

Wound care: Sterile dressing packs (SDPs)

Over £4.8 million is spent annually on SDPs in England (ePACT Jan 14). QIPP projects in this area focus on reducing any unnecessary expenditure and use of sterile dressing packs, whilst still maintaining high standards of wound care and infection control.

Recommendations

- Review the use of SDPs. Ensure they are being used appropriately in line with the local wound care policy and with minimal waste of pack contents.
- Ensure that if an SDP is needed at all, that the most cost-effective product meeting requirements is prescribed. Currently the SDP called “Woundcare®” is the most cost-effective item from the Drug Tariff price and from comparing the list of contents.¹
- Decide whether a procedure needs to be clean or sterile before opening a sterile dressing pack. The majority of wounds managed in the community (mainly chronic) only need a clean procedure.² When an SDP is needed, use products with more useful contents e.g. gloves/apron included. See Drug Tariff for contents^{1,3} or table 1, page 3.
- Regularly assess wound healing and match prescribing of SDPs accordingly, rather than automatically prescribing a quantity of ten per script. Issuing prescriptions for four or five individual SDPs should prompt a review of the wound after two weeks.

National guidance

The management of chronic wounds is a very high cost area for the NHS.³ The British National Formulary (BNF) says that the sterile dressing pack has a very limited role.⁴

NICE clinical guideline (CG) 139⁵ states that gloves must be worn for contact with non-intact skin. Gloves used for clinical interventions should be single-use items and must not be made of polythene, as they are not “CE marked”. This is because they do not meet EU standards and do not provide sufficient protection against microorganisms. A disposable apron should be worn if there is a risk that clothing may be exposed to blood, body fluids, secretions or excretions. It is important to ensure that the single-use items are disposed of correctly. Patients have the right to expect that those providing their care follow the correct procedures to minimise the risk of healthcare-associated infection.⁵ There is no requirement for the items used for any skin contact procedures to be sterile.

The Health Protection Agency (HPA) discusses key measures that can help prevent wound infection/colonisation. These principles apply to aseptic or clean techniques and include: hand hygiene before handling wounds or dressings and wearing gloves when handling wounds.⁶

Gloves are to be worn whenever contact with body fluids, mucous membranes or non-intact skin is anticipated. Gloves are not to be worn as an alternative to hand hygiene. They should be changed after each procedure and hands washed following their removal. Gloves must not be washed with soap and water or alcohol as this may not be effective and may damage the gloves. Latex-free gloves should be available for anyone who has latex allergies.⁶

The HPA guideline also states that aprons are to be worn to protect clothing from contamination with body fluids. They are single-use and should be changed between tasks then discarded appropriately.⁶

Infection control guidance (NICE and HPA) advises that clean technique is needed for the treatment of most wounds. A clean technique is carried out using the same principles as an aseptic technique, but where sterile equipment is not needed. Clean techniques are used in the management of most chronic wounds. Aseptic techniques should only be required where sterility is needed.³

The Wound, Ostomy and Continence Nurses Society fact sheet on clean versus sterile dressing techniques for the management of chronic wounds says the definition of clean technique is: clean means free of dirt, marks or stains. The clean technique involves strategies used in patient care to reduce the overall number of microorganisms or to prevent or reduce the risk of transmission of microorganisms from one person to another or from one place to another.⁷

Clean techniques involve meticulous handwashing, maintaining a clean environment by preparing a clean field, using clean gloves and sterile instruments and preventing direct contamination of materials and supplies. This technique may also be referred to as non-sterile. Clean technique is considered most appropriate for long-term care, home care and some clinic settings and for patients who are not at high risk for infection; it is also appropriate for patients receiving routine dressing changes for chronic wounds such as venous ulcers.⁷

A chronic wound is defined as one that does not proceed through an orderly and timely repair process, requiring more than four weeks to heal, such as vascular wounds and pressure wounds.⁷

Few national guidelines have addressed the topic of clean versus sterile technique. Neither is there a consensus of expert opinion on the use of clean or sterile dressing technique in the management of chronic wounds. Research is limited and inconclusive about the value of clean or sterile techniques in healing outcomes.⁷

The HPA guidelines state that the clean dressing technique may be used for chronic wounds such as leg ulcers and pressure sores in people with normal infection risk.⁶

Clinical effectiveness

As with other areas of woundcare, the evidence-base for certain treatments and dressings is relatively poor compared to other treatments we use.³ This is the case for sterile dressing packs. There is a distinct lack of trial data investigating, or proving any benefit of SDPs.

The British National Formulary (BNF) states that the sterile dressing pack has a very limited role. It is used to provide a clean or sterile working surface. Some packs include cotton wool balls, which are not recommended for use on wounds.⁴ Cotton wool or woven gauze can shed fibres into the wound, increase the risk of infection and delay the healing process. If gauze is required to dry the surrounding skin during the dressing procedure, then non-woven gauze (sterile or non-sterile) may be an appropriate substitute.³

The contents of the most popular dressing packs issued on prescription have barely changed over the years and contain items that no longer have a place in modern wound treatment (e.g. cotton wool, gauze swabs). It is essential to consider how useful the SDPs contents are, how much is thrown away unused and what is missing that would ensure adequate aseptic technique when needed. In 2009, the National Prescribing Centre (NPC) suggested investigating if there are alternative, innovative ways of supplying more appropriate “packs”,³ e.g. by direct supply.

A small-scale audit involving three general practices, evaluated clinical practice against an updated aseptic dressing procedure in June 2000. The local Trust already had a clean wound dressing procedure, which did not involve the use of a sterile dressing pack. In their literature review, the authors found no conclusive evidence to support the use of sterile dressing packs, suggesting that their removal from the aseptic dressing procedure would not necessarily have a detrimental effect on patient care. The new aseptic procedure involved using a plastic sheet to form a sterile field, which comes with the sterile

dressing aid (gloves) instead of a sterile dressing pack. It was well documented at the time that the use of other components of sterile dressing packs (cotton wool balls and gauze squares) do not constitute best practice in wound management. The result of the audit was a marked reduction in the number of sterile dressing packs used and considerable cost savings. Comments from the nurses regarding implementation of the new procedure were positive. These included:⁸

“Sterile dressing packs are outdated with what equipment is provided inside them. Once we get used to the new procedure it will be a lot quicker and easier”.

“We are already doing most of the new procedure. There are no problems and there is no necessity to use sterile dressing packs”.

Another audit used PACT data to monitor usage of sterile dressing packs in East Kent Community NHS Trust. The results were published in 2001. Discussions with nurses and the Wound Interest Group within the Trust led to the suggestion that a decision on whether a procedure needs to be clean or sterile should be made before a sterile dressing pack is opened. Also the majority of wounds managed in the community (mainly chronic) would only need a clean procedure. A 23% reduction in prescribing of SDPs was achieved through this initiative.²

Considerations for which technique (clean or sterile) to use may include:⁷

- Patient factors, immune status, acute versus chronic wound.
- Type, location and depth of wound.
- Invasiveness of wound care procedure.

Table 1 below provides suggested techniques, clean or sterile, for the type of intervention involved with managing chronic wounds. Most dressing changes would involve clean gloves, i.e. clean technique. The only dressing change requiring sterile gloves is one involving sharp conservative bedside debridement.⁷

Table 1: Suggested dressing technique for the management of chronic wounds⁷

Intervention	Handwashing	Gloves
Wound cleansing	Yes	Clean
Routine dressing change without debridement	Yes	Clean
Dressing change with mechanical, chemical, or enzymatic debridement	Yes	Clean
Dressing change with sharp conservative bedside debridement	Yes	Sterile

Limited evidence indicates clean technique reduces costs and might require less time to perform.⁷

Table 2 on the following page shows the contents of the various SDPs available. If the practice decides that it is necessary to carry on using SDPs, this will aid selection. The sterile dressing pack Woundcare® represents a cost-effective choice.

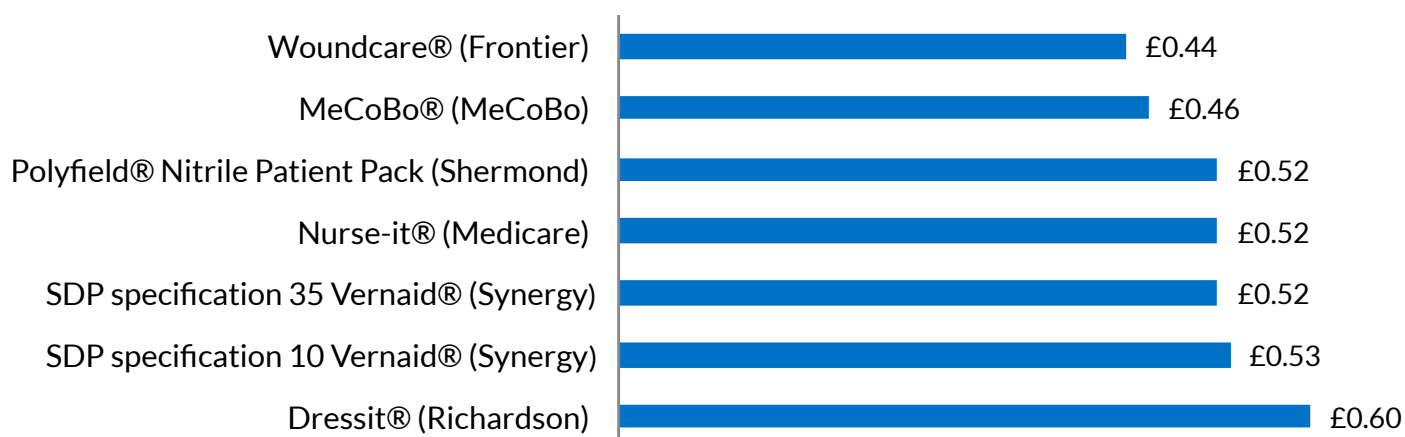
Table 2: SDP prescribing/selection notes:^{1,4,9}

Product name	Sterile pack contents	Prescribing/selection information (cost per pack)
Sterile Dressing Pack specification 10 Vernaid® (Synergy Healthcare)	<ul style="list-style-type: none"> Gauze and cotton tissue pad 8.5cm x 20cm 4 Gauze swabs 12 ply 10cm x 10cm Absorbent cotton balls, large 4 x ~0.9g Absorbent paper towel 45cm x 50cm Water repellent inner wrapper opens out as sterile working field 50cm x 50cm 	53p No gloves No apron No compartment dressing tray
Sterile Dressing Pack with Non-Woven Pads specification 35 Vernaid® (Synergy Healthcare)	<ul style="list-style-type: none"> Non-woven fabric covered dressing pad 10cm x 20cm 4 Non-woven fabric swabs 10cm x 10cm 4 Absorbent cotton wool balls Absorbent paper towel 50cm x 45cm Water repellent inner wrapper opens out as a sterile working field 50cm x 50cm 	52p No gloves No apron No compartment dressing tray
Non Drug Tariff Specification CE marked Sterile Dressing Packs		
Dressit® (Richardson)	<ul style="list-style-type: none"> 1 pair Vitrex Gloves (s/m or m/l) 1 large apron 1 disposable bag 1 paper towel 4 Softswabs 4 ply 10cm x 10cm 1 Absorbent pad 10cm x 12cm 1 Sterile field 50cm x 50cm 	60p No compartment dressing tray
MeCoBo Soft Pack® (MeCoBo)	<ul style="list-style-type: none"> 1 folded laminate drape 50cm x 50cm 1 absorbent towel 50cm x 50cm 1 Gallipot 60ml 1 Kidney tray 21cm x 11cm x 25cm 1 wrapping drape 50cm x 50cm 5 Non-woven swabs 4 ply 7.5cm x 7.5cm 1 Packed pouch 13.3cm x 28cm 	46p No gloves No apron
Nurse-it® (Medicare)	<ul style="list-style-type: none"> 1 pair Latex-free powder-free nitrile gloves (s/m or m/l) 7 non-woven swabs 4 ply 10cm x 10cm 1 compartment tray 12cm x 11cm 1 disposable forceps 11cm 2 laminated paper sterile fields 40cm x 40cm 1 large apron 80cm x 130cm 1 paper towel 35cm x 40cm 1 white polythene disposable bag 46cm x 26cm 1 paper measuring tape 	52p Only pack with forceps and measuring tape Contains most swabs of any SDP

Product name	Sterile pack contents	Prescribing/selection information (cost per pack)
Non Drug Tariff Specification CE marked Sterile Dressing Packs continued		
Polyfield® Nitrile Patient Pack (Shermond)	<ul style="list-style-type: none"> 1 pair powder free nitrile AF gloves (s/m/l) 1 sterile laminate sheet 50cm x 45 cm 7 non-woven swabs 10cm x 10cm 1 towel 43cm x 38cm 1 white polythene disposable bag 1 apron 	52p Most swabs No compartment dressing tray
Woundcare® (Frontier)	<ul style="list-style-type: none"> 1 sterile field 50cm x 50cm 1 large apron 1 compartment dressing tray, 1 pair walled nitrile gloves (s/m/l) 1 white polythene disposable bag 5 Non-woven swabs 10cm x 10cm 1 drape 50cm x 50cm 	44p No paper towel No absorbent pad

Chart 1 below shows the cost differences between SDPs, with the most cost-effective option (Woundcare®) at the top of the chart.

Chart 1 – SDP unit costs (Drug Tariff January 2014)¹



Savings available

Currently over £4.8 million is spent annually on SDPs in England (ePACT Jan 14). Significant savings can be made by reviewing these products to ensure that SDPs are prescribed appropriately. Any prescriptions for SDPs which are inappropriate or no longer required should be discontinued.

The cost per 100,000 patients for SDPs (supplied through the FP10 route only) nationally is £8,633. Data on spend for SDPs supplied through direct procurement (direct supply) is not readily available and has not been included as part of the savings calculations, therefore actual savings may vary from those quoted.

Table 3, on the following page, shows that more than 33% of prescriptions are for more than 10 SDPs on one script. It also shows the total annual savings available for nil prescribing of greater than £4.8 million, and for reaching the average cost (£21.58) per 1,000 patients annual savings would be £546,563.

The annual savings for switching to an alternative cost-effective SDP, Woundcare® would be £926,475.

Table 3: Summary of annual savings for SDP prescribing in England (ePACT Jan14)

% scripts for more than 10 SDPs	Annual savings if switch to Woundcare® SDP	Annual savings for average cost (£21.58) per 1,000 patients	Annual savings for nil prescribing of SDPs
33.5%	£926,475	£546,563	>£4.8 million

If no prescribing of SDPs occurred, then this would release over £4.8 million in total in one year, or £8,633 per 100,000 patients. It is unlikely that prescribing of SDPs would reduce completely to nil prescribing.

The percentage of prescriptions for 10 or more SDPs on a single script also varies from 0% to 85.5% (England average 33.5%). Considering there is no evidence for the use of SDPs, this is a high level and requires addressing in each practice that hasn't yet managed to reduce their prescribing. If the practice decides they want to continue using SDPs, rather than a clean technique, then 2 individual SDPs will cover dressing changes for one week in most cases. A script for 10 SDPs will usually cover 5 weeks' worth of dressing changes (e.g. Dressit® is supplied in an outer pack/bag of 10). A script with a maximum of 4 or 5 SDPs will prompt a review of the wound after two weeks. Regularly assessing wound-healing and reviewing the number of SDPs prescribed accordingly, ensuring they are not put on repeat prescription will also release considerable savings and prevent unnecessary wastage.

Summary

- The NICE CG "*Infection: prevention and control of healthcare-associated infections in primary and community care*"⁵ and HPA "*Infection Control Guidelines in Community Settings*"⁶ both advise upon the use of disposable gloves when handling wounds. They also both advise upon the use of single-use aprons to protect clothing from contamination with body fluids. However there is no recommendation in either guideline on the use of SDPs specifically for these purposes.
- Careful consideration should be given before prescribing SDPs, especially as some have contents which are no longer recommended in wound care (cotton wool, woven gauze).
- If the practice decides they wish to use SDPs, rather than a clean technique for wound management, then Woundcare® is the most cost-effective option. Switching from Dressit® to Woundcare® gives a cost-saving of 16p per single pack.
- Regularly assess wound healing and match prescribing of SDPs accordingly, rather than automatically prescribing a quantity of 10 per script. This quantity would cover 5 weeks of dressing changes in most cases. Issuing prescriptions for 4 or 5 SDPs will prompt a review of the wound after 2 weeks.
- Reducing inappropriate prescribing in SDPs will release significant savings.

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Additional PrescQIPP resources

Briefing



Data pack



Audit tool



Available for download here:

<http://www.prescqipp.info/resources/viewcategory/238-wound-care-sterile-dressing-packs>

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