valuation of Acti-Wrap: a new cohesive retention bandage
Kate Fraser

Retention bandages have always been a useful support in wound care and have traditionally been used to retain adherent dressings where adhesive tapes cause mechanical damage or sensitivities. Finnie (2002) recommended simple gauze patients with mixed aetiology and significant arterial disease where compression therapy is inappropriate. It was suggested that simple bandaging could warm and protect a limb. Other include keeping emollients in place as a moisturising regime and preventing venous lines and devices, e.g. splints, being dislodged.

Like compression bandages, retention bandages are lightweight, conforming bandages with little elasticity (Baxter and J, 2001) and are a valuable product in wound care as an inexpensive method of retaining dressings in place. However, the amount of stretch in the bandages makes them difficult to apply to certain areas of the body. Human appearance is asymmetrical, and bandages are applied to legs, arms and shoulders, all of which are irregularly shaped. This leads to difficulty when bandaging as there is a potential for the bandage on the area to slide down to the smaller area, sometimes creating a dangerous tourniquet.

Abstract
Retention bandages are designed to keep dressings, devices and creams in place without causing discomfort to the patient. They should be light-weight, soft and conformable and should not cause unwanted compression. Acti-Wrap retention bandage (Activa Healthcare) is a new, conforming bandage which is easy to apply and because of its cohesive nature stays in place. This product focus looks at the ways in which the bandage can be used effectively and the cost-effectiveness of using this type of bandage. The simple evaluation described in this article compares Acti-Wrap with two other frequently used retention bandages.

To avoid this from happening, the ideal retention bandage will be soft and comfortable, with edges that are not firmer than the bandage itself. Hard or 'firm' bandage edges may cause discomfort or trauma if oedema occurs and the bandage becomes tight. The ideal bandage will also conform to the shape of the area requiring bandaging. Without this conformability, a bandage will look untidy and will fall away and expose the dressing.

To help overcome the problem of slippage and difficult bandaging, there is a new cohesive retention bandage from Activa Healthcare called Acti-Wrap (Figures 1 and 2), which is available on prescription, and is a simple, soft and conformable bandage with equally soft edges that will not cause dangerous constrictions. The cohesive feature of this

Figure 1. Acti-Wrap cohesive retention bandage.

Figure 2. Acti-Wrap applied on a leg.

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A cohesive bandage makes securing the device easier and allows greater comfort for the patient. Although tubular bandages are usually used to maximize the action of emollient creams, in the case of atopic eczema, there may be occasions where a cohesive flat bandage may be preferred.

Table 1. Evaluation comparing Acti-Wrap with two other retention bandages

<table>
<thead>
<tr>
<th></th>
<th>Silky</th>
<th>K-Band</th>
<th>Acti-Wrap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used with no cream</td>
<td>Become creased and dug into the joints as the bulk formed in active areas (elbows, knees),</td>
<td>Slipped off upper limb, collecting around the lower joints within 2 hours 10 minutes. Completely off in 2 hours 18 minutes,</td>
<td>Stayed in place, the one-layer application meant that it did not gather in Mark’s elbow or knee creases.</td>
</tr>
<tr>
<td>Used with aqueous cream</td>
<td>Absorbed the cream. Stayed in place but became racked and untidy.</td>
<td>Became wet from the cream but stayed in place. Mark complained of feeling ‘wet’.</td>
<td>Did not absorb cream, and stayed in place. Did not lose cohesiveness when in contact with the cream.</td>
</tr>
<tr>
<td>Used with paraffin-based ointment</td>
<td>Difficult to secure with tape as tape lost effectiveness when in contact with the cream.</td>
<td>Stayed in place. The bandage had to be reapplied in double layers but there were no other problems identified.</td>
<td>Did not absorb paraffin and stayed in place. Did not lose cohesiveness when in contact with the cream.</td>
</tr>
<tr>
<td>When used on trunk of body</td>
<td>Slipped within 1 hour.</td>
<td>Slipped as being applied. Difficult to secure without help. Rolled down within 4 hours.</td>
<td>The cohesive nature of Acti-Wrap meant it did not slip during application. One layer was adequate.</td>
</tr>
<tr>
<td>General comment</td>
<td>Bandage was reapplied three times.</td>
<td>Stretcht out of shape and was difficult to reapply. Three new bandages used.</td>
<td>No cohesive tape required. Stayed in place for 6 hours. Reapplied with no loss of elasticity or cohesiveness. Stayed neat and tidy.</td>
</tr>
<tr>
<td>Overall cost</td>
<td>57 pence x 1 bandage (7.5 cm wide) = 57 pence</td>
<td>43 pence x 3 bandages (7 cm wide) = 69 pence</td>
<td>57 pence x half bandage (8 cm wide) = 28 pence</td>
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evaluation shows how Acti-Wrap cohesive retention bandages were used on a very active toddler to keep the emollients in place and to stop him from scratching.

MARK'S EVALUATION

Mark is a 3-year-old boy who has had eczema almost since birth. The condition ranges from mildly irritating to very distressing, and the use of appropriate emollients is the mainstay of his treatment. He is a very active child and the application of treatment requires patience and the use of products that will stay in place during everyday activities.

Three different retention bandages were tried for this evaluation:
- Slinky (SSL International)
- Acti-Wrap (Activa Healthcare)
- K-Band (Parema).

Mark had the bandages applied from joint to joint on his arms, legs and trunk, and when adhesive tape was required (with the Slinky and K-Band bandages) they were secured with Transpore (3M Healthcare).

During the evaluation Mark generally dressed himself in a soft tracksuit. Over a 6-hour period, he would go to the park and play on swings and climbing frame. His usual activities included dancing to pop programmes, playing football and shopping. The results of Mark's activities on the three bandages are found in Table 1, showing that Acti-Wrap was the most efficient bandage in that it stayed in place and did not need reaplication.

This was a simple and subjective evaluation, showing that many factors need to be considered when choosing a bandage and that single unit cost alone can be misleading.

DISCUSSION

When selecting any treatment, cost should not be the only consideration. Patient comfort, ease of application and effectiveness all have an important role to play in the selection process. All too often cost is the deciding factor for many purchasers. Therefore, before recommending a product for purchase, the nurse must consider effectiveness and cost.

Acti-Wrap is easily applied, requires less length of bandage and stays in place for longer periods, as this small evaluation suggests. Acti-Wrap is a cost-effective method of retaining dressings, reducing the time taken to apply and reapply bandages, and the additional cost of adhesive tapes and new primary dressings which may have to be dislodged.

Acti-Wrap bandages can be obtained on prescription and are available as 4 m lengths in three widths: 6 cm, 8 cm, and 10 cm. If a narrower bandage is required, it can be cut lengthwise without fraying. As a result of the cohesive nature of the bandage, it can be applied firmly in a straight spiral. The degree of overlap is not important and most nurses would use a 50% overlap to allow the bandage to conform to the area to be treated. Bandages can also be applied in a figure of eight, which can be more comfortable on the larger limb. Whatever method is used, it is always good practice to apply the bandage with the barrel of the roll uppermost to facilitate smooth application.

As with all retention bandages, Acti-Wrap should not be applied too tight. When used on the legs it should be applied from toe to knee. This prevents a tourniquet effect occurring with oedema present above and below the bandage as this type of bandage is not designed to be used as a compression bandage. Care should be taken when treating patients with a latex allergy or sensitivity as the bandage contains latex.

To ensure that nurses are aware of the potential problems of inadequate bandaging, education in the skills of bandaging is essential:

'Simple bandaging techniques once constituted a significant part of nurse training but now seems to be given little priority in the nursing curriculum' (Baxter and Ballard, 2001).

Activa Healthcare is aware of this reality and offers education for all nurses in bandaging techniques, including retention and compression bandages as well as measuring and fitting compression hosiery. This education will ensure that the skill of bandaging will not be lost to nursing.

CONCLUSION

Acti-Wrap cohesive retention bandage is a useful and cost-effective addition to any wound care formulary as well as providing a comfortable alternative for the patient.
