

TREATMENT OF SKIN TEARS USING TRANSFORMING POWDER DRESSING: RETROSPECTIVE ANALYSIS OF OUTCOMES

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INTRODUCTION:

Skin tears are acute wounds observed especially in the elderly population and conflict zones, caused by mechanical forces as a result of shear, friction and blunt trauma resulting in separation of skin layers.²

- Skin tears are common, underestimated, and
- have high risk of developing into complex, chronic wounds³
 - cause pain⁴
 - increase length of hospitalization⁴
 - increase health costs⁴
 - negatively impact quality of life⁴

Best practice recommendations for skin tear wound dressings include moisture balance, exudate management, optimization of caregiver time, and atraumatic removal.⁴

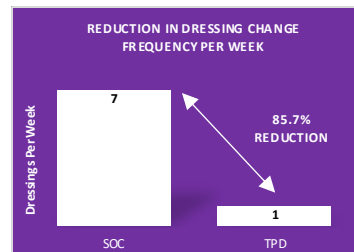
Transforming powder dressing (TPD*) is an extended wear powder dressing comprised primarily of polymers similar to those used in contact lenses, that when hydrated, aggregate to form a moist oxygen-permeable barrier that covers and protects the wound, including all of the features recommended for dressing skin tears.

METHODOLOGY:

Design: Single-center, retrospective, IRB approved
Site: Large US teaching hospital
Population: Patients >18 years old with skin tears treated with TPD and at least one follow-up visit
Study Review Period: 2019-2023
Procedure: Patients treated with TPD were identified using billing data. All wounds were cleaned or debrided per standard of care (SOC) and transitioned to TPD. Contact layers and gauze were used as secondary dressings. Data was assessed from the first TPD application or until the wound had healed or patient was lost to follow up, whichever came first.

RESULTS:

Sample Population	N = 15
Gender	66% Female
Age	63 to 92 years (mean = 77)
Wound Surface Area:	0.25cm ² to 124.8cm ² (mean = 25.7cm ²)
Dressings / Week	SOC: Daily* (mean = 2) TPD: Weekly (mean = 16)
Healed with TPD	N = 15 (100%)



Patient	Comorbidities	SOC			TPD	
		Wound Age* (Days)	Number of Dressing Changes	WSA (cm ²)	Days to Healing	Number of Dressing Changes
70 F	Chronic venous insufficiency	> 28	> 28	3.0	14	2
88 M	Smoking, kidney disease, hypertension	10	10	37.5	28	4
77 F	CVA, HTN, arthritis, GERD	> 90	> 90	9.0	21	3
86 F	DM, varicose veins, venous stasis dermatitis	28	28	6.8	35	5
81 F	Peripheral venous insufficiency	14	14	15.4	28	4
77 F	HTN, emphysema of lung, hyperthyroid	21	21	6.7	42	6
77 M	Idiopathic chronic venous HTN	> 28	>28	19.2	14	2
92 F	COPD, pumonary HTN, breast cancer, gout	> 28	>28	0.3	28	4
81 M	DM, COPD	> 28	>28	6.8	21	3
68 F	Peripheral venous insufficiency	2	2	6.4	35	5
82 F	Idiopathic chronic venous HTN	14	14	7.5	56	8
65 F	HTN, SLE	> 90	> 90	26.4	56	8
63 M	Laryngeal cancer/radiation, ORN (mandible)	> 90	> 90	105.0	112	16
82 F	Chronic venous HTN	> 90	> 90	124.8	56	8
69 M	Varicose veins, venous stasis	> 90	> 90	10.0	84	12
MEAN		43.4	43.4	25.7	42.0	6.0

ILLUSTRATIVE CASES:



DISCUSSION:

All skin tear wounds reviewed as part of this study, went on to full healing, without any complications and with significantly reduced dressing changes relative to SOC. TPD meets recommended skin tear guidelines for wound dressings and should be considered when caring for patients with skin tears.

REFERENCES & ACKNOWLEDGEMENTS:

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