

Improving patients' quality of life, self-esteem and body image with odour-controlling dressings

KEY WORDS

- ▶ Charcoal dressing
- ▶ Odour
- ▶ Patient self-esteem
- ▶ Patient quality of life

Controlling wound odour is a key goal of management for all clinicians involved in treating malodorous wounds or wounds at risk of malodour, as this can help improve patients' quality of life, self-esteem, and body image (Fletcher, 2008; Edwards-Jones, 2018). This article reviews how to assess wound odour, the impact of odour on people with wounds, and how to manage wound odour using odour-controlling dressings such as CliniSorb® (CliniMed), a dressing that contains activated charcoal.

Wound malodour can occur in various wound types, such as pressure ulcers, leg ulcers, diabetic foot ulcers and fungating wounds and may occur as part of the healing process, from using certain dressings, or may be due to excess exudate, dead or necrotic tissue or a sign of infection (Nix, 2016).

Odour presents a major challenge for clinicians and often causes social and psychological problems for the patient, their family, and the caregiver (Edwards-Jones, 2018). The prime consideration should be identifying and treating the cause (e.g. dead tissue or infection) and helping patients to cope with the impact of living with a malodorous wound (*Box 1*).

Reducing odour from a wound has the potential to eliminate feelings of embarrassment, shame, guilt, repulsion, and distress, and can help to improve patients' quality of life, self-esteem, and body image (Nix, 2016).

ASSESSMENT

Clinicians treating patients with wound malodour should carry out a full patient and wound assessment to ascertain the cause of the wound and risk of infection and guide the appropriate treatment regimen. A holistic wound assessment includes assessing the wound type, location, size and volume, tissue composition, as well as the presence, type, amount of exudate, signs and symptoms of infection and odour.

Assessment of odour is subjective because of variation in individuals' abilities to detect smell.

Box 1. Impact of living with a malodorous wound (Fletcher, 2008; Edwards-Jones, 2018)

- ▶ Depression
- ▶ Distress
- ▶ Feelings of embarrassment, shame, guilt and repulsion
- ▶ Lack of self-esteem
- ▶ Lack of self-respect
- ▶ Loss of appetite
- ▶ Social isolation.

Even so, odour should be assessed (World Union of Wound Healing Societies [WUWHS], 2019). Assessment of wound odour can be instigated by asking the patient/carer whether they detect odour and, if so, the nature of the odour. If the wound is odorous, the impact on the patient's quality of life or ability to conduct activities of daily living, such as working or socialising, should be documented.

A formal odour assessment includes assessing the odour type (e.g. sweet, sour, musty, faecal) and strength (e.g. slight moderate, strong). Ideally, odour assessment should use the same method for successive assessments of a patient to identify if a change in intervention is required (WUWHS, 2019). Tools such as the Baker and Haig Scale or the TELER® Odour Scale can be used (*Table 1*).

Two of the main causes of odour are infection or necrotic tissue:

- ▶ A sweet odour, which may be described as fishy (Edwards-Jones, 2018), can indicate *Pseudomonas* infection, particularly in the presence of thin, foamy, green exudate (Fleck,

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Table 1. Example of TELER® Odour Scale (Grocott, 2001; WUWHS, 2019)

Score	Indicator
0	Odour is obvious in the house/clinic/ward
1	Odour is obvious at arm's length from the patient
2	Odour is obvious at less than arm's length from the patient
3	Odour is detected at arm's length
4	Odour is detected by the patient only
5	No odour

2006). An antimicrobial strategy should be initiated in such instances where a wound is exhibiting signs and symptoms of local wound infection and wounds suspected or confirmed as having biofilm (International Wound Infection Institute [IWII], 2022).

» A strong, pungent odour with tissue necrosis or separation of the skin into paper-thin black-purple layers may indicate Clostridium infection and life-threatening, moist gangrene (Fleck, 2006). This requires immediate action and referral to Accident and Emergency for treatment to begin. It is important to note that use of antimicrobials should be avoided as a prophylactic therapy, except for wounds identified at high risk of infection (IWII, 2022).

MALODOUROUS WOUND MANAGEMENT STRATEGIES

Wound odour is most effectively reduced by debridement of slough, reduction in bacterial levels, and frequent dressing changes (National Institute for Health and Care Excellence [NICE], 2022). The presence of odour can indicate a high microbial burden and, if infection is identified as the cause, rather than necrotic tissue, the first step is to thoroughly cleanse and debride the wound of devitalised tissue as this has been clinically proven to speed up wound healing (Wilcox et al, 2013). Selection of the debridement method (i.e. autolytic, biological, enzymatic, mechanical, and surgical and sharp) depends on the wound characteristics, patient tolerance, clinical skill and the clinical setting (Samala and Davis, 2015).

Autolytic debridement is mostly passive and is often not effective enough to prepare the wound for healing. Other more active forms of debridement, such as biological, mechanical, enzymatic, sharp and surgical, may be needed to accelerate and

optimise wound healing (Barrett et al, 2022).

After the wound is prepared, use of a topical antimicrobial agent or dressing can be used to reduce the level of bacteria at the wound surface (Fletcher, 2008; IWII, 2022). Use of topical antibiotics for wound management should only be considered in infected wounds under very specific circumstances by experienced clinicians (e.g. topical metronidazole gel for treating malodour in fungating wounds) due to the global threat of antibiotic resistance (IWII, 2022).

To manage and control wound odour, application of an odour-controlling wound dressing can help to absorb and contain both exudate and any odour that may be present. Charcoal dressings are odour-absorbing and are intended for use in combination with other dressings that have a suitable wound contact layer. It is important to note that odour-controlling dressings can be used as a primary dressing (NICE, 2022). For local wound infection, a topical antimicrobial dressing may be used alongside to reduce the level of bacteria at the wound surface.

CLINISORB – WHAT IS IT?

CliniSorb dressings contain activated charcoal, which absorbs fluid and gaseous volatiles (the odour). Activated charcoal is made from carbon-containing material that is heated at high temperatures to create charcoal, which is then oxidised. Numerous small holes can be found in the surface of activated charcoal; this increases its surface area, thus making it more porous and capable of soaking up a variety of chemicals. Subsequently, when in contact with the activated charcoal, volatile compounds are adsorbed into the pores of the surface and adhere to the carbon molecules where they are kept locked away (Figure 1).

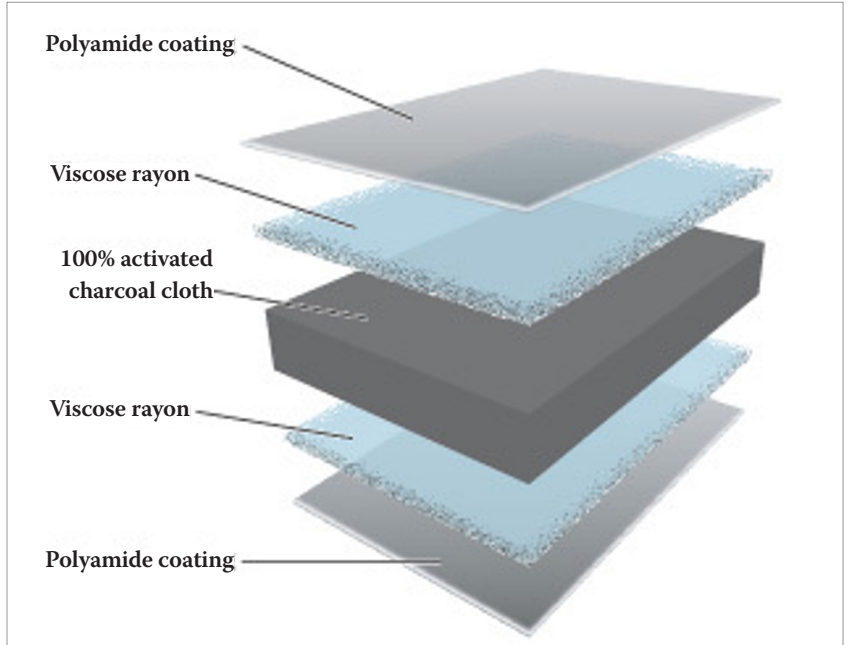


Figure 1. CliniSorb, an activated charcoal dressing

Figure 2. Composition of CliniSorb

The sterile 100% activated charcoal cloth is sandwiched between layers of viscose rayon with a polyamide coating (Figure 2). The central 100% activated charcoal cloth binds bacteria waste products to neutralise odour. The viscose rayon allows the dressing to remain effective as a primary dressing in the presence of light to moderate exudate. The polyamide coating is non-adherent and ensures that the dressing can be removed in one piece without disintegrating.

CHOOSING A CHARCOAL-BASED ODOUR-CONTROL DRESSING

It is important to consider the location of the wound when choosing a charcoal-based odour-control dressing, such as CliniSorb. If a wound is situated near the person’s nose this can cause them to notice the smell more, this can create a reluctance to socialise and affect their appetite (nauseated by the odour).

There is a misconception that CliniSorb is only suitable as a secondary dressing and that its effectiveness is reduced when it becomes wet; however, in a 20-patient pilot study, the nurses commented that wound odour was either improved or remained the same where CliniSorb was used as a primary layer (Hampton, 2003). Therefore, use of CliniSorb in direct contact with the wound does

not affect the malodour controlling properties of the charcoal dressing (Hampton, 2003).

CliniSorb is indicated for the management of malodorous wounds and can be used as either a primary or secondary dressing. The dressing is soft and flexible and can be:

- ▶ Applied either side down
- ▶ Cut to fit the size of the wound and conform to curved body sites
- ▶ Left *in situ* for up to 1 week
- ▶ Used as part of self-care as there is no risk of toxicity
- ▶ Used with another dressing if the wound has high fluid levels.

Alongside use of CliniSorb, clinicians should consider the effect malodour is having on the patient’s/carer’s/family’s quality of life, self-esteem and body image. This can be achieved through sympathetic discussion concerning any effect the odour is having on activities including daily tasks, personal relationships, social life and work.

CLINISORB — HOW SHOULD IT BE USED?

CliniSorb can be used to control odour for a range of wounds, such as pressure ulcers, leg ulcers, diabetic foot and fungating wounds. It can be used in both moderately and lightly exuding wounds, the latter

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with the addition of a separate primary dressing to prevent adherence.

Activated charcoal dressings can reduce odour, thus reducing potential patient distress and embarrassment. If the wound is infected, CliniSorb may be used with an antimicrobial to further enhance odour management. If the wound has dead tissue, generally an occlusive or semi-occlusive dressing will be selected for use.

INTEGRATING CLINISORB INTO DAILY PRACTICE

Antimicrobial stewardship (AMS) refers to an organisational or healthcare system-wide approach to promoting and monitoring judicious use of antimicrobials to preserve their future effectiveness (IWII, 2022). Addressing antimicrobial resistance (AMR) through improving stewardship is a national medicines optimisation priority, led by NHS England and supported by Public Health England (Public Health England, 2015).

AMR can be managed by a combination of interventions that address individuals’ behaviour relating to infection prevention and control, antimicrobial use and healthcare professionals’ prescribing decisions. CliniSorb may be an appropriate dressing choice to help support AMS by ensuring the correct dressing is used for the correct wound.

There are many organisms that do not cause infection but can colonise the wound bed and, if these build up, they can create an odour. If odour is not due to infection, CliniSorb may offer patients the opportunity to engage in supported self-management where appropriate, and whilst under the direction of a clinician due to its ease of use, flexibility and because both sides of the dressing are identical and can be used either side down. CliniSorb is available in three sizes and can be cut to fit to conform to curved body sites if necessary.

Supported self-management can improve levels of pain and allow patients to have greater control over their own health and care, which can positively impact patient quality of life (Kapp and Santamaria, 2020). *Box 2* lists practical tips for patients to enable them to self-care, such as changing their own dressings when required.

Box 2. Tips for using CliniSorb

- ▶ Follow clinical advice on how to care for your wound, including hand hygiene
- ▶ Contact your clinician if there is a change in the wound appearance or change in odour, or if you experience increased pain.

CONCLUSION

Many wounds can become malodorous, causing serious consequences for patients including psychological problems (e.g. depression, and lack of self-respect and self-esteem); a detrimental effect on body image and quality of life; prevention of intimacy with partners and anxiety about whether others can smell the odour (Nix, 2016).

Activated charcoal dressings, such as CliniSorb, can be used as a primary and secondary dressing to adsorb toxins, reducing the level of odour and helping to activate confidence in patients (NICE, 2022). CliniSorb dressings can be considered when deciding on the management for the individual patient with a malodorous wound (Morris, 2008) if the underlying cause of odour is managed.

CliniSorb offers patients the opportunity to embrace self-care, given they have the right tools and support and are able and willing to perform wound care at home. For product information or to order a free sample, please visit: www.clinimed.co.uk. **WUK**

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