

## Wound care - Soft polymer dressings

In England and Wales over £39.7 million is spent annually on soft polymer dressings (ePACT Aug - Oct 2015). QIPP projects in this area are aimed at ensuring soft polymer dressings are prescribed only when there is a specific need for a dressing of this type, ensuring that they are used optimally (including for an appropriate wear time), and at choosing suitable products with lower acquisition costs. This bulletin reviews the place in therapy of soft polymer dressings and offers guidance for organisations considering reviewing soft polymer dressing prescribing as a medicines optimisation project.

This bulletin does not cover soft polymer dressings containing silver which are addressed in bulletin 53 on silver dressings <http://www.prescqipp.info/silver-dressings/viewcategory/212>

### Recommendations

- Limit the use of soft polymer dressings (particularly the more costly, often silicone coated type) to situations where their use is advantageous over and above less costly alternatives, e.g. where easy removal is important and other types of dressing may adhere to the wound bed or damage fragile skin.
- Specify preferred formulary choices, indications for their use and when input from an appropriate specialist (e.g. tissue viability nurse) should be sought, as a means of managing soft polymer dressing use.
- Involve appropriate stakeholders, such as tissue viability nurses and community nurses, in the formulary decision making process for their clinical expertise and to support whole system compliance.
- Ensure products with longer wear times are used appropriately. If, for example, a silicone-coated contact layer is being changed frequently, consider if a less costly alternative such as a low-adherence dressing would be a suitable alternative.
- Use simple low-adherence dressings under compression for venous ulcers, in line with SIGN guidance, unless there is reason to prefer an alternative.<sup>1</sup> If exudate is an issue, dressings such as foams, alginates or hydrocolloids may have advantages.<sup>2</sup>
- Choose the smallest size dressing that is appropriate to the wound (allowing for any necessary overlap onto healthy skin), as dressing price can rise significantly with increasing size.
- Prescribe the minimum quantity of dressings necessary to meet people's needs to help minimise wastage and stockpiling.<sup>3</sup> Prescribe exact number of dressings rather than 'original packs'.
- Do not prescribe dressings on repeat unless there is a clear long-term need for the same dressing.

### Key action points

- Review all repeat prescribing of soft polymer dressings and prescribe them as acute issues unless there is a legitimate reason to continue repeat prescribing.
- Ensure GP practices have a process in place for identifying and investigating prescriptions for non-formulary dressings or large quantities of dressings (such as quantities over ten dressings per month).

Where prescribing of large quantities of soft polymer dressings is identified, ensure that:

- » A soft polymer dressing is appropriate for the person's needs.
- » The correct type and size of soft polymer dressing has been selected.
- » The dressing is not being changed more frequently than clinically indicated.
- » The minimum quantity of dressings necessary to meet the person's needs is ordered.

The process of identifying potential issues and establishing the necessary information may require input from a range of staff such as GPs, receptionists, pharmacists, practice nurses and district nurses. Appropriate specialist advice, e.g. from a tissue viability nurse, should be sought if needed.

## Background

Most advanced wound dressings are designed to control the environment for wound healing and regulate the amount of fluid in the wound bed.<sup>4</sup> Dressings with soft polymer (often a soft silicone polymer) in a non-adherent or gently adherent layer have been developed with a different primary goal, which is to reduce trauma on removal of the dressing from the wound surface.<sup>4,5</sup> Soft polymer dressings can be used on light to moderately exuding wounds. For moderately to heavily exuding wounds an absorbent secondary dressing can be added, or a combination product with a soft polymer contact layer plus an integrated absorbent layer can be used.<sup>4</sup>

Non-adherent dressings are useful where skin is fragile (e.g. elderly patients) and where easy removal with minimal physical trauma and emotional upset at dressing changes is a priority, such as in children.<sup>6</sup> Not all wounds will require a non-adherent contact layer and if there is no issue with adhesion to the wound bed then a soft polymer contact layer may not give additional benefit.

The BNF classification, which groups dressings according to their primary components, is followed here. Dressings combining foam with a soft polymer contact layer such as silicone are generally listed in the BNF under the soft polymer section (A5.2.3), although some are included under foams (A5.2.5).

## Types of soft polymer dressing

The BNF divides soft polymer dressings into three types:

### Without absorbent pad

These are a non-adherent or gently adherent primary wound contact layer, which allows exudate to pass through to a secondary dressing. Different products vary in structure and materials used. They are often a mesh or net structure with a coating that creates the desired non or gently adherent properties. Many have a coating of soft silicone polymer<sup>4</sup> (described as gently adherent or 'tacky') that is intended to keep the dressing in place whilst still being easily removed.<sup>7</sup> Examples include Mepitel® and Adaptic Touch®. Other coatings such as hydrocolloids and petroleum jelly are sometimes used (e.g. Physiotulle®, Urgotul®). Some have no coating, such as Tegaderm Contact® which is made of woven nylon. Wear times of 7 – 14 days are not unusual (although sometimes a 180 degree rotation of the product is recommended to prevent over granulation)<sup>8</sup>, allowing the wound bed to remain undisturbed, whilst the secondary absorbent dressing can be changed more frequently if needed.

### With absorbent pad

These dressings have a non-adherent or gently adherent soft polymer contact layer followed by an integral absorbent layer. There may also be a film backing and an adhesive border so a secondary dressing may not be needed. The contact layer is often soft silicone (e.g. Mepilex® and Allevyn Life®), but other materials such as soft gels or hydrocolloid/petroleum jelly based versions are available. The absorbent layer is commonly foam, although cellulose and absorbent polymers are sometimes used.<sup>4</sup> Many of these dressings could be classified alternatively as foams, but the BNF classification of soft polymers (with absorbent pad) is followed here. For further information on foam dressings see PrescQIPP bulletin 127, <https://www.prescqipp.info/resources/viewcategory/449-wound-care-foam-dressings>

## Cellulose dressings

This small subsection includes Sorbion Sachet® dressings and Suprasorb X®. Sorbion Sachet® is considered to be a protease matrix modulating dressing,<sup>9</sup> so is addressed in [PrescQIPP bulletin 115 on protease modulating matrix dressings](#) rather than here. Suprasorb X® is a biocellulose dressing that can either donate or absorb moisture.<sup>10</sup> In the cost charts that follow it has been included in figure 2 with 'soft polymer dressings with absorbent pad' on the basis that it can absorb a degree of exudate.

## Other types of wound contact layers

Other contact dressings, which are not classified as soft polymer dressings in the BNF, are also available and may be suitable for some patients' wounds. They are described as low-adherence dressings (listed in the BNF under basic dressings) and are also used as interface layers under secondary absorbent dressings. Examples such as N-A Ultra® (knitted viscose with silicone coating) and Atrauman® (knitted polyester impregnated with neutral triglycerides)<sup>4</sup> can have a role as a potentially lower cost contact layer for some wounds.<sup>11</sup> This BNF category also includes paraffin gauze dressings, however gauze based dressings are no longer recommended by some.<sup>12</sup>

## National guidance

The National Institute of Health and Care Excellence (NICE) has published guidelines on the prevention and management of foot problems in type 2 diabetes, pressure ulcers, surgical site infection and inpatient management of diabetic foot problems. Although these guidelines give important recommendations about wound care, they do not make recommendations on specific products.<sup>3</sup>

NICE recommend that dressing selection should be made after careful clinical assessment of the person's wound, their clinical condition, and their personal experience and preferences. In the absence of any robust clinical evidence to guide choice, NICE recommend that prescribers should routinely choose the dressing with the lowest acquisition cost and the performance characteristics appropriate for the wound and its stage of healing. They also recommend prescribing the minimum quantity sufficient to meet the person's needs, and avoiding routinely choosing antimicrobial dressings ahead of non-medicated dressings.<sup>3</sup>

For treating pressure ulcers NICE recommend considering use of a dressing that promotes a warm, moist wound healing environment, and advise against the use of gauze. Pain and tolerance, position of the ulcer, amount of exudate and the frequency of dressing change should be considered.<sup>12</sup>

Scottish Intercollegiate Guidelines Network (SIGN) guidance on the treatment of chronic venous leg ulcers recommends the use of simple non-adherent dressings.<sup>1</sup> From a practical perspective, the choice of dressing will also be influenced by their ability to stay in place for up to a week (for patients who do not need frequent bandage changes), and their ability to manage exudate when this is a factor.<sup>2</sup>

## Clinical effectiveness

### General evidence base

A recent publication from NICE highlighted some of the challenges faced when selecting dressings. The relative lack of robust clinical or cost-effectiveness evidence in this area is acknowledged, as is the uncertainty of how laboratory characterisation tests relate to performance in real life.<sup>3</sup>

The lack of robust, clinically meaningful data on this subject was highlighted in a 2010 article by the National Prescribing Centre about advanced wound dressings for chronic wounds, which concluded that:

- There is insufficient high-quality evidence to distinguish between any of the advanced wound dressings used in the management of chronic wounds.
- There is reasonable evidence that hydrocolloid dressings are more effective than conventional gauze dressings in healing pressure ulcers. However there is no evidence that they are more effective than simple low-adherent dressings when used under compression for the treatment of venous leg ulcers.

- Unless the use of a specific dressing can be adequately justified on clinical grounds it would seem appropriate for NHS health professionals to routinely choose the least costly dressing that meets the required characteristics and is appropriate for the type of wound and its stage of healing.<sup>13</sup>

## Pressure ulcers

A 2013 Cochrane review looked at dressings for preventing pressure ulcers. It included four trials (two of which studied soft silicone and foam combination dressings) with a total of 561 participants and showed that dressings applied over bony prominences reduced pressure ulcer incidence; RR 0.21 (95% CI 0.09 to 0.51; P value 0.0006). However, the authors reported that the conclusion was compromised by the low quality of the included trials, all of which were of high or unclear risk of bias, and stated that the results should be interpreted as inconclusive.<sup>14</sup>

When reviewing the evidence for dressings in treating pressure ulcers, NICE considered data from 62 clinical trials, covering a wide range of dressing types (including soft silicone and foam combination dressings), which were compared to each other or to placebo. The guideline development group did not feel that the available evidence or its quality allowed for a recommendation to be made about the use of a specific type of dressing, other than to advise against the use of gauze.<sup>15</sup>

## Venous leg ulcers

SIGN recommend the use of simple non-adherent dressings\* in the management of venous leg ulcers.<sup>1</sup> This is based on a 2006 Cochrane review<sup>16</sup> of 42 studies where non-adherent dressings were compared to alginate dressings (60 patients), hydrocolloids (792 patients), hydrogels (151 patients), and foams (253 patients). No evidence was identified to support superiority of any dressing type over another when applied under appropriate multilayer bandaging. No evidence was identified on the effectiveness of different dressings in patients unable to tolerate multilayer bandaging.

[\*SIGN refer to 'simple non-adherent dressings' rather than low-adherence dressings. The Cochrane review that the recommendation is based on uses this term to describe dressings such as knitted viscose dressings and paraffin gauze, which the BNF classifies as basic, low-adherence dressings].

The 2006 Cochrane review referred to by SIGN has now been superseded and is being replaced by individual reviews of specific dressing types. Two have been published to date, for foam and alginate dressings. Both concluded that current evidence (of low quality) does not suggest that either of the dressing types are more effective in the healing of venous leg ulcers than the other wound dressing treatments they had been compared to.<sup>17,18</sup>

## Burns

A 2013 Cochrane review of dressings for superficial and partial thickness burns included two studies (142 people) that compared a silicone-coated nylon dressing with silver sulphadiazine. Overall the evidence suggested that silicone-coated nylon dressings may heal partial thickness burns more quickly than silver sulphadiazine, but the evidence is of poor quality.<sup>19</sup>

## Prescribing points

Soft polymer dressings are generally indicated for granulating or epithelializing wounds, and should not be used for sloughy or necrotic wounds.<sup>5</sup>

Depending on the soft polymer dressing chosen and the level of exudate of the wound, a secondary absorbent dressing may be needed.<sup>4</sup>

Soft polymer dressings are not suitable for heavily bleeding wounds as blood clots can cause the dressing to adhere to the wound surface.<sup>4</sup>

Wear time varies between products, and will also depend on both patient and wound related factors. A review of advanced dressings by the Centre of Evidence-Based Purchasing in 2008 identified frequency of dressing changes and duration of treatment as having the most impact on the total cost of treatment.<sup>20</sup>

If a more costly, longer wear time product (e.g. silicone-coated dressing) is being used in circumstances where frequent dressing changes are indicated, consider changing dressing type; a less costly alternative, e.g. a low-adherent dressing may be suitable in the context of frequent dressing changes.

Dressing price can rise significantly with increasing size, so the smallest size dressing that is appropriate to the wound (allowing for any necessary overlap onto healthy skin) should be selected.

Wounds change in size and nature over time, so the suitability of different dressings is also likely to change. To help avoid wastage and stockpiling, the minimum quantity of dressings necessary to meet people's needs should be prescribed.<sup>3</sup>

The changing nature of wounds and need for regular reassessment means it is often inappropriate to prescribe dressings on repeat prescriptions.

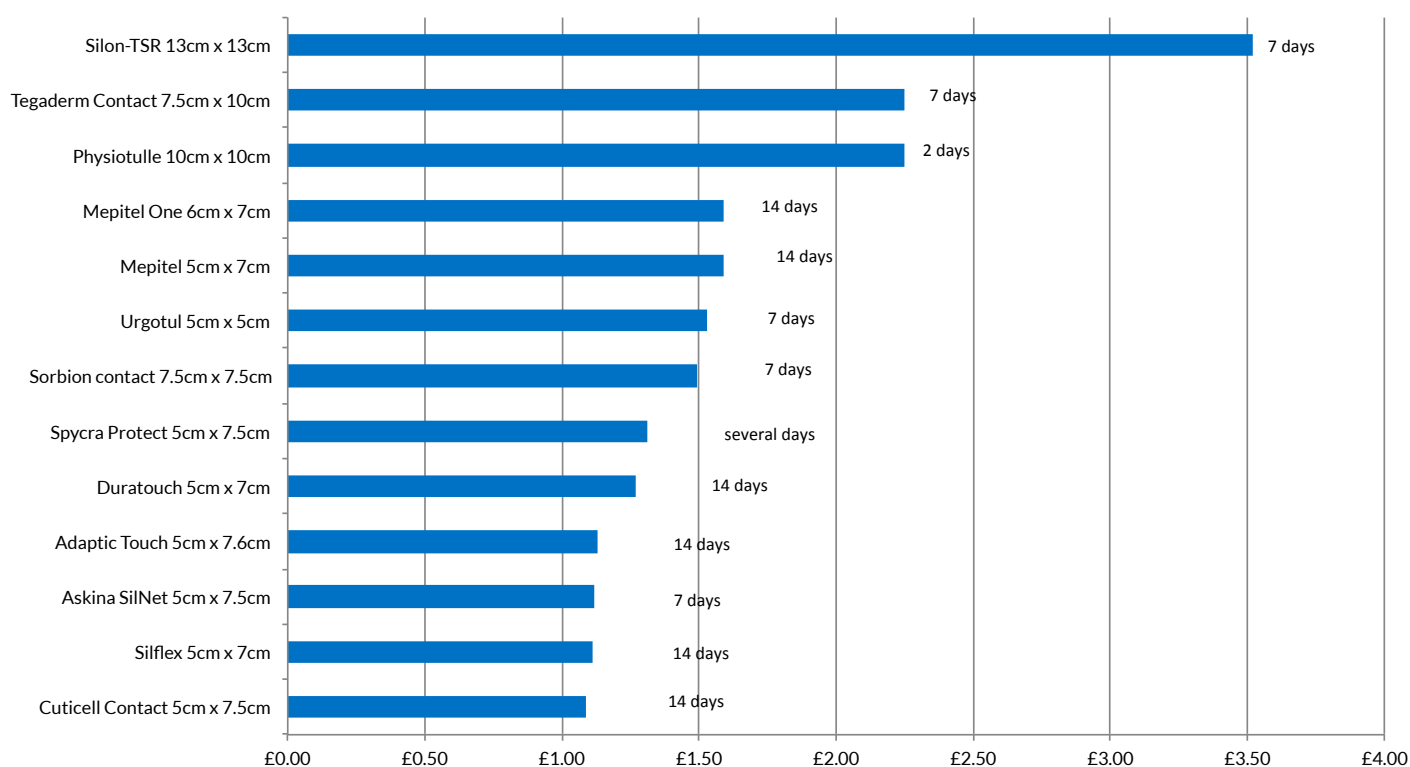
## Costs

Many localities have developed their own wound care formularies to provide guidance on choice and use of wound care products. A best practice statement from Wounds UK advises that formularies should be developed by multidisciplinary teams using a fair and impartial process, avoiding the undue influence of the manufacturers. They should include a range of products to serve the range of wound types and stages of healing. In the absence of clinical and cost-effectiveness data to distinguish between dressings of similar type, and in the absence of other clinically important differences, cost is an appropriate deciding factor in dressing choice.<sup>21</sup>

The following charts can support formulary development and review by providing cost information for the different BNF categories of soft polymer dressings (and low-adherence dressings). Within each category there is variation between the constituents and characteristics of the different dressings; the information in the charts is intended for use in conjunction with the advice of a local specialist (e.g. tissue viability nurse) in order to make appropriate formulary selections, and decide on any dressing or patient related criteria for referral to a tissue viability nurse.

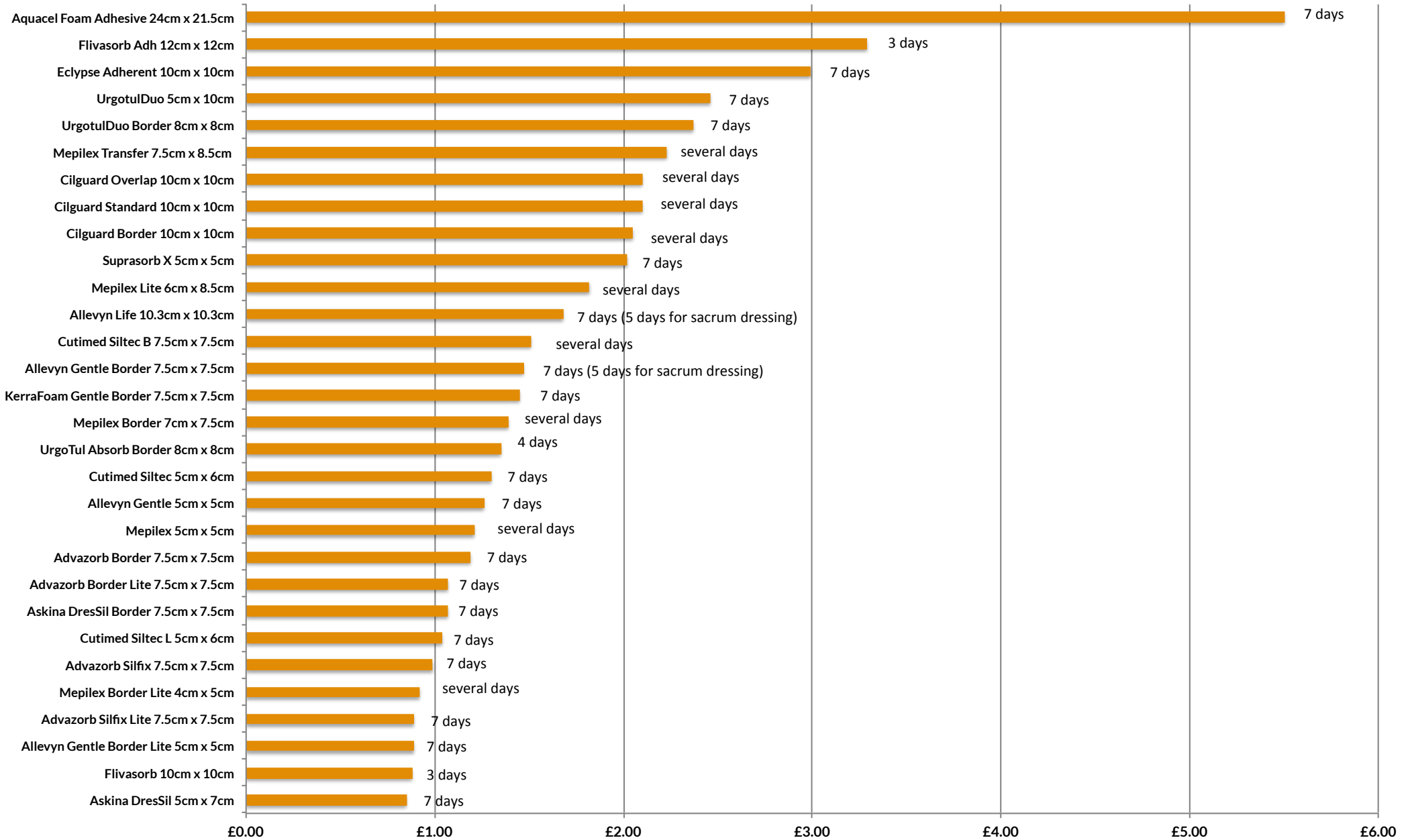
Costs displayed are for one dressing in the smallest size. Overall costs may be affected by the need for a secondary dressing and will be affected by wear time. Maximum wear times are indicated where the information is available and are provided as a guide for general information; actual wear time remains a matter for clinical judgement.

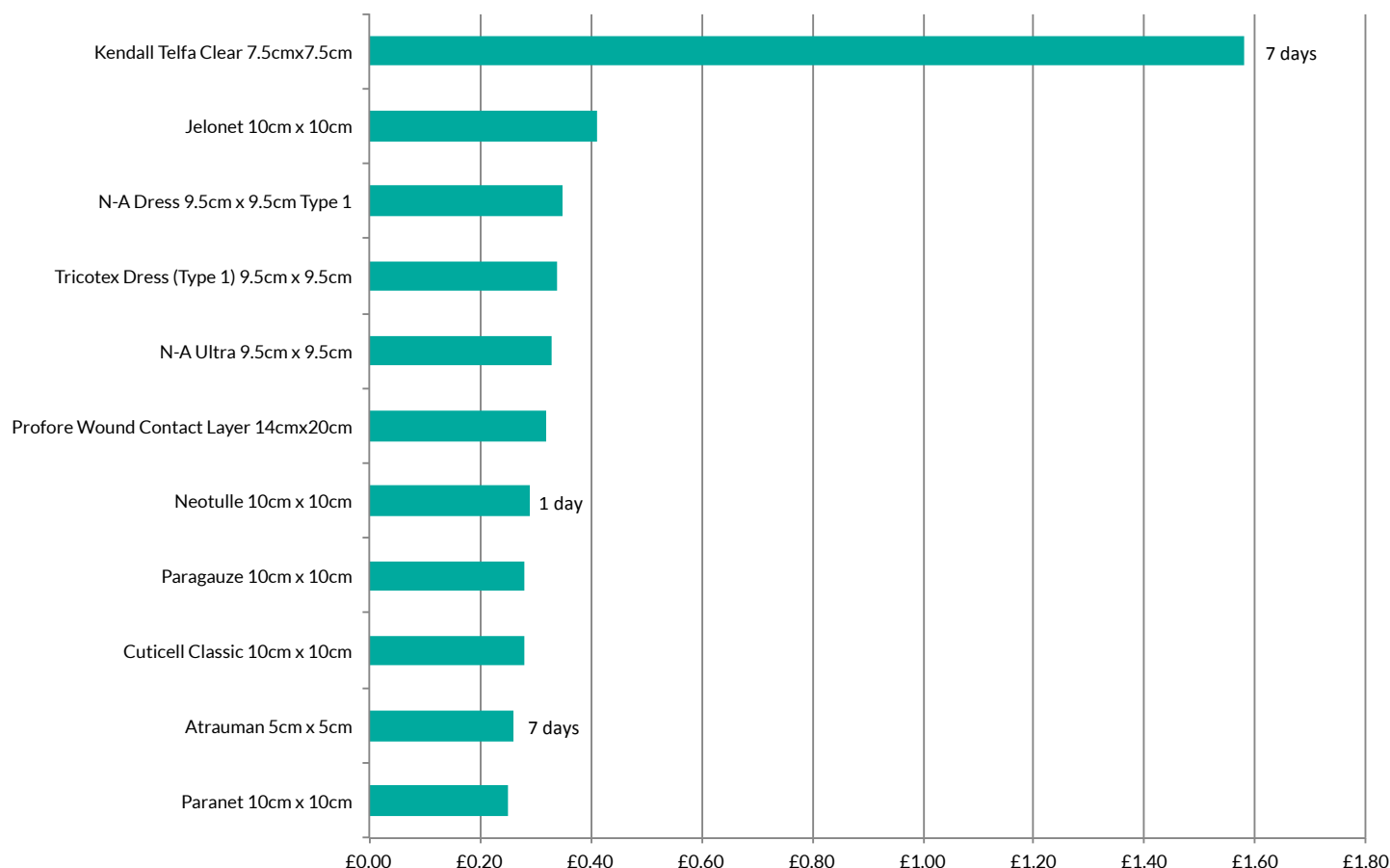
**Figure 1. Soft polymer dressings without absorbent pad**



B128. Soft polymer dressings 2.1

Figure 2. Soft polymer dressings with absorbent pad



**Figure 3. Other contact dressings (non-soft polymer, low-adherence dressings)**

## Savings

In England and Wales, over £39.7 million is spent per year on dressings in the BNF category of soft polymers (ePACT Aug - Oct 2015). Many soft polymer dressings have a long wear time, however a significant proportion of prescriptions are for more than ten items. It seems likely that significant savings could be achieved by ensuring soft polymer dressings are not changed more frequently than clinically necessary, and by reducing the amount supplied to the minimum that meets the patient's needs.

Savings may also be achieved by selecting the least costly dressing option that is suitable for the patient and their wound. Local wound formularies can support this.

Data on spend for dressings supplied through direct procurement are not readily available so cannot be included in the potential savings figures.

**Table 1. Potential national cost savings for soft polymer dressings supplied via FP10 (ePACT Sept 2014)**

Average percentage prescriptions for more than ten soft polymer dressings	35% (range 0% to 82%)
Annual savings if 50 <sup>th</sup> percentile of cost reached by all currently above it	£4,416,705 (England only)
Annual savings if 10 <sup>th</sup> percentile of cost reached by all currently above it	£26,708,641 (England only)
Annual savings for a 50% reduction in prescribing	£19,884,748 (England and Wales)

## Summary

- Soft polymer dressings have a role in preventing pain and trauma to the wound bed on dressing changes, by virtue of being non or gently adherent. Absorbency can be added with a secondary dressing or by using a combination product, which makes this a versatile group of dressings with a wide range of potential applications. Soft polymer dressings can be costly, particularly if frequent dressing changes are needed, so they should only be used where they provide additional benefit for the patient and their wound, and the prescribing of large quantities should not go unchecked.

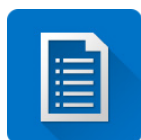
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## Additional PrescQIPP resources



Briefing



Data pack

Available here: <https://www.prescqipp.info/resources/viewcategory/450-wound-care-soft-polymer-dressings>

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