Product	Characteristics	Indication for Use	Instructions for Use	Utilization and Billing	Fire Safety Hyperbaric O ₂ Use
Alternative Graft Materials	 Naturally occurring tissue Allograft/homograft Gamma graft Xenograft / heterograft Synthetic Bilaminate Collagen based analogues 	Full thickness ulcersBurns	 Applied by physician, podiatrist, APN May be sutured in place May be left in place for extended periods of time May require secondary dressing 	 Reimbursement dependent on Local Coverage Determination (LCD) Private Insurance 	 Probably do not pose a fire safety risk. Consider fire safety of nonadherent contact layer. Consider fire safety of secondary dressing.
Altrazeal	 Nanoflex technology Promotes moist environment Protects from contaminants May stimulate cell growth and fibroblast mobility. Enhances comfort. Does not require secondary dressing. Extended wear time. Conforms to size of wound. 	 Chronic wounds Surgical wounds Superficial acute wounds such as donor sites ?? Skin Tears 	 Sprinkle into wound Allow wound moisture to aggregate particles For wounds with little exudate, saline may be used to aggregate particles Avoid petrolatum or oil based products with Altrazeal. Usually does not require secondary dressing. May be left in place for up to 30 days. As wound heals, may need to trim edge of aggregate 	HCPCS covered as wound filler.	Probably do not pose a fire safety risk.
Antiseptics	 Bacteriostatic NOTE: Always cytotoxic Reduce WBC viability Decreases phagocytosis Chemicals include povidine/iodine, hypochlorite, acetic acid, boric acid, chlorhexidine 	 Partial and full thickness ulcers Acute wounds Infected ulcers Odorous ulcers 	 USE CONTROVERSIAL NEVER use more that 2-3 days without reassessing patient NEVER USE FULL STRENGTH chemicals 	No reimbursement	Probably do not pose a fire safety risk.
Apligraf [®]	Bilayered living human	Venous Insufficiency	Applied to newly debrided	Reimbursement	Probably do not pose a

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	cells Cultured from neonatal foreskin Delivers young, active fibroblasts and keratinocytes Produces new matrix material Recruits other cell types Actual mechanisms of actions remain unknown	Ulcer Diabetic Neuropathic Ulcer DO NOT USE in infected ulcers	wound • Must be applied by physician, podiatrist or APN	dependent on Local Coverage Determination (LCD) • Private Insurance	fire safety risk. Consider fire safety of nonadherent contact layer. Consider fire safety of secondary dressing.
Autologous Growth Factors (APG)	 Processed from patient platelets Platelet gel releases variety of growth factors 	 Partial and full thickness ulcers Acute wounds DO NOT USE in infected ulcers 	•	 Reimbursement varies by Local Coverage Determination (LCD) May not be covered Private Insurance?? 	 Probably do not pose a fire safety risk. Consider fire safety of secondary dressing.
Becaplermin	Recombinant DNA technologyPDGF-bb	 Diabetic foot ulcers Full thickness with adequate blood supply Clean, non-infected ulcer 	Twice daily dressing change Wet-to-dry technique alternating becaplermin with saline	 May have coverage under Medicare Part D Private Insurance 	 Probably do not pose a fire safety risk. Consider fire safety of secondary dressing.
Cadexomer Iodine	 Hydrophilic beads contain .9% elemental iodine Absorbs ulcer fluid Reduces bacterial load through release of iodine 	 Partial and full thickness ulcers Infected wounds Effective against staph, strep, MRSA and Pseudomonas CONTRAINDICATED in 	 Cleanse wound as necessary Apply to ulcer bed Cover with secondary dressing Needs moisture to release iodine Secure as necessary 	HCPCS as either hydrogel wound filler or as wound filler not otherwise covered.	 Probably not an issue. Consider secondary dressing.

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	 Lowers ulcer pH enhancing antibacterial effect Decreases wound odor 	thyroid disease, iodine sensitivity, impaired renal function, goiter	Product changes color from brown to yellow/gray indicating need for dressing change		
Calcium Alginates	 Polysaccharide derived from brown seaweed Highly absorbent Converts to viscous, hydrophilic gel Provides moist environment Hemostatic properties 	 Partial and Full thickness ulcers Moderate to heavily exudating ulcers 	 Clean ulcer base Place or lightly pack into ulcer Apply appropriate secondary dressing and secure in place Change as needed—usually every 24-48 hours 	 1 dressing per day Fillers up to 2 per day Covered when used on full-thickness ulcers with moderate to heavy exudate 	 Probably not an issue. Consider fire safety of the secondary dressing
Charcoal Dressings	 Activated carbon (charcoal) Absorbs toxins and wound degradation products Absorbs volatile amines and fatty acids responsible for odor 	 Malodorous, infected wounds Fungating lesion Fecal fistula Pressure ulcers 	 Apply as a "filter" for odor control If absorbing exudate, may need to be changed daily—weekly if no exudate Can be reused if filter only 	Coded as alginate or contact layer, depending on product brand used	Probably do not pose a fire safety risk.
Collagen	 May enhance deposition of organized collagen fibers Chemotactant to granulocytes and fibroblasts Bioresorbable Hemostatic properties Most processed from bovine or porcine sources 	Full thickness ulcers Non-infected ulcers Minimal to moderate drainage	 Packaged as gels, alginates, sheets, powders Cleanse ulcer as appropriate Apply to ulcer base Apply appropriate secondary dressing Secure as necessary Dressing change frequency dependent upon product used. Check manufacturers recommendations 	Reimbursement dependent upon product type Dependent upon Local Coverage Determination (LCD) Private Insurance DMERC—coded as miscellaneous surgical supply May have own	 Probably do not pose a fire safety risk. Consider fire safety of secondary dressing.

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Collagen EDTA Dressing (Biostep)	 Porcine collagen matrix material Transforms into a soft gel when in contact with wound fluid. EDTA binds zinc to inactivate MMPs 	 Full and partial thickness wounds Pressure ulcers, diabetic ulcers, mixed vascular etiologies, venous ulcers, donor and graft sites, abrasions, traumatic 	 Cut dressing to fit wound. Apply directly to wound for heavily exudating wounds. Moisten with WATER for dry wounds. Use appropriate secondary dressing. Change daily or up to every 6 	special coding features, e.g., Oasis® • DMERC coded as Collagen Dressing	 Probably do not pose a fire safety risk. Consider fire safety of secondary dressing.
Composite Dressings	 Combine physically distinct components into a single dressing Functions as a bacterial barrier Absorptive layer distinct from alginates, foams, hydrocolloid or hydrogel Semi- or non-adherent 	wounds, dehisced wounds, first and second degree burns • Partial or full thickness ulcers • Product selection varies based on ulcer characteristics	 Cleanse ulcer as appropriate Dressing application dependent on product selected Can function as either a primary or secondary dressing May be used with topical medications 	• Up to 3 per week	 Consider the constituents of the composite dressing. Consider adhesive material of the dressing product.
Dermagraft [®]	 Bioabsorbable scaffold ceded with dermal fibroblast cells Cultured from neonatal foreskin Promotes growth factors, cytokines, matrix proteins and glycosaminoglycans 	Diabetic Ulcers	 Product must be processed from cryopreserved frozen state Applied to clean, debrided wound Must be applied by physician, podiatrist or APN Up to 8 weekly applications 	 Reimbursement dependent on LCD Private Insurance May be covered for up to 8 applications 	 Probably do not pose a fire safety risk. Consider fire safety of nonadherent contact layer. Consider fire safety of secondary dressing.

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Enzymatic Debriders	 Dissolved denatured collagen. Selective; should not harm healthy tissue Only available is collagenase. 	Collagenase indicated for dermal ulcers and burns	 Cleanse ulcer Apply product to wound base Apply zinc oxide to protect peri-wound area May add Nystatin powder to application Use appropriate secondary dressing Change dressing daily 	 Pharmaceutical product may be covered under Medicare Part D Private Insurance 	Collagenase (Santyl) is the only available enzymatic debriding agent and contains petrolatum which is a fire safety concern.
Foam	 Absorbent Maintains moist environment Insulates ulcer base Semi-permeable Non-adherent 	 Frequently a secondary dressing Partial/Full thickness ulcers Moderate to heavily exudating ulcers Contraindicated in ischemic ulcers with dry eschar 	 Cleanse ulcer base and dry well Apply topical agent or primary dressing to ulcer base Place foam dressing in ulcer Apply appropriate secondary dressing and secure in place Change every 24 hours or PRN 	 3 dressings per week Covered when used on full thickness ulcers with moderate to heavy exudate Foam filler – 1 per day Sheets covered as primary or secondary dressing 	 Probably not an issue. Is a medication or other material being used in conjunction with the dressing such as an enzymatic debriding agent?
Gauze	 Variety of materials including: Sponges Rolls Packing strips Impregnated gauzes Woven with elastic materials to provide 	 Draining wounds Secondary dressing for absorption Tertiary dressings to hold dressings in place Filler materials for packing to prevent premature closure of 	When used as packing or filling material, lightly pack to prevent injury to internal wound environment	•	 Probably not an issue Consideration should be given to impregnating material.

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	stretch	tunnels and undermining or to maintain anatomic shape of a wound			
Hydrocolloid	 Contains gel forming agents such as gelatin, pectin and Carboxymethylcellulose Forms gelatinous mass Impermeable to contaminants reducing risk of infection Promotes autolysis Reduces pain and protects Promotes moist ulcer Molds to body contours 	 Partial thickness or full thickness ulcers Avoid acutely infected ulcers Avoid dry eschar Use with caution in persons with diabetes 	 Cleanse ulcer and dry periulcer area well Select dressing 1-2 inches larger than ulcer Apply light pressure to allow body heat to promote adhesion Change every 3-5 days as needed Aggressively adhesive. Use peri-ulcer skin preparation product to protect skin. 	3 dressings per week per ulcer	 Probably not an issue. Is a secondary medication being used with the dressing that may constitute a fire safety issue? Consider adhesive material of the dressing product.
Hydrofera Blue TM	 Polyvinyl alcohol sponge Organic Dyes Methylene Blue Gentian Violet 	 Partial and full thickness ulcers Infected Wounds Effective against MRSA and VRE,s. aureus, s. epidermidis, serratia, e. coli May be of particular use in pyoderma gangrenosum 	 Moisten with saline or water Leave moist Place in contact with wound service Cover with appropriate secondary dressing May require petrolatum or other moisture retentive dressing if wound or environment very dry to keep moist DO NOT allow dressing to dry out Change every 1-3 days or when saturated Change when dressing fades to pale lavender or white May dye necrotic tissue 	 Covered as a foam dressing 3 dressings per week Covered when used on full thickness ulcers with moderate to heavy exudate Foam filler – 1 per day Sheets covered as primary or secondary dressing 	 Alcohol aspect of sponge is a solid and probably does not pose a fire safety risk. Dressing probably is not a fires safety risk. Consider secondary dressing use.

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			purple		
Hydrofiber	 Carboxymethylcellulose Absorbs heavy exudate Converts to a gel Keeps ulcer base moist 	 Partial and Full thickness ulcers Moderate to heavily exudating ulcers 	 Clean ulcer base Place or lightly pack into ulcer Apply appropriate secondary dressing and secure in place Change every 24-48 hours 	• 1 dressing per day	 Probably not an issue. Consider fire safety of the secondary dressing
Hydrogel	 Maintains clean, moist ulcer Nonadherent Little or no absorption Various packaging— amorphous, pads, gauzes Cool and soothing Decreases pain Aggressive autolytic debridement 	 Partial and Full thickness ulcers with minimal drainage Sterile gels for every 3 day dressing changes Nonsterile gels can be used for daily dressing changes 	 Cleanse ulcer Apply to cover wound base Do NOT use as a wound filler Use appropriate secondary dressing Secure as necessary Change daily 	 Sheets or impregnated gauze— per day Sheets or gauze with adhesive border – 3 per week Hydrogel filler – 3 oz. per 30 days per ulcer 	 Probably not an issue. Consider components of dressing. Some hydrogel products contain glycerin that would constitute a fire safety issue. Consider fire safety of the secondary dressing.
Malto- dextrin (Multidex)	 Mono- and polysaccharide plant derived starches 1% ascorbic acid Powder converts to gel Lowers wound pH to ~4 Chemotaxis of macrophages and fibroblasts 	 Chronic ulcers of all types May be used as wound filler 	 Cleanse wound as appropriate Apply directly to ulcer Use appropriate secondary to optimize moist wound environment Change every 1-2 days 	Coded as wound filler	 Probably do not pose a fire safety risk. Consider fire safety of secondary dressing.
Manuka Honey	Leptospermum Honey Active Active	Diabetic foot ulcers Arterial Insufficiency	Cleanse ulcer as neededApply alginate as alginate	Coded by function of dressing, e.g., Trical Capacitants	Hydrocolloid, alginate and hydrogel forms of

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Matrix Dressings (Matristem, Oasis, Unite Biomatrix, Integra Dermal Template)	 Provides moist wound environment Deodorizes wound Antimicrobial property Antimicrobial barrier Effective pain relief Collagen based Provides scaffold for collagen deposition Presence of elastin Incorporates glycosaminoglycans to improve moisture content Glycoproteins facilitate 	 Venous Insufficiency Mixed etiology wounds Pressure Ulcers 1st & 2nd degree burns Donor sites Traumatic wounds Surgical wounds Full thickness ulcers Recalcitrant ulcers 	 Apply hydrocolloid as hydrocolloid Apply hydrogel as hydrogel Use appropriate secondary dressing as needed Secure in place Cleanse wound as appropriate Refer to specific product for application Place material in contact with wound surface Sutures may be required Product should remain moist May require a nonadherent 	hydrocolloid form coded as hydrocolloid, etc.	 honey probably do not pose a safety risk. Probably do not pose a fire safety risk. Consider fire safety with nonadherent contact layer. Consider fire safety of secondary dressing.
Negative Pressure Wound Therapy (NPWT)	cell movement Reinforces ECM Bioresorbable Controlled application of subatmospheric pressure to a wound Three systems available: VAC BlueSky Medela Invia	 Acute and Chronic Wounds Pressure Ulcers Diabetic Ulcers Dehisced Wounds Acute or Traumatic Wounds Partial Thickness wounds Flaps / grafts Mediastinal wounds 	 Application should follow manufacturers guidelines VAC uses sponge technology BlueSky and Medela typically use gauze materials Change dressing interface 3 times per week. 	•	 An electrical device. Interface dressings probably, including sponge materials, AMD Gauzes, silvers, etc., should be considered for fire safety. Drainage collection container should be vented.
Non- adherent Contact	 Protects tissue from direct contact with other agents or dressings 	Partial and full thickness woundsInfected wounds	Cleanse ulcer as appropriateLine ulcer bedApply topical agent over	• 1 contact layer per week.	Many nonadherent contact layers consist of petrolatum or paraffin

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Layers	 Conform to wound shape Porous to allow exudate to pass or medication to absorb into wound 	Donor sitesSplit-thickness skin grafts	contact layer OR apply secondary dressing for absorption Not intended to be changed with each dressing change		that pose a fire safety risk. • The only safe nonadherent contact layer is hydrophobic silicone (Mepetel™)
Promogran ^T M / Prisma TM	 Sterile, bioresorbable, freeze dried matrix Promogran = 55% collagen and 45% oxidized regenerated cellulose Prisma = 55% collagen, 44% oxidized regenerated cellulose, and 1% silver Absorbs exudate to form gel and inactivate MMPs 	Chronic wounds free of necrotic tissue Non-infected wounds Venous, arterial, pressure and diabetic ulcers	 Apply to ulcer after necrotic tissue has been removed. Apply directly to ulcer surface. Moisten with Ringer's or saline to hydrate dressing in dry ulcers Use appropriate secondary dressing to maintain moist wound environment Change every 2-3 days, may change daily if exudating 	DMERC coded as Collagen Dressing	 Probably do not pose a fire safety risk. Consider fire safety of secondary dressing.
Silver Dressings	 Antimicrobial barrier Silver reservoir Releases silver into wound Silver release may be extended for up to 7 days Silver type dressing decision based on ulcer characteristic Multiple forms of silver Designed to prevent colonization of dressing 	 Partial and full thickness ulcers Infected ulcers Burns, donor sites, graft sites Effective against wide range of organisms including MRSA and VRE CONTRAINDICATED in known silver hypersensitivity May cause staining of 	 Cleanse ulcer as necessary AVOID saline in nanocrystalline silver products Apply to ulcer Apply appropriate secondary dressing as needed and secure in place 	Coded by function of dressing, e.g., silver hydrogel uses HCPCS code of A6248— Hydrogel dressing, wound filler, gel, per fluid ounce	 Silver in itself is not a fire safety risk. Concern that oxygen may interact with silver to render it useless, e.g., silver oxide.

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		tissue			
Transparent Film	 Permeable to oxygen and water vapor Protects from environmental contaminants—good shield Maintains moist wound Creates "second skin" Reduces friction Nonabsorbent Promotes autolysis 	 Partial thickness ulcers Minimally draining ulcers Not recommended for acutely infected ulcers 	 Clean ulcer and dry periwound area Allow for a 1-2 inch border around ulcer Apply without stretching or tension Change every 4-7 days OR as needed Use peri-ulcer skin preparation product 	3 dressings per week Covered when used on open partial thickness ulcers with minimal exudate or closed ulcers	 Probably not an issue. Consider adhesive material of dressing product. Is a secondary medication being used with the dressing that may constitute a fire safety issue?

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