

Best practice recommendations for the prevention and management of skin tears in aged skin: an overview

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This article is based on a symposium held at the European Wound Management Association (EWMA) conference in Krakow on 9th May 2018, which was sponsored by Mölnlycke, to launch the new guidelines document by the International Skin Tear Advisory Panel (ISTAP) 'Best practice recommendations for the prevention and management of skin tears in aged skin' (Wounds International, 2018).

Skin tears are a significant problem for patients and the clinicians who treat them. They can be painful wounds, affecting quality of life and causing distress to the patient. Skin tears may increase the likelihood of hospitalisation, and prolong hospitalisation time.

However, skin tears are still an under-recognised and under-reported issue, and the new guidelines document is needed in order to raise global awareness on the subject. There is still a misconception that skin tears are both unavoidable and trivial: 'it's just a skin tear'. It is important to note that skin tears can be complex wounds, which may become chronic and cause further complications, with a knock-on effect on resources, cost and clinician time.

There are limited incidence studies in the current literature, and reported prevalence estimates vary across care settings. However, the scale of the problem is significant and the ageing population means that incidence of skin tears is increasing, as elderly patients have fragile skin and are at increased risk.

The new guidelines were produced following a meeting by an international expert working group. ISTAP convened a group of experts from Europe, North America, South America, Asia, Africa and Australia, who met in November 2017 to provide internationally recognised recommendations for the prevention and management of skin tears.

The aim of the original meeting was to reach consensus on common terminology and updated definitions, select a

standardised classification system, and agree on best practice for prevention and management programmes.

Following the meeting, a draft document was produced, which underwent extensive review by the expert working group. Additional international experts were also consulted to reflect practice across different parts of the world. This culminated in a consensus by all members of the extended expert working group on all statements presented in the document. The document aims to provide healthcare professionals (HCPs) with the information and resources they need to assess, classify, treat (and prevent) skin tears.

What is a skin tear?

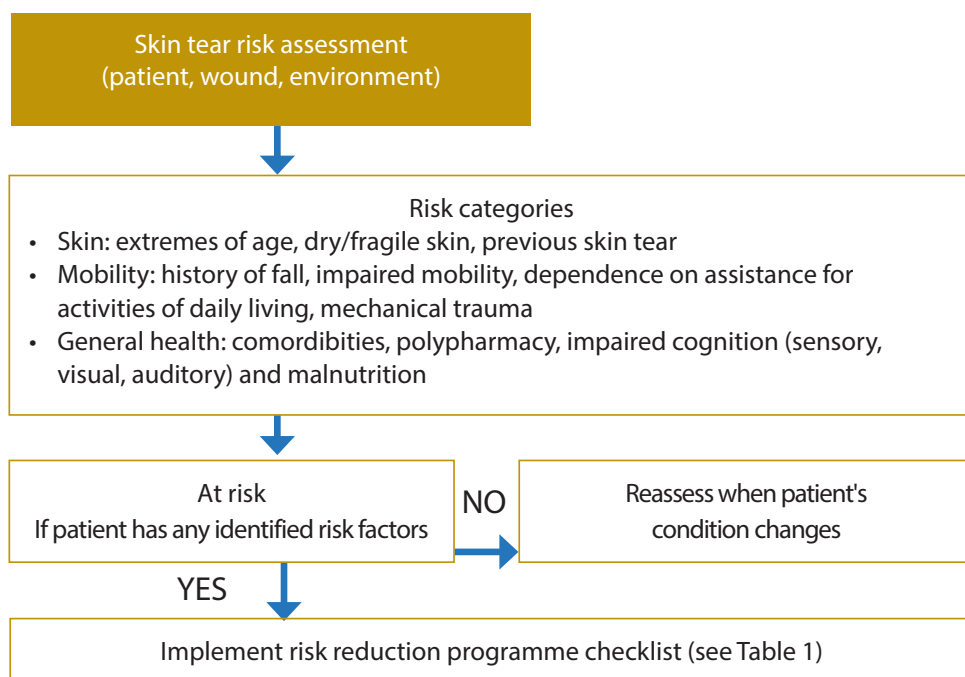
It was agreed that many misconceptions and misdiagnosis issues in skin tears resulted from a lack of common terminology and classification. This confusion means that skin tears can often go unrecognised and undocumented. Therefore, an accurate definition of skin tears was a crucial starting point.

The expert working group produced an updated definition of a skin tear: a skin tear is a traumatic wound caused by mechanical forces, including removal of adhesives. Severity may vary by depth (not extending through the subcutaneous layer).

Skin tears are traumatic wounds that may result from a variety of mechanical forces such as shearing or frictional forces, including blunt trauma, falls, poor handling, equipment injury or removal of adherent dressings. In already

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Figure 1. Skin tear risk assessment protocol (adapted from LeBlanc et al, 2013).



fragile or vulnerable skin (e.g. in aged or very young skin), less force is required to cause a traumatic injury, meaning that incidence of skin tears is often increased. Skin tears can occur on any part of the body but are often sustained on the extremities such as upper and lower limbs or the dorsal aspect of the hands (LeBlanc and Baranoski, 2011).

While skin tears have always existed, they were first defined by Payne and Martin in 1993 as traumatic injuries that can result in partial or full separation of the skin's outer layers — the separation of the epidermis from the dermis (partial thickness wound), or both the epidermis and dermis from the underlying structures (full thickness wound) (Payne and Martin, 1993; Stephen Haynes and Carville, 2011).

Skin tears can be further defined as 'uncomplicated' or 'complicated'. An uncomplicated skin tear is an acute wound that will go on to heal within approximately 4 weeks. A complicated skin tear is more complex, particularly on the lower extremities and/or in patients with multiple comorbidities; if it does not heal within 4 weeks, it becomes a chronic wound that can be defined as complicated.

Skin tear risk factors

Early recognition of people who are at risk of developing skin tears is an essential part of prevention. Identifying those patients at risk of skin tear development is vital to minimising incidence of avoidable skin tears. Determining

those at risk also aids appropriate allocation of resources.

A full holistic skin assessment should be conducted at the first visit or on admission to the clinical setting, and ongoing inspection of the skin should be incorporated into an integrated and documented daily care regimen, to ensure changes in patients' health status/skin integrity are identified (Wounds UK, 2015).

Skin tears are more common in – but not limited to – extremes of age. The document focuses on skin tears in aged skin, as the majority of research is focused in this area and further research in other patient groups is still required.

Skin tears are generally caused by a combination of intrinsic and extrinsic risk factors. The normal ageing process causes intrinsic changes in the skin that make it more fragile and therefore more vulnerable to damage such as skin tears. In aged skin, wounds take longer to heal and are associated with increased risk for deterioration (Moncrieff et al, 2015). Older patients are also at higher risk of developing infections and comorbidities, which can cause skin tears to be significant and often complex wounds (Wounds UK, 2015).

Causes of skin tears vary, and often patients do not know how it happened: almost half of skin tears are found without any apparent documented cause (LeBlanc et al, 2013).

Risk assessment for skin tears falls into three main categories (LeBlanc et al, 2013;

Table 1. Risk reduction programme checklist (adapted from LeBlanc and Baranoski, 2011).

| RISK FACTOR | ACTION |
|----------------|--|
| Skin | <ul style="list-style-type: none"> <input type="checkbox"/> Inspect skin and investigate previous history of skin tears <input type="checkbox"/> If patient has dry, fragile, vulnerable skin, assess risk of accidental trauma <input type="checkbox"/> Manage dry skin and use emollient to rehydrate limbs as required <input type="checkbox"/> Implement an individualised skin care plan using a skin-friendly cleanser (not traditional soap) and warm (not hot) water <input type="checkbox"/> Prevent skin trauma from adhesives, dressings and tapes (use silicone tape and cohesive retention bandages) <input type="checkbox"/> Consider medications that may directly affect skin (e.g. topical and systemic steroids) <input type="checkbox"/> Be aware of increased risk due to extremes of age <input type="checkbox"/> Discuss use of protective clothing (e.g. shin guards, long sleeves or retention bandages) <input type="checkbox"/> Avoid sharp fingernails or jewellery in patient contact |
| Mobility | <ul style="list-style-type: none"> <input type="checkbox"/> Encourage active involvement/exercises if physical function is impaired <input type="checkbox"/> Avoid friction and shearing (e.g. use glide sheets, hoists), using good manual handling techniques as per local guidelines <input type="checkbox"/> Conduct falls risk assessment <input type="checkbox"/> Ensure that sensible/comfortable shoes are worn <input type="checkbox"/> Apply clothing and compression garments carefully <input type="checkbox"/> Ensure a safe environment — adequate lighting, removing obstacles <input type="checkbox"/> Use padding for equipment (as per local policy) and furniture <input type="checkbox"/> Assess potential skin damage from pets |
| General health | <ul style="list-style-type: none"> <input type="checkbox"/> Educate patient and carers on skin tear risk and prevention <input type="checkbox"/> Actively involve the patient/carer in care decisions where appropriate <input type="checkbox"/> Optimise nutrition and hydration, referring to dietician if necessary <input type="checkbox"/> Refer to appropriate specialist if impaired sensory perception is problematic (e.g. diabetes) <input type="checkbox"/> Consider possible effects of medications and polypharmacy on the patient's skin |

LeBlanc, 2017): general health, mobility and skin [Figure 1]. Appropriate risk assessment can aid resource allocation and, where necessary, trigger implementation of a risk reduction programme [Table 1].

Risk of skin tears is multi-factorial, so a multidisciplinary team (MDT) approach is key. Risk factors can be modifiable and simple interventions may solve multiple problems: focusing on the bigger picture can result in improvements to overall health — for example, improving mobility can improve overall health and reduce skin tear risk accordingly.

Dry, itchy skin is a common risk factor that can be managed: Carville et al (2014) found that implementing a twice-daily moisturising regimen reduced skin tear incidence by approximately 50%. It is also important to ask the patient about their skin health history and take appropriate measures based on this.

Extrinsic, or environmental risk factors can also be reduced by taking measures such as:

- Keeping fingernails trimmed and not wearing jewellery
- Padding and/or removing any potentially

dangerous furniture or devices — e.g. bed rails and wheelchairs

- Covering skin with appropriate clothing or retention bandages/stockinette in vulnerable patients
- Protecting the skin's general wellbeing by using skin-friendly (pH balanced) products and preventative emollients where appropriate (Wounds UK, 2015).

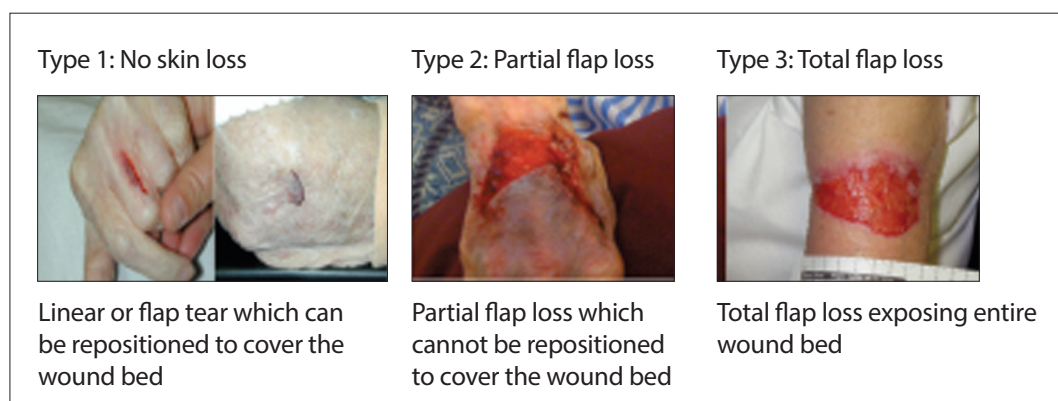
Classifying skin tears

The expert group identified a need for simplification and standardisation of skin tear classification. A descriptive, cross-sectional, online international survey was undertaken in 2010 to explore current practices in the assessment, prediction, prevention, and treatment of skin tears, involving 1127 HCPs from 16 countries (LeBlanc et al, 2014).

The survey results found significant problems with the current classification systems (which included a variety of different systems, which were not all fully validated), including:

- 70% of respondents reported a problem with current assessment and documentation

Figure 2. ISTAP Skin Tear Classification.



- of skin tears in their practice settings
- 90% favoured a simplified method for documenting and assessing skin tears
 - 81% admitted to not using any tool or classification system for assessing and documenting skin tears
 - 40% admitted to ignoring and not documenting anything for these wounds.

It is apparent that skin tears need to be correctly identified on presentation and fully documented, in order to set appropriate treatment goals and optimise management.

As such, the ISTAP classification system (LeBlanc et al, 2013) is recommended for use in practice. The ISTAP system was developed using a Delphi process and validated by 839 HCPs in practice, and continues to be validated presently in Chile and Brazil.

The ISTAP system uses a simple method to classify skin tears, categorising them as either **Type 1, Type 2 or Type 3.**

Type 1 skin tear — No skin loss

Linear tear where the skin flap can be repositioned to cover the wound bed.

Type 2 skin tear — Partial flap loss

The skin flap cannot be repositioned to cover the whole of the wound bed.

Type 3 skin tear — Total flap loss

Total skin flap loss that exposes the entire wound bed.

See *Figure 2* for a quick visual guide to the ISTAP classification system in practice.

ISTAP classification is a simple system that is easy to use for frontline staff. Crucially, the simple differentiation between skin tear types means that staff do not have to guess at numbers/percentages.

Skin tear management

The expert group agreed on a step-by-step

decision algorithm, to form the basis of a management pathway to follow in practice [*Figure 3*].

Approximating wound edges is a key step, and it is important to preserve the flap and roll it back into place where possible.

Dressing selection is also an important element, as the dressing must optimise healing and also decrease the risk of further damage in fragile skin. Updated guidance on product selection is included in the new ISTAP document (LeBlanc et al, 2018).

Preventing trauma at dressing change is vital in order to protect the flap, and an arrow should be used to assist with this process: on application, it is recommended to draw an arrow on the dressing to show the correct direction for removal.

Future research

To increase knowledge about skin tears, we still need more prevalence and incidence data. Randomised controlled trials are also required to guide best practice.

There is still a need for increased awareness and common terminology. The current version of the World Health Organization’s International Classification of Diseases (ICD) does not currently include separate coding for skin tears (WHO, 2010). There is suggestion that this current lack of coding contributes to skin tears being perceived as insignificant injuries (Rayner et al, 2015), and there is a need for change.

Key points: Updated 2018 ISTAP best practice recommendations

STATEMENT 1

Intrinsic and extrinsic factors contribute to the cause of skin tears; some of these factors are yet to be determined.

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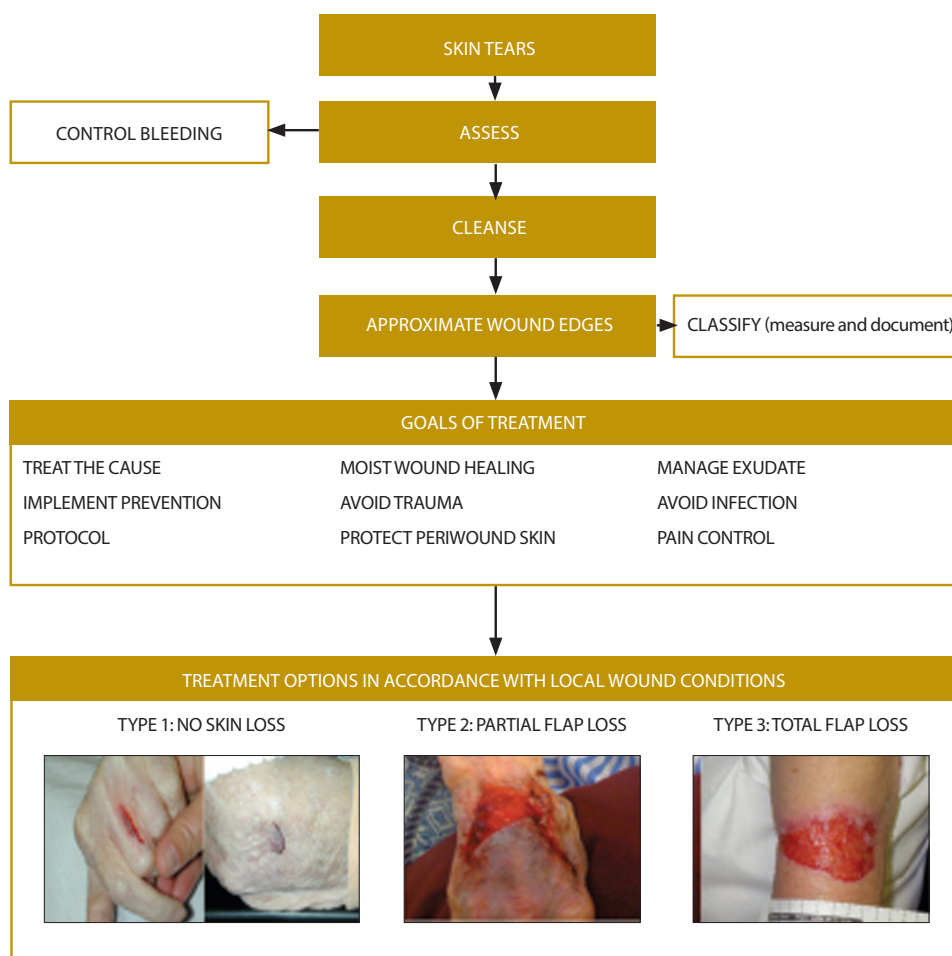


Figure 3. Skin tear decision algorithm (LeBlanc et al, 2013).

STATEMENT 2

Skin tears occur more frequently, but are not limited to, patients at the extremes of age, as this affects the skin's ability to resist shear, friction and/or blunt force.

STATEMENT 3

Individuals with impaired activity, mobility, sensation, or cognition — or with comorbidities and polypharmacy issues — have increased risk of skin tears.

STATEMENT 4

An assessment of risk factors for skin tears should be conducted for all individuals within the context of their environment.

STATEMENT 5

A collaborative interdisciplinary approach — including patient, carers and family — should be utilised for skin tear prevention and management.

STATEMENT 6

Skin tears should be assessed and documented on a regular basis according to

an internationally standardised system.

STATEMENT 7

Evidence-informed wound care principles should guide treatment of skin tears.

STATEMENT 8

Patients, families, caregivers and healthcare providers should be educated regarding prevention and management of skin tears.

STATEMENT 9

Not all skin tears are preventable.

STATEMENT 10

Further research is needed to expand scientific knowledge to determine best practice in skin tear prediction, prevention, assessment, treatment and documentation. **WINT**

The full updated ISTAP document 'Best practice recommendations for the prevention and management of skin tears in aged skin' (LeBlanc et al, 2018) is available to download from the *Wounds International* website.