



# **CINESTEAM® FORMULARY INFORMATION PACK**

**JANUARY 2023**

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## Malodorous wounds

Malodour can be caused by bacteria in the necrotic tissues. Either aerobic or anaerobic bacteria, which emit volatile organic compounds (VOCs) during their metabolic processes. Wounds most commonly associated with odour production include leg ulcers and fungating (cancerous) lesions of all types (Thomas S 1998). The smell from these wounds is caused by a cocktail of volatile agents that includes short chain organic acids, (n-butyric, n-valeric, n-caproic, n-haptanoic and n-caprylic) produced by anaerobic bacteria, (Moss C W 1974) together with a mixture of amines and diamines such as cadaverine and putrescine that are produced by the metabolic processes of other proteolytic bacteria.

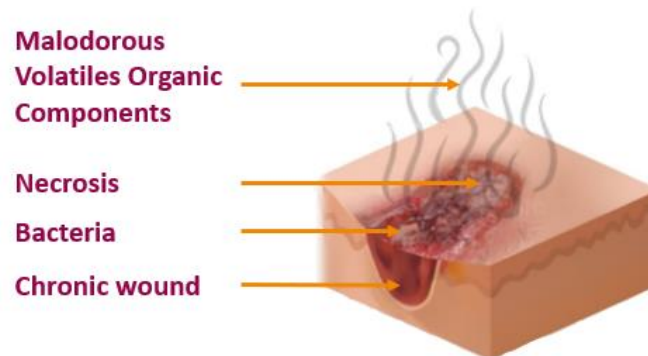


Figure 1 Causes of wound malodour

In some cases, malodour can be treated in a few days by acting on its cause: debridement of necrosis, drainage of an abscess, and/ or treatment of surface bacteria (systemic antibiotics/topical anti-microbial treatment). For many chronic wounds the cause cannot always be treated, especially in the initial stages and the symptoms often persist especially when there is a tumour or wound as a result of malignancy.

Malodour caused by cancerous wounds can cause a significant discomfort for the patients as well as their relatives. It can also have a major social impact, especially for the elderly population and usually lasts up to the end of life, feelings of isolation, depression, revulsion have been commonly reported (Lindahl, 2007; Fletcher, 2008; Jones, 2008; Werdin, 2009; Lantis, 2011; Gethin, 2014; Reynolds, 2015; Ousey, 2016).

## Activated charcoal

An international survey of 1444 clinicians in more than 30 countries has shown that charcoal dressings and antimicrobial silver dressings are the most used solutions to reduce the wound malodour. Nevertheless, only 48,4% of the participants consider them as very effective (Gethin, 2014).

*“Respondents indicated that charcoal-based products were deemed effective by fewer than 50% of participants”* (Akhmetova, 2016).

Till now, malodour treatment consists of the use of charcoal dressings (e.g. Actisorb®, Systagenix) known for their VOCs adsorbent properties (da Costa Santos, 2010; Gethin, 2014; Akhmetova, 2016). Yet, these dressings are not always satisfactory, especially for very strong odours like those of necrotic, infected or cancerous wounds (Gethin, 2014; Akhmetova, 2016). The efficacy of charcoal dressings is also diminished when they are inundated with exudate, which is a frequent occurrence in moderate to highly exuding wounds.

## Limitations when wet

Despite the relatively widespread use of odour absorbing dressings, however, little objective comparative data is available on their odour and fluid handling characteristics. A number of possible test systems have been described for the odour absorbing properties but two of these only considered the efficacy of the dressing in the dry state. The fluid handling properties of odour adsorbing dressings were considered in a separate study. This may be important because the presence of liquids particularly those containing organic solutes, may have implications for the performance of the activated charcoal, competing for active sites with the molecules responsible for the odour and thus reducing its effectiveness.

## Effect on Patients' Quality of Life

Malodour from malignant wounds leads to an important discomfort for patients as well as their environment, with a major social impact for these patients who are mostly at the end of their life.

Charcoal dressings are not always satisfactory mainly for strong odours emanating from necrotic, infected or cancerous wounds. The efficacy of charcoal dressings is greatly reduced when they are impregnated with exudates, which is very frequent with high exudate producing wounds (Gethin, 2014).

In a review of clinical studies on chronic venous leg ulcers, eight of the eleven studies referred to issues due to leakage from the wound and the associated malodour. Exudate was unbearable and devastating (Rich, A 2003) with the unpredictability of dressing leakage causing distress and shame. There were reports of wet shoes, wet bedding and concerns of what people might think. Where leakage was associated with malodour, the impact was even greater and the symptoms were often inadequately managed (Bland, M 2014). These symptoms were of particular concern and had an even greater impact when the patient was working. Participants felt that mechanisms to manage exudate and odour were consistently inadequate, with the odour being described as the worst thing associated with ulceration. The leakage and odour resulted in limitations to social contacts, self-consciousness and a feeling that matters that should remain private had somehow become public with efforts to improve symptoms most often proving to be inadequate.

*“Of all wound symptoms, odour is cited by patients and carers as the most distressing, causing social isolation, depression and revulsion” (Gethin, 2014)*

The TELER ® Scale adapted by Barker and Haig was developed to assess the impact of wound odour on patients' quality of life (WUWHS 2019)

Score	Assessment
Very Strong	Odour is evident when entering the room with the dressing intact
Strong	Odour is evident when entering the room with the dressing removed
Moderate	Odour is evident at close proximity to the patient with the dressing in situ
Slight	Odour is evident at close proximity to the patient when the dressing has been removed
No odour	No odour is evident at close proximity to the patient with the dressing removed

Table 1 TELER ® scale adapted by Barker and Haig. Wound odour intensity.

The development of Cinesteam® began with the observation of the efficacy of the local application of turmeric in very malodorous wounds, when the standard of care failed to control the odours (Kuttan, 1987; Fromantin, 2015). Further research programs have been conducted to evaluate the feasibility of anti-odour dressings based on spices. These studies were performed in collaboration between Institute Curie, three research centres (Chimie Paris Tech/ENSCP, ESPCI, and CNRS in Paris), and Cemag Care. This resulted in the development of the anti-odour dressing Cinesteam®.

### Why it is different to activated charcoal?

It was demonstrated that spices have important adsorbent capacities (VOCs fixation) with higher efficacy than the charcoal dressings. Moreover, unlike activated charcoal, spices do not only adsorb a large part of the malodour's VOCs, but also mask non-adsorbed VOCs.

Sensory perception studies (tester panels) and clinical cases have been done with prototypes of cinnamon dressings and have shown good good efficacy compared to charcoal dressings.

Cinesteam® proves to be a very effective anti-odour dressing, especially in the case of strong odours such as those emanating from malignant tumour wounds.

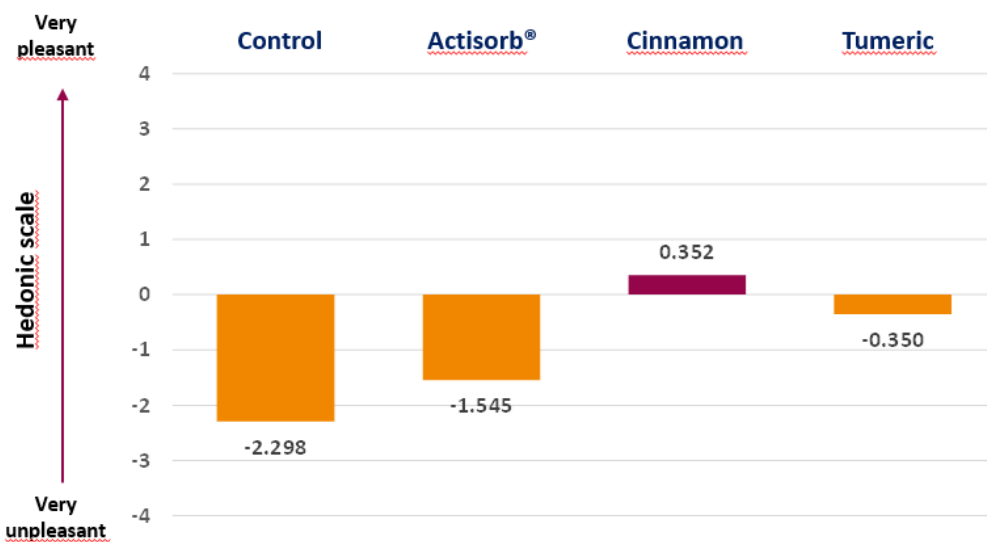


Figure 2 Effect of spices and charcoal dressing on bad odour reduction (Blind tests at 24 hours - Cohort of 97 individuals)

Cinnamon is more effective than charcoal (Actisorb®) and turmeric on the reduction of bad smells released by malodorous wounds.

## Cinesteam® - Laboratory tests

### Comparative studies of charcoal (Actisorb®) and spices adsorbent properties

The adsorption profiles of many spices, and different varieties of the same spices on three VOCs characteristic of malodorous necrosis, namely dimethyldisulphide (DMDS - C<sub>2</sub>H<sub>6</sub>S<sub>2</sub>), phenol (Ph - C<sub>6</sub>H<sub>6</sub>O) and indole (In - C<sub>8</sub>H<sub>7</sub>N) have been studied by GC/MS, in comparison with the adsorption profile of charcoal. The results are shown in Table 2.

The adsorption rate of VOCs by charcoal is more than 92% in the system used. Cinnamon has an adsorption rate between 80 and 92% depending on the VOCs, demonstrating the excellent adsorbent properties of the bad smells of this spice; coal being recognized as the "gold standard" in terms of VOC adsorption. Similar studies have also been conducted with necrosis samples and confirmed the good adsorbing capacity of the selected cinnamon (Thuleau, 2017).

VOC/Chemical Compound	Percentage of Adsorbed Gas		
	Control	Charcoal	Cinnamon
DMDS (dimethyldisulphide)	0	99.6	92.3
Phenol	0	93.5	80
Indole	0	92.4	87.4

*Table 2 Adsorption capacity of DMDS, phenol and indole by different anti-odour substances tested. Systems tested: Control: 3COVs; Charcoal: 3COVs + 30mg charcoal; cinnamon: 3VOCs + 30mg cinnamon powder.*

It should be noted that the amount of cinnamon in Cinesteam® far exceeds the amount of activated charcoal in Actisorb for example.

### Sensory Perception Study

Since the quantification of odours is a complex phenomenon, sensory perception studies were carried out in addition to physio-chemical analyses to confirm the results obtained, namely, to evaluate the adsorbent and masking properties of unpleasant odours by certain spices in the presence of a smelly source. The exploratory perception studies were thus carried out on the odours emitted by a cheese (Maroilles) with odour similar to the VOCs emitted by a cancerous wound (Dumont, 1974).

To determine the best condition(s) for a complete or partial reduction of unpleasant odours, the samples were blindly analysed. The hedonic character was evaluated (pleasant / unpleasant character) and the odours described with a choice of given adjectives (Thuleau, 2017).

The results of the main study are provided below (Figure 3).

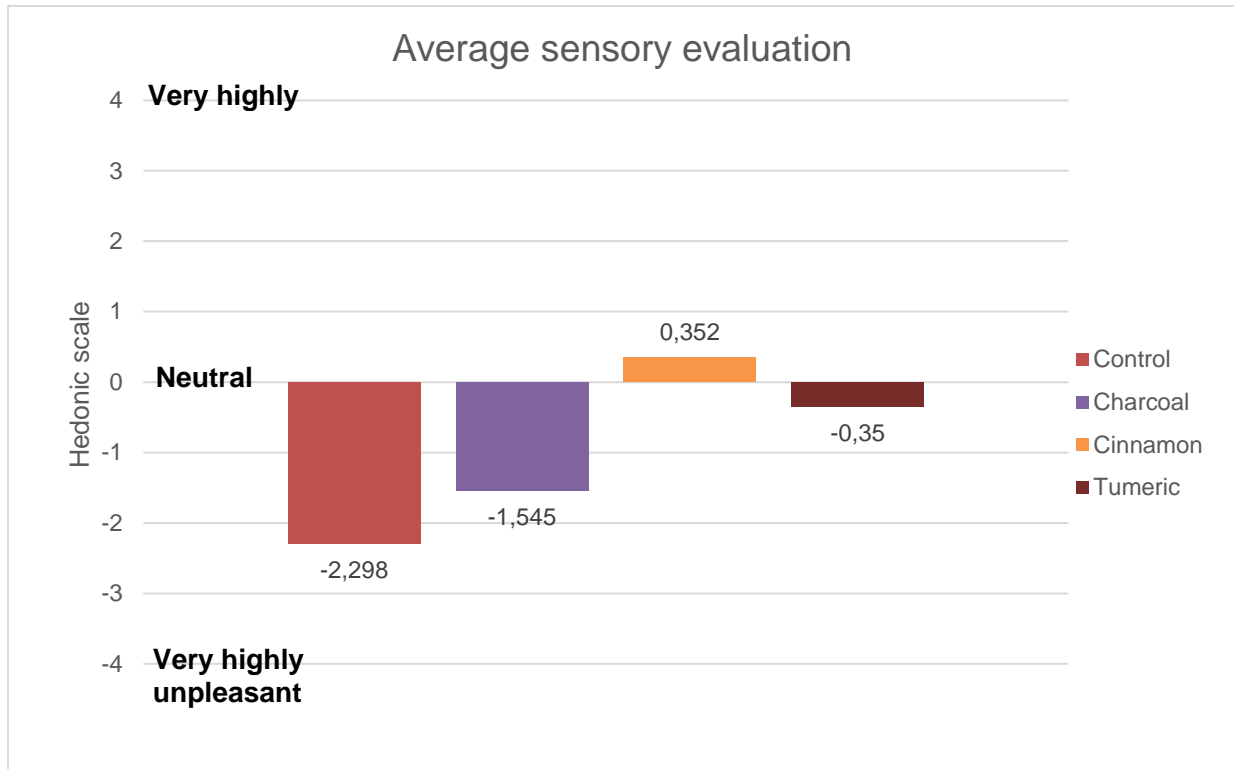


Figure 3 Blind Sensory perception study at 24h – Hedonic character evaluation after the use of anti-odour substances with Maroilles Cheese - 97 participants

Most participants considered the odours emanating from the control samples (Maroilles alone) as extremely unpleasant to unpleasant, and the charcoal samples (Maroilles + Charcoal) as unpleasant to rather unpleasant. Conversely, many participants considered the odours emanating from samples containing cinnamon as pleasant to rather pleasant.

The odours have been also described with specific chosen adjectives. Odours emanating from samples containing spices have been mainly described as aromatic and pleasant. Conversely, odours emanating from control samples such as samples containing charcoal or control have been described as disgusting, disturbing and strong.

Similarly, if many participants associated the odour emanating from samples containing a spice with a "vegetable" or "greeny" odour, the qualifiers used for the odours emanating from the control sample and the sample containing the charcoal is mainly "rotten" and "pestilential".

### Release of fragrant Volatile Organic Compounds (VOC) by spices and charcoal

In addition to comparable malodorous VOC adsorbent properties of Cinesteam® compared with activated charcoal. Gas chromatography has been used to study the release of fragrant volatile organic compounds (VOCs) emitted by spices compared to charcoal the activated carbon does not release any VOC (Figure 4A - no odour). In contrast, cinnamon and turmeric (Figure 4B and 2C) release many malodour masking VOCs.

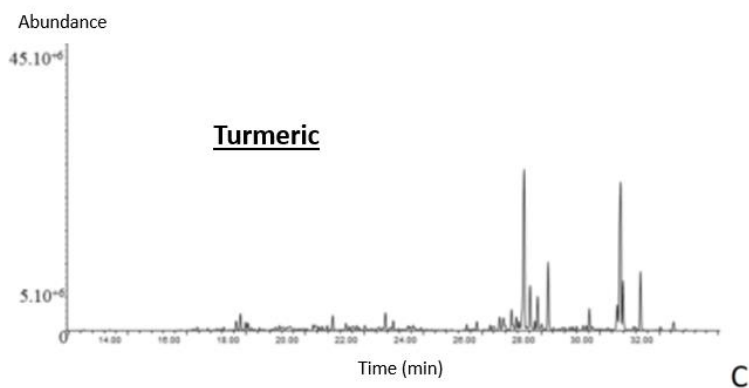
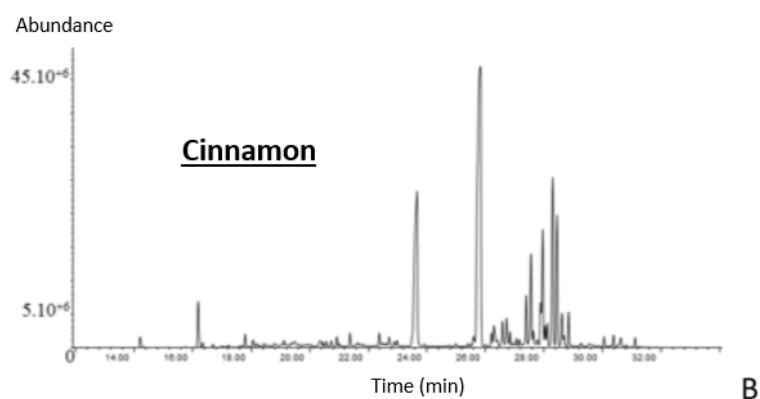
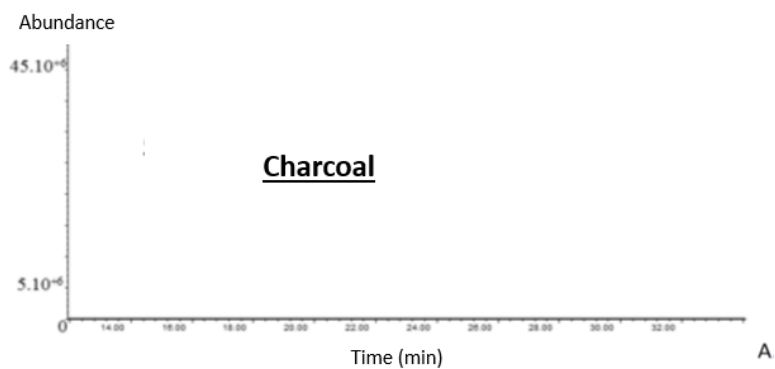


Figure 4 Comparison between (A) charcoal (Actisorb®), (B) cinnamon, (C) turmeric VOCs.

This dual action of adsorbing malodorous VOCs and emitting fragrant odour-masking VOCs gives Cinesteam® a significant advantage compared with charcoal dressings.



## Cinesteam® Dressing

Cinesteam®'s design allows absorption of exudate, reducing dressing leakage combined with the ability to adsorb VOCs and mask odour.

Cinesteam® is a sterile non-adhesive dressing designed to eliminate unpleasant odours. It is composed of two distinct parts (Figure 5):

- An anti-odour upper part (facing opposite to the wound), containing cinnamon
- A lower absorbent part aimed to capture the excess of exudates released by the primary dressing.

The cinnamon adsorbs unpleasant-smelling volatile compounds emanating from the wound and masks any residual odours with the spice natural fragrance.

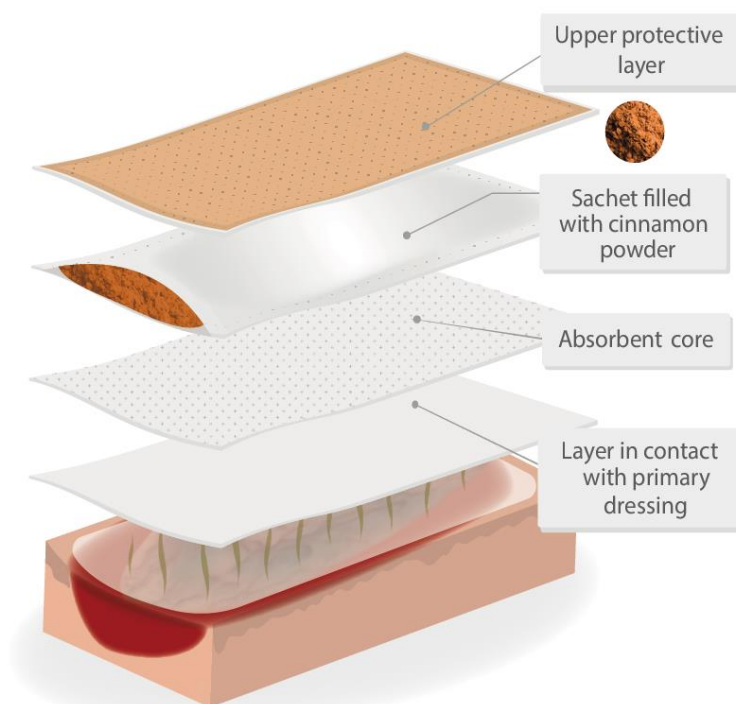


Figure 5 Cinesteam® components

The selected materials are non-occlusive to allow the passage of air and water vapour, thus limiting the risk of maceration.

## Clinical Studies

When using Cinesteam® was the quality of life of patients regarding odour improved? To test the premise that Cinesteam® would be useful in previous treatment failures in managing odour in malignant wounds (Thuleau, 2017).

The dressings were prepared by incorporating the sterilized cinnamon directly into an absorbent pad. The dressings were then closed and placed on a primary dressing.

Odour perception evaluation sheets were filled, at the same time, using a scale of 1 to 5 (Figure 6). The results are presented for 13 chronologically treated patients from March 2016 to March 2017. Patient 7 is not included in the evaluation as the evaluation was not completed after treatment.

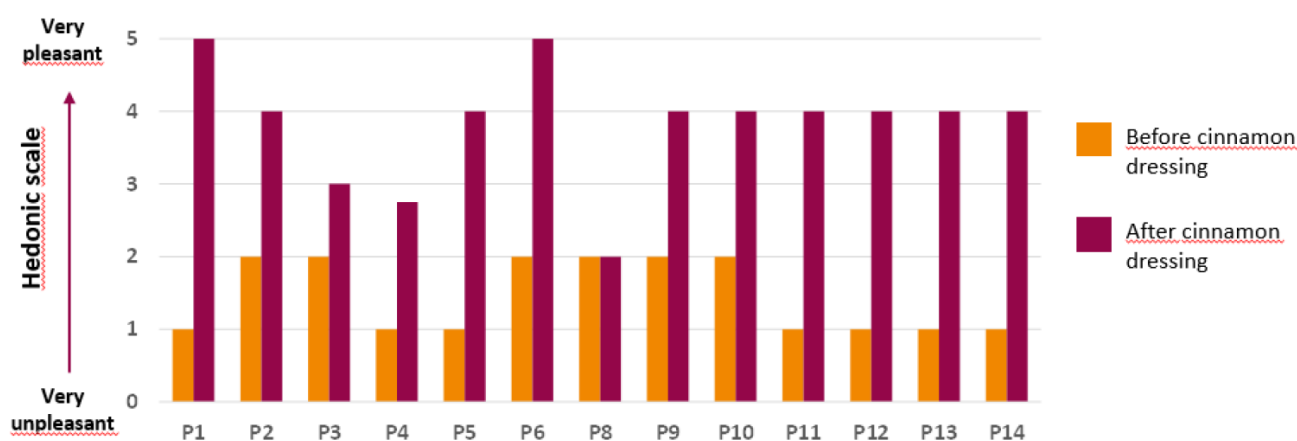


Figure 6 Sensory perception of malodorous wounds: before and after cinnamon anti-odour dressing used

A summary of the clinical work completed on Cinesteam® is presented in the table below:

Headline	Player	Date / Population	Topic	Comments
Anti-odor device survey	<a href="#">Cemag Care</a>	04/2019 N=170 French nurses	What do you think about the existing solutions to manage malodorous wounds?	56.5% of respondents think existing solutions are not enough efficient 24.1% of respondents think existing solutions are unsuitable
Proof of concept: Charcoal dressing vs Cinnamon* Blind tests at 24 hours	<a href="#">Institut Curie and ESPCI</a> <a href="#">Done independently</a>	01/2017 <a href="#">Cohort of 97 individuals</a>	Comparative sensory perception evaluation: Effect of spices and charcoal dressing on bad odors reduction	Scores on hedonic scale: - Control = -2.3 - <a href="#">Actisorb®</a> = -1.5 - <a href="#">Cinesteam®</a> = +0.4
First clinical evaluation with cinnamon dressings	<a href="#">Institut Curie and ESPCI</a> <a href="#">Done independently</a>	Cohort of 13 patients affected by tumoral wounds	Sensory perception of malodorous wounds: before and after cinnamon anti-odor dressing use	On an 0-5 odor perception scale, scores were raised by an average of 2.3 points
Perception study	Service laboratory	12/2019 15 naïve panelists	Evaluation of the effectiveness of <a href="#">Cinesteam®</a> under dry conditions	<a href="#">Cinesteam®</a> is more effective than placebo charcoal dressing on the reduction of bad smell and release pleasant <a href="#">odour</a>

Table 3 Clinical evidence: Cinesteam®

## Cinesteam® - UK Case Series

### Background

In the case of malodorous wounds, the ideal solution would be to reduce (or neutralise) bad odours, and modify any residual odour so that it becomes more pleasant than unpleasant. In this context, it is the discomfort and anxiety felt by the patient and/or their carers/relatives, and not the intensity of the odour itself, that becomes the main criterion under study.

Cinesteam® is a non-adhesive secondary dressing which consists of an absorbent layer together with a sachet containing cinnamon.

The cinnamon in Cinesteam® adsorbs unpleasant odours from the wound and masks residual odours with the spice's natural fragrance. Cinesteam® design components allow the passage of air and moisture to prevent peri- skin damage.

### Aims of the service evaluation

This service evaluation was designed to understand how the cinnamon dressing (Cinesteam®) will perform to manage malodorous wound in a primary care setting and how cinnamon dressing could be used in clinical practice.

### Data source

Patients with malodorous, fungating wounds, above 18 years were eligible to participate in the study. The study was conducted on eligible patients in the Tissue Viability Service at Saint Mary's Hospital, Newport and at Christies Hospital, Manchester, in Homeless Health Leicester and in New Milton Community Care Team at Southern Health NHS Foundation Trust.

Case report form were collected from 10 patients with a malodorous wound.

### Methodology

Health Care Professionals (HCP) collected patients' wound information by:

Completing the information in the "GENERAL INFORMATION and INITIAL ASSESSMENT" sections and use Cinesteam® as per instructions in the indications for use.

Scheduling the patient for the next visits and use Cinesteam® as required over a period of 14 days or less if Cinesteam® is no longer required. The number of dressing changes may vary depending on the patient and their wound.

Different questionnaires were asked at day 0 (Baseline information D0) and 14 days after using Cinesteam® (D14).

Questionnaire	D0 - Before 1st use	D14 - Before renewal
Wound assessment and treatment used	X	X
Dressing regime and primary dressing	X	X
Wound odour	X	X
Satisfaction survey		X
Dressing usability		X

*Table 4 Service Evaluation methodology*

## Findings

### *Wound assessment and demographic characteristics of patients*

For this preliminary report, data was collected from interviews with 10 patients.

The majority of patients from this service evaluation were female (n=7, 70%) and were between 61 and 80 years old. No particular type nor location of wound was observed other than an expressed management goal to reduce malodour.

Most of the wounds were static (n=6, 60%) and were not infected (n=7, 70%).

Additional patients' demographic information and wound characteristics is presented in Table 2.

<b>Sex</b>	<b>Number of patients (%)</b>
Female	7 (70%)
Male	3 (30%)
<b>Age</b>	
19-30	1 (10%)
41-60	3 (30%)
61-80	4 (40%)
81+	2 (20%)
<b>Wound Type</b>	
Malignant wound	3 (30%)
Mixed aetiology leg ulcer	1 (10%)
Pressure ulcer	1 (10%)
Surgical wound	1 (10%)
Traumatic wound	2 (20%)
Venous leg ulcer	2 (20%)
<b>Location of wound</b>	
Chest/breast	2 (20%)
Foot/heel	1 (10%)
Groin	1 (10%)
Hand/arm	1 (10%)
Leg	3 (30%)
Sacrum/buttocks	2 (20%)

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**Wound status**

Deteriorating	3 (30%)
Progressing	1 (10%)
Static	6 (60%)

**Level of exudate**

Moderate	3 (30%)
High	6 (60%)
Very high	1 (10%)

**Wound infected**

No	7 (70%)
Suspected	1 (10%)
Yes	2 (20%)

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*Table 5 Patients' demographic information and wound characteristics (n=10)*

**Dressing regime and primary dressing**

At baseline assessment, the normal dressing regime used by the clinician depended on the wound type, location and level of exudate (Table 6).

<b>Wound Type</b>	<b>Location of wound</b>	<b>of Level exudate</b>	<b>of odour (wound uncovered)</b>	<b>Wound baseline D0</b>	<b>Current dressing regime</b>
Malignant wound	Chest/breast	High	Strong		Aquacel - Superasorb Pad
Venous leg ulcer	Leg	High	Strong		Aquacel Plus
Traumatic wound	Hand/arm	High	Strong		Aquacel Ag
Pressure ulcer	Sacrum/buttocks	High	Strong		Aquacel Ag Rope - Aquacel - Foam Sacrom
Traumatic wound	Leg	Very high	Moderate		Maxiocol
Malignant wound	Sacrum/buttocks	High	Moderate		Aquacel Extra AG - Clinisorb + Superabsorbant
Malignant wound	Chest/breast	Moderate	Moderate		Flaminal Forte - Aquacel Ag, Clinisorb, Superabsorbent
Surgical wound	Groin	Moderate	Strong		Flamazine - Superabsorbent
Venous leg ulcer	Leg	Moderate	Moderate		Inadine, Zetuvit and K-lite toe to knee
Mixed aetiology leg ulcer	Foot/heel	High	Moderate		Exufiber

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*Table 6 Dressing regime at Baseline (D0)*

Many different wound types and without a defined location presented with malodour with high or very high levels of exudate. As observed on our KOL interviews, wounds with malodour also have higher levels of exudate.

Cinesteam is used with different primary dressing presented in Table 4. Generally, Cinesteam was combined with Aquacel family of dressings (Aquacel Ag, Aquacel Plus, Aquacel Ag Rope) (n=5, 50%).

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

Table 7 combination dressings used with Cinesteam

### Wound odour

Wound odour was evaluated with or without dressing at 2 time-points:

- Baseline (D0)
- After 14 days using Cinesteam®

Intensity of odour was established by the HCP by None, Slight, Moderate or Strong.

At baseline assessment, uncovered wounds presented with moderate (n=5, 50% of wounds) or strong (n=5, 50% of wounds) wound odour (Figure 7). The odour is slightly reduced when the dressing is in situ (Figure 8).

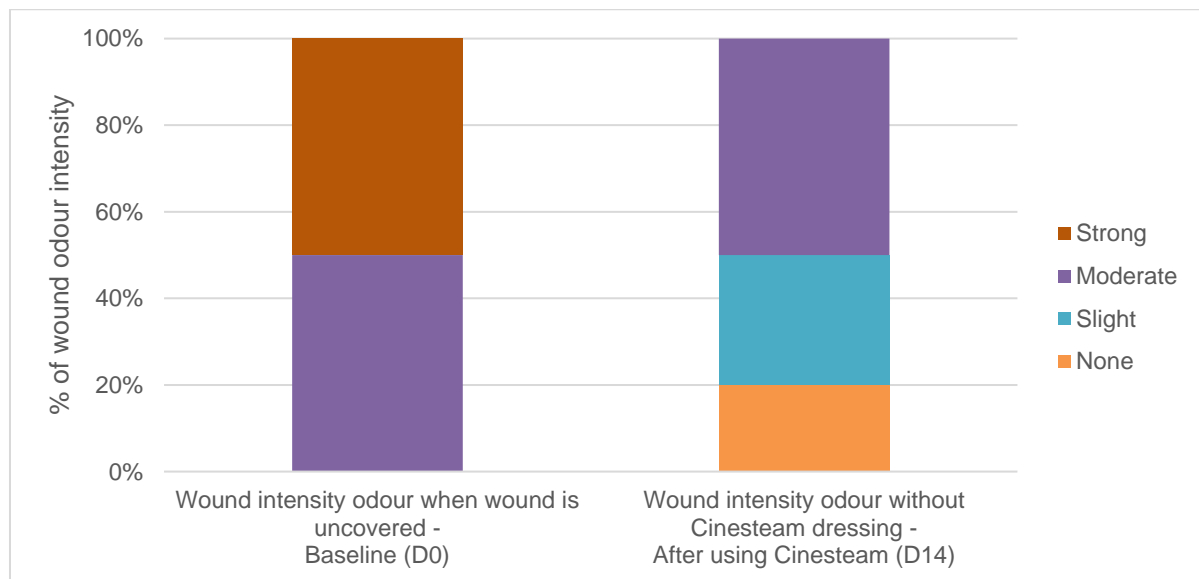


Figure 7 Percentage of wound odour at baseline (D0) and after 14 days using Cinesteam with wound uncovered (n=10)

After 14 days of using Cinesteam, wound odour was reduced with or without Cinesteam dressing. In fact, wound odour is reduced and no strong odour was observed with wound is uncovered (Figure 7). In addition, 60% (n=6) of HCP reported none odour when Cinesteam dressing is in situ. The 40% (n=4) left of HCP reported a slight odour (Figure 8).

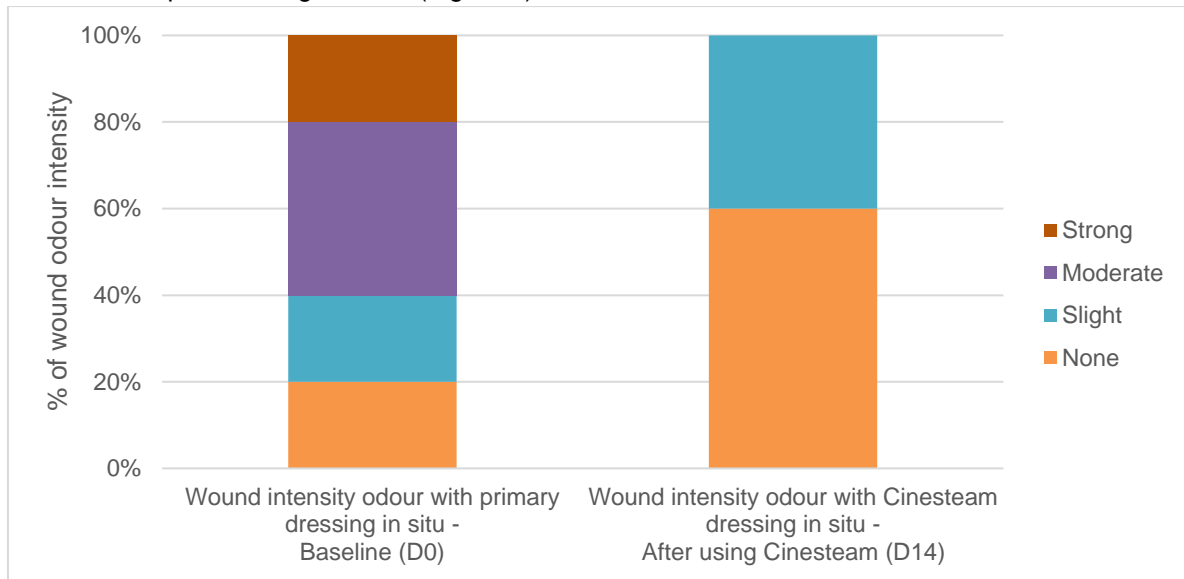


Figure 8 Percentage of wound odour at baseline (D0) and after 14 days using Cinesteam with dressing in situ (n=10)

These data show that Cinesteam is an effective dressing to manage malodorous wounds. This preliminary report shows that Cinesteam dressing seems to have a superior effective of managing malodour wounds compared with the previous standard care.

### Dressing change frequency

The number of dressings used depended on wound size. Generally, when the length of the wound is higher than 10cm, HCP used 2 Cinesteam dressings to cover the wound. This situation was observed in 4 patients (40%).

The mean number of Cinesteam used over 14 days evaluation was 10. This number depends on the frequency of dressing change and the number of dressings used to cover the wound. In half of cases (n=5, 50%), dressings were changed 3-times per week. In other cases, dressings were changed every day.

No difference of the wound odour was observed between dressing change frequency.

Change frequency	Nb of wound odour (%)	
	None	Slight
3-times per week	4 (40%)	3 (30%)
Every day	2 (20%)	1 (11%)

Table 8 Wound odour according to the dressing change frequency (n=10)

***Dressing usability and satisfaction survey***

Cinesteam was used in 3 different wound management centers by at least 3 different HCP. They found that the Dressing was easy to apply and to remove, and it has good conformability. The exudate absorption was estimated as good by all HCP. 89% (n=8) of HCP considered the odour control as very good.

<b>Ease of opening of the pouch:</b>	
Fair	3 (30%)
Good	4 (40%)
Very Good	3 (20%)
<b>Ease of understanding the IFU:</b>	
Fair	1 (10%)
Good	8 (80%)
Very Good	1 (10%)
<b>Ease of Cinesteam application:</b>	
Very Good	10 (100%)
<b>Ease of removal:</b>	
Very Good	10 (100%)
<b>Conformability of Cinesteam:</b>	
Good	5 (50%)
Very Good	5 (50%)
<b>Exudate absorption:</b>	
Fair	1 (10%)
Good	9 (90%)
<b>Odour control:</b>	
Good	1 (10%)
Very Good	9 (90%)

*Table 9 Dressing usability and health care professional satisfaction*

***Additional comments***

HCP included comments with their impressions of Cinesteam. Their comments included:

- Patient acceptability and feelings,
- Patients’ family impression and,
- Cinesteam use with compression therapy.

*“Assisted in reducing wound malodour which was significantly causing the patient and her family distress. She was less anxious when family visited as the malodour had been effectively masked by the Cinesteam.”* Patient ID IOW-107

*“Managed wound malodour extremely well. Conformed well underneath a compression bandage system. I would recommend Cinesteam to my colleagues.”* Patient ID IOW-2006



*"Odour improved within a week and patient was happy to apply dressings with family support." Patient ID CHR-11*

*"Odour of the wound reduced remarkably. Daughter in law is a nurse and she felt that this is the only dressings which reduced the odour from the wound. Keep requesting for more dressings." Patient ID CHR-12*

*"The patient liked the dressing as they were less bulky than previous dressings used and could be easily used under compression hosiery. She also liked the colour as it is her skin tone." Patient ID MID-11*

*"The scent boosted the patient's mood, which ultimately helps with wound improvement" Patient ID SHP-8129*

## **Conclusion**

This service evaluation was designed to evaluate the effectiveness of Cinesteam to reduce malodour in wounds. This evaluation included the administration of Cinesteam dressing for 14 days and the completion of a questionnaire.

This preliminary report shows that:

- Malodourous wounds have a high level of exudate and the odour persists even when the wound is cover,
- HCP use a range of dressing regimens adapted for the wound type, location and exudate levels.
- Cinesteam dressing can be used in combination with different primary dressings.
- Cinesteam dressing seems to have a superior effectiveness in managing malodour wounds than previous dressing regimens.
- A dressing change frequency of 3-times per week seems to be adequate to have a reduction of the malodour.
- HCP unanimously agreed that the Cinesteam is very easy to use as well as controlling odour.
- Patients were also pleased with the results in using Cinesteam.

**A novel odour controlling dressing for the management of a complex fungating breast wound**

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**Introduction**

Breast cancer is the most common cancer in the UK accounting for 15% of all new cancers, with approximately one in seven women being diagnosed with breast cancer in their lifetime. Approximately 55,900 new breast cancer cases are diagnosed each year in the UK, meaning more than 150 each day (Cancer Research, UK, 2019). Malignant fungating wounds in women with breast cancer occur when an underlying localised tumour infiltrates the skin, blood capillaries and lymph vessels. The prevalence of fungating wounds is estimated to be between 5 and 10%, although the exact figure is not known as population-based registries do not collect these data (Adderley & Holt, 2014).

This case study discusses the management of 83-year-old Brenda (pseudonym) who was referred for advice to the tissue viability nurse (TVN), with a 9-month history of a fungating and malodorous breast tumour. Brenda was under the care of the District Nurses (DNs) as she had limited mobility; the DN's had tried several dressing regimens to try to contain the odour and exudate often associated with fungating lesions. Malodour in wounds can be caused by volatile organic compounds, metabolic end products and bacteria.

Malignant wounds are complex and can be very challenging for both health care professionals and the patients due to the myriad of associated symptoms such as leakage, malodour and pain. Malodour from malignant wounds can be extremely distressing for the patient, compared with other symptoms, and often leads to social isolation (Lo et al, 2012).



*Cancerous malodorous wound, courtesy of Isabelle Fromantin (Wound & Healing Specialist Nurse )*

*Figure 8 Fungating breast tumour*

**Method**

On review by Tissue Viability, the wound measured 14cm x 6cm with 80% slough and 20% granulation tissue; there was a strong malodour and high levels of exudate which caused Brenda undue distress. Previously the DN's had used a hydrofibre dressing as well as alginate to manage the exudate and activated charcoal to reduce the malodour. The TVN prescribed a hydrofibre dressing with silver and a cinnamon odour controlling dressings for the DN's to apply as a secondary dressing. The dressings were to be changed daily due to high levels of exudate.

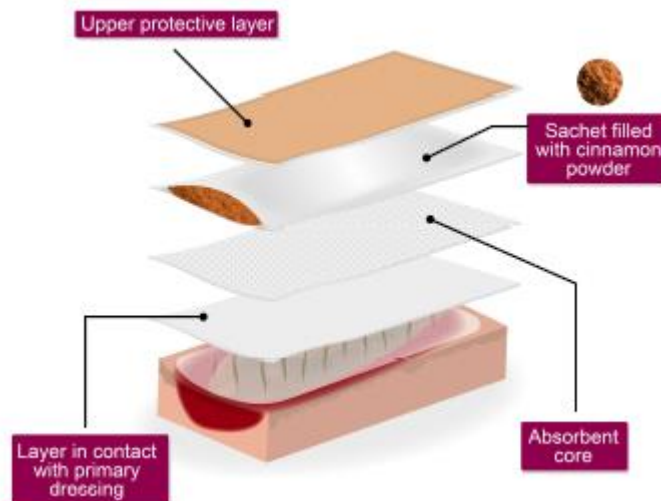


Figure 9 Schematic representation of the Cinesteam® dressing

## Results

After one week of using the cinnamon dressing, Brenda reported an improvement in the exudate level, and particularly the malodour. She also liked the cinnamon fragrance from the dressing and she appeared to be a lot more positive as she no longer felt embarrassed by the odour from her wound. Due to the close proximity of the breast relative to the nose, patients can get overwhelmed by malodour from the wound leading to low mood, low appetite and low self-esteem. Brenda continued with the cinnamon odour controlling dressings on an ad hoc basis dependent on any malodour.

## Discussion

Ultimately the aim of wound management in fungating lesions is not to progress the wound to healing but to manage symptoms and improve quality of life by ameliorating the physical symptoms, in Brenda's case mainly malodour. This is normally attained by means of appropriate dressings.

The cinnamon odour controlling product 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.

## Conclusion

For Brenda it was important that decisions on wound care focused on adding life to years not years to life. It is important to remember that what is best for the wound might not necessarily be what is best for the patient and their quality of life. Brenda found the dressing regimen comfortable and was relieved that she could no longer smell her wound which at times impacted on her appetite due to nausea.

## Ordering Information

Size	Units in a box	MPC	PIP Code
11cm x 19cm	12		4230447

From:

CD Medical Ltd; Unit F, Lostock Office Park, Lynstock Way, Lostock, Bolton, BL6 4SG

# CINESTEAM® - QUICK GUIDE FOR USE



## Device description:

Cinesteam® is a secondary dressing designed to reduce odour and absorb exudate. It is composed of an absorbent core and a sachet containing cinnamon powder.

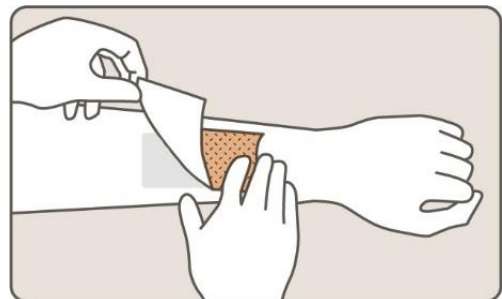
## Before using Cinesteam® :

For complete instruction for use please refer to the instructions for use (IFU) contained in the pack.

Cinesteam® must be applied over an appropriate primary wound contact layer and should not be applied directly to the wound.

## Cinesteam® application:

1. Open and remove Cinesteam® from its pouch.
2. Apply the white face Cinesteam® on top of the primary dressing so that it covers it entirely.
3. Secure Cinesteam® in place using adhesive tape or a retaining bandage.



## Cinesteam® renewal:

Gently remove Cinesteam® and replace following the application instructions. The frequency of dressing change must be adapted to the wound care protocol in place. Cinesteam® can be left in place as long as its absorption and odour masking capacities are satisfactory (1 to 7 days). Frequency of change should be dependent on the level of exudate.

### **Precautions**

Do not use Cinesteam® as a primary dressing.

Do not cut the Cinesteam® dressing.

Cinesteam® should not be used if its primary packaging is open or damaged or if the dressing itself is torn.

Do not use Cinesteam® together with an active charcoal dressing, which may decrease its odour masking ability.

Do not cover Cinesteam® with an occlusive dressing.

Do not eat cinnamon in the Cinesteam® dressing.

Do not bathe or shower when wearing Cinesteam®.

Do not immerse Cinesteam® in water.

Keep out of the reach of children.

### **Contraindications**

Cinesteam® should not be used on patients with known sensitivity to any of its components, in particular cinnamon.

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