The Prevention and management of Skin Tears

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Wound Care Alliance UK is a registered charity which has the aim of providing information, advice and guidance for the specialist and non specialist working in Tissue Viability. We have a commitment to being a significant voice for Tissue Viability.

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skin

- Largest organ in the body
- 6-8lbs in weight
- Covers 20 square feet
- Separate layers that function as a single unit
- Provides a waterproof covering
- Millions of cells are worn of daily
Aged skin

- **Stratum corneum** experiences a 50% drop in cell turnover.
- **Dermal thickness** declines 20%.
- **Papillary dermis** flattens, reducing contact between the epidermal and dermal layers.
- **Deep vascular plexus** declines, reducing blood flow to the skin.
- **Subcutaneous tissue** contains fewer fat cells.
- **Melanocytes** decrease, causing pigmentation irregularities and increasing the risk of skin cancer.
- **Mast cells** decline by 50%, reducing the inflammatory response.
Skin tears occur most commonly in those with fragile skin, including neonates and more frequently in the elderly.
Definition

“A skin tear is a wound caused by shear, friction, and/or blunt force resulting in separation of skin layers. A skin tear can be partial-thickness (separation of the epidermis from the dermis) or full-thickness (separation of both the epidermis and dermis from underlying structures.)” (LeBlanc & Baranoski 2011).
However ..... 

• They can occur at any age
Likely to occur more on the arms and legs
Whilst skin tears may occur on the front of the leg or on the shin bone these are usually called ‘pre-tibial lacerations’ and require careful assessment of the blood supply to the lower limb and the consideration of the use of compression as outlined by Beldon (2008).
Pre-disposing factors towards skin tears

• Ageing skin
• Poor eyesight
• Environment
• Reduced balance / loss mobility leading to falls (home is commonest place of injury)
• Co morbidities; vascular, arthritis, diabetes
• Medications; Steroid therapy
• Young – sporting injury
What causes skin tears?

- Trauma
- Poor manual handling
- Knocks and bumps
- Adhesive tape removal
Classification?

- No universal classification tool
- Most widely used grading system - Payne & Martin (1993)
- Australian nurse experts gained consensus
- STAR (Skin Tear Audit and Research)
- Wording rather than the characteristics were modified and simplified
The Payne and Martin system provides classifications by degree of severity. It has three categories and two sub-categories:

Category I: Skin tear without loss of tissue. The epidermal flap either completely covers the dermis or covers the dermis to within 1mm of the wound margin
- Ia: Linear type
- Ib: Flap type

Category II: Skin tears with partial tissue loss
- IIa: Scant tissue loss (25% or less)
- IIb: Moderate to large loss of tissue (more than 25% loss of the epidermal flap)

Category III: Skin tears with complete tissue loss.
STAR Skin Tear Classification System

**Category 1a**
A skin tear where the edges can be realigned to the normal anatomical position (without undue stretching) and the skin or flap colour is not pale, dusky or darkened.

**Category 1b**
A skin tear where the edges can be realigned to the normal anatomical position (without undue stretching) and the skin or flap colour is pale, dusky or darkened.

**Category 2a**
A skin tear where the edges cannot be realigned to the normal anatomical position and the skin or flap colour is not pale, dusky or darkened.

**Category 2b**
A skin tear where the edges cannot be realigned to the normal anatomical position and the skin or flap colour is pale, dusky or darkened.

**Category 3**
A skin tear where the skin flap is completely absent.
The STAR acronym may be used as a prompt to ensure the appropriate assessment and prompt treatment of skin tears (Stephen-Haynes & Carville 2011):

- Select appropriate cleanser to clean the wound
- Tissue alignment
- Assess and dress
- Review and re-assess
In addition, a full assessment of the wound is required to determine the following:

- Anatomical location and duration of skin tear
- Dimensions (length, width depth)
- Wound bed characteristics and percentage of viable/non-viable tissue
- Type and amount of exudate
- Presence of bleeding or haematoma
- Degree of flap necrosis
- Integrity of surrounding skin
- Signs and symptoms of infection
- Associated pain.
The main aims of management are to preserve the skin flap and protect the surrounding tissue, reapproximate the edges of the wound without undue stretching, and reduce the risk of infection and further injury. The principles of moist wound healing are promoted in the following general guidelines:

- Control bleeding
- Approximate the skin flap
- Apply the dressing
- Review and reassess
Skin tears are often mis-diagnosed and/or mismanaged this can lead to complications such as:

- Pain
- Infection
- Delayed wound healing
Skin tears STAR project

Worcester PCT
Skin Tears “STAR” Project
Plan implemented in the PCT

• Agreed to use a silicone foam dressing (Allevyn gentle border) recommended Trust local wound management formulary product

• It was decided to develop a first line treatment box called the STAR box (based on skin tear classification). The contents of the box (shown below) included:
  • Prevention guidelines
  • Wound assessment chart
  • Star classification tool
  • Flowchart & Care plan
The skin tear management flowchart

1. Assessment
2. Cleanse the skin
3. Bring edges of the wound together
4. Apply dressing
5. Protect general skin
6. Prevent further skin damage
Prevention

• Correct manual handling techniques
• good nutrition and hydration
• Good skin care including emollients and use of non perfumed soap
• Provide adequate lighting
• Look out for small furniture (night table, chairs) in the immediate surroundings
• Upholster sharp borders of furniture or bed surroundings with soft material
• Apply antiembolic stockings carefully
• Have short fingernails or wear gloves when delivering patient care
• Avoid wearing jewellery during care that could snag/damage the skin
• Transport patients carefully
• Encourage patient to wear comfortable shoes to prevent falls
• Place, fix and remove venous catheters carefully
• Pay special attention to getting patients in and out of wheelchair
• If adhesive products have been used ensure the tape or dressing is removed slowly with extreme caution.
  – Stabilise skin and slowly peel tape away.
  – Consider using a plaster remover or saline to loosen and break the adhesive bond
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