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West Australian Wound Care Association Newsletter
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WEST AUSTRALIAN WOUND CARE ASSOCIATION

Newsletter

Edition No. 46

June 2002

COMING EVENTS

21-24 October

ANZBA 2002: Burns – The Challenge

The Sky City Conference Centre and Hotel, Auckland, New Zealand

E-mail: anzba@cmsl.co.nz

Website: www.cmsl.co.nz/anzba02

4-5 November

2002 Combined Infection Control and WAWCA Conference

Two Teams – One Goal: Scoring Better Outcomes

Burswood Resort

More details to follow as they become available

Disclaimer:- The opinions expressed by authors are their own and not necessarily those of the Editorial Board. The Board therefore accepts no responsibility for the accuracy of statements appearing herein.

PRESIDENT'S MESSAGE

Pam Morey • President WAWCA

This year it is important to reflect on the year past, and also recognise the upcoming 10 year anniversary of the West Australian Wound Care Association (WAWCA) being incorporated as an Association.

Since the inception of WAWCA, many practice changes have been observed; however, the role of the Association remains the same – to promote increased awareness, knowledge and the application of effective wound management. It has been the intent of the WAWCA committee to represent members and foster networking, education, research and liaison with other associations in order to enhance the quality of wound management.

In September last year, WAWCA joined with the Infection Control Association of Western Australia (ICAWA) to hold our first joint state conference – *A Joint Affair* at the Burswood Convention Centre. The conference was very successful with over 250 delegates attending, 28 trade booths and three sponsored interstate speakers including Tal Ellis, Lorna MacLellan and Donald MacLellan. It was unfortunate that a fourth speaker, Gary Lum, was unable to fly from Darwin due to an airline problem.

The local talent also contributed to a professional, informative and entertaining programme. Feedback was positive and delegates generally endorsed the concept of a combined conference. In view of this, and with committee support, planning for our next conference is well underway, with Anita Hornum chairing the conference committee. Members are reminded that the conference *Two Teams - One Goal: Scoring better outcomes* is scheduled for 4-5 November 2002 at the Burswood Convention Centre.

In December, WAWCA initiated a state launch for the Australian Wound Management Association's (AWMA) *Clinical Practice Guidelines for the Prediction and Prevention of Pressure Ulcers*. The guest speaker was Mr Michael Daube, Director General of Health in Western Australia, and key personnel were invited from nursing and medical faculties, public and private hospitals, professional associations, as well as the WA membership.

Mr Daube expressed strong support for the guidelines, which are evidence based, and now our challenge is to promote their implementation in the wide variety of health settings where they apply. It is important to acknowledge the role of West

Australian members: Linda Murray, Jenny Prentice, Keryln Carville and Michael Stacey who were on the AWMA Pressure Ulcer Interest Sub-committee and who had an active role in the development of the guidelines.

The WAWCA committee has been a little under resourced this year with some multiskilling subsequently occurring. Gratitude is extended to all committee members for their support this year, with particular thanks to Anita Hornum and Keryln Carville for taking on extra duties with Treasurer and Secretary positions. Jan Wright has continued as our Education Officer and has programmed four successful Clinical Updates. Anita Hornum has been our dedicated editor of the WAWCA newsletter and has been successful obtaining sponsorship of this and worked hard to recruit articles of interest.

Two of our committee continue to represent WA at a national level (AWMA) with Laurie Foley being the Allied Health representative and Keryln Carville being our State representative. We must also acknowledge the important role of other West Australian members, Jenny Prentice who is the current AWMA President and Editor of *Primary Intention* and Yvonne Vandongen who is the Web Master for the AWMA website.

Financially, the Association is presently well resourced, thanks to the success of the combined conference; however increases in capitation to AWMA may require some review of our fee structure to ensure future financial resilience.

Sponsorship from the Winifred Felle Education and Research Fund has supported members to attend and present at conferences both within Australia and overseas. Recipients include Maggie Phillipson, Sue Hoskin, Leigh Davies, Tian Yan Wu, Jenny Prentice and Sim Yeoh.

As President of WAWCA, I have been privileged to hold this position and acknowledge the foresight of the founding members who first put wound care on the West Australian map. These members included Jenny Prentice, Keryln Carville, Pam Thompson, Helen Cadwallader, Mary King, Anne Bailey, Madeline McPherson and Penny Tonkin. For the future of WAWCA, current members are encouraged to be involved and continue to espouse the objectives of the Association.

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AGM SUMMARY

The Clinical Update and AGM was well attended by WAWCA members and the formal part of the programme was completed quickly. The election of the executive committee for 2002-2003 took place and special thanks are extended to outgoing committee members – Eugen Mattes and Maggie Phillipson – for their contributions. A warm welcome also to new WAWCA committee members – Donna Angel, Joy Fong, Yvonne Vandongen and Michael Stacey. The committee was undermanned last year; however, there is now a full complement with all positions filled.

The new WAWCA Executive Committee members are:

President	Pam Morey
Vice President	Sue Hoskin
Secretary	Alison Stockley
Treasurer	Laurie Foley
Newsletter Editor	Anita Hornum
Education Officer	Jan Wright
Allied Health Representative	Laurie Foley
Medical Representative	Michael Stacey
Committee Members	Donna Angel Joy Fong Keryln Carville Margaret Armstrong Yvonne Vandongen

Whilst the Association currently has a healthy financial position, the increase in capitation fees to AWMA, allocation of education and research grants, and consideration of additional future costs, have led to a small increase in

membership fees. Current members should be aware that renewal fees will increase by \$5.00 to \$45.00.

The handover meeting will take place shortly, where planning for 2002-2003 will take place. Members are encouraged to contact any of their representatives if they have suggestions or wish to access any of the resources available.

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EDITOR'S NOTE

Anita Hornum • Clinical Nurse, Burns Unit, Princess Margaret Hospital for Children

Welcome to the June 2002 newsletter. A little behind schedule, however, I hope it makes for informative and enjoyable reading.

Included in this issue are two articles on practical bandaging. If any readers have hints and techniques that work well for you in your practice please consider submitting them for newsletter publication. Sharing ideas and experiences is a fantastic teaching tool.

The remainder of the year will be busy with conferences and clinical updates so be sure to mark all the important dates in your diaries. Plans for the second combined WAWCA and Infection Control Conference are well underway. All members should have received a call for abstracts brochure. The conference committee is currently working on programme development and has confirmed numerous interstate speakers. There will also be busy workshop sessions, with lots of practical 'hands on' participation

required. All details will be posted out as soon as possible. For further details please refer to the front page.

Plans for the last Clinical Update are under way and the focus will be on traumatic wounds and the resultant systemic effects. This is bound to be very informative and interesting so be sure to mark this date in your diaries.

Over the past few months the WAWCA committee have worked tirelessly on developing Standing Orders for the association. These are now complete and are available on request. The WAWCA AGM was held on 17 July. A brief report with the 2002/2003 committee members is printed above. The AGM was preceded by an interesting and informative Clinical Update on *Silver and its applications in wound care*.

I look forward to seeing members and colleagues at the November Conference and the December Clinical Update.

AUSTRALIAN WOUND MANAGEMENT ASSOCIATION WEBSITE
WWW.AWMA.COM.AU

BANDAGING BASICS

Alison Stockley RN • Fremantle Leg Ulcer Clinic

The most important role of compression therapy is the control of venous hypertension and the reduction of oedema by bandaging. Venous hypertension causes an increase in capillary filling, resulting in an increase in interstitial fluid known as oedema. The presence of oedema in a limb with venous ulceration indicates a failure to correct the underlying cause (venous hypertension). A reduction in oedema is known to increase healing rates.

There are two main types of bandages used to reduce the oedema associated with venous ulceration – long stretch and short stretch. Examples include Setapress (long stretch) and Comprilan (short stretch). These bandages exert pressure in different ways.

Long stretch bandages allow for expansion of the calf muscle during exercise, resulting in some of the extra pressure being absorbed into the bandage weave. They should not be fully stretched on application as excessive pressure can lead to bandage trauma to the underlying skin surface.

Short stretch bandages are applied at full stretch so that when the calf muscle is exercised, the bandage does not expand like the long stretch bandage and the working force of the calf muscle is directed back into the leg.

Long stretch bandages are useful for patients with large legs, especially those of the champagne bottle type. They contain cotton and other mixed fibres and are not always suitable for patients with multiple allergies. Some patients who cannot tolerate the tight feeling of short stretch bandages may be more compliant with a long stretch bandage.

Short stretch bandages are 100% cotton and can be the preferred option for patients in warmer climates.

Bandages are applied with the aim of reducing oedema by providing a measurable degree of compression from the ankle to the calf and below the knee. The average degree of compression required to reduce oedema is 40 mmHg at the ankle reducing to 25-30 mmHg at the calf.

A resting pressure is the term used to describe the force exerted on the leg by the bandage when the calf muscle is not working or at rest. When the calf muscle is exercised, a working pressure is exerted which gives a pulsating or massaging effect to the calf muscle, improving the venous return and reducing the oedema. Long stretch bandages provide a resting and working pressure, short stretch bandages provide a low resting pressure and a working pressure.

In the case of patients that have not been fully assessed for the cause of their ulceration, compression therapy should be used with caution. Patients with other presenting factors such as diabetes, cardiac problems, neuropathy of the limbs, connective tissue diseases and cold, dusky feet and toes should receive further investigation into the cause of their ulceration before considering compression bandage therapy.

If in doubt, do not apply compression; a crepe bandage will not offer compression but it should do no harm.

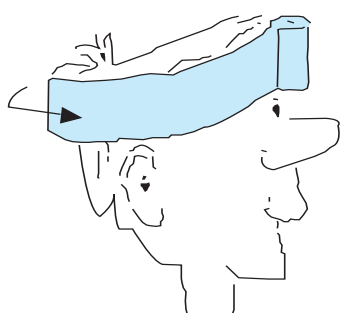
FURTHER READING

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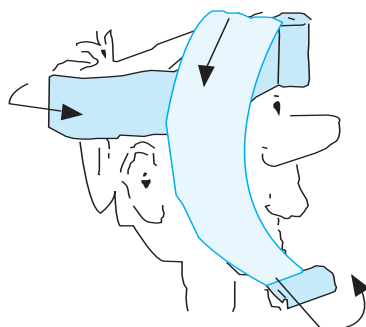
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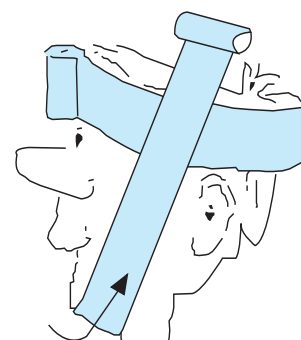
APPLYING AN OCCLUSIVE HEAD BANDAGE



1. Anchor bandage around forehead.



2. Bring around and under the chin.



3. Anchor under the chin.

- Ensure the bandage is applied so that the loops of the bandage cannot slip down and around the patient's neck.
- In very young children where the ear cartilage is still soft, and in patients with injuries to the ears, ensure the ears are well padded and supported to avoid unnecessary pressure.
- In patients with facial fractures, do not bandage in a direct line from jaw to occiput - see opposite.

COMPRESSION THERAPY FOR VASCULAR INDICATIONS

Compression therapy is regarded as the essential element in the management of vascular conditions, which include those related to chronic venous insufficiency (CVI), of which the most common manifestation is varicose veins. It is also indicated for ulcer prevention and recurrence, active leg ulceration, sclerotherapy, lymphoedema, prevention of deep vein thrombosis (DVT), DVT, superficial thrombophlebitis, prevention of post-thrombotic syndrome and pregnancy.

WHAT IS COMPRESSION?

The principle of graduated compression therapy is defined through Laplace's Law based on four primary factors: bandage tension, number of layers, width and ankle circumference¹. Compression values vary based on these four factors. In clinical practice a 'pressure gradient' is established when there is a higher pressure at the narrowest circumference i.e. the ankle and a lower pressure at the widest circumference i.e. the calf. Research suggests that a pressure of 40mmHg is required to facilitate healing in venous leg ulcers¹.

Compression provides external pressure to the skin and underlying structures. The aim is to reduce the abnormally high pressures in the superficial veins in the lower limbs preventing excessive venous distention and may improve the competence of the valves. As a result a decrease in oedema, increase deep venous blood flow velocity and prolonged venous refilling time are expected outcomes

COMPRESSION BANDAGES

Bandages deliver active or passive compression. Active compression uses elastic bandages and exerts pressure on the superficial veins both at rest and during exercise. Passive compression acts on the deep veins and only delivers force (pressure) when the calf muscle contracts (working pressure) which requires an active ankle. It is almost totally inactive during rest. Bandages are notably used in the management of

venous leg ulcers and compression has been shown to increase the healing rates of venous leg ulcers compared to no compression².

COMPRESSION HOSIERY

The effect of a compression stocking depends on the pressure or circumferential tension of the stocking (normally that exerted at the ankle), the pressure gradient determined by the limb circumference at different levels and the stiffness of the stocking³.

Manufacturers provide pressure ranges for each garment indicative of the pressure applied at the ankle. The clinical indication determines the required (ankle) pressure and the stocking style. The stiffness of the stocking refers to the increase in pressure of the stocking when the circumference of the limb increases due to oedema³ i.e. the higher the stiffness factor the greater the oedema protection. Patients should be supplied with the highest-grade stocking tolerated for the clinical condition.

Type of knit

Compression stockings are knitted fabric made from a basic stitch of interlocking loops of thread on either flat or circular knitting machines. Each loop uses an elastic thread (double coated elasthane) and passes through the preceding loop interlacing a row of loops in a repeated fashion. Different types of loops are used to give various types of knitted fabric and the loops are made with various types of stitches. The knitted fabric is naturally extensible because of the interlaced loop stitches.

Running horizontally through the loops is a heavyweight elastic thread (double coated elasthane) called the weft. The weft is essential to produce the strong pressure required for compression stockings⁴. Weft is not used in normal fashion stockings. All weft and loop thread contain Elasthane. This gives the stockings the elastic recoil producing a therapeutic compression force. The force of the recoil is essential to the principle behind compression therapy⁴.

Ready-to-wear or 'off-the-shelf' circular knit stockings are seamless and are manufactured in various standard sizes and pressures e.g. Relief. Circular knit stockings can also be custom made i.e. made-to-measure such as Elvarix, for unusually shaped limbs, tall or short patients and lymphoedema patients. These stockings by nature of the manufacturing process have a seam. Some manufacturers will include a zip for ease of donning the stocking although this is not usually recommended.

Flat knit fabric is also used for made-to-measure stockings in individuals with unusually shaped limbs and lymphoedema patients. Measurements are taken at various points along the leg whether it be a below or above knee stocking.

Classes

Compression bandages and hosiery are classed according to the amount of pressure applied at the narrowest circumference of the ankle correlated with the recommended clinical condition.

Classes vary between Europe and the UK. There are no international standards. To eliminate confusion, utilisation of the compressive value (mmHg), rather than the class, may give a more accurate guide to the most appropriate level of compression based on the underlying aetiology.

4. Anchor under the occiput and continue to follow the chin line or around the occiput depending on the area to be covered.



5		Airway complications may be precipitated or complicated by applying the bandage in this way.
3		If applied in this manner, both the mandible and tongue are supported – preventing and/or resolving airway problems.

Style

Hosiery is available as 'off-the-shelf' e.g. Relief, or custom made in below knee (socks), thigh high, waist high or chaps with an open or closed toe. Manufacturers of standard stockings offer a combination of length and colours.

PATIENT ASSESSMENT

Arterial circulation (ankle-brachial index) skin integrity, known allergies, shape (width) of the limb and foot, ability and compliance of the individual to apply the bandages/stockings need to be considered. The greatest limitation of compression therapy is poor patient compliance and inability to apply the bandages or stockings.

Stocking measurements are made in the early morning when the limb is the least oedematous or following a period of leg elevation. This reduces the risk of supplying an incorrectly sized stocking when there is an alteration in the limb circumference due to oedema. Each leg is measured independently.

Standard 'off-the-shelf' stockings measurements are made at the narrowest circumference of the ankle and the widest circumference of the calf. More detailed measurements are necessary for custom-made stockings particularly for lymphoedema patients who require a detailed series of measurements taken at anatomical reference points along the length of the leg e.g. oblique toe requires a medial and lateral length and circumference of the metatarsal heads.

Hosiery is worn daily to achieve the benefits of oedema control and removed at night when the leg is elevated. To maintain effective compression ready-to-wear stockings are renewed every six months with the rotation of two pairs of stockings. Custom made stockings have a three to four month life with a rotation of two pairs.

CONCLUSION

Compression therapy plays a pivotal role in the management of venous disease. It is a highly cost-effective method. The Jobst range of compression garments is clinically proven in providing sustained graduated compression based on the integration of the principles of compression therapy into garment manufacturing. Outcomes of holistic assessment parameters along with accurate garment assessment will optimise the potential for patient compliance and ultimately elicit the most optimal clinical effect.

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3. Veraart JCM & Neumann HAM. Effects of medical elastic stockings on interface pressure and edema prevention. *Dermatological Surgery* 1996; 22:867-871.
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JOINT CONFERENCE – ICAWA/WAWCA 2001-2002

Pam Morey • President WAWCA

On 24-25 September 2001, the first joint conference between the West Australian Wound Care Association (WAWCA) and the Infection Control Association of Western Australia (ICAWA) took place at the Burswood Convention Centre. It was aptly titled *A Joint Affair* and was attended by 255 delegates from a variety of work environments and locations within Western Australia.

There were a few hiccoughs (thanks to the Ansett collapse) and one of the Keynote speakers, Dr Gary Lum, was unable to make a flight from Darwin. We were, however, fortunate that the other three speakers had booked via Qantas and Donald MacLellan and Lorna MacLellan arrived from Canberra, and Tal Ellis from Adelaide. The programme was also adjusted to include the VRE outbreak which was impacting in Perth at the time.

Overall, the feedback was extremely positive and there was support to continue with the joint theme. Part of the success must be contributed to the Conference Convenor, Rosie Lee, and the conference committee, and to the fantastic response by the trade to support the conference both in booth attendance and sponsorship of speakers, passports, abstracts publication and prizes. Delegate attendance is what really counts and delegates were able to attend plenary and concurrent sessions. The hardest choice for delegates was deciding which concurrent session to choose!

In response to feedback from last year's conference, the Conference committee has endeavoured to incorporate suggestions into this year's programme. Our conference theme is *Two Teams – One Goal: Scoring Better Outcomes*. To date, we have been able to secure national and international

keynote speakers including Dr Gary Lum, Wendy White and Mary Beth Regan. Conference topics will include:

- Infection control and wound care in residential care settings and regional settings.
- Emergency wound care.
- Wound debridement.
- Practical application of the evidence – research into practice.
- Surveillance and outbreak management.
- Care of skin in the elderly including pressure ulcer prevention and skin tear management.
- Paediatric issues in wound care and infection control.
- Workshops and case studies.

This year's conference will be held on Monday and Tuesday 4-5 November at the Burswood Convention Centre and members of WAWCA should have received their notification and call for abstracts. As the Melbourne Cup will be run on Tuesday 5 November, and holds national interest, the race will be telecast live and we have a special race day hat competition and sweep.

WAWCA is fortunate that profits from last year's conference have boosted the Winifred Felle Education and Research Fund and members should be aware that they might be eligible for financial assistance if they need help to attend this year's conference. If you have any queries about conference attendance, or you are not sure where to send your abstract submission, please feel free to contact one of the following WAWCA committee members for further information: Pam Morey, Anita Hornum or Maggie Phillipson (contact details elsewhere in newsletter).