International Skin Tear Advisory Panel:
Evidence Based Prediction, Prevention, Assessment, and Management of Skin Tears

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The International Skin Tear Advisory Panel (ISTAP) defines skin tears as "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)". [1,2]

Skin tears are acute wounds, commonly found in the elderly. However, the neonate and pediatric population are also at risk for skin tears. Skin tears have been reported in the literature to have prevalence rates equal to or greater than those of pressure ulcers. [2]

Individuals suffering from skin tears complain of increased pain and decreased quality of life. Populations at the highest risk for skin tears include those at extremes of age and the critically or chronically ill. These individuals are at a higher risk for developing secondary wound infections and have co-morbidities. [1,3,4]

Health-care professionals must become cognizant of which individuals are at risk for developing skin tears, how to prevent these wounds, and how to treat them when they occur. In recent literature there has been increasing attention given to skin tears, but there has been no gold standard developed for their management. By recognizing which patients are at risk for skin tears, preventing skin injuries, and using appropriate non-adherent dressings we can save patients undue pain and suffering. [1,5]

In order to diminish the impact of skin tears on our health care systems it is imperative that a systematic prevention program be implemented. The International Skin Tear Advisory Panel has created a tool kit for the prevention, identification and treatment of skin tears. Each component of the tool kit has been developed to complement other components. The tool kit is based on extensive literature reviews, international input from healthcare professionals, and on expert opinion. It has under gone an extensive peer review process in the form of a modified Dephi process.

The tool kit was designed to include components that would serve as a basis for education and implementation guidance for prevention and treatment programs. It includes the following:

- Skin Tear Risk Assessment Pathway
- Prevalence Study Data Collection Sheet
- Pathway to Assessment/Treatment of Skin Tears
- Skin Tear Decision Algorithm
- Drugs Associated with Risk of Falls
- Quick Reference Guide for the ISTAP Risk Reduction Program
- Skin Tear Product Selection Guide

Goals and Objective

The goal of the ISTAP Skin Tear Tool Kit is to provide a foundation to assist and guide individuals, their circle of care, and health care professionals in the risk assessment, prevention and treatment of skin tears. The ISTAP Skin Tear Tool Kit is designed to allow the clinician to implement systematic approach to the prevention, management and treatment of skin tears.

Methodology

The ISTAP group developed the tool kit and subsequently subjected it to a global review and input from a wide group of international reviewers. The purpose of this document is to disseminate the globally agreed ISTAP Skin Tear Tool Kit and to generate further research on this topic.

A three-phase modified-Delphi method was used to reach consensus on the components of the ISTAP Skin Tear Tool Kit.

Summary

This toolkit for health care professionals provides ways to implement effective skin tear prevention, assessment, and treatment practices through an interprofessional approach to care. The document includes an implementation guide with tools and resources. The tools and resources are designed to be used in multiple healthcare settings and by all level of staff and caregivers.

PREVALENCE STUDY DATA COLLECTION SHEET

Patient Identifier:_____
Unit/Floor:_____
Type of care facility:_____
Sex: 1: Male 2: Female (circle one)
Age _____

Skin Tear	Skin Tear Type (place number 1–3 in box below)	Anatomical Location of Skin Tear (place number 1– 10 in box below)	Extrinsic Cause(s) (place number 1– 7 in box below) (list all causes that apply)	Intrinsic Cause(s) (place number 1– 12 in box below) (list all causes that apply)	Where Did Skin Tear Occur? (place number 1– 11 in box below)	Facility Acquired? (circle yes or no below)
A						Yes No
B						Yes No
C						Yes No
D						Yes No

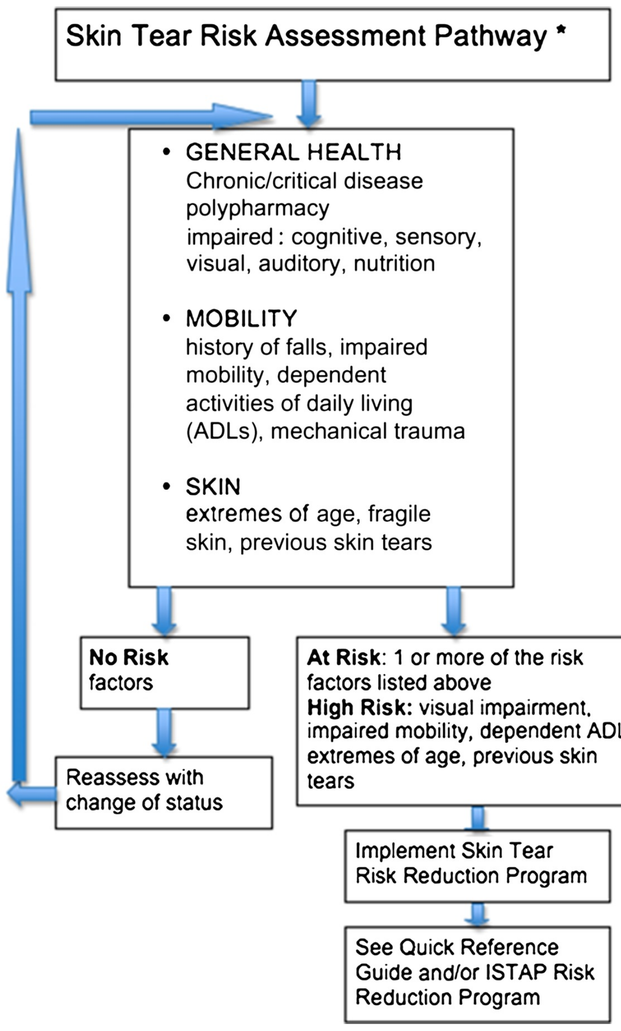
ISTAP Skin Tear Classification

Anatomical Location of Skin Tear:
1. Hands
2. Arms
3. Legs (include pre-tibial, ankle)
4. Feet
5. Head / Face
6. Abdomen
7. Buttocks / Hip
8. Chest
9. Perineum
10. Back
11. Chest

Extrinsic Causes:
1. During ADLs
2. Blunt Force Trauma
3. Fall
4. Adhesive (dressing and tape) injury
5. Resisting care / Agitation
6. Unknown
7. Other: _____

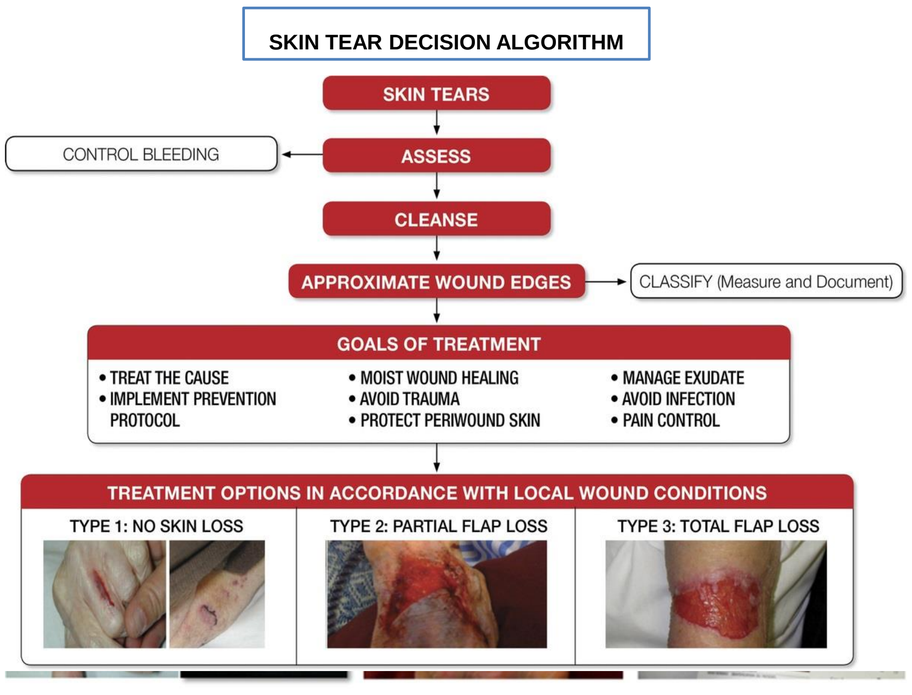
Intrinsic Causes:
1. Senile Purpura
2. Ecchymosis
3. Hematoma
4. Presence of Edema
5. Inability to reposition independently
6. Topical steroid use
7. Systemic steroid use
8. Anticoagulants /Antiplatelet
9. Chemotherapy Agents
10. Co-existing Pressure Ulcer
11. Incontinence (urine, stool)
12. None of the above

Where Did Skin Tear Occur?
1. Critical Care
2. Emergency Department
3. Medicine
4. Surgery
5. Operating Room
6. Long Term Care
7. Community
8. Rehab
9. Palliative Care
10. Unknown
11. Other: _____



QUICK REFERENCE GUIDE FOR THE ISTAP RISK REDUCTION PROGRAM

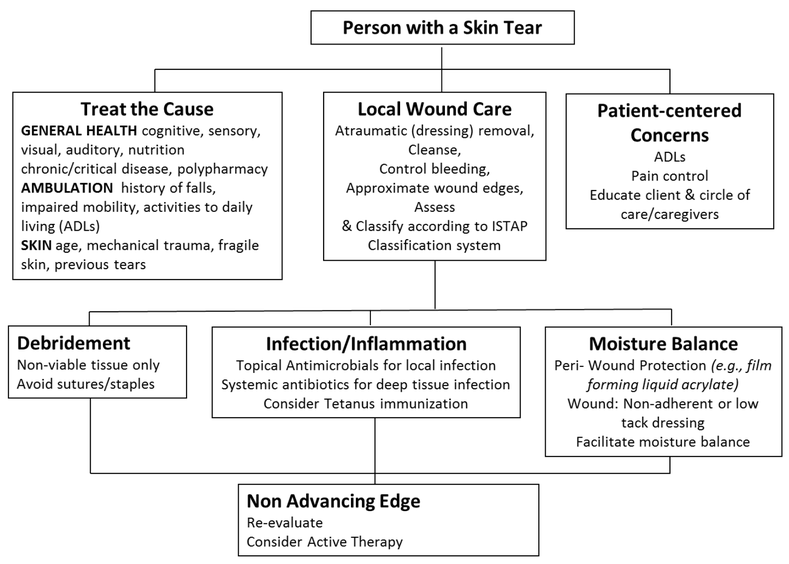
Risk Factor	Individual	Caregiver/Provider
General health	• Educate patient on skin tear prevention and promote active involvement in treatment decisions (if cognitive function not impaired) • Optimize nutrition and hydration	• Safe patient environment • Educate client +/circle of care/caregivers • Protect from self-harm • Dietary consult if indicated • Extra caution with extremes of body mass index (<20 or >30 kg/m^2) • Review polypharmacy for medication reduction/optimization
Mobility	• Encourage active involvement if physical function not impaired • Appropriate selection and use of assistive devices	• Daily skin assessment and monitor for skin tears • Ensure safe patient handling techniques/equipment and environment (trauma, ADLs, self-injury) • Proper transferring/repositioning • Initiate fall prevention program • Remove clutter • Ensure proper lighting • Pad equipment/furniture (bed rails, wheelchair, etc) • Avoid sharp fingernails/jewelry with patient contact
Skin	• Awareness of medication-induced skin fragility (eg, topical and systemic steroids) • Wear protective clothing (shin guards, long sleeves, etc) • Moisturize skin (lubrication and hydration) • Keep fingernails short	• Individualize skin hygiene (warm, tepid, not hot, water; soapless or pH-neutral cleaners; moisturize skin) • Avoid strong adhesives, dressings, tapes • Avoid sharp fingernails/jewelry with patient contact
Healthcare setting	• Implement a comprehensive skin tear reduction program • Include skin tears in audit programs • Utilize validated classification system • Develop consultative team (wound care/dietary specialists, rehab/pharmacists)	



SKIN TEAR PRODUCT SELECTION GUIDE

Product Categories	Indications	Skin Tear Type	Considerations
Non-Adherent Mesh Dressings. (Example: lipido-colloid mesh, Impregnated gauze mesh, silicone mesh, petrolatum)	Dry or exudative wound	1,2,3	Maintains moisture balance for multiple levels of wound exudate, Atraumatic removal May need secondary cover dressing
Foam dressing	Moderate exudate Longer wear time (2-7 days depending on exudate levels)	2,3	Caution with adhesive border foams, use non-adhesive versions when possible to avoid peri-wound trauma
Hydrogels	Donates moisture for dry wounds	2,3	Caution: may result in peri wound maceration if wound is exudative For autolytic debridement in wounds with low exudate Secondary cover dressing required
2-octyl cyanoacrylate topical bandage (skin glue)	To approximate wound edges	1	Use in a similar fashion as sutures within first 24 hours post injury, relatively expensive, medical directive/ protocol may be required
Calcium Alginates	Moderate to heavy exudate Hemostatic	1,2,3	May dry out wound bed if inadequate exudate Secondary cover dressing required
Hydrofibre:	Moderate to heavy exudate	2,3	No hemostatic properties May dry out wound bed if inadequate exudate Secondary cover dressing required
Acrylic dressing	Mild to moderate exudate without any evidence of bleeding, may remain in place for an extended period of time	1,2,3	Care on removal Should only be used as directed and left on for extended wear time
Special Consideration for Infected Skin Tears			
Product Categories	**Indications**	**Skin Tear Type**	**Considerations**
Methylene Blue and Gentian Violet Dressings	Effective broad spectrum antimicrobial action including antibiotic resistant organisms	1,2,3	Non-traumatic to wound bed Use when local or deep tissue infection is suspected or confirmed Secondary dressing required
Ionic Silver Dressings	Effective broad spectrum antimicrobial action including antibiotic resistant organisms	1,2,3	Should not be used indefinitely. Contraindicated in patients with silver allergy Use when local or deep infection is suspected or confirmed Use non-adherent products whenever possible to minimize risk of further trauma
*****This product list is not all inclusive; there may be additional products applicable for the treatment of skin tears			

PATHWAY TO ASSESSMENT/TREATMENT OF SKIN TEARS



Key Points:

- Skin tears are acute wounds that have a high risk of becoming complex chronic wounds.
- Skin tears have been reported in the literature to have prevalence rates equal to or greater than those of pressure ulcers.
- Although commonly associated with the older adult population, skin tears are also common in the critically ill, pediatric, and premature neonatal population.
- A comprehensive risk assessment should include assessment of the individual's general health(chronic/critical disease, polypharmacy, cognitive, sensory, visual, auditory, and nutritional status), mobility(history of falls, impaired mobility, dependent activities and mechanical trauma), and skin (extremes of age, fragile skin, and previous skin tears).
- The ISTAP skin tear classification system should be utilized to ensure a common language for identifying and documenting skin tears.

DRUGS ASSOCIATED WITH RISK OF FALLS

HIGH-RISK DRUGS ASSOCIATED WITH FALLS	
Antidepressants	Avoid tricyclic antidepressants, especially those with high antimuscarinic activity. Selective serotonin reuptake inhibitors are associated with a reduced incidence of adverse effects in older adults.
Antipsychotics	Risk of hypotension is a dose-related effect reduced by the "start low, go slow approach." Attempted withdrawal *must* always be gradual to avoid precipitation of withdrawal symptoms, such as rebound agitation.
Antimuscarinic drugs (anticholinergics)	Antimuscarinic drugs are used in treatment of urinary incontinence and in Parkinson disease. Oxybutynin may cause acute states of confusion in older adults, especially those with preexisting cognitive impairment.
Benzodiazepines and hypnotics	Avoid long-acting benzodiazepines
Dopaminergic drugs used in Parkinson disease	Sudden excessive daytime sleepiness can occur with levodopa and other dopamine receptor agonists. Careful dose titration is particularly important in initiation of treatment because of the additional risk of inducing confusion. As the patient ages, maintenance doses may need to be reduced.
MODERATE-RISK DRUGS ASSOCIATED WITH FALLS	
Angiotensin-converting enzyme inhibitors/ angiotensin II antagonists	Risk of hypotension is potentiated by concomitant diuretic use. Incidence of dizziness varies from 4%–12% of patients, but affects twice as many patients with heart failure than hypertension.
Antiarrhythmics	Dizziness and drowsiness are possible signs of digoxin toxicity; risks of toxicity are greater in renal impairment or in the presence of hypokalemia. Flecainide has a high risk for drug interactions and can also cause dizziness.
Antiepileptics	Incidence of dizziness, drowsiness and blurred vision are dose-related adverse effects observed with carbamazepine but may be reduced by altering timing or choice of formulation. Phenytoin adverse effects, such as dizziness and blurred vision, may be signs of drug-related toxicity.
Antihistamines	Somnolence may affect up to 40% of patients with older antihistamines. The newer antihistamines cause less sedation and psychomotor impairment.
β-blockers	Dizziness can occur and may be due to postural hypotension; this may affect up to 10% of patients.
Diuretics	Postural hypotension, dizziness, and nocturia are the most frequent problems seen in older adults. Diuretics should not be prescribed for long-term use in the treatment of gravitational edema.
Opiate analgesics	Drowsiness and sedation are common with initiation of treatment, but tolerance to these adverse effects is usually seen within 2 weeks of continuous treatment.

References

1. LeBlanc, K., Baranoski, S. et al. Skin Tears: State of the Science: Consensus Statements for the Prevention, Prediction, Assessment, and Treatment of Skin Tears.. *Advances in Skin and Wound Care.2011;*24(9S).
2. Carville, K., Lewin, G., et.al. STAR: A consensus for skin tear classification. Prim Intent 2007; 15(1):18-28.
3. LeBlanc K, Baranoski S. Prevention and management of skin tears. Adv Skin Wound Care 2009;22(7):325-334.
4. Bank D, Nix D. Preventing skin tears in a nursing and rehabilitation center: an interdisciplinary effort. Ostomy Wound Manage 2006;52(9):38-46.
5. LeBlanc, K., Christensen, D., Orsted, H., Keast, D. Best Practice Recommendations for the Prevention and Treatment of Skin tears. *Wound Care Canada.* 2008. 6(8) 14-32.
6. Ziere, G., et al. *Polypharmacy and falls in the middle age and elderly population.* Br J of Clin Pharmacol 2006 61(2): 218-223
7. White, M., Karam, S., Cowell, B. Skin tears in frail elders. A practical approach to prevention. *Geriatric Nurse.* 1994; 15(2): 95-9.
8. LeBlanc, K., Christensen, D., et al, Pilot Study of the Prevalence of Skin Tears in a Long Term Care Facility in Eastern Ontario, Canada 2011, publication pending.
9. Baranoski, S., Ayello, EA., et al. Skin :an essential organ. In Baranoski, S., Ayello, EA. eds. In: Wound Care Essentials:Practice Principles, 3rd edition, Philadelphia, PA, LWW; 2012:66-70.
10. Reddy M, Holroyd-Leduc J, Cheung C, et al. Fundamentals of Geriatric Care in the Older Chronic Wound Patient. In: Krasner DL, Rodeheaver G, Sibbald RG, eds. Chronic Wound Care: A Clinical Sourcebook for Healthcare Professionals, 4th Edition. Malvern, PA: HMP Communications; 2007:663-678.
11. The American Medical Directors Association. (2005). Falls and fall risk. Assisted Living Consult. Retrieved on November 8, 2009 from http://www.assistedlivingconsult.com/issues/01-01/ALC1-1_FallsRisk.pdf
12. LeBlanc, K.; Baranoski, S.; Christensen, D.; Langemo, D.; Sammon, M.; Edwards, K.; Holloway, S.; Gloeckner, M.; Williams, A.; Sibbald, G.; Campbell, K.; Regan, M. (2013) International Skin Tear Advisory Panel (ISTAP) – Validation of a New Classification System for Skin Tears. Advances in Skin & Wound Care. 26(6) 263-265

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