Selling Wound Care in Your Pharmacy

Associate Professor Geoff Sussman
Why pharmacy has a role in wound care

- Quality wound care is multi-disciplinary
  - Medicine, nursing, pharmacy, podiatry, etc
- Pharmacy supplier of therapeutic products
- Involved in therapeutic decision making
- Some products prescription-only medicines
- Stimulating practice
- Under-estimated problem
- Effects of pharmacotherapy on wound healing
  - Stimulate healing, retard healing, cause wounds
THE BUSINESS OF WOUND CARE

Why Not

- It's just too complicated
- I don't understand it, just too hard, too much trouble
- I can't compete
- I'd have to keep more stock
- Not much business in wound care I don't get many inquiries
THE BUSINESS OF WOUND CARE

Wound Management is a Clinical Skill which will demonstrate to your customers an ability as a Health Professional NOT AVAILABLE IN THE SUPERMARKET

It will provide you and your Staff with considerable professional and personal Satisfaction when you are able to help your customers with a Specific Wound Problems

Wound management and wound pharmaceuticals are as much your responsibility as are drugs. We must not allow other to dominate this area of health care.
THE BUSINESS OF WOUND CARE
THE BASIC REQUIREMENTS

PRODUCT RANGE

It means updating your product range.

It means locating the stock in a prominent place grouped in specific types & with companion products nearby.

It means knowing where to obtain products not stocked quickly!

It means having a good general knowledge of the various products on the market.
What do you need?

- Dressing Range
- Bandage Range
- Skin Care
- Knowledge
Pharmacy and Wound Care

- No Interest
- Little Interest
- Interested
- Very Interested (Specialist)
THE BUSINESS OF WOUND CARE

THE BASIC REQUIREMENTS

Little Interest Level One

PRODUCT RANGE

**Dressings**
- Basic Inert [Melolin/Primapore]
- Film / Island Film
- Foam / Silicone Foam
- Haemostatic Alginate
- Hydrogels [Amorphous & Sheet]

**Tapes**
- Fixamull / Hypafix/ Mefix/Medipore

**Bandages**
- Light Weight CoHesive
- TubiGrip
PRODUCT RANGE

**Dressings**
Basic Inert [Melolin/Primapore, Tulle]
Film / Island Film
Foam/ Silicone Foam
Haemostatic Alginate
Hydrogels [Amorphous & Sheet]
Cadexomer Iodine
Basic Silver Dressings [Tulle, Foam]

**Tapes**
Fixamull / Hypafix/ Mefix/Medipore

**Bandages**
Light Weight CoHesive, TubiGrip
Elastic Compression
THE BUSINESS OF WOUND CARE

THE BASIC REQUIREMENTS

Very Interested (Specialist) Level Three

PRODUCT RANGE *Dressings*

- Basic and Advanced Inert [Melolin/Primapore, Tulle, Silicone Tulle, ExuDry, Mesorb]
- Film / Island Film
- Foam/ Silicone Foam
- Hydrocolloid
- Haemostatic Alginate
- Hydroactive
- Hydrogels [Amorphous & Sheet]
- Cadexomer Iodine
- Advanced Silver Dressings [Range]

*Tapes*

- Fixamull / Hypafix/ Mefix/ Medipore

*Bandages*

- Light Weight & Elastic CoHesive, Tubi Fast, TubiGrip
- Elastic Compression, Inelastic Compression
Where do you obtain Products

- **Independence Australia**
  - Phone: 1300 788 855
  - Fax: 1300 788 811

- **Bright Sky**
  - Phone: 1300 886601
  - Fax: 1300 886602

- **Wholesalers**
What don’t you need?

- Older outdated Dressings
  - Gauze, Jelonet, Band Aids, Calamine Lotion

- Some Bandages
  - Crepe, Gauze bandages,

- Many Adhesive Tapes
Passive Dressings

- include gauze, lint, non-stick dressings, tulle dressings etc
- fulfil very few of the properties of an ideal dressing
- very limited (if any) use as primary dressing, but some are useful as secondary dressings
Inert Dressings

highly absorbent
Pad non stick
(shear) surface
Old v New Tulles

This is a very unique dressing being composed of a protein not a fibre, it is coated with a silicone material and has the SafeTac adhesion system that sticks well but is easily removed without trauma.
Out with the Old and in with the New
Non-absorbing Dressings (for nil to low exudate)

*Film* dressings (inc island dressings)
- waterproof, -gas/vapour permeable
- flexible, -protects from shear, friction, chemicals, microbes
- transparent, -spread tension forces

For wounds that have healed to protect the area from any further damage
To cover other dressings to assist in making the dressing shower proof
Do not use on very fragile skin
Do not use if patient is likely to sweat a lot
Considered a moisture retentive dressing
Film Removal
WOUND TYPES for Films

- small non bleeding scratch,
- simple non bleeding cut,
- an already healed wound,
- very, very superficial burn,
- simple suture line
- shingles when lesions have gone
- over blisters to protect—But not if area is also red
Absorbing Dressings (for low exudate)

- **Hydrocolloids**
  - flexible, waterproof,
  - provide physical barrier
  - gel with exudate, debriding
  - no secondary dressing
  - thin available (transparent)

Contraindicated on foot ulcers in patients with diabetes and/or PAD

Produces an anoxic environment, which may lead to increase in (anaerobic) infection and Pain. Exudate control is often not adequate using this dressing
Absorbing Dressings (for medium to high exudate)

Foams [Standard and Silicone]
- Highly absorbent, non-particulate
- Insulating, cushioning
- Moist interface
- 1, 2 or 3 layer, non-stick cavity foams

Protect a healthy wound that is oozing some fluid
Protect and pad a healed wound from friction
To absorb ooze coming off deeper wounds

Considered an exudate management product
When to use a Foam Dressing

- Protect a healthy wound that is oozing some fluid
- Protect and pad a healed wound from friction
- To absorb ooze coming off deeper wounds
- Only adhesive or border forms are waterproof
- Take care removing adhesives-stretch out
- When the stain comes to 1cm from edge need to change

- Considered an exudate management product
WOUND TYPES for FOAMS

- Abrasions
- Surgical wounds that are leaking or need protection
- Leaking leg ulcers
- Burns when the blisters have popped
- Grazes
- Skin Tears
- Silicone Foam best for fragile skin
Absorbing Dressings (for medium to high exudate)

Alginates
- seaweed derived
- form gel with exudate, moist interface
- highly absorbent, easily removed
- haemostatic

To fill up space in a deeper wound to help tissue to grow from bottom up
If not a lot of fluid coming off wound this product may stick and be difficult to remove
- This alginate dressing will require a secondary dressing, generally non-adherent pad, more absorbent pad or foam

Considered a haemostatic and absorbent dressing
WOUND TYPES for Alginates

- Simple cuts and abrasions
- Superficial/partial thickness burns
- Sinus and fistula management
- Post-operative wound breakdown
- Bleeding wounds
- Blood Nose
Moisture Donating Dressings (for dry or sloughy wounds)

Hydrogels (sheet or amorphous)
- to re-hydrate slough and eschar
- autolytic debridement
- pain relief
- cavity wounds
- remove with saline

To rehydrate dry tissue
To soothe an insect bite, a sore or superficial burn, skin irritations
This gel will require a secondary dressing, generally non-adherent pad or better a Foam Dressing

This product is considered a wound rehydration product
Caution

- If used on wounds that are already wet the tissue around the wound becomes too wet and soggy.
- Some people may be allergic to the propylene glycol in these gels use gels without propylene glycol in the formula.
  - eg. Solosite, Smith & Nephew
  - Purilon, Coloplast
WOUND TYPES for Hydrogels

- Superficial, Partial thickness burns
- Chicken pox, shingles management
- Dry crusty lesions
- Pain relief in chronic wounds
Cadexomer Iodine Dressings (Iodosorb)

- Absorbent - forms gel with exudate
- Releases iodine as gel forms
- Pulses iodine at 0.1% (not cytotoxic)
- For sloughy/infected wounds
- Iodine may stimulate growth factors
When do we use it?

- Sloughy wounds with exudate
- “Smelly” wounds
- Recalcitrant wounds
- Diabetic wounds
- Cavities and superficial wounds
- Powder for very wet wounds
- Paste/flex for less exudate
SILVER CONTAINING DRESSINGS

In recent years, a range of dressings that contain or combine silver into their structure have been released. They include:

- Polyethylene dressings [Acticoat]
- Foam Dressing [Acticoat Moisture Control]
- Alginate Dressing [Acticoat Absorbent]
- Alginate Dressing [Biatain Ag]
- Hydroactive Dressing [Biatain Ag]
- Hydrofibre [Aquacel Ag]
- Tulle Dressing [Atrauman Ag]

The level of silver contained in the dressings varies greatly. The mode of action also varies, some release the silver into the wound, some partly release the silver and hold some in the dressing, and some keep the silver within the dressing.
New Silver Dressings

- Atrauman Ag
- Biatain Ag
- Aquacel Ag
- ALLEVYN Ag
- Mepilex Ag
- Safetac Ag
Skin Care
MEASURES TO ENSURE SKIN TONE

- SKIN Ph
- SKIN MOISTURE
- SUN DAMAGE
- USE OF SKIN ADHESIVES
Most soaps and detergents are alkaline and induce an increase in cutaneous pH, which affects the physiologic protective “acid mantle” of the skin by decreasing the fat content. The ‘acid mantle’ of the stratum corneum is important for both permeability barrier formation and skin antimicrobial defense. Changes in the pH are reported to play a role in the Cause of skin diseases like irritant contact dermatitis, Atopic dermatitis, acne vulgaris and fungal infections and increased colonization of the skin with coagulase-negative staphylococci.
### pH of Popular Soaps

<table>
<thead>
<tr>
<th>Brand</th>
<th>pH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutrogena</td>
<td>9.5</td>
</tr>
<tr>
<td>Cussons Baby Soap</td>
<td>10.8</td>
</tr>
<tr>
<td>Cussons Imperial Leather</td>
<td>10.9</td>
</tr>
<tr>
<td>J &amp; J Baby Soap</td>
<td>11.0</td>
</tr>
<tr>
<td>Palmolive regular</td>
<td>11.0</td>
</tr>
<tr>
<td>Pears</td>
<td>10.8</td>
</tr>
<tr>
<td>Velvet</td>
<td>11.0</td>
</tr>
<tr>
<td>Simple Soap</td>
<td>11.2</td>
</tr>
</tbody>
</table>
Soap and the Skin

The neutral bar soaps available

Dove  Cetaphil Bar  QV Bar

Wash wounds with a pH 5-6 wash if basically clean
The Visible Effects of Ageing

Figure 2 Fissured skin in patient with chronic hand eczema.
MEASURES TO ENSURE SKIN TONE

Using appropriate moisturising agents to ensure suppleness and to minimise the drying effects of the ageing process on the skin including:

- Skin Creams eg. Sorbolene {little value}
- Skin Ointments eg. Wool Alcohols Ointment
- Bath Oils
- Barrier Films

**Must maintain a surface barrier**

*Figure 3* Diagram showing the accumulation of water in the stratum corneum after application of an emollient.
The Use of Moisturizers

Sorbolene and other aqueous creams are of little value as Moisturizers. Recent published studies in the British Journal of Dermatology have reported a significant increase in trans-epidermal water loss and another study reported Impacts on cellular and molecular level of the skin. Increased desquamatory and inflammatory protease activity. Changes in corneocyte maturity and size indicate an accelerated skin turnover induced by chronic application of these emollients.

Danby ey al The effects of aqueous cream on the skin barrier in patients with a previous history of atopic dermatitis BJ Derm 201165,329-334
Types of Moisturizers

Simple products with few preservatives and few ingredients.
MEASURES TO ENSURE SKIN TONE

Use of a Lactic Acid Foot Heel Cream
Bandages

The bandage may be needed to:
- keeping a dressing in place
- supporting an injured joint
- assisting venous return for the lower leg
Crepe Bandages

- These bandages have little compression however 40 - 60% reduction of pressure within 30 minutes. This bandage is not considered appropriate for the management of leg ulcers of venous disease or for dressing retention.
There are a number of dressings that still require being held in place and often the use of adhesive tape is not considered appropriate due to the friable and delicate nature of the skin. For this purpose, cohesive bandages and the tubular Stocking Bandages are the most appropriate.
Support Bandages/ Tubular Bandages

Support bandages are of a heavier construction containing elastomers, such as rubber or lycra. Combined with natural and/or synthetic fibres. These maintain a pressure level nearer to that immediately following the application than with an Elasticated bandage. Strong support bandages can be used singularly or in combination to restrict movement, to prevent oedema or act as a mechanism of support following soft tissue repair or injury.
Compression Bandages

- minimum of 18mmHg at the ankle for effective compression
- require graduated compression for maximum effectiveness
- ensure smooth, even application to prevent tourniquet effect

In simple terms, compression works by squeezing the limb, thereby reducing oedema and aiding venous return towards the heart. It effects on the venous, arterial and lymphatic systems.
Pressure

Compression – the direct application of pressure to a limb – is measured in mmHg. It is commonly applied using bandaging, though other forms include hosiery. In practice, sub-bandage pressure may vary and tends to be lowest when the patient is lying down (resting pressure), with higher peaks of pressure occurring during exercise (working pressure).

- **mild**  (<20mmHg)
- **moderate**  (≥20–40mmHg)
- **strong**  (≥40–60mmHg)
- **very strong**  (>60mmHg)
Compression Bandages

- venous incompetence
- short and high stretch
- applied from toe to knee BUT begin compression at ankle graduated (decreasing) to knee
- may be up to 4-layer system
- NOT if arterial complications
What is safe in aged care facilities

- Tubular bandage
- 2-3 layers of straight tubular bandage cut at different lengths
- Graduated tubular Bandage
- Compression socks/stockings up to 20mmHg
- If unsure get advice!!!!!!!
The hazards of compression bandages

Care must be exercised when applying compression bandages to ensure that there is adequate arterial blood flow. The application of compression can cause the following:

- skin necrosis
- trauma /ulceration
- amputation (may result from damage caused by lack of arterial blood in the area)
Stockings

An alternate method of applying graduated pressure to the leg is by the use of compression Stockings. Stockings may be used as part of the treatment of venous leg ulcers, as an ongoing Management modality of venous disease and for the prevention of venous stasis or to prevent DVT’s. Anti-embolic Stockings (TED’s) are used pre & post op to prevent DVT’s however once ambulatory they do not work they are of no benefit once the Patient is up and walking and have no place for longer term use.
Before the application of compression to the legs it is essential to confirm good arterial circulation. Simple observation will generally identify patients potentially at risk. The following are some of these observations.

<table>
<thead>
<tr>
<th></th>
<th>POSITIVE</th>
<th>NEGATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foot Temperature</td>
<td>Warm</td>
<td>Cold</td>
</tr>
<tr>
<td>Foot Colour</td>
<td>Pink</td>
<td>White</td>
</tr>
<tr>
<td>Toe refill after squeezing</td>
<td>Fast</td>
<td>Slow</td>
</tr>
<tr>
<td>Foot Pulse</td>
<td>Present</td>
<td>Absent</td>
</tr>
</tbody>
</table>
## Sub-bandage pressure required for Specific Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Class</th>
<th>Pressure Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevention DVT</td>
<td><strong>CLASS ONE</strong></td>
<td>18 to 24 mm Hg</td>
</tr>
<tr>
<td>Superficial/early Varices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium Varices</td>
<td><strong>CLASS TWO</strong></td>
<td>25-35 mm Hg</td>
</tr>
<tr>
<td>Ulcer prevention</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mild Oedema</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross Varices</td>
<td><strong>CLASS THREE</strong></td>
<td>35-45 mmHg</td>
</tr>
<tr>
<td>Post Thrombotic syndrome</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross Oedema</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ulcer Treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lymphoedema</td>
<td></td>
<td>35-50 mmHg</td>
</tr>
</tbody>
</table>
Stocking measurement

The measurement should be taken with the patient standing and **as early in the day as possible** after the leg has been rested and when the tendency for the leg to swell is a minimum. If this is not possible, and particularly if there is evidence of oedema, the limb should be raised in a horizontal position until the swelling has subsided. If oedema is a severe problem the patient may need to be re-measured for a smaller sized stocking when the swelling is reduced.
Stocking measurement

**Measurement positions**

**Circumference measurements**

- **g** Thigh (4 cm below groin)
- **f1** Mid thigh
- **d** Narrowest point below the knee
- **c** Widest part of the calf
- **b** Ankle (narrowest point above ankle bone)

**Length measurements**

- **G**
- **F1**
- **D**
- **A-D Below knee**
- **A-F1 Mid thigh**
- **A-G Thigh length**
- **A-GG Thigh length with belt**
- **A-T Tights/Pantyhose**
- **A-TM Maternity tights/Pantyhose**
Stocking Application

1. Place your JOBST compression stocking inside the semi-circle frame and pull the top of the stocking down over the semi-circle. The heel of the stocking must face the back of your JOBST Stocking Donner.

2. Continue to slide the stocking down over the semi-circle until the heel protrudes from the frame, and is centered and even. (It may be necessary to pull the heel through further depending on the foot and stocking size).

3. Whilst using a support for balance, insert your foot into the stocking until your foot is completely on the floor. **HELPFUL TIP:** Sit down and hold the heel pocket against the frame as you slide your toes into the stocking.

4. Grasp the padded handles and gently pull the JOBST Stocking Donner up the leg until the stocking is above the calf. Try not to over-stretch the stocking.

5. Push the JOBST Stocking Donner backward and down, free of the stocking.

6. Be sure the heel of the stocking is properly placed on the foot, then adjust the length and smooth out any wrinkles by stroking with the palm of your hands.
Adhesive Tapes [Skin Friendly]

Hypafix

Fixamull

Medipore

Adhesive Tapes Removal [Skin Friendly]
What do you also need? Skills Training

- Short Courses
  - eg. Ausmed
    [www.ausmed.com.au]

- Formal Qualifications
  - Monash Post Grad

- Companies
Monash University is the only University in the Southern Hemisphere that offers specific wound care courses.

The Graduate Certificate provides health professionals with the theoretical foundation for contemporary practices in wound care. The Graduate Diploma explores areas of specialty practice within wound care and develops the clinician’s competency in specialist wound care skills. The Masters program prepares the health professional for advanced practice in wound care.

Health professionals may also enrol in single units up to a maximum of 12 credit points.

Prospective students may apply for advanced standing or credit for previous studies undertaken in the past five years at an Australian University or TAFE, or recognition of prior learning.

Applicants who have successfully completed a Wound Foundation of Australia short course that includes an assessment component and who meet the entry requirements are able to apply for recognition of prior learning toward a three credit point elective.

Entry requirements

Applicants must have either:
- an undergraduate degree in an appropriate health discipline and at least two years relevant clinical experience or
- be able to demonstrate extensive relevant clinical experience

Further information

For application forms and further information contact:
postgrad@pharm.monash.edu.au
or
Adriana Tiziani
Course Director
Adriana.Tiziani@pharm.monash.edu.au

www.pharm.monash.edu.au/courses/woundcare/
Course structure

- **5 core units**
  (18 credit points)
- **1-2 elective units**
  (6 credit points)

→ **Graduate Certificate**
  (24 credit points)

→ **Graduate Diploma**
  (48 credit points)

- **3 core units**
  (12 credit points)
- **compulsory on-campus residential**
  (6 credit points)
- **1-2 elective units**
  (6 credit points)

→ **Masters**
  (72 credit points)

- **1 core unit**
  (6 credit points)
- **clinical project**
  (12 credit points total)
- **1-2 elective units**
  (6 credit points)
Outcomes

- Cost effective therapy for patients
- Can plan to reduce further risks of wound development or delayed healing
- Primary Care role
- Professionally rewarding
  - See physical evidence of impact of therapy
- Position practice well for future developments
  - Biotech impacts on wound dressings
  - Changes in funding models/structures
Conclusion

Wounds and their management are an important clinical role for Community pharmacy. But you must embrace it with enthusiasm and a real interest not only will it benefit your business but it will raise your professional profile and standing with your customers.

It is worth it for the improved outcome for your customers.

Also it is important to know the contact details of the other health professionals in your area including; GP, General Surgeon, Plastic Surgeon, Vascular Surgeon, Dermatologist, Podiatrist. Wound care it a team sport work with them and everyone will benefit.