Evidence collection

Smith+Nephew

OASIS®
Wound Matrix

OASIS® ULTRA
Tri-Layer Matrix

View the evidence

DFU Evidence

2512 wounds across 3 publications

Reference	Title	Product	HCPCS code	Indication	Type of study	Sample size (# of OASIS® treated wounds)	Key results
Cazell SM et al 2015	The management of diabetic foot ulcers with porcine small intestine submucosa tri-layer matrix: A randomized controlled trial	OASIS Ultra Tri-layer	Q4124	DFU	RCT	82 (41)	Ulcers managed with OASIS had a significantly greater proportion closed by 12 weeks than for the Control group (54% vs. 32%, p=0.021). Time to closure for ulcers achieving closure was 2 weeks earlier for the OASIS group than for SC. Review of reported adverse events found no safety concerns.
Gilligan AM et al 2015	Wound closure in patients with DFU: a cost effectiveness analysis of two cellular/tissue-derived products	OASIS Wound Matrix	Q4102	DFU	HEOR	26 (13)	No significant difference in number of wounds closed and time to closure between OASIS and HFDS groups. Patients treated with HFDS incurred total treatment costs that were approximately 54% higher than those treated with OASIS.
Guest JF et al 2017	Cost-effectiveness of using adjunctive porcine small intestine submucosa tri-layer matrix compared to standard care in managing diabetic foot ulcers in the US	OASIS Wound Matrix	Q4102	DFU	HEOR	N/A	Health-care resource use reduced by 11-14 %, and debridement reduced by 35 % in the OASIS group compared with SC alone. Total health-care cost of starting treatment with adjunctive OASIS instead of standard care alone was estimated to reduce payer costs by 1% (i.e. $105 per patient) over 12 months.
Martinson M et al 2016	A comparative analysis of skin substitutes used in the management of diabetic foot ulcers	OASIS Wound Matrix	Q4102	DFU	Registry analysis	13193 (2458)	OASIS were associated with both shorter DFU episode lengths and lower payer reimbursements than Dermagraft and Apligraf.

VLU + Arterial Ulcer Evidence

180 wounds over 6 publications

Reference	Title	Product	HCPCS code	Indication	Type of study	Sample size (# of OASIS® treated wounds)	Key results
Mostow EN et al 2005	Effectiveness of an extracellular matrix graft (OASIS Wound Matrix) in the treatment of chronic leg ulcers: a randomized clinical trial	OASIS Wound Matrix	Q4102	VLU	RCT	120 (58)	At 12 weeks of treatment, 55% of the wounds in the OASIS group were treated, as compared with 34% in the standard-care group (P = .0196). No recurrence at 6 months.
Romanelli M et al 2010	Randomized comparison of OASIS wound matrix versus moist wound dressing in the treatment of difficult-to-heal wounds of mixed arterial/venous etiology	OASIS Wound Matrix	Q4102	Arterial VLU	RCT	48 (25)	OASIS treated ulcers achieved complete wound closure on average in 5.4 weeks as compared with 8.3 weeks for the control group (P = .02).
Hankin CS et al 2012	Clinical and cost efficacy of advanced wound care matrices for venous ulcers	OASIS Wound Matrix	Q4102	VLU	HEOR	120 (62)	Incremental costs per additional successfully treated patient were $1,600 ($1,600-$6,400) for Talymed, $3,150 ($1,890-$24,570) for Oasis and $29,952 ($14,976-$119,808) for Apligraf.
Carter MJ et al 2014	Cost-effectiveness of three adjunct cellular/tissue-derived products used in the management of chronic venous leg ulcers	OASIS Wound Matrix	Q4102	VLU	HEOR	N/A	OASIS was economically dominant among the three CTPs.
Romanelli M et al 2016	Difficult-to-heal wounds of mixed arterial/venous etiology: a cost-effectiveness analysis of extracellular matrix	OASIS Wound Matrix	Q4102	Arterial VLU	HEOR	48 (25)	OASIS treated wounds closed on average, after 5.4 weeks of treatment, vs 8.3 weeks for SC wounds (P=0.02). Complete wound closure was significantly higher in patients treated with OASIS (80% vs 65%, P<0.05). Expected direct costs per patient were $2,527 for OASIS and $2,540 for SC (a savings of $13).
Guest JF et al 2018	Cost-effectiveness of using a collagen-contain dressing plus compression therapy in non-healing venous leg ulcers	OASIS Wound Matrix	Q4102	VLU	HEOR	N/A	Treatment with OASIS increased the probability of wound closure from 0.11 to 0.49 by 6 months, increase health-related quality of life at 6 months from 0.331 to 0.373 QALYs per patient, and a potential to reduce management costs by 40% over 6 months when compared with SC.
AbouIssa A et al 2015	Clinical usage of an extracellular, collagen-rich matrix: A case series	OASIS Ultra Tri-layer	Q4124	VLU PU Other	Case Series	6 (6)	All wounds closed in 4-16 weeks using 1-12 applications of the OASIS.
Rando T 2009	Use of a biological extracellular matrix wound therapy to heal complex, chronic wounds	OASIS Wound Matrix	Q4102	VLU	Case Series	4 (4)	Successfully Treated.

Surgical + Trauma Ulcer Evidence

97 wounds over 11 publications

Reference	Title	Product	HCPCS code	Indication	Type of study	Sample size (# of OASIS® treated wounds)	Key results
Nobuyma A et al 2019	The simultaneous application of OASIS and skin grafting in the treatment of tendon-exposed wound	OASIS Wound Matrix	Q4102	Surgical Trauma	Case Report	1 (1)	Successful closure of the 8 × 20 cm wound. Graft adhesion was good, and toe movement was preserved.
Collini FJ et al 2019	The bolster technique utilizing small intestinal submucosa wound matrix: A novel approach to wound treatment	OASIS Wound Matrix	Q4102	Surgical Trauma	Case Series	4 (4)	All patients were successfully treated, and their wounds closed completely within 6 weeks.
Isaacs M et al 2019	Small intestinal submucosal matrix as a novel therapy for wounds in dystrophic epidermolysis bullosa	OASIS Wound Matrix and OASIS Ultra Tri-layer	Q4102 Q4124	Surgical Trauma	Case Report	1 (1)	Successfully treated.
Veerkamp et al 2018	Small intestinal submucosal matrix as a novel reconstructive option for large scrotal defects	OASIS Wound Matrix	Q4102	Surgical Trauma	Case Report	1 (1)	Successfully treated.
Yeh DD et al 2017	Histopathological assessment of OASIS Ultra on critical sized wound healing: A pilot study	OASIS Ultra Tri-layer	Q4124	Surgical Trauma	Case Series	10 (10)	OASIS-treated wound halves trended toward more wound contraction and improved tissue repair.
Zagrocki L et al 2013	Management of degloving injuries of the lower extremity: a case report of a forklift injury	OASIS Wound Matrix	Q4102	Surgical Trauma	Case Report	1 (1)	Successfully treated.
Heiney J et al 2013	Difficult leg wounds successfully closed with decortication, bioresorbable ECM and NPWT	OASIS Wound Matrix	Q4102	Surgical Trauma	Case Report	1 (1)	Successfully Treated.
Brown DF et al 2013	Case records of the Massachusetts General Hospital. Case 28-2013: A 52-year-old man with cardiac arrest after an acute myocardial infarction.	OASIS Wound Matrix	Q4102	Surgical Trauma	Case Report	1 (1)	Successfully Treated.
Wollina U et al 2007	Disabling pansclerotic morphea of childhood poses a high risk of chronic ulceration of the skin and squamous cell carcinoma.	OASIS Wound Matrix	Q4102	Surgical Trauma	Case Series	30 (30)	Marked improvement of chronic leg ulcers by a combination of sildenafil and repeated application of a porcine small intestinal submucosal acellular matrix.
Barendse-Hofmann MG et al 2007	Extracellular matrix prevents split-skin grafting in selected cases	OASIS Wound Matrix	Q4102	Surgical Trauma	Case Series	15 (15)	14/15 wounds closed without needing STSG.
Barendse-Hofmann MG et al 2007	Extracellular wound matrix (OASIS): Exploring the contraindications. Results of its use in 32 consecutive outpatient clinic cases	OASIS Wound Matrix	Q4102	Surgical Trauma	Case Series	32 (32)	Beneficial outcomes were seen in 80.6 % of the patients. The two main complications seen were infection and hyper granulation tissue.

Pressure Ulcer Evidence

82 wounds over 4 publications

Reference	Title	Product	HCPCS code	Indication	Type of study	Sample size (# of OASIS® treated wounds)	Key results
Mari W et al 2019	Use of a natural porcine extracellular matrix with negative pressure wound therapy hastens the healing rate in stage 4 pressure ulcers	OASIS Ultra Tri-layer	Q4124	PU	RCT	16 (8)	After the 12-week study period, the average control patient wound closure rate was 45.79% as compared with the 89.98% wound closure rate in the study group.
Brown-Etris M et al 2019	An extracellular matrix graft (OASIS Wound Matrix) for treating full-thickness pressure ulcers: A randomized clinical trial.	OASIS Wound Matrix	Q4102	PU	RCT	130 (67)	The proportion of complete closure in the OASIS group was 40% as compared to 29% in the standard of care group (p = 0.111).
Beers PJ et al 2016	Porcine tri-layer wound matrix for the treatment of stage IV pressure ulcers.	OASIS Ultra Tri-layer	Q4124	PU	Case Report	1 (1)	Successfully Treated.
AbouIssa A et al 2015	Clinical usage of an extracellular, collagen-rich matrix: A case series.	OASIS Ultra Tri-layer	Q4124	VLU PU Other	Case Series	6 (6)	All wounds closed in 4-16 weeks using 1-12 applications of the OASIS.

Burn Evidence

11 wounds over 2 publications

Reference	Title	Product	HCPCS code	Indication	Type of study	Sample size (# of OASIS® treated wounds)	Key results
Glik J et al 2017	A new option for definitive burn wound closure – pair matching type of retrospective case-control study of hand Burn in the hospitalized patients group in the Dr Stanislaw Sakiel Centre for Burn Treatment between 2009 and 2015	OASIS Wound Matrix	Q4102	Burn	Retrospective case-control	30 (6)	On the 17th day after surgery, the wound was covered by epidermis in 75% of patients. The progress of wound closure on the fourth day was 30% closure. 70% decrease in the level of pain was recorded on the fourth day after surgery.
Salgado RM et al 2014	Histomorphometric analysis of early epithelization and dermal changes in mid-partial-thickness burn wounds in humans treated with porcine small intestinal submucosa and silver-containing hydrofiber	OASIS Wound Matrix	Q4102	Burn	Case series	5 (5)	Tissues treated with OASIS presented higher epithelial maturation index (6.2 ± 0.84 vs. 3.2 ± 3.28; P = .029). than tissues treated with AgH dressings. After 3 months, OASIS produced a lower score according to Vancouver Scar Scale (3.6 ± 2.6 vs. 7.2 ± 2.5, P = .025).

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