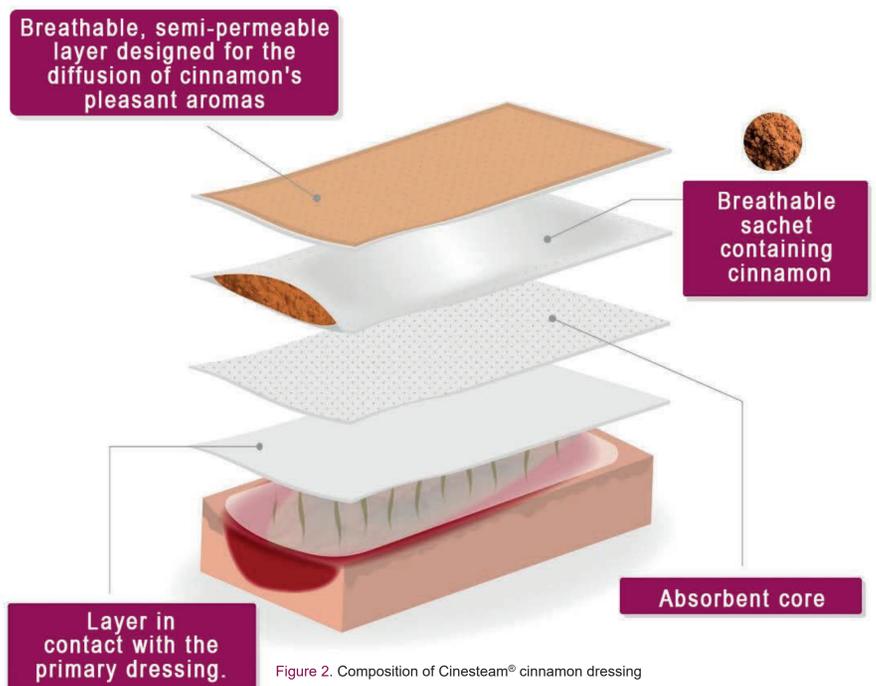


Figure 2. Composition of Cinesteam® cinnamon dressing

### CONCLUSION

- Cinesteam® represents an efficacious approach to controlling wound odour.
- Its formulation, enriched with cinnamon, along with its user-friendly application, positions Cinesteam® as a valuable adjunct in managing tumour wounds.
- Future research is warranted to investigate its effectiveness across a broader spectrum of chronic and complex wounds.

#### Cinesteam® Review by the Patient and Healthcare Professionals

The patient appreciated the efficacy of Cinesteam®, noting its remarkable ability to mask the wound's odour. The scent of cinnamon predominated, significantly reducing the perception of the wound's smell.

Healthcare professionals also experienced benefits from this effect, particularly when uncovering the wound and detecting a mild cinnamon aroma rather than the severe odour typically associated with malignant wounds.



### REFERENCES

- Shu-Fen Lo et al., "Symptom burden and quality of life in patients with malignant fungating wounds" J Adv Nurs. (2012) Jun;68(6):1312-21. doi: 10.1111/j.1365-2648.2011.05839.x.
- Gethin, Georgina et al. "Current practice in the management of wound odour: an international survey." International journal of nursing studies vol. 51,6 (2014): 865-74. doi:10.1016/j.ijnurstu.2013.10.013.
- Gethin, G. et al., "Resigning oneself to a life of wound-related odour - A thematic analysis of patient experiences" Journal of Tissue Viability. (2023), ISSN 0965-206X, doi: 10.1016/j.jtv.2023.07.004.
- Maida V, Ennis M, Kuziemyk C. "The Toronto Symptom Assessment System for Wounds: a new clinical and research tool" Adv Skin Wound Care. (2009) Oct;22(10):468-74. doi:10.1097/01.ASW.0000361383.12737.a9