

# Dressing for superficial and partial thickness burns among 16s A&E in Hong Kong

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An acute burn wound is a complex and evolving injury. Treatment of partial thickness burn wounds is directed towards promoting healing. A variety of dressing is currently used in different A&E in Hong Kong. Due to improvements in technology and advances in understanding of wound healing, dressing selection should be based on their effect of healing, ease of application and removal, dressing change requirements, cost and patient comfort.

A survey was conducted during Emergency Nursing Course on March 2011, information was collected on dressing for superficial and partial thickness burns, what cream, dressing material and solution are currently used in different A&Es.

## Cream



Figure 1 Commonly used topical agent for superficial and partial thickness burn in A&E of Hong Kong

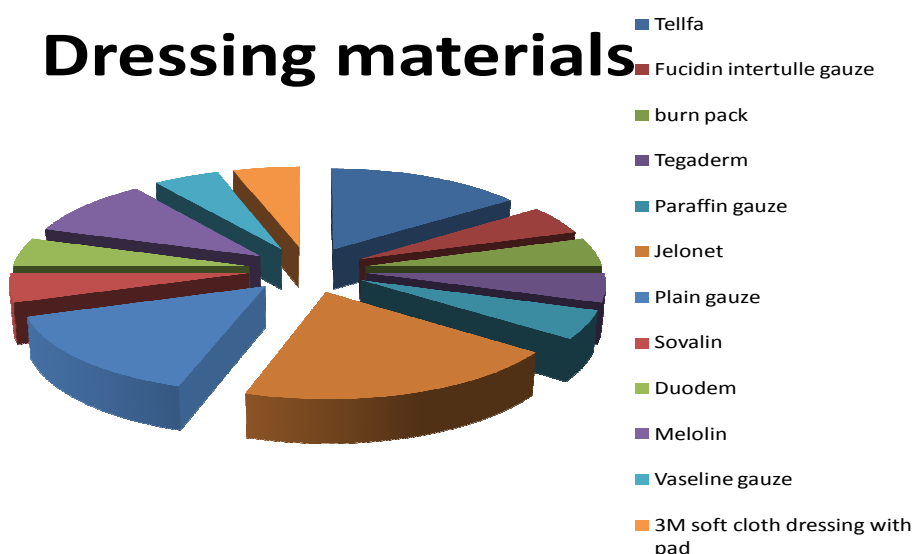


Figure 2 Commonly used dressing materials for superficial and partial thickness burn in A&E of Hong Kong

# Solution

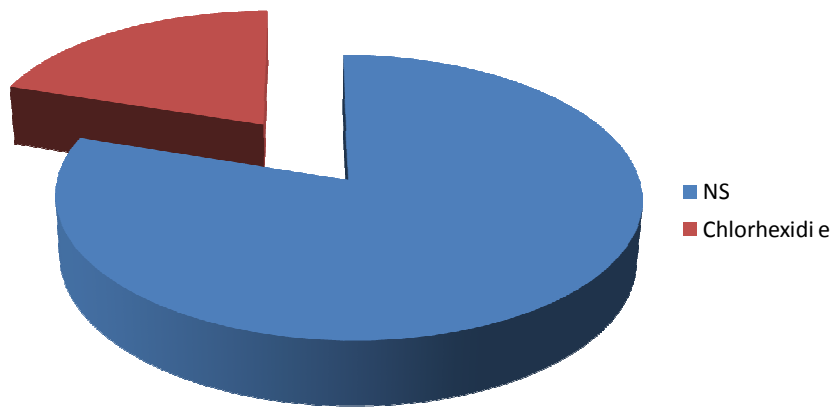


Figure 3 Commonly used solution for superficial and partial thickness burn in A&E of Hong Kong

### Topical agent for superficial and partial thickness burn among 16 A&Es Hong Kong

Cream/ Spray	Content	Function	Remark
Aqueous cream	-light, non-greasy moisturiser that is made from a mixture of emulsifying ointment (which contains paraffin oils) and water, with phenoxyethanol as an antimicrobial preservative.	-dry skin conditions, such as dermatitis, eczema or aquagenic pruritus -Whilst undergoing radiotherapy, part of a skin care regime to remedy the erythema which is caused by such treatment	
Silver sulfadiazine cream(SSD)	-An antiseptic cream containing 1% silver sulfadiazine	- used as a topical burn cream, prevents the growth of a wide array of bacteria, as well as yeast, on the damaged skin	Incorporation of the silver ions can lead to local argyria (discoloration of the skin), especially if the treated area is exposed to ultraviolet, avoid use on face
Solcoseryl cream	-Solcoseryl contains standardized and free protein extract of young calf blood that expresses metabolic function in the tissue.  -Solcoseryl enhances regenerative and reparative processes, contributes to	-the initial phase of treatment of trophic lesions and burns (before the formation of granulation tissue). -Solcoseryl gel and ointment are prescribed to treat: Radiation dermatitis, Trauma(wounds), Badly healing wounds, Bed sores, Chemical and thermal burns	

	activation of aerobic metabolic processes and oxidative phosphorylation, increases oxygen intake and stimulates the transport of glucose into the cells.		
JUC spray	-a physical antimicrobial spray dressing, with an effective ingredient of water soluble macromolecular cationic activator. When JUC is sprayed on the surface of skin or mucosa, it forms a positively charged film to kill and isolate the pathogenic microorganisms	-sprayed on the wound surfaces to form an invisible antimicrobial film, killing pathogenic microorganisms, which provides the wound surface with long-acting antimicrobial function, maintaining long aseptic condition on the surface and infectious routes of microorganisms will be decreased, It use in radiation and chemical burns,thermal burns, lacerations and abrasions, post-surgery incisions including cosmetic surgery	

### Dressing materials for superficial and partial thickness burn among 16 A&Es

Name	Dressing information	Uses	Remark
Telfa	-A soft, nonwoven backing that conforms to the wound and seals all four sides. The dressing protects the wound from the external environment and the	-lightly draining wounds -pressure ulcers (stages 1 and 2) -infected and noninfected wounds -wounds with minimal drainage	

	nonadherent surface allows nontraumatic removal	-red wounds	
Fucidin antibiotic intertulle gauze	<p>-Fucidin Intertulle consists of a cotton leno-weave fabric, impregnated with a base composed of white soft paraffin, anhydrous lanolin, cetyl alcohol and liquid paraffin containing 2% sodium fusidate.</p> <p>-Fusidic acid is a potent topical antibacterial agent that is both water and fat soluble with the ability to penetrate intact skin.</p> <p>-It is active against nearly all strains of <i>Staphylococcus aureus</i>, and topical applications are also effective against <i>Streptococci</i>, <i>Corynebacteria</i>, <i>Neisseria</i> and some species of <i>Clostridia</i>.</p>	<p>-treatment of wound infections caused by sensitive strains of <i>S. aureus</i>, <i>Streptococcus spp</i> and <i>Corynebacterium minutissimum</i>,</p> <p>-including minor traumatic injuries, ulcers, burns, and other lesions that are <b>clinically infected</b> by organisms shown to be sensitive to fusidic acid and its salts.</p>	
Cosmopore	<p>-sterile wound contact layer that is air and water permeable, 100% cotton and non-adherent</p> <p>-performs well to absorb exudate for a cleaner wound bed.</p>	<p>-absorbs exudate for a cleaner wound bed</p> <p>-pre and post turf burn</p>	The wide adhesive border is coated with a strong, non-sensitizing polyacrylate adhesive that is well tolerated

	<p>-The non-woven flexible adhesive cover of the Cosmopore pad has rounded edges to prevent the dressing from becoming detached even after being worn for prolonged periods of time.</p>		<p>by the skin and stays secure through post-application damp conditions such as sweat or light rain.</p>
<p>Curaplast elastic wound dressing strip</p>	<p>-The nonwoven material, which is slightly elastic widthwise, readily conforms to body contours and holds the dressing pad securely on the skin. A micro-perforated separating film prevents adhesion in the wound area. The healing process is supported by dressing changes that are painless and gentle.</p>	<p>-first-aid dressing for hospital and doctor's surgery as well as for minor injuries at home and on the move.</p>	
<p>JELONET</p>	<p>-consists of a leno-weave fabric, of cotton or cotton and viscose, which has been impregnated with white soft paraffin -used as a primary wound contact layer and the paraffin is present to reduce the adherence of the product to the surface of a granulating wound.</p>	<p>- primary wound contact layer in the treatment of burns, ulcers, skin grafts (both donor and receptor sites), and a variety of traumatic injuries. -also used as a transfer medium for skin during grafting.</p>	<p>if the dressing is placed upon a heavily exuding wound, its semi-occlusive nature may cause tissue maceration by preventing the free movement of exudate</p>

			away from the surface of the wound
Duoderm	<p>-Adhesive (hydrocolloid) wound contact dressing. The self adherent dressing absorbs wound fluid and provides a moist environment.</p> <p>Act as a barrier to the wound against bacterial, viral and other external contamination while intact and without leakage</p>	<p>-minor abrasion, lacerations, minor cuts, minor scalds and burns</p> <p>-diabetic ulcers and pressure ulcers</p> <p>-surgical wound</p> <p>-second degree burn and traumatic burn</p>	<p>-The dressing is 3cm larger than the wound area</p> <p>-May remain in place up to 7 days</p>
Melolin	<p>-Melolin consists of a film of poly(ethylene terephthalate), onto which is bonded an absorbent layer consisting of a mixture of cotton and polyacrylonitrile fibres, backed with a layer of an apertured non-woven cellulose fabric.</p> <p>-The plastic film is present to prevent the dressing adhering to the surface of the wound, and is perforated to allow the passage of exudate from the wound into the body of the pad.</p>	<p>-use on its own to dress dry sutured wounds,</p> <p>-superficial cuts and abrasions, and other lightly exuding lesions</p> <p>-primary wound contact layer for more heavily exuding wounds, if backed by a second absorbent dressing.</p>	

Vaseline gauze	<ul style="list-style-type: none"> <li>- Nonadherent. Fine mesh absorbent gauze impregnated with white petrolatum. Remains moist. Nontoxic and nonirritating. Sterile</li> </ul>	<ul style="list-style-type: none"> <li>- for wound protection and wound hydration</li> </ul>	<ul style="list-style-type: none"> <li>does not absorb exudation, has bad air permeability, which results in growth of bacteria and causes wound infection</li> </ul>
3M soft cloth dressing with pad	<ul style="list-style-type: none"> <li>-all-in-one sterile dressing that features a breathable soft cloth tape backing with an unique non-adherent pad.</li> <li>-a hypoallergenic, non-latex adhesive that provides excellent adhesion, yet is gentle to the skin.</li> </ul>	<ul style="list-style-type: none"> <li>-primary or secondary dressing over light to moderately draining wounds, for securing devices, or for protecting I.V. catheter sites.</li> </ul>	
Tegaderm	<ul style="list-style-type: none"> <li>-Tegaderm consists of a thin polyurethane membrane coated with a layer of an acrylic adhesive.</li> <li>-permeable to both water vapour and oxygen, is impermeable to micro-organisms and once in position, it provides an effective barrier to external contamination, whilst producing a moist environment at the surface of the wound by reducing water vapour loss from the</li> </ul>	<ul style="list-style-type: none"> <li>-treatment of minor burns, pressure areas, donor sites, post-operative wounds,</li> <li>-variety of minor injuries including abrasions and lacerations.</li> <li>-protective cover to prevent skin breakdown due to friction or continuous exposure to moisture</li> </ul>	

	<p>exposed tissue.</p> <p>-Under these conditions in shallow wounds, scab formation is prevented and epidermal regeneration takes place at an enhanced rate, compared with that which occurs in wounds treated with traditional dry dressings.</p>		
<p>Paraffin gauze</p>	<p>-leno-weave fabric of cotton or cotton and viscose, which has been impregnated with yellow soft paraffin.</p> <p>-reduce the adherence of the product to the surface of a granulating wound. -Two formulations of Paraffin Gauze Dressing are described in the British Pharmacopoeia: they differ in the weight of paraffin base present on the gauze.</p> <p>-'light loading' product, contains between 90 and 130 grams of paraffin base per square metre of cloth.</p>	<p>-a primary wound contact layer in the treatment of burns, ulcers, skin grafts (both donor and receptor sites), and a variety of traumatic injuries.</p>	<p>if the dressing is placed upon a heavily exuding wound its semi-occlusive nature may cause tissue maceration by preventing the free movement of exudate away from the surface of the wound</p>

## Conclusion

Wound management is one of the fundamental skill of emergency nurses, colleagues should be familiar with the stuff of emergency wound care. Although no gold standard among 16s Accident and Emergency Departments, the most important aspects of wound care is to understand the wound nature, the equipment we used and the patient's reaction to wound.

## Reference

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