

Use of SilvaKollagen® Gel to support autolytic debridement

Background: Debridement is a vital component of wound bed preparation to progress stalled chronic wounds toward healing. Sharp debridement is not always an available treatment option in skilled and home care settings due to availability of qualified caregivers and practice act parameters. Enzymatic debridement with collagenase is a popular alternative in these scenarios, but may be cost prohibitive for many. As a result, clinicians are looking for alternatives to costly enzymatic debridement, such as autolytic debridement with various advanced wound dressings. SilvaKollagen Gel, which supports natural autolysis by rehydrating and softening devitalized tissue thereby supporting autolytic debridement, has been used as one such wound dressing alternative.

Objective: Retrospective analysis was performed on debridement outcomes for 25 skilled nursing and home care patients with wounds of varying “on label”

etiologies/anatomic locations using 5 different wound treatments for 4 weeks to determine if the autolytic debridement groups outcomes were comparable to enzymatic debridement.

Results: Initial total necrotic tissue amounts ranged from 80% to 100% at the start of care. After 4 weeks of treatment, the total amount of necrotic tissue in the wounds ranged from 0% to 90%. The SilvaKollagen Gel (SKG) group began with an average of 98% total devitalized tissue, the highest starting average of any group and decreased to 16% devitalized tissue, the lowest percentage as a group after 4 weeks of treatment. The SKG group demonstrated the highest overall percentage improvement in wound bed characteristics with an 82% reduction in total devitalized tissue amounts. The overall group debridement levels were less than 35% for each of the other 4 debridement methods.

Treatment	Collagenase Based Chemical					Polyacrylate					Leptosperum Honey					Collagen/Silver Sheet					Silver Collagen Gel				
	Patient #	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4
	eschar/slough					eschar/slough					eschar/slough					eschar/slough					eschar/slough				
At Initiation	90/10	0/85	95/5	0/95	0/100	80/10	0/100	0/100	10/80	75/5	95/5	0/100	5/80	0/90	0/80	40/45	0/100	10/80	0/100	30/65	0/100	100/0	80/20	75/15	0/100
Week 1	85/15	0/80	90/10	0/90	0/95	75/15	0/95	0/80	5/80	70/0	90/5	0/100	5/75	0/85	0/80	40/40	0/100	10/70	0/95	20/60	0/85	85/15	70/0	60/20	0/75
Week 2	85/15	0/75	90/5	0/80	0/95	70/15	0/90	0/75	0/75	65/5	90/5	0/95	0/70	0/80	0/70	40/35	0/90	10/70	0/90	20/50	0/75	55/0	40/10	40/15	0/50
Week 3	80/5	0/70	80/5	0/75	0/95	70/5	0/80	0/60	0/70	40/20	85/0	0/95	0/70	0/80	0/60	35/30	0/80	10/60	0/75	15/40	0/55	50/5	15/20	35/0	0/20
Week 4	75/0	0/60	75/0	0/60	0/90	60/5	0/75	0/60	0/65	40/10	80/5	0/95	0/70	0/70	0/55	35/20	0/70	5/60	0/60	15/35	0/15	40/5	0/0	10/5	0/5
	At Initiation		Week 4			At Initiation		Week 4			At Initiation		Week 4			At Initiation		Week 4			At Initiation		Week 4		
Avg. Total % Necrotic	96%		72%			92%		63%			91%		75%			93%		60%			98%		16%		
% Improved	24%					29%					16%					33%					82%				

Conclusion: In this sample, wounds treated with SilvaKollagen Gel for one month had the largest amount of necrotic tissue reduction, or debridement. The SilvaKollagen Gel group experienced autolytic debridement at a faster rate (82%) than the other 4 treatment groups: (enzymatic debridement, polyacrylate

autolytic debridement, leptosperum honey autolytic/osmotic debridement, collagen/silver sheet autolytic debridement) and was the only group to have a wound completely debrided during this time frame.

References:

1. Heasley D. Evaluation of a silver collagen based amorphous gel in expedience of wound debridement. #5124. JWOCN. May/June 2011;38(3S):S18.



Post-hoc review of healing rates at one month using SilvaKollagen Gel

Background: Failure to reach wound healing benchmarks is associated with delayed healing and the need to reevaluate the treatment plan of care. The amount of healing expected in 4 weeks to be on track for wound closure is at least 50% for diabetic foot ulcers and at least 40% for venous leg ulcers. Pressure ulcers should have at least a 40% wound area reduction in 2 weeks to be considered on track for closure.¹

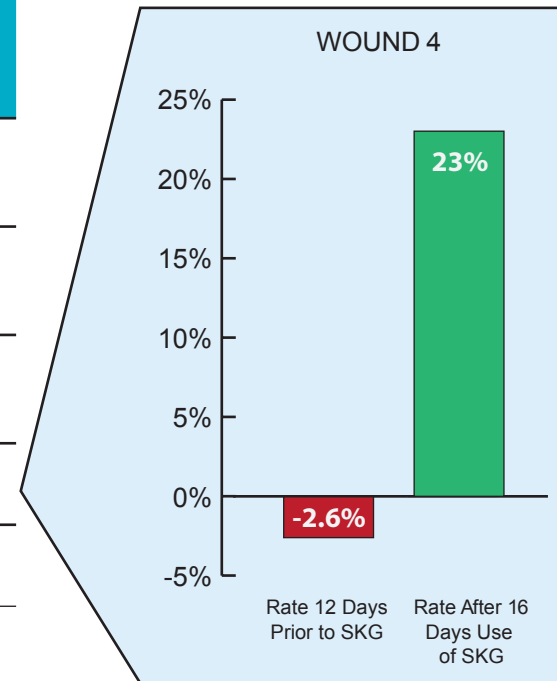
Objective: To retrospectively analyze if treatment with SilvaKollagen Gel (SKG) achieved healing rates near the benchmarks of 40-50% for various wound diagnoses in long-term care.

Methods: A post-hoc analysis of the percent wound area reduction (healing) achieved in one month for 6 “on label” wounds reported in SKG case studies from 2006-2008.²⁻⁴

Results: All 6 wounds treated with SKG achieved ≥48% wound area reduction or healing within one month. The range of healing rates for one month of treatment was 48% -100%. Wound 4 had previous treatment for 12 days with a deterioration trajectory as size increased 2.6% during that time, which improved to a 23% healing rate 16 days later with use of SKG. Five of these wounds went onto complete closure within ≤78 days of the SKG treatment regime.

Conclusion: Wounds treated with SilvaKollagen Gel for one month achieved healing rates of at least 48% which is in accordance with wound healing benchmarks supported by published research. Treatment with SilvaKollagen Gel was also able to convert a deteriorating wound into a healing wound and achieved overall wound closure in 83% of the wounds reviewed, including chronic arterial ulcers.

Wound Info	Gender	Age	Wound Duration Prior to SKG Treatment	Initial Wound Area (cm ²) at Start of SKG Treatment	Amount of Healing	Number of Days Using SKG to Achieve Reported Healing
1 - Surgical Wound Dehisced left lower medial thigh laceration	Female	42	3 Weeks	13.5	70% 100%	29 Days 42 Days
2 - Surgical Wound Post-surgical excision scalp squamous cell carcinoma	Male	87	2 Months	1.2	100%	20 Days
3 - Surgical Wound Post-surgical excision scalp basal cell carcinoma	Female	76	1 Week	26.0	63% 94%	31 Days 73 Days
4 - Second Degree Burn Deep PT, left heel	Female	75	12 Days	132.2	48% 100%	30 Days 78 Days
5 - Arterial Insufficiency Ulcer Left dorsal, mid-foot	Male	67	18 Months	3.4	89% 100%	30 Days 55 Days
6 - Surgical Wound 4th toe nonhealing amputation				1.1	86% 100%	30 Days 45 Days



References:

- Bolton L. Benchmarking chronic wound healing outcomes. Wounds. 2012;24(1):18-24.
- Heasley D. Evaluation of a silver collagen based amorphous gel for the use of treatment of a deep partial thickness burn. #3213. JWOCN. May/June 2009;36(3S):S9.
- Khandaker K, Kohl DS. Evaluation of the use of a silver collagen amorphous gel in the healing of post surgical and dehisced lesions. # 3226. JWOCN. May/June 2009;36(3S):S13.
- Data on file.