Skin and Soft Tissue Substitutes
Medical Necessity Guideline

Medical Necessity Guideline (MNG) Title: Skin and Soft Tissue Substitutes		
MNG #: 044	**☒ CCA Senior Care Options (HMO D-SNP) (MA)** **☒ CCA One Care (FIDE SNP) (MA)**	**Prior Authorization Needed?** **☒ Yes (always required)** **☐ Yes (only in certain situations. See this MNG for details)** **☐ No**
Benefit Type: **☒ Medicare** **☐ Medicaid**	**Approval Date:** 8/5/2020	**Effective Date:** 12/18/2020, 07/13/2024; 01/01/2025; 07/01/2025; 02/12/2026
Last Revised Date: 06/07/2020; 07/01/2021; 09/13/2021; 10/14/2021; 6/10/2022; 12/09/2022; 01/10/2023; 02/28/2023, 05/09/2024; 07/13/2024; 2/13/2025; 02/12/2026	**Next Annual Review Date:** 08/05/2021; 07/01/2022;9/13/2022; 10/14/2022; 06/10/2023; 01/10/2024; 02/28/2024, 05/14/2025; 02/12/2027	**Retire Date:**

OVERVIEW:
Skin substitutes are cellular and tissue-based products that may be derived from human tissue (autologous or allogeneic), non-human tissue (xenogeneic), synthetic materials, or a composite of these sources to replicate the functional and structural characteristics of normal skin. They are becoming important adjuncts in the management of acute and *chronic wounds*, specifically for partial- and full-thickness skin loss in neuropathic *diabetic ulcers*, *chronic venous ulcers,* and *pressure injuries*. They can provide temporary or permanent coverage of open skin wounds following *burns* or injuries and be used for reconstruction.

Skin substitutes have demonstrated benefits (in reduced healing time, pain, and post-operative contractures) when used alone or in addition to the *standard of care* for these conditions, and in situations where conservative treatment may appear insufficient to provide complete healing. Skin substitutes donate growth factors and provide the scaffolding for deficit reduction, wound re-vascularization, cell proliferation, and epithelial growth. They are not able to replace the patient's own skin, however, they can (1) cover skin deficits temporarily, (2) promote tissue healing, and (3) regenerate lost tissue, without the need for more extensive treatments. Consequently, skin substitutes have improved the appearance, functional abilities, and overall quality of life in these patients.

Depending on the product's origin and composition, the U.S. Food and Drug Administration (FDA) regulates skin substitutes as either: human-derived products regulated as human cells, tissues, and cellular and tissue-based products (HCT/Ps), human- and human/animal-derived products regulated through premarket approval (PMA) or as a Humanitarian Use Device (HUD) obtained through a humanitarian device exemption (HDE), or animal-derived products and synthetic products regulated under the 510(k) process. Since wound healing tends to be unique to the individual, the choice of skin substitute used, needs to be carefully considered. Some factors that may inform decision-making are the type of skin substitutes available, indications, type of wound, etiology, skin component that requires replacement, and desired outcomes.

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DEFINITIONS:

Burn Wounds: Acute wounds that are caused by an isolated non-recurring insult such as from heat, electrical discharge, friction, chemicals, or radiation. Skin substitutes can be used as temporary dressings for large surface area burns when there is limited donor skin available in the acute phase of treatment. In the chronic phase, skin substitutes can be used to reconstruct and improve burn scars and other defects.

Chronic Wounds: Wounds that do not respond to standard wound treatment following four (4) weeks of conservative therapy and optimization. These wounds fail to pass through the normal healing process in an orderly and timely manner. They tend to remain in the inflammatory phase. Skin substitutes can provide cells and growth factors to promote re-epithelialization and revascularization of the wound.

Complete Healing of Chronic Wounds or Healed Ulcers: Wounds that are marked by re-epithelialization of the epidermis and repair of the dermis. This is evidenced by wounds that are ≤ 0.5 sq cm and a size reduction of ≥ 75%.

Diabetic Foot Ulcer: An ulceration in the foot of a patients with diabetes as a result of neuropathy, pressure, and/or ischemia. Diabetic foot ulcers have impaired wound healing from the lack of response to growth factors and reduced collagen accumulation. Skin substitutes have been used in conjunction with the standard of care to improve healing rates.

Failure to Respond (in the context of wound care): Situation where despite the application of appropriate standard wound care measures, an ulcer or skin deficit has increased in size or depth, or has not changed in baseline size or depth, and there is no indication that improvement (in terms of granulation, epithelialization, or progression towards closing) is likely.

Measurable Signs of Healing: The measurable signs of healing include diminishing wound size or depth, decreased amount of exudate, and reduction in necrotic tissue.

Pressure injuries: Pressure ulcers that result from local trauma to the skin and/or underlying tissues due to shearing, frictional forces, or unrelieved pressure. Skin substitutes used in conjunction with the standard of care have been shown to improve wound healing.

Skin Substitutes: Products that include non-autologous human cellular and tissue products (e.g., dermal or epidermal, cellular and acellular, homograft or allograft), non-human cellular or tissue products (e.g., xenograft), and biological products (synthetic or xenogeneic) that are applied in a sheet over an open wound to augment wound closure or skin growth. Skin substitutes may be classified into the following types: (a) Human skin allografts which are derived from donated human skin (cadavers), (b) Allogeneic matrices which are derived from human tissue (fibroblasts or membrane), (c) Composite matrices which are derived from human keratinocytes, fibroblasts, and xenogeneic collagen, or (d) Acellular matrices derived from xenogeneic collagen or tissue.

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Standard of Care (in the context of wound care): Standard treatment of lower extremity ulcers or skin loss would include: Infection and edema control, mechanical offloading (for diabetic foot ulcers), mechanical compression or limb elevation (for venous leg ulcers), debridement of necrotic or infected tissue, maintenance of moisture balance (to control exudate), and management of concomitant medical issues (e.g., blood glucose control and tobacco use cessation).

Venous Stasis Ulcers: Shallow open lesions caused by venous hypertension or insufficiency. They tend to weep serous fluid and are located on the lower leg near the ankles. Skin substitutes created from human epidermal keratinocytes, human dermal fibroblasts and connect tissue proteins have been used in conjunction with compression therapy have been used for the treatment of venous leg ulcers to promote wound healing.

DECISION GUIDELINES:
Clinical Coverage Criteria:

1. Commonwealth Care Alliance may cover **Affinity, Apligraf, Bio-Connekt wound matrix, Dermagraft, Epicord, Epifix, Grafix (Grafix Core, GrafixPL Core, GrafixPL, GrafixPRIME, GrafixPL PRIME), GraftJacket, Helicoll, Integra® (bilayer matrix wound dressing, dermal regeneration template, Integra Matrix), Keramatrix, Oasis™ (Wound Matrix), PuraPly, TheraSkin, WoundEx,** and **WoundEx flow** for the treatment of chronic neuropathic diabetic foot ulcers, when **all** of the following criteria are met. Documentation is provided that:
   a. Supports the medical necessity for skin substitute application; *and*
   b. The member has a diagnosis of Type I or Type II diabetes; *and*
   c. Demonstrates failure to respond to standard wound care for at least four (4) weeks; *and*
   d. The member has been compliant with the standard wound treatment and recommendations; *and*
   e. There is no evidence of clinical infection in the ulcer, known/suspected malignancy of the current ulcer being treated, or active Charcot deformity; *and*
   f. The ulcer is of partial- or full-thickness and does not involve the tendon, muscle, joint capsule, or exhibit exposed bone or sinus tract; *and*
   g. The skin deficit is at least one (1) square centimeter (cm) in size; *and*
   h. There is evidence of adequate circulation/oxygenation to support tissue growth and wound healing by having a clean granular base, an Ankle-Brachial Index (ABI) of no less than 0.60 and toe pressure greater than 30 millimeters of mercury (mmHg) on the affected limb.

2. Commonwealth Care Alliance may cover **Affinity, AlloSkin**, **Apligraf**, **Bio-Connekt wound matrix, Dermagraft, Epicord, Epifix**, **GraftJacket, Grafix (Grafix Core, GrafixPL Core, GrafixPL, GrafixPRIME, GrafixPL PRIME), Helicoll, Integra® (bilayer matrix wound dressing, dermal regeneration template, Integra Matrix), Keramatrix, Oasis™ (Wound Matrix)**, **PriMatrix**, **PuraPly, TheraSkin,** and **WoundEx,** for the treatment of chronic partial- or full-thickness venous stasis ulcers, when all the following criteria are met. Documentation is provided that:

a. Supports the medical necessity for skin substitute application; *and*
b. There is presence of a venous stasis ulcer for at least three (3) months; *and*
c. Demonstrates failure to respond to standard wound care for at least 30 days of; *and*
d. The member has been compliant with the standard wound treatment and recommendations; *and*
e. There is no evidence of clinical infection in the ulcer, known/suspected malignancy of the current ulcer being treated, or active Charcot deformity; *and*
f. The ulcer is of partial- or full-thickness and does not involve the tendon, muscle, joint capsule, or exhibit exposed bone or sinus tract; *and*
g. The skin deficit is at least one (1) square centimeter (cm) in size; *and*
h. There is evidence of adequate circulation/oxygenation to support tissue growth and wound healing by having a clean granular base, an Ankle-Brachial Index (ABI) of no less than 0.60 and toe pressure greater than 30 millimeters of mercury (mmHg) on the affected limb.

3. Commonwealth Care Alliance may cover **Epicel, Integra (bilayer wound matrix, dermal regeneration template),** and **Transcyte** for the treatment of second- and third-degree burns, when all of the following criteria are met. Documentation is provided that:
a. Supports the medical necessity for skin substitute application; *and*
b. The member has been compliant with the standard wound treatment and recommendations; *and*
c. There is no evidence of an infection in the burn area.

4. Commonwealth Care Alliance may cover **AlloMax, AlloMend, FlexHD,** and **GraftJacket** for breast reconstructive surgery following cancer treatment when there is documentation that supports the medical necessity for skin substitute application.

LIMITATIONS/EXCLUSIONS:
1. Commonwealth Care Alliance will limit the following:
a. All skin substitutes used for the episode of wound care must comply with the U.S. Food and Drug Administration's Guidelines for the specific product. CCA will cover a maximum of 10 applications or treatment for each skin substitute product within a 12-week period of care. After such time it is recommended to resume routine wound care, and to identify risk factors and treat other reversible causes of the wound. If the wound does not present with measurable signs of healing thereafter, review from a medical director will be required to determine the medical necessity of further skin substitute therapy; *and*
b. CCA will authorize the use of one (1) skin substitute product for the episode of the wound, unless there is consultation with an appropriate specialist, and documentation can be provided for the medical necessity of a different product; *and*
c. Treatment of any chronic skin wound, ulcer, or for breast reconstructive surgery following cancer treatment with any skin substitute product listed above will typically last no more than twelve (12) weeks. Requests for treatment beyond 12 weeks may be considered on an individual case-by-case basis and will require review from a CCA medical director to determine the medical necessity and clinical appropriateness.

2. Commonwealth Care Alliance will not cover **any** of, but not limited to, the following:

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a. Skin substitute products that are not listed in CCA's MNG and/or for indications other than the one(s) specifically listed above; *or*
b. Skin substitute products without the appropriate applicable required documentation submitted by the treating provider; *or*
    i. Medical record documentation that supports the medical necessity for the need for skin substitute application and specific product; wound characteristics at baseline (size, location, stage, duration, presence of infection); current wound treatment plan (interventions and response to treatment); medication history; review of pertinent medical problems; conditions that have been treated and resolved (e.g. control of edema, infection, smoking cessation, etc.), planned wound treatment plan (skin replacement surgery, choice of skin substitute graft product), *or*
c. The simultaneous use of more than one (1) product for the episode of the wound; *or*
d. Repeat or alternative applications of skin substitute grafts when a previous full course of applications was unsuccessful; *or*
e. Retreatment or continued treatment of healed ulcers; *or*
f. The use of skin substitutes in members with inadequate control of underlying conditions or exacerbating factors; including but not limited to
    i. Uncontrolled diabetes, exudate consistent with heavy bacterial contamination, active infection, active Charcot arthropathy of the ulcer extremity, vasculitis, or continued tobacco smoking despite medical team's attempt to affect smoking cessation, *or*
g. For ulcers with partial thickness loss and retention of epithelial appendages; *or*
h. Repeat use of surgical preparation services in conjunction with skin substitute application; *or*
i. Retreatment within one year of any given course of skin substitute for a chronic, non-infected lower extremity skin ulcer (e.g., diabetic neuropathic foot ulcer or venous stasis ulcer), *or*
j. PriMatrix for the treatment of third-degree burns.

Skin substitutes not specifically referenced in this MNG may be considered experimental and investigational therapies per *MNG 010 Experimental and Investigational Services*, and therefore not medically necessary for the treatment of chronic diabetic foot ulcers, venous stasis ulcers, second- and third-degree burns, and breast reconstructive surgery following cancer treatment.

CODING:

When applicable, a list(s) of codes requiring prior authorization is provided. This list is for reference purposes only and may not be all inclusive. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment.

HCPCS CODE	Code Description
Q4100	Skin substitute, not otherwise specified (when used for Epicel, AlloMax, AlloMend)
Q4101	Apligraf, per sq cm
Q4102	Oasis wound matrix, per sq cm
Q4103	Oasis burn matrix, per sq cm
Q4104	Integra bilayer matrix wound dressing (BMWD), per sq cm

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Q4105	Integra dermal regeneration template (DRT) or integra omnigraft dermal regeneration matrix, per sq cm
Q4106	Dermagraft, per sq cm
Q4107	GRAFTJACKET, per sq cm
Q4108	Integra matrix, per sq cm
Q4110	PriMatrix, per sq cm
Q4111	GammaGraft, per sq cm
Q4112	Cymetra, injectable, 1 cc
Q4113	GRAFTJACKET XPRESS, injectable, 1 cc
Q4114	Integra flowable wound matrix, injectable, 1 cc
Q4115	AlloSkin, per sq cm
Q4121	TheraSkin, per sq cm
Q4128	FlexHD, or AllopatchHD, per sq cm
Q4132	Grafix Core and GrafixPL Core, per sq cm
Q4133	Grafix PRIME, GrafixPL PRIME, Stravix and StravixPL, per sq cm
Q4151	AmnioBand or Guardian, per sq cm
Q4159	Affinity, per sq cm
Q4161	Bio-ConneKt wound matrix, per sq cm
Q4162	WoundEx, BioSkin Flow, 0.5 cc
Q4163	WoundEx, BioSkin, per sq cm
Q4164	Helicoll, per sq cm
Q4165	Keramatrix or Kerasorb, per sq cm
Q4182	Transcyte, per sq cm
Q4186	Epifix, per sq cm
Q4187	Epicord, per sq cm
Q4191	Restorigin, per sq cm
Q4195	PuraPly, per sq cm
Q4196	PuraPly AM, per sq cm
Q4199	Cygnus matrix, per sq cm
Q4251	Vim, per sq cm
Q4252	Vendaje, per sq cm
Q4253	Zenith Amniotic Membrane, per sq cm

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REGULATORY NOTES:

Medical Necessity Guidelines are published to provide a better understanding of the basis upon which coverage decisions are made. CCA makes coverage decisions on a case-by-case basis by considering the individual member's health care needs. If at any time an applicable CMS LCD or NCD or state-specific MNG is more expansive than the criteria set forth herein, the NCD,LCD, or state-specific MNG criteria shall supersede these criteria.

This MNG references the specific regulations, coverage, limitations, service conditions, and/or prior authorization requirements in the following:

1. MassHealth, 130 CMR 433.000: Physician Services, Subchapter 6: Service Codes, Effective date: 01/01/2022
2. MassHealth, 130 CMR 410.000: Acute Outpatient Hospital, Subchapter 6: Service Codes, Effective date: 09/01/2022
3. Centers for Medicare & Medicaid, Local Coverage Determination (Novitas Solutions, Inc), L35041 Application of Bioengineered Skin Substitutes to Lower Extremity Chronic Non-Healing Wounds, Effective date: 9/26/2019. *This LCD has been used as guidance as there is no applicable reference from a Medicare Administrative Contractor that administers services for CCA's beneficiaries.*

Disclaimer:

Commonwealth Care Alliance (CCA) follows applicable Medicare and Medicaid regulations and uses evidence based InterQual© criteria, when available, to review prior authorization requests for medical necessity. This Medical Necessity Guideline (MNG) applies to all CCA Products unless a more expansive and applicable CMS National Coverage Determinations (NCDs), Local Coverage Determinations (LCDs), or state-specific medical necessity guideline exists.

Medical Necessity Guidelines are published to provide a better understanding of the basis upon which coverage decisions are made. CCA makes coverage decisions on a case-by-case basis by considering the individual member's health care needs. If at any time an applicable CMS LCD or NCD or state-specific MNG is more expansive than the criteria set forth herein, the NCD, LCD, or state-specific MNG criteria shall supersede these criteria.

Benefit coverage for health services is determined by the member specific benefit plan document and applicable laws that may require coverage for a specific service. This Medical Necessity Guideline is subject to all applicable Plan Policies and Guidelines, including requirements for prior authorization and other requirements in Provider's agreement with the Plan (including complying with Plan's Provider Manual specifications).

This Medical Necessity Guideline is not a rigid rule. As with all CCA's criteria, the fact that a member does not meet these criteria does not, in and of itself, indicate that no coverage can be issued for these services. Providers are advised, however, that if they request services for any member who they know does not meet our criteria, the request should be accompanied by clear and convincing documentation of medical necessity. The preferred type of documentation is the letter of medical necessity, indicating that a request should be covered either because there is supporting science indicating medical necessity [supporting literature (full text preferred) should be attached to the request], or describing the member's unique clinical circumstances, and describing why this service or supply will be more effective and/or less

costly than another service which would otherwise be covered. Note that both supporting scientific evidence and a description of the member's unique clinical circumstances will generally be required.

RELATED REFERENCES:

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REVISION LOG:

REVISION DATE	DESCRIPTION
2/12/2026	Medical Policy Committee approval with minor formatting changes.
2/13/2025	For effective date July 1, 2025, Q4159, Q4191, Q4195 and Q4196 are covered with prior authorization
1/1/2025	Template and CCA products updates.
7/13/2024	Added CPT codes Q4103, Q4108, Q4110, Q4111, Q4112, Q4113, Q4114, Q4121, Q4151, Q4165, Q4199, Q4251, Q4252, Q4253.
12/31/2023	Utilization Management Committee approval
1/05/2023	Added in Limitations: Requests for treatment beyond 12 weeks may be considered on an individual case-by-case basis and will require review from a CCA medical director to determine the medical necessity and clinical appropriateness. Added in Exclusions: Skin substitute products that are not listed in CCA's MNG and/or for indications other than the one(s) specifically listed above. Added in Authorization: Prior authorization is required for all requests for skin substitute treatments. Once approved, associated skin substitute application procedures that have been determined to be appropriate will be approved and reimbursable in accordance with CCA's billing and coding guidelines.
12/05/2022	Addition of skin substitutes: Alloskin, Bio-conneKt, Epicord, GraftJacket, Helicoll, Keramatrix, TheraSkin, WoundEx, WoundEx Flow, Epicel, Transcyte, AlloMax, AlloMend, and FlexHD. Addition of indications: treatment of second- and third-degree burns and for use in breast reconstructive surgery following cancer treatment.
6/10/2022	Template changed to include PA requirements and benefit type. Overview and format Updated with numbering. Clinical eligibility and regulatory notes updated.
9/13/2021	Added in Exclusions: Skin substitutes that are not mentioned in this MNG are experimental, investigational, and not medically necessary.
6/7/2021	Proposed a change to the title of the MNG from Dehydrated Human Amniotic Membrane MNG to *Skin Substitutes*. Expanded coverage of the MNG to include more skin substitutes: *Apligraf, Dermagraft, Epifix, Integra (Bilayer matrix wound dressing and dermal regeneration template), Oasis (Wound matrix)*. Added limitations of how many treatments per week, how many skin substitutes will be covered per episode of care, and the duration of treatment covered. Added exclusions of coverage to the MNG.

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APPROVALS:

Jeffrey Sedlack	Senior Medical Director Utilization Review and Medical Policy
CCA Clinical Lead	**Title**
	2/12/2026
Signature	**Date**
CCA Senior Operational Lead	**Title**
Signature	**Date**
CCA CMO or Designee	**Title**