

# The Angior trial: community nurse perceptions of wound best practice initiatives

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## Abstract

A survey of nurses from two community nursing services in two Australian States was undertaken to examine the experiences of being involved in a randomised controlled trial (RCT) using the trial intervention of two antimicrobial wound dressings – cadexomer iodine and nano-crystalline silver. The experience of using multi-layer compression bandaging as well as the impact of providing all these wound products at no cost to the client was also considered. Nurses rated the performance of the antimicrobials and compression bandaging for a number of dimensions and provided additional free text comments. Nurses at one study site answered additional questions regarding the impact of the provision of funding, sourced during the trial to provide wound products at no charge to participants who usually pay for their products.

The data were analysed using chi-square tests for independence. Both products were rated by nurses as performing well. Acticoat [Smith & Nephew] was rated as performing better than Iodosorb [Smith & Nephew] for maintaining the integrity of the peri-wound skin, the management of wound odour and obtaining bacterial balance. However, Acticoat was not as highly regarded by nurses compared to Iodosorb for its ability to manage wound exudate. Ratings of the acceptability of compression bandaging were high overall, particularly for its capacity to manage oedema and in avoiding trauma to the wound bed during removal. The findings also suggest that cost is a substantial barrier to the provision of best practice compression bandaging among persons who ordinarily pay for these products themselves.

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## Introduction

In 2006, two large community nursing services, one in Victoria and one in Western Australia, commenced a randomised controlled trial (RCT) to compare the effectiveness of two antimicrobials—a silver-impregnated nano-crystalline dressing and a cadexomer iodine dressing – in the management of infected or critically colonised lower leg ulcers.

The RCT was funded by the Angior Family Foundation. At the Victorian site, wound dressing and compression bandaging products were further funded by a foundation associated with the participating organisation. As wound products are provided free to the client as part of the nursing service in the Western Australian context, no additional funding was required to cover that aspect of the trial there.

To complement the findings of this RCT, surveys were undertaken with both the clients and the primary nurses involved ascertaining their perceptions regarding the acceptability of the two antimicrobial treatments and compression bandaging. It is valuable to understand both client and nurse experiences in order that they may explain or complement the main analyses or inform the application of the clinical findings from the RCT. This paper presents the findings for the primary nurse survey.

## Method

The RCT commenced in March 2006 and was completed in May 2007. A total of 180 clients at the Victorian site and 101 clients at the Western Australian site were recruited to the trial by teams of nurses at each of the 14 bases or centres implementing the trial. Once recruitment was completed in early 2007, team leaders at each of the 14 sites assisted with development of a list of staff who had the most involvement with study participants and therefore the most exposure to the antimicrobials and the compression therapy. These staff members were posted a primary nurse questionnaire in January and February 2007. The questionnaire was accompanied by a brief letter of explanation and a reply paid envelope. Respondents were anonymous. Any forms received after the cut-off date (March 2007) were excluded from the analysis.

Identical questions rating the performance of both antimicrobials and compression bandaging were used at both sites. As the RCT enabled payment for best practice wound products at the Victorian site which normally would need to be paid for via other means – frequently at the client's own expense – some additional questions were included at this site to explore nurses' perceptions of the impact the trial had by paying for compression bandaging.

All forms were data entered and analysis was conducted using SPSS V15.0. Chi-square tests for independence were performed to compare ratings of the two antimicrobials on like dimensions. When the data are presented as a two by two table, the Yates' Correction for Continuity has been reported, otherwise the Pearson's r coefficient has been reported.

## Results

At the Victorian site, 45 forms were distributed, with 30 returned for a response rate of 67%. At the Western Australia site, 15 forms were distributed, with 14 returned for a response rate of 93%. The overall response rate was 73% for a total sample of 44 clinicians. Responses to each question are presented. Data are presented in aggregate form across both study sites.

### Antimicrobials

Clinicians rated both the Iodosorb (cadexomer iodine dressing) and Acticoat (nano-crystalline silver dressing) products used in the trial. Rating was on a scale of 1-4 where 1='very poor', 2='poor', 3='good', 4='very good'. The percentages of nurses who gave a rating for each of the dimensions are provided in Table 1.

Overall, nurses rated the acceptability of Iodosorb as 'good' (63.6%) and 'very good' (36.4%) compared to marginally

higher satisfaction among nurses with Acticoat which was regarded as 'good' (54.8%) and 'very good' (45.2%). The difference between the two antimicrobials, in the esteem of clinicians, was not significantly different [ $\chi^2(1)=3.084$ ,  $p=0.079$ ].

There were four dimensions on which the nurses rated the antimicrobials as being significantly different, namely effectiveness in:

- Managing the wound exudate [ $\chi^2(6)=18.966$ ,  $p<0.01$ ]
- Maintaining the integrity of the peri-wound skin [ $\chi^2(4)=11.550$ ,  $p<0.05$ ]
- Managing the wound odour  $\chi^2(4)=23.010$ ,  $p<0.001$ ]
- Obtaining/maintaining bacterial balance [ $\chi^2(2)=8.321$ ,  $p<0.05$ ].

In most instances, the assumption of a minimum cell size frequency was not met, and indeed the less conservative gauge that at least 80% of cells should have a minimum size of five was also violated for some dimensions, suggesting the need for caution when interpreting these findings.

### *Managing the wound exudate*

When the distribution of responses was considered for the dimension of effectiveness in the management of wound exudate, though both products were rated positively by nurses, Acticoat had a slightly higher distribution of 'poor' and 'very poor' responses compared to Iodosorb. Indeed, while 11.4% of nurses rated Iodosorb as 'poor', none considered it 'very poor', Acticoat was rated by 16.7% of nurses as 'poor' and one nurse rated it as 'very poor' (2.4%). Therefore, though both products were generally well regarded in their capacity to manage wound exudate, greater reservation was expressed regarding the performance of Acticoat and better performance reported for Iodosorb on this dimension.

### *Maintaining the integrity of the peri-wound skin*

When the distribution of responses is considered for the dimension of maintaining the integrity of the peri-wound skin, though both products were rated by the vast proportion of nurses as 'good', it was the allocation of 'very good' ratings which contrasted Acticoat from Iodosorb. Nurses rated Acticoat's ability to maintain the integrity of the peri-wound skin as 'good' (59.5%) and 'very good' (31.0%) compared to more moderately positive ratings of 'good' (65.9%) and 'very good' (22.7%) for Iodosorb.

### *Managing the wound odour*

Though the dimension of management of wound odour was identified as having a significantly different distribution pattern between the products, the differences are less striking

when considering the percentage responses. Both products were rated by the majority of nurses as 'good' (61.0% Iodosorb; 59.0% Acticoat). Acticoat was rated as having slightly fewer 'poor' ratings and slightly more 'very good' ratings compared to Iodosorb, suggesting that nurses consider Acticoat to have slightly better performance on this dimension than Iodosorb.

#### Obtaining/maintaining bacterial balance

The final dimension on which acceptability ratings of the products differed significantly was for the ability of the products to obtain/maintain bacterial balance. Acticoat received more positive ratings than Iodosorb on this dimension, with a large proportion of 'good' (54.8%) and 'very good' (45.2%) ratings. Iodosorb, on the other hand, was rated by the majority as 'good' (68.2%) and received fewer 'very good' (27.3%) and even some 'poor' ratings (4.5%).

#### Comments

Verbatim comments regarding the products tended to emphasise the strengths and weaknesses of Acticoat rather than Iodosorb. Comments were similar across sites. The questionable ability for Acticoat to manage exudate and a tendency for Acticoat to dry out, potentially causing difficulty and pain when removing the dressing, was its major detractor.

*"Acticoat tends to stick if the exudate isn't high and then if the exudate is high, Acticoat 3 does not absorb".*

*"Acticoat Absorbant is a far superior dressing to Acticoat 3 which dries out, adheres to wounds, and has a tendency to increase pain at the wound site".*

*"Acticoat was inclined to dry out when using the 7 day and creates a 'scab-like' effect on the wound".*

Nurses also felt there was greater variety in the Acticoat range to select from – and get right – compared to Iodosorb and this also made it difficult to rate Acticoat as a generic product:

*"It is difficult to rate Acticoat as the Absorbant and sheet have very a difference performance".*

Residual staining was also an issue noted by some nurses for Acticoat. Also in favour of Acticoat was the suggestion that it was "more comfortable", was "more effective for infected wounds", and it was regarded by nurses as having fewer allergy or sensitivity issues than did Iodosorb – "Clients complain more of stinging with Iodosorb". There was a suggestion that "Iodosorb can be difficult to apply as the powder scatters". Wound size was also noted as a factor but was linked again to the level of wound exudate – "Iodosorb is better for smaller wounds with less exudate".

Table 1. Nurse ratings of antimicrobial products.

Rating categories	Iodosorb	Acticoat
<b>Ease of application</b>		
• Very good	18.2	64.3
• Good	61.4	33.3
• Poor	20.5	2.4
• Very poor	–	–
<b>Capacity to maintain a moist wound healing environment</b>		
• Very good	43.2	11.9
• Good	54.5	54.8
• Poor	2.3	31.0
• Very poor	–	2.4
<b>Effectiveness in management of wound exudate</b>		
• Very good	22.7	26.2
• Good	65.9	54.8
• Poor	11.4	16.7
• Very poor	–	2.4
<b>Maintaining integrity of the peri-wound skin</b>		
• Very good	22.7	31.0
• Good	65.9	59.5
• Poor	11.4	9.5
• Very poor	–	–
<b>Ease with which product residue can be removed</b>		
• Very good	20.5	9.5
• Good	54.5	57.1
• Poor	25.0	31.0
• Very poor	–	2.4
<b>Ease of removing without causing trauma to the wound bed</b>		
• Very good	29.5	14.3
• Good	59.1	54.8
• Poor	11.4	31.0
• Very poor	–	–
<b>Management of wound odour</b>		
• Very good	22.0	25.6
• Good	61.0	59.0
• Poor	17.1	15.4
• Very poor	–	–
<b>Obtaining/maintaining bacterial balance</b>		
• Very good	27.3	45.2
• Good	68.2	54.8
• Poor	4.5	–
• Very poor	–	–
<b>Overall acceptability of the treatment</b>		
• Very good	36.4	45.2
• Good	63.6	54.8
• Poor	–	–
• Very poor	–	–

Note: The values represent the percentages of rating categories selected by nurses for each of the product performance dimensions.

## Compression bandaging

Following comprehensive assessment and confirmation of wound diagnosis, the majority of the wounds in the trial were found to be venous leg ulcers; four layer compression bandaging was deemed appropriate. Clinicians were asked to complete the compression bandaging questions considering only the performance of the four layer system (as contrasted to the three layer system frequently applied to wounds with a mixed venous-arterial aetiology).

Rating used a scale of 1-4 where 1='very poor', 2='poor', 3='good', 4='very good'. Typically compression bandaging was rated positively by clinicians, with most dimensions of the bandaging rated by more than half as 'good' (Table 2). Compression bandaging was rated as 'very good' by 88.6% of the nurses for its effectiveness in managing oedema and 65.9% for its ease of removing without causing trauma to the wound bed. The effectiveness of compression bandaging to manage client pain related to the wound or leg was the area where compression bandaging received the highest proportion of negative ratings, with one quarter (25.0%) rating performance here as 'poor', though the majority felt performance was 'good' (61.4%) to 'very good' (13.6%). Overall, nurses considered the performance of compression bandaging to be 'good' (44.2%) to 'very good' (41.9%). Only a few nurses rated compression bandaging as 'poor' (11.6%) or 'very poor' (2.3%).

### Comments

Verbatim comments focused on barriers or problems in the use of compression bandaging. Many comments were associated with the fourth layer, the cohesive bandage.

Some of the specific clinical or nurse-related barriers included the difficulty removing the fourth layer, that the fourth layer was "near impossible" to apply to people with large calves and small ankles, and that incorrect application can be constricting and "cause trauma along the shin when the client mobilises". While the view that the fourth layer could cause the bandaging to fall down was expressed, the opposite was also noted, that this layer kept the bandaging in place. Finally, compression bandaging was said to cause trauma to the peri-wound due to the "ridging" caused by the application of multiple layers.

There was a general request for more education pertaining to compression bandaging, the point being made that a comprehensive clinical assessment was critical in determining the appropriateness of compression bandaging as opposed to solely relying upon Ankle Brachial Pressure Index results. It was reported that continuity of nursing care contributed to bandaging being applied in a consistent manner.

Table 2. Nurse ratings of compression bandaging.

Rating categories	Compression bandaging
<b>Ease of application</b>	
• Very good	40.9
• Good	54.5
• Poor	4.5
• Very poor	–
<b>Capacity to stay in place for the recommended duration</b>	
• Very good	43.2
• Good	54.5
• Poor	–
• Very poor	2.3
<b>Ease of removal generally</b>	
• Very good	38.6
• Good	52.3
• Poor	9.1
• Very poor	–
<b>Ease of removing without causing trauma to the wound bed</b>	
• Very good	65.9
• Good	34.1
• Poor	–
• Very poor	–
<b>Assistance with the management of wound exudate</b>	
• Very good	54.5
• Good	40.9
• Poor	4.5
• Very poor	–
<b>Effectiveness in the management of oedema</b>	
• Very good	88.6
• Good	11.4
• Poor	–
• Very poor	–
<b>Effectiveness to manage client pain related to the wound or leg</b>	
• Very good	13.6
• Good	61.4
• Poor	25.0
• Very poor	–
<b>Overall acceptability of the treatment</b>	
• Very good	41.9
• Good	44.2
• Poor	11.6
• Very poor	2.3

Note: The values represent the percentages of rating categories selected by nurses for each of the product performance dimensions.

Many of the perceived client-related barriers to wearing compression bandaging were also expressed in relation to the fourth cohesive layer. Thickness was considered a principle barrier, with the fourth layer often making the system too bulky, impacting on the ability to wear usual footwear and influencing pain and comfort. Heat associated with bandaging was also noted and it was reported that client acceptance of bandaging was better during winter because heat and sweaty legs were less of a concern to the client.

Cost of bandaging was a barrier which was eliminated during the trial; it was frequently suggested to have led to improved utilisation of multi-layer bandaging and improved client adherence to care planning in the Victorian context.

*“People mostly rejected the bandaging as it was too bulky and (they) could not get their shoes on. Most of my clients tend to wear Tubigrips (SSL) because of the above [reasons]”.*

*“Compression bandaging was effective for healing time with wounds that were slow healing. The level of compression and number of bandages able to be used was greatly enhanced when clients did not have to pay for expenses themselves”.*

The need to use strategy to get clients to wear compression bandaging was highlighted – “It’s very hard to persuade most clients to wear all four layers”. Achieving good healing outcomes was noted as an enabler to compression bandaging.

*“Good compliance with bandaging [was achieved] when clients see the results of continuous compression”.*

*“When the wounds responded to the treatment (the bandages) and stayed in place, they [clients] were more accepting”.*

One nurse noted that the understanding and acceptance of compression bandaging by other health professionals was variable and influenced how readily bandaging was accepted by the client.

*“Compression is a good effective treatment. The only problems are clients’ tolerance and the health professional’s acceptance of its use and technique of application (level of stretch/ tightness)”.*

More positive comments about compression bandaging, its benefits and client adherence, were noted at the Victorian study. The provision of free to the client compression bandaging in this study is thought to have led to more widespread use of four layer therapy than experienced when clients must pay these costs themselves. At this site, funding from a philanthropic trust (henceforth referred to as ‘trust funding’) can be sourced to provide free compression bandaging to clients. However, the process for obtaining this funding is problematic for nurses as application is required frequently and the associated paperwork may be burdensome. This was reported as a barrier to implementing best practice compression therapy:

*“Trust funding applications are not declined if applying for two weeks supply at a time. Therefore, [you] need to reapply frequently which adds extra paperwork”.*

With bandaging provided at no cost to the client in the trial, tolerance of compression bandaging was perceived to be higher and clinical outcomes were regarded as vastly improved as a result of the use of compression bandaging:

*“I found the 4 layer bandaging extremely effective and well tolerated”.*

*“I found the bandaging to be extremely useful in the healing of the wounds and am considering using it more in my normal practice. Thank you for the experience”.*

### Impact of product funding at the Victorian site

Nurses at the Victorian study site were asked if they considered that the provision of compression bandaging at no charge in the trial had improved adherence with compression bandaging and impacted on wound healing. Almost all nurses (96.7%) indicated that compression bandaging being at no cost to the client had improved both adherence and healing. Only one of the 30 nurses responded differently.

The Victorian nurses were also asked about their experiences of seeking funding for compression bandaging outside the clinical trial environment. Clinicians were asked to estimate the proportion of clients they would see who they believe would not get the optimal compression bandaging therapy for the entire treatment time because they could not afford to buy the products. Responses ranged from 5-100% with a mean estimate of 59%. That is, nurses estimated that nearly six in ten clients may not receive optimal compression therapy during their episode of care because they cannot afford to pay for the compression bandaging products.

Clinicians were also asked to estimate the proportion of clients they see who have an application for trust funding submitted to assist with payment of compression bandaging and the proportion of these applications that are declined. Again the reported range of clients for whom a trust funding application is submitted varied greatly from 0-95%. The mean proportion of clients who would have at least one trust funding application submitted was 39%, or nearly four in ten clients. Note there are no restrictions on the number of submissions which may be made for the one client. Less than 1% of applications for trust funding for compression bandaging were declined, with the vast proportion of nurses (96.3%) reporting that applications for compression bandaging are never declined. The reasons, therefore, that there are not more applications for funding for compression bandaging needs exploration, and the impact of the suggested constraints to requesting funding requires further consideration.

## Discussion

The majority of nurses rated the Iodosorb (cadexomer iodine dressing) and Acticoat (nano-crystalline silver dressing) products positively on all dimensions. The acceptability of both products was good. This result is perhaps not surprising as both antimicrobials are commonly used in the treatment of wounds and in particular the treatment of lower leg ulcers which show signs of infection or critical colonisation. It would be reasonable to suggest that any major problems with either product would have by now been identified and addressed by the manufacturer or, if not, one product would have gained favour over the other.

In this study both products were generally perceived as being equivalent in regards to acceptability and use. Acticoat was rated more positively than Iodosorb in terms of its capacity to maintain the integrity of the peri-wound skin, the management of wound odour, and ability to maintain bacterial balance. The results of the RCT will provide the strongest evidence as to whether one of the antimicrobials achieves more effective bacterial balance.

Iodosorb, on the other hand, received more positive ratings for its capacity to manage wound exudate. Verbatim comments and the greater number of 'poor' ratings for this dimension do suggest that Acticoat presents some challenges in exudate management. Exudate management is associated with the quantity and viscosity of wound exudate, both of which were not measured in this survey. This finding requires further investigation and will also be informed by the evidence emerging from the RCT.

Verbatim comments also indicated that, because there was variability in the structure and function of the different Acticoat products (Acticoat 3 day, Acticoat 7 day and Acticoat Absorbent), it was difficult to make a generalised rating for Acticoat as required by the survey. This variability suggests that education regarding the selection of products within the Acticoat range would assist staff to make the best choice for the presenting wound. Though the majority of comments received related to the use of Acticoat, Iodosorb was mentioned with respect to some pain or discomfort some clients had in response to its application.

Ratings of the acceptability of the four layer compression bandaging system were high, particularly for its capacity to manage oedema and in avoiding trauma to the wound bed during removal. Compression bandaging received lower ratings in regard to managing leg pain, although it is important to note that pain management is not usually the primary focus when commencing compression therapy. Verbatim comments centred on problems associated with

the cohesive layer of the compression bandaging. Comments differed between the two sites, with those from nurses at the Victorian study site strongly and positively influenced by the increased use of compression therapy in an environment where the products were given to clients at no cost when they would normally need to buy their own. There was no change to the provision of products in Western Australia (from the participants' perspective) which likely accounts for these differences between the two sites. The fourth layer of bandaging was said to present difficulties when removing, was difficult to apply in some circumstances, and had the potential to cause trauma if inappropriately applied.

Client-related barriers included that the fourth layer made the bandages too bulky which impacted on the ability to accommodate footwear, and could cause discomfort and pain. These barriers to compression bandaging are consistent with the findings from qualitative research studies specifically investigating these issues<sup>1,2</sup>.

With cost eliminated as a barrier to Victorian participants of the RCT, adherence to compression therapy care planning was said to improve, nurse experience grew and nurse satisfaction with using the multi-layer bandaging increased. It was also suggested that a positive healing experience which occurred with the compression bandaging led to ongoing client adherence.

The impact of product funding was explored in more detail with nurses from the Victorian site for whom the funding environment had temporarily changed. The overwhelming majority reported that the provision of free compression bandaging in the study had improved client adherence with care planning which had improved wound healing. Nurses further estimated that nearly six in ten clients would not receive optimal compression therapy for their entire treatment time because they cannot afford the bandages.

The significance of this result is substantial given the current funding situation in Victoria where clients pay for their own bandaging. Feedback from nurses suggests that, on account of this expense, clients often choose cheaper bandages offering sub-optimal compression. Clients may choose to go without compression altogether in some instances.

Nurses can apply for short term 'special' funding to cover the cost of dressings and compression bandages. However, the need to ensure equitable distribution and sustainability of these funds has resulted in a process that potentially limits the number of applications received. This in turn is said to generate excessive paperwork, a reason quoted by one nurse as mitigating against the use of these funds. Of note in this context is the nurses' comment that applications for



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compression bandaging funding are almost never declined, yet the same group of nurses estimated that only four in ten clients received trust funding while six out of every ten clients do not receive best practice care because they cannot afford to pay for the best products. The gap between what is required and what is sought is evident and now a focus of further investigation at this site.

The provision of graduated compression bandaging, and in particular the effectiveness of multi-layered systems, has been established as the gold standard treatment in the management of venous leg ulcers<sup>3</sup>. Given that many client barriers to using compression already abound, the capacity to eliminate one major barrier to its use – cost – must be explored to the full. The establishment of a trust fund has helped many clients; however, as yet it hasn't ensured all clients receive best practice care for their leg ulcers for the duration of their episode. Though such funds clearly need to be managed according to strict eligibility criteria to ensure their appropriate allocation, these criteria need to be applied in ways that are not burdensome to the nurse nor of detriment to the management of the client.

A comprehensive cost benefit argument for the provision of government funding to support four layer compression bandaging (and indeed best practice wound products) for all Victorians to treat their venous leg ulcers needs to be developed as a matter of urgency. This will further support the growing body of evidence which suggests that access to appropriate wound management products leads to faster healing and more cost effective interventions.

### Study limitations

The small sample size in this study can be considered to be its major limitation. Though the high survey response rate ensured the sample was excellent representation of the population of nurses involved in the antimicrobial RCT at both trial sites, the absolute numbers were small and represented only two community nursing services.

Pre-trial experience with the trial products has been noted by some respondents to be a factor which may have influenced nurses' responses to the questionnaire. At the Victorian nursing service both products have been widely used by staff. Survey responses from the Western Australia nursing service came from a group of staff for whom the Iodine dressing was the only freely funded antimicrobial product available prior to the trial. This may have meant that these nurses were potentially more familiar with this product and had less experience with the silver dressing. As such, nurses' judgements of each product may well be based on quite different levels of exposure to the two antimicrobials.

## Conclusion

This research has provided insight as to the experience of nurses using cadexomer iodine and nano-crystalline silver antimicrobial dressings and compression bandaging as part of a clinical trial. There were only a few performance issues for which nurses rated one product as out-performing the other. Acticoat was seen to out-perform Iodosorb in maintaining the integrity of the peri-wound skin, the management of wound odour, and obtaining bacterial balance. Iodosorb was more highly regarded by nurses for its ability to manage wound exudate. Overall, the products were highly regarded and few barriers to their use were identified in this study.

These findings may be considered as potential areas for product improvement and may also be taken into account by the clinician when selecting an antimicrobial dressing for a particular wound. It is expected that the results of the RCT which consider a range of factors including bacterial balance will also inform such decision making.

Nurse ratings of four layer compression bandaging were also high, though a greater variety of issues, primarily related to the application of the fourth layer of bandaging, were reported. A significant finding of this study which was evidenced in the Victorian context is the substantial barrier that cost represents to the provision of best practice compression bandaging.

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## References

1. Annells M, O'Neill J & Flowers C. Compression Bandaging in Venous Leg Ulcer Care: Community Nurses' Perspectives on Enablers and Constraints. RDNS Helen Macpherson Smith Institute of Community Health: Melbourne 2006.
2. Field H. Fear of the known? District nurses' practice of compression bandaging. *Wound Care* 2004; S6.
3. Callum N, Nelson EA, Fletcher AW & Sheldon TA. Compression for Venous Leg Ulcers. *The Cochrane Database of Systematic Reviews* 2000, the Cochrane Collaboration 2005; Issue 2.