Incontinence Skin Care Solutions in Aged Care
from the 3M™ Cavilon™ Professional Skin Protection Range

Cavilon™ for Incontinence

Skin Care for Incontinence

• The effects of incontinence on the skin are known to be a significant cause of skin damage¹

• Aging skin is particularly at risk¹

• Even minor skin injury can create discomfort and pain and add to patient suffering¹,²,³

• Skin damage constitutes a negative clinical outcome and a poor patient experience¹

• Strengthen your pressure injury prevention program and avoid costs associated with skin damage
Incontinence and the Effect on Aging Skin

The effects of incontinence on the skin are known to be a significant cause of skin damage. Incontinence Associated Dermatitis (IAD) is the accepted term for skin damage caused by urine and stool. IAD is a prevalent condition with significant negative impact; it is painful, it places the patient at increased risk for secondary infection and for pressure injury development, and it can be costly and difficult to treat.

Ageing skin is particularly at risk. When a patient or resident is incontinent the following changes can occur:

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weakening of the Stratum Corneum</td>
<td>The stratum corneum becomes more permeable in the presence of moisture and so makes it even more vulnerable to damage from irritants such as stool.</td>
</tr>
<tr>
<td>pH Change</td>
<td>The mixing of urine and faeces creates an alkaline skin pH in incontinent patients. This is due to the production of ammonia when bacteria in the faeces digest urea from the urine. The raised pH around the peri-anal area increases protease and lipase activity, contributing to skin irritation and erosion.</td>
</tr>
<tr>
<td>Wet Skin</td>
<td>Wet skin is also more likely to sustain mechanical damage from friction. Friction is almost always a factor contributing to damage with incontinence, commonly generated as skin rubs against absorbent underpads or linens or due to frequent cleansing and washing.</td>
</tr>
<tr>
<td>Microbial Imbalance</td>
<td>Microbial imbalance is also thought to occur with chronic wetness and faecal incontinence. Opportunistic fungal infection may occur (such as Candida), further increasing morbidity. In addition, pathogenic toxins, such as those resulting from <em>Clostridium difficile</em> increase the risk for secondary infections and skin damage.</td>
</tr>
</tbody>
</table>

Identify the RISK!


A risk factor is any factor that either contributes to increased exposure of the skin to excessive pressure or diminishes the skin’s tolerance to pressure.

Studies have shown that older people are more prone to incontinence. In one study, 29% of older people cared for in a nursing home were incontinent of urine, 65% were doubly incontinent, 6% were catheterised. For the patients who are double incontinent, not only does the mixing of urine and faeces create an alkaline skin pH, the need to cleanse is increased which can cause further skin damage as traditional soaps can also change the skin’s pH to alkaline.
Factors Associated with Increased Risk of Pressure Injury

### Pressure Injury Risk
- Pressure
  - Impaired mobility
  - Impaired activity
  - Impaired sensory perception
- Extrinsic factors
  - Moisture
  - Shear
  - Friction
- Intrinsic factors
  - Nutrition
  - Demographics
  - Oxygen delivery
  - Skin temperature
  - Chronic illness

### Differentiation of IAD from Pressure Injuries

The assessment of IAD, including risk assessment and differentiation from other forms of skin damage such as pressure injury or skin tear, remains a challenge for both expert and non-specialty nurses. The most clinically relevant argument for differentiating IAD versus pressure injury is the impact of accurate prevention and treatment. The key to these differences lie in the location, shape and depth of damages as per below:

#### Visual Inspection for Differentiation of IAD from Pressure Injuries

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>IAD</th>
<th>Pressure Injury</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Colour</strong></td>
<td>Bright red in persons with lighter skin tones and subtle red in persons with darker skin tones</td>
<td>Deep red (maroon) to reddish or bluish purple in suspected deep tissue injury</td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td>Perineal or perigenital skin, especially near anus, in skin folds or underneath absorptive incontinence product such as underpad or body-worn brief</td>
<td>Typically found over bony prominence</td>
</tr>
<tr>
<td><strong>Lesions</strong></td>
<td>One or more islands or erosion to extensive denudation of epidermis and dermis</td>
<td>Varies from partial-thickness to full-thickness wounds</td>
</tr>
<tr>
<td><strong>Borders</strong></td>
<td>Diffuse</td>
<td>Demarcated</td>
</tr>
<tr>
<td><strong>Necrotic tissue</strong></td>
<td>None</td>
<td>Black eschar or yellow slough may be present</td>
</tr>
<tr>
<td><strong>Exudate</strong></td>
<td>None or clear, serous exudate</td>
<td>Volume varies; high-volume purulent exudate seen in some cases</td>
</tr>
<tr>
<td><strong>Symptoms</strong></td>
<td>Burning pain, itching</td>
<td>Pain and itching, may be exacerbated by dressing change</td>
</tr>
</tbody>
</table>
Preventing Skin Breakdown in Aged Care Patients

Create and Implement an Effective Skin Damage Prevention Protocol with Cavilon

Clinical evidence supports the use of a defined skin care programme and quality products. Adherence to a defined and consistent skin care regime will maintain or restore the inherent skin barrier of patients.2,5

A study completed by Bale et al, 20047, evaluated the effect of a skin care protocol on patient skin condition, staff time and associated costs in a nursing home. The skin care protocol consisted of 3M™ Cavilon™ No Sting Barrier Film on patients with moderate or severe Incontinence Associated Dermatitis (IAD), and a dimethicone-based barrier cream (3M™ Cavilon™ Durable Barrier Cream) on patients with intact skin/mild Incontinence Associated Dermatitis (IAD).

Cavilon Durable Barrier Cream:
The ideal solution to prevent skin breakdown

Cavilon Durable Barrier Cream is a unique moisturising, barrier cream formulated with 3M polymers. It is breathable and vanishes into the skin.11 This prevents clogging of briefs and absorbent products and allows visualisation of the skin.11

Ask for Cavilon Durable Barrier Cream

Cavilon Durable Barrier Cream is like no other barrier cream

Cavilon Durable Barrier Cream contains a unique blend of 3M polymers and dimethicone for skin protection as well as conditioning ingredients for moisturisation. Unlike typical products used for IAD prevention, Cavilon Durable Barrier Cream is both durable and concentrated. This means it lasts longer and you use less than typical creams and ointments.

- Proven wash-off resistance
- Allows tapes and adhesive to stick to the skin
- Skin friendly - hypoallergenic and pH balanced
- Compatible with chlorhexidine gluconate12

Polymers + Dimethicone = Long Lasting Protection

Creams that clog reduce pad absorbancy

Findings from clinical studies show:

- With zinc/petrolatum-based creams, up to 69% of the cream was transferred from the skin to absorbent pads11
- This resulted in up to 90% reduction in fluid absorption11

Cavillon Durable Barrier Cream is proven to maintain an effective moisture barrier for up to 3-4 washes

1 application lasts up to 3-4 washes.

So when do I use Cavillon Durable Barrier Cream?

Intact Skin
The key findings showed skin condition was maintained or improved and there was a significantly lower incidence of incontinence dermatitis after introducing the skin care protocol. There was also a significant reduction in time to deliver the skin care post-intervention. Staff adherence to the new skin care protocol was good. This study demonstrated that the new skin care protocol with an educational program maintained or improved patients’ skin condition and significantly reduced the resources used in delivering nursing care.

3Ms RISE (Reducing the Incidence of Skin Breakdown through Education) program has been developed to help establish standardised protocols of care in order to provide cost effective solutions both in treatment costs and nursing time. The RISE Program comes in the form of tools, materials and an educational program including face to face workshops, webinars and a newsletter. These resources can be made available to you from your Critical & Chronic Care Solutions Division Territory Manager.

Cavilon No Sting Barrier Film:
An ideal solution for superior protection from moisture, friction and incontinence
Cavilon No Sting Barrier Film is an alcohol-free moisture barrier. It contains unique ingredients called polymers that form a waterproof, protective coating on the skin. It is breathable and transparent allowing for continuous visualisation and monitoring of skin. It is flexible and conforms to the skin during movement or position changes.

Ask for Cavilon No Sting Barrier Film
Cavilon No Sting Barrier Film is like no other barrier film
The product’s unique 3M formulation contains a blend of not one but two polymers, including a Terpolymer and a Homopolymer (plasticiser). The Terpolymer is derived from three distinct monomers, that provides a protective coating on the skin, creating a highly effective barrier. The Homopolymer enhances the film’s ability to flex with the skin and helps to maintain a continuous, protective coating. Other barrier films contain only one polymer and some utilise alcohol as a solvent.

- Does not transfer off and block incontinence briefs of pads
- Fragrance-free, preservative-free and latex free
- Hypoallergenic
- Non-cytotoxic - can be used on intact and damaged skin
- Compatible with chlorhexidine gluconate
- Cost effective

With Cavilon No Sting Barrier Film you can be confident that you have an effective barrier and excellent patient comfort.

Terpolymer + Homopolymer (plasticiser) = Effective Flexible Barrier

You Can Be Confident That You Are Providing Evidence Based Care

So when do I use Cavilon No Sting Barrier Film?

Broken Skin
Incontinence Protocol

<table>
<thead>
<tr>
<th>1 to 3 episodes of urinary and/or faecal incontinence a day</th>
<th>4 + episodes of urinary and/or faecal incontinence a day</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
</tr>
<tr>
<td><strong>Intact Skin</strong></td>
<td><strong>Broken Skin</strong></td>
</tr>
<tr>
<td>Skin intact with/without erythema</td>
<td>Skin with severe erythema or erosion</td>
</tr>
<tr>
<td><strong>Apply 24 Hourly</strong></td>
<td><strong>Apply 12 - 24 Hours</strong></td>
</tr>
</tbody>
</table>

Let 3M work with you to help you to implement a personalised Incontinence Protocol into your organisation or facility. Contact your local Critical & Chronic Care Solutions Division Territory Manager to discuss this with them.

What Does The Evidence Say?

- Introduction of Cavilon No Sting Barrier Film and Durable Barrier Cream as part of a skin care program reduced the incidence (and severity) of incontinence dermatitis.
- Introduction of Cavilon No Sting Barrier Film and Durable Barrier Cream as part of a skin care program resulted in a 57% reduction in the incidence of pressure injuries.
- Use of Cavilon No Sting Barrier Film was found to be more effective for the prevention and intervention of IAD than zinc oxide or zinc oxide oil.
- Cavilon Durable Barrier Cream was shown to be significantly more resistant to wash off than a number of common dimethicone-based barrier creams.
- In a health economic study that included 981 subjects, Cavilon No Sting Barrier Film was proven to be cost-effective, significantly reducing product cost and nursing time associated with incontinence skin care versus traditional skin care protocols using barrier ointments or creams.

Other Resources:
- Incontinence Protocol
- Cavilon Patient Application Pads
- Cavilon Peristomal Skin Protection Brochure
- Cavilon Clinical Evidence Summaries
Cavilon Durable Barrier Cream
Cavilon No Sting Barrier Film
are versatile and meet the multiple skin protection needs in aged care patients.

- Friction from oxygen masks and tubing
- Adhesive trauma from feeding tubes
- Maceration around tracheostomy tubes
- Adhesive trauma at infusion sites (central)
- Friction over heels and elbows
- Skin folds
- Skin damage around surgical incisions
- Adhesive trauma at infusion sites (peripheral)
- Adhesive trauma associated with negative pressure wound therapy (NPWT)
- Peristomal skin damage
- Adhesive trauma from condom catheters
- Incontinence Associated Dermatitis (IAD)
- Friction from prosthesis

Purple for Prevention
3M Cavilon Durable Barrier Cream

Blue for Broken
3M Cavilon No Sting Barrier Film

Moisturising fragile dry skin
Incontinence protection
Dribbling
Ordering Information:

Australian Ordering Information

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>Product</th>
<th>Size</th>
<th>Items/Box</th>
<th>Boxes/Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>3343</td>
<td>3M™ Cavilon™ No Sting Barrier Film Covers a 15cm x 15cm area</td>
<td>1.0mL wand</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>3344E</td>
<td>3M™ Cavilon™ No Sting Barrier Film Covers a 12.5cm x 12.5cm area</td>
<td>1.0mL wipe</td>
<td>30</td>
<td>6</td>
</tr>
<tr>
<td>3345</td>
<td>3M™ Cavilon™ No Sting Barrier Film Covers a 25cm x 25cm area</td>
<td>3.0mL wand</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>3346</td>
<td>3M™ Cavilon™ No Sting Barrier Film</td>
<td>28mL spray</td>
<td>12</td>
<td>1</td>
</tr>
</tbody>
</table>

New Zealand Ordering Information

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>Product</th>
<th>Size</th>
<th>Items/Box</th>
<th>Boxes/Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>3343</td>
<td>3M™ Cavilon™ No Sting Barrier Film Covers a 15cm x 15cm area</td>
<td>1.0mL wand</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>3344</td>
<td>3M™ Cavilon™ No Sting Barrier Film Covers a 12.5cm x 12.5cm area</td>
<td>1.0mL wipe</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>3346</td>
<td>3M™ Cavilon™ No Sting Barrier Film</td>
<td>28mL spray</td>
<td>12</td>
<td>1</td>
</tr>
</tbody>
</table>

Australia and New Zealand Ordering Information

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Product</th>
<th>Size</th>
<th>Items/Box</th>
<th>Boxes/Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>3353</td>
<td>3M™ Cavilon™ Durable Barrier Cream</td>
<td>2g sachet</td>
<td>20</td>
<td>12</td>
</tr>
<tr>
<td>3354</td>
<td>3M™ Cavilon™ Durable Barrier Cream</td>
<td>28g tube</td>
<td>48</td>
<td>1</td>
</tr>
<tr>
<td>3355</td>
<td>3M™ Cavilon™ Durable Barrier Cream</td>
<td>92g tube</td>
<td>12</td>
<td>1</td>
</tr>
</tbody>
</table>

References

10. Australian Commission on Safety and Quality in Health Care (ACSQHC), (September 2011). National Safety and Quality Health Service Standards, ACSQHC, Sydney.
12. 3M Data on File.

Critical & Chronic Care Solutions Division
3M Australia Pty. Limited
ABN 90 000 100 096
Building A, 1 Rivett Road
North Ryde NSW 2113
Phone 1300 363 878
www.Cavilon.com.au

Critical & Chronic Care Solutions Division
3M New Zealand Limited
94 Apollo Drive
Rosedale 0632
Phone 0800 80 81 82
www.Cavilon.co.nz

3M and Cavilon are trademarks of 3M. Please recycle. © 3M 2013. All rights reserved.