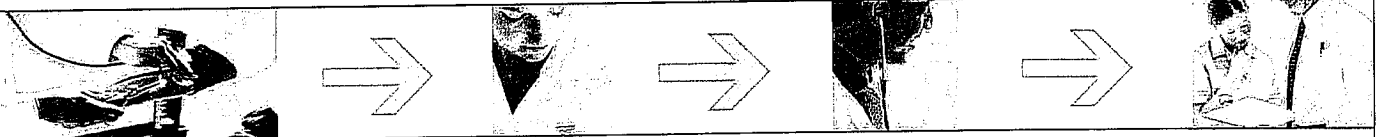


PHYSICIAN BILLER

Presentation 2010



Coding & Documentation



4850 T-Rex Avenue ■ Suite 300 ■ Boca Raton, FL 33431
Phone: 561.994.1174 ■ Fax: 561.994.0182 ■ www.nationalhealing.com

Physician Biller Presentation

Superbill 2010	2
Wound vs. Ulcer vs. Burn	4
Selective vs. Excisional Debridement Which Is It?.....	5
Skin Diagram: Levels of Debridement.....	6
Excisional Debridement Documentation Guidelines	7
Selective Debridement Documentation Guidelines	8
Documentation and Reimbursement.....	9
Examples of Debridement Documentation	
Selective	10
Partial Thickness.....	11
Full Thickness.....	12
Subcutaneous.....	13
Muscle	14
Bone	15
FAQ Debridement Codes – Excisional & Selective.....	16
FAQ The Difference between Debridement and Paring of Callus	20
Calluses	21
Wound Care Terminology	22
Glossary of Medical Terms	28
E/M Criteria in the Facility	40
Characteristics of Good Documentation	43
Examples of E/M Dictation.....	44
Skin Substitute – 2010 Codes.....	46
HBO & Skin Substitute worksheets (<i>copies to be inserted</i>)	48
HBO Basic Information	50
HBO Code Reference Chart	54
The HBO H&P Template.....	58
Sample Appeal Letter for HBO Denial	63

Date: _____

SUPERBILL

QTY	Physician Clinical Consult	CPT	QTY	Clinical Visits	Hospital
	Consult Level 1	99241			
	Consult Level 2	99242			
	Consult Level 3	99243			
	Consult Level 4	99244			
	Consult Level 5	99245			
	New Patient Visit 1	99201		New Patient Visit 1	
	New Patient Visit 2	99202		New Patient Visit 2	
	New Patient Visit 3	99203		New Patient Visit 3	
	New Patient Visit 4	99204		New Patient Visit 4	
	New Patient Visit 5	99205		New Patient Visit 5	
	Established Patient Visit 1	99211		Established Patient Visit 1	
	Established Patient Visit 2	99212		Established Patient Visit 2	
	Established Patient Visit 3	99213		Established Patient Visit 3	
	Established Patient Visit 4	99214		Established Patient Visit 4	
	Established Patient Visit 5	99215		Established Patient Visit 5	
	Debridements:			Debridements:	
	Selective Debridement 20 sq cm or less	97597		Selective Debridement 20 sq cm or less	
	Selective Debridement > 20 sq cm	97598		Selective Debridement > 20 sq cm	
	Partial Thickness	11040		Partial Thickness	
	Full Thickness	11041		Full Thickness	
	Subcutaneous Tissue	11042		Subcutaneous Tissue	
	Subcutaneous and Muscle	11043		Subcutaneous and Muscle	
	Subcutaneous Muscle / Bone	11044		Subcutaneous Muscle / Bone	
	Hyperbaric Therapy:			HBO₂ Procedures:	
	Physician Supervision-HBO ₂ Tx	99183		HBO ₂ Tx. X 30 minutes qty. =	
				HBO Tx. per session (Non-Medicare)	
	Other Procedures:			Other Procedures:	
	I & D, Abscess, Simple	10060		I & D, Abscess, Simple	
	I & D, Abscess, Complex	10061		I & D, Abscess, Complex	
	Cauterization, Chemical	17250		Cauterization, Chemical	
	Biopsy, Skin	11100		Biopsy, Skin	
	Biopsy, Skin - each additional	11101		Biopsy, Skin - each additional	
	TCOM / SPP - Single Level	93922-26		TCOM / SPP - Single Level	
	TCOM / SPP - Multi Level	93923-26		TCOM / SPP - Multi Level	
				Apligraf (Product) _____ sq cm	
	Application Apligraf (first 25 sq cm)	15340		Application of Apligraf (first 25 sq cm)	
	Each additional 25 sq cm of Apligraf	15341		Each additional 25 sq cm Apligraf	
				Oasis (Product) _____ sq cm	
	Application Oasis (first 100 sq cm)	15430		Application of Oasis (first 100 sq cm)	
				Xenograft (Product)	
	Application Xenograft	15400		Application of Xenograft	
				Allograft (Product)	
	Application of Allograft (first 100 sq cm.trk/ext)	15300		Application of Allograft	
	Prep of Site, Foot	15004		Prep of Site, Foot	
				Dermagraft (Product) _____ sq cm	
	Application of Dermagraft (first 100 sq cm)	15365		Application of Dermagraft (first 100 sq cm)	
	Application Total Contact Cast	29445		Application Total Contact Cast	
	Application of Paste boot (Unna)	29580		Application of Paste boot (Unna)	
	Compression Multilayer Venous Ulcer	29581		Compression Multilayer Venous Ulcer	
	Paring of Corn/Callus	11055		Paring of Corn/Callus	
	Paring of Corn/Callus 2-4	11056		Paring of Corn/Callus 2-4	
	Debridement of Nails 1-5	11720		Debridement of Nails 1-5	
	Debridement of Nails 6 or more	11721		Debridement of Nails 6 or more	
	Avulsion Nail Plate	11730		Avulsion Nail Plate	
	Neg pressure wound therapy 50 cm or less	97605		Neg pressure wound therapy 50 cm or less	
	Neg pressure wound therapy > 50 cm	97606		Neg pressure wound therapy > 50 cm	

ICD-9-CM CODES - HYPERBARIC AND WOUND CARE TREATMENTS 2010

Note: The ICD-9-CM Codes are generic; their use and interpretation may vary from State to State, Prior to Coding, it is advisable to check with your local carrier to ensure your diagnosis is covered and to the highest level of specificity.

(✓) HBO Description	ICD.9.CM	(✓) Prim	Sec	Wound Care Description	ICD.9.CM
Actinomycosis		P	S	Artherosclerosis of Arteries/Extremities	440.2X
Cutaneous Actinomycotic Infection	039.0	P	S	Artherosclerosis of Arteries/Extremities w/Gangrene	440.24
Actinomycotic Infection of Unspecified Site	039.9	P	S	Artherosclerosis of Arteries/Extremities w/ Ulcers	440.23
Acute Carbon Monoxide Intoxication	986	P	S	Cellulitis - Abscess Foot (except Toe)	682.7
Acute Peripheral Arterial Insufficiency (API)		P	S	Cellulitis - Abscess Toe	681.10
Arterial Embolism and Thrombosis of Upper Extremity	444.21	P	S	Cellulitis Leg, excluding Foot	682.6
Arterial Embolism and Thrombosis of Lower Extremity	444.22	P	S	Chronic Venous Hypertension w/ Ulcer	459.31
Embolism and Thrombosis of Iliac Artery	444.81	P	S	Chronic Venous Insufficiency Unspec /Peripheral	459.81
Acute Traumatic Peripheral Ischemia (ATI)		P	S	Pressure ulcer, Ankle	707.06
Injury to Iliac Artery	902.53	P	S	Pressure ulcer, Buttock	707.05
Injury to Axillary Artery	903.01	P	S	Pressure ulcer, Elbow	707.01
Injury to Brachial Blood Vessels	903.1	P	S	Pressure ulcer, Heel	707.07
Injury to Common Femoral Artery	904.0	P	S	Pressure ulcer, Hip	707.04
Injury to Popliteal Artery	904.41	P	S	Pressure ulcer, Lower Back	707.03
Air Embolism as a complication of medical care not elsewhere classified	999.1	P	S	Pressure ulcer, Other Site	707.09
Chronic Refractory Osteomyelitis	730.10 - 730.19	P	S	Pressure ulcer, Upper Back	707.02
Crush Injuries and Suturing of Limbs (CI)		P	S	Pressure ulcer, Unspec Site	707.00
Crushing Injury of Shoulder Region	927.00	P	S	Diabetes Mellitus, Type I, controlled	250.01
Crushing Injury of Upper Arm	927.03	P	S	Diabetes Mellitus, Type I, uncontrolled	250.03
Crushing Injury of Multiple Sites Upper Arm	927.09	P	S	Diabetes Mellitus, Type II, controlled	250.00
Crushing Injury of Forearm	927.10	P	S	Diabetes Mellitus, Type II, uncontrolled	250.02
Crushing Injury of Elbow	927.11	P	S	Diabetic Ulcer	250.8X
Crushing Injury of Hand(s)	927.20	P	S	Diabetes with neurological manifestations	250.6X
Crushing Injury of Wrist	927.21	P	S	Diabetes with peripheral circulatory disease	250.7X
Crushing Injury of Multiple Sites of Upper Limb	927.8	P	S	Effects of Radiation, unspecified	990
Crushing Injury of Unspecified Site of Upper Limb	927.9	P	S	Gangrene/Necrosis	785.4
Crushing Injury of Thigh	928.0	P	S	Late Amputation-Stump Comp w/Infection (Chronic)	997.62
Crushing Injury of Hip	928.01	P	S	Late Amputation, Stump Complication	997.6X
Crushing Injury of Lower Leg	928.10	P	S	Lymphedema - Other	457.1
Crushing Injury of Knee	928.11	P	S	MRSA	041.12
Crushing Injury of Foot	928.20	P	S	Neuroma of Amputation Stump	997.61
Crushing Injury of Ankle	928.21	P	S	Obesity	278.00
Crushing Injury of Toe(s)	928.3	P	S	Obesity, Morbid	278.01
Crushing injury of Multiple Sites of Lower Limb	928.8	P	S	Open Wound - Ankle, Knee, Leg except Thigh Comp	891.1
Crushing Injury of Unspecified Site of Lower Limb	928.9	P	S	Open Wound - Buttock Complicated	877.1
Crushing Injury of Multiple Sites not elsewhere classified	929.0	P	S	Open Wound - Foot Alone except Toes, Comp	892.1
Crushing Injury of Unspecified Site	929.9	P	S	Open Wound - Hip & Thigh Complicated	890.1
Cyanide Poisoning (CP)		P	S	Open Wound - Toe Complicated	893.1
Toxic effect of Hydrocyanic Acid Gas	987.7	P	S	Osteomyelitis, Acute	730.00 - 730.09
Toxic effect of Hydrocyanic Acid and Cyanides	989.0	P	S	Osteomyelitis, Chronic	730.10 - 730.19
Decompression Illness		P	S	Paraplegia	344.1
Other & Unspecified effects of High Altitude	993.2	P	S	Paronychia - Finger	681.02
Caisson Disease	993.3	P	S	Paronychia - Toe	681.11
Diabetic Wound of the Lower Extremities		P	S	Persistent Post Operative Fistula	998.6
DM w/ Peripheral Circulatory Disorders, Type II controlled	250.70	P	S	Phlebitis & Thrombophlebitis	451.0 - 451.8X
DM w/ Peripheral Circulatory Disorders, Type I controlled	250.71	P	S	Post Operative Infection	998.5X
DM w/ other Specified Manifestations, Type II controlled	250.80	P	S	Postphlebotic Syndrome w/Ulcer	459.11
DM w/ other Specified Manifestations, Type I controlled	250.81	P	S	Pressure Ulcer, Unspecified Stage	707.20
Unspecified Ulcer of Lower Limb	707.10	P	S	Pressure Ulcer, Stage I	707.21
Ulcer of Thigh	707.11	P	S	Pressure Ulcer, Stage II	707.22
Ulcer of Calf	707.12	P	S	Pressure Ulcer, Stage III	707.23
Ulcer of Ankle	707.13	P	S	Pressure Ulcer, Stage IV	707.24
Ulcer of Heel & Mid-foot	707.14	P	S	Pressure Ulcer, Unstageable	707.25
Ulcer of other part of Foot	707.15	P	S	Quadriplegia	343.2
Ulcer of other part of Lower Limb	707.19	P	S	Secondary DM, neurological manifestations	249.6X
Gas Embolism	958.0	P	S	Secondary DM, peripheral vascular manifestations	249.7X
Gas Gangrene	040.0	P	S	Secondary DM, with ulcer	249.8X
Late Effect of Radiation	909.2	P	S	Ulcer of Ankle	707.13
Osteoradionecrosis of the Jaw	526.89	P	S	Ulcer of Calf	707.12
Preparation & Preservation of Compromised Skin Grafts	996.52	P	S	Ulcer of Heel and Mid-foot	707.14
Complications of unspecified Reattached Extremity	996.90	P	S	Ulcer of Lower Limb, Unspecified	707.10
Complication of Other Specified Reattached Body Part	996.99	P	S	Ulcer of other part of Foot (Toes)	707.15
Progressive Necrotizing Infections (Necrotizing Fasciitis)	728.86	P	S	Ulcer of other part of Lower Limb	707.19
Effects of Radiation, unspecified (Soft Tissue Radionecr)	990	P	S	Ulcer of Thigh	707.11
		P	S	Ulcer, Chronic - Other Specify Site	707.8
		P	S	Unspec Circulatory System Disorder	459.9
		P	S	Varicose Veins Lower Extremities with ulcer	454.0
		P	S	Varicose Veins LE with ulcers & inflammation	454.2
		P	S	Wound Dehiscence	998.3X

ULCER vs. WOUND vs. BURN

- Ulcer codes are coded 707.10 - 707.9
 - Chronic in nature
 - A wound that has not healed in an appreciable amount of time (generally 30 days)

- Wound codes are coded 8XX.XX (example: 890.1 open wound of hip, complicated)
 - Denotes trauma
 - Acute in nature

- Burn codes are coded 940 – 949 and also specify the degree of the burn as the primary diagnosis
 - Traumatic in nature, whether chemical or thermal, internal or external
 - Once a burn is diagnosed it will always be coded as a burn

If a diabetic ulcer is dictated as a wound a coder would be directed to assign the ICD-9 code from the 8xx.xx series. These claims would be denied for HBO and in some cases, wound care, as it is not a covered diagnosis for those services.

This is not to say a diabetic cannot suffer a traumatic wound, but it must be dictated as a traumatic wound to be coded properly. Once the wound fails to heal it becomes chronic and can be described as a diabetic ulcer.

In the instance of a burn, the physician must state the site of the burn, the degree of the burn, and the total body surface area (TBSA) of the burned tissue, when possible.

Selective vs. Excisional Debridement – Which is it?

Guidelines give us two distinct, specific characteristics that differentiate between the two types of debridements.

- **Selective Debridement** (97597 – 97598) is termed to be Active Wound Management in the CPT Manual and is listed in the Medicine Section of CPT.
 - It refers to the removal of specific, targeted areas of devitalized tissue or tissue that limits healing from a wound along the margin of viable tissue.
 - It includes selective removal of necrotic tissue by sharp dissection, including scissors, scalpel, forceps, and high pressure water jet.
- **Excisional Debridements** (11040 – 11044) are considered to be surgical procedures and are listed in the Surgery Section of CPT.
 - For the purpose of reimbursement, surgical debridement of skin ulcers and wounds, as described by CPT codes 11040-11044, is defined as the removal of all tissue necessary to establish a viable margin. In addition to necrotic tissue, tissue necessary to establish a viable margin, include senescent cells, rolled skin edges, undermined edges, and abnormal granulation tissue.

The following phrases do not allow for charge capture of an excisional debridement.

- To a healthy, bleeding, granulation base
- Into the viable tissue, or into the subcutaneous level
- Down to healthy tissue
- **Name the type of tissue removed :**
 - “Nonviable, subcutaneous tissue was excised” or “Debridement was carried out, removing slough and necrotic full thickness tissue”.

How should these affect documentation? Payors are taking a closer look at excisional debridement charges and documentation. When a physician states that “...*subcutaneous debridement removing fibrin and exudate...*” payors may deny this as a debridement because fibrin and exudate may be considered to be bioburden or debris. In addition, pre and post debridement measurements that don’t change are a sure tip-off that an excisional debridement has NOT been performed.

Sources: CPT 2010
Cahaba LCD Debridement of Skin Ulcers and Wounds L26837 8/01/09
First Coast LCD Debridement Services L28774 2/16/09
Highmark LCD Wound Care L27547 10/28/09
NGS LCD Debridement Services L27373 9/01/09
Trailblazer LCD Wound Care L26721 10/01/08
WPS LCD Debridement Services L26564 12/2008

4.3.2 Diagram: The Skin and its components

Epidermis

- Outer, thin layer of the skin •
- Consists of layers of stratified squamous epithelium • Lacks blood vessels and has few nerve endings • Thickness varies on the body, with thickest areas on the soles and palms, and thinnest on the eyelids

Dermis

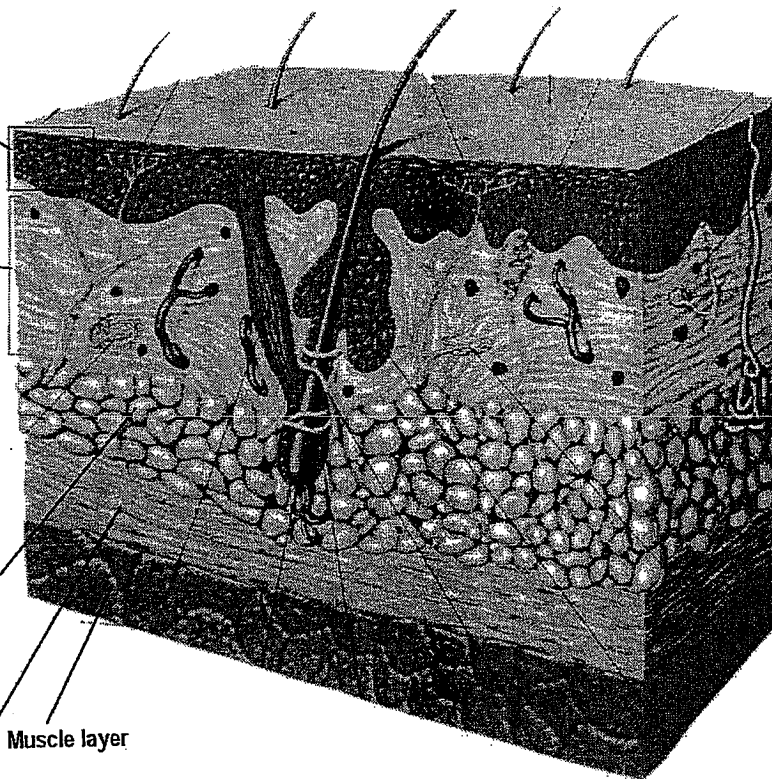
- Inner, thicker connective tissue layer of the skin • Composed mostly of collagen fibers, with some elastin and reticular fibers • Contains specialized structures such as hair follicles, sweat and sebaceous glands, blood vessels, nerves and lymphatic vessels

Subcutaneous layer (hypodermis)

- Connective tissue layer below the skin containing a large amount of fat
- Carries the major blood vessels and nerves to the overlying skin

Deep Fascia

- Membranous fascial sheet separating the skin and subcutaneous layer from underlying muscle and other structures



11040
Epidermis

11041
Dermis

11042
Subcutaneous
Tissue

Muscle layer

4.3.4 Excisional Debridement Documentation Guidelines

- Type of procedure (excisional debridement)
- Indication(s) for procedure (diagnosis(es))
- Location of ulcer or wound (be precise – “lower extremity” is inconclusive)
 - Anatomic location
- Appearance of ulcer or wound
 - Necrotic tissue present
 - Slough
 - Devitalized
 - Nonviable
 - Eschar
 - Hypergranulation Tissue
 - Infection
 - Granulation
 - Pink
 - Red
 - Pale
 - Undermining or tunneling
 - Presence (and extent of) or absence of obvious signs of infection
 - Presence (and extent of) or absence of necrotic, devitalized, or non-viable tissue
 - Size, depth, stage or grade, by description
 - To include measurements (pre-debridement)
- Description of procedure
 - Technique/Method used to debride (sharp)
 - Anesthesia used, if required
 - If anesthesia not used, state why
 - Instrument used (blade, scalpel, curette, rongeur, scissors, nippers)
 - The type of tissue removed from the wound or ulcer
 - Partial thickness, full thickness, subcutaneous, muscle, bone with necrotic, devitalized, or infected/abnormal tissue.
 - Bleeding and how it was controlled
 - Character of the wound or ulcer after debridement
 - Type of epithelialization
 - Post debridement measurements
 - Immediate post op care and follow-up instructions
 - Dressing
 - How patient tolerated the procedure
 - Plan of care

4.3.5 Selective Debridement Documentation Guidelines

- Type of procedure (selective debridement)
- Indication(s) for procedure (diagnosis(es))
- Location of ulcer or wound (be precise – “lower extremity” is inconclusive)
 - Anatomic location
- Appearance of ulcer or wound
 - Necrotic tissue present
 - Slough
 - Devitalized
 - Nonviable
 - Hypergranulation Tissue
 - Eschar
 - Presence (and extent of) or absence of necrotic, devitalized, or non-viable tissue
 - Size, depth, stage or grade, by description
 - To include measurements (pre-debridement)
- Description of procedure
 - Technique/method used to debride (hydrostatic, sharp,)
 - Instrument used (blade, scalpel, curette, rongeur, scissors, nippers)
 - Character of the wound or ulcer after debridement
 - Immediate post op care and follow-up instructions
 - Dressing
 - How patient tolerated the procedure
 - Plan of care

Important Note: As with all issues regarding documentation, coding, billing and charge capture, the Hospital's Health Information Management and Patient Accounting departments have final responsibility for determining the appropriate treatment of these issues, subject to their local Fiscal Intermediary. If you have any questions, comments or concerns, please do not hesitate to call NHC's Revenue Cycle Management Group or NHC's Corporate Compliance Officer.

Research & Opinion:	RCM Education Specialist 1/7/05
Technical Review:	-
Revised:	Paula Threet 6/19/06, 8/11/06, 9/25/08. RCM Education Specialist 12/11/09
Sources Utilized:	CPT 2010 Cahaba LCD Debridement of Skin Ulcers and Wounds L26837 8/1/09 First Coast LCD Debridement Services L28774 2/16/09 Highmark LCD Wound Care L27547 10/28/09 NGS LCD Debridement Services L27373 9/1/09 Trailblazer LCD Wound Care L26721 10/1/08 WPS LCD Debridement Services L26564 12/2008
RCM Reference Manual:	Chapter 4: <u>Documenting Specific Services and Procedures</u> Section 3: <u>Documenting Specific Services and Diagnoses</u>

DOCUMENTATION AND REIMBURSEMENT

- **Documentation is critical in all healthcare settings but must be “spot on” and specific to diagnosis when working in the outpatient clinic, both to meet regulatory guidelines and to ensure the payment that sustains operations. Although we would like to believe that our clinics exist solely for the benefit of the ever-expanding number of wound patients, the truth is that our clinics can serve their populations only if they are able to stay in the black – perhaps financially benefiting the hospital as a whole.**
- **Concise, exact. Our current payment systems mandate appropriate documentation to support the care rendered our patients per diagnosis. Simply documenting treatment of a “wound/ulcer” will not guarantee reimbursement for the assessment and treatment of clinic patients. Appropriate and accurate diagnoses are critical; they must be documented both by staff members and physicians treating the patient. The exact anatomical location must be denoted and must include specific and consistent measurements – e.g., specially where on the left lower extremity, the depth and type of tissue exposed, and most importantly, whether more than one ulcer was treated, as well as if one or both extremities were treated.**
- **Treatment parameters, including time and dressing specifics, must be recorded. Many treatment modalities and dressings are reimbursed based on the size of the affected area. Reimbursement rates also differ according to treatment – e.g., dermal substitutes, negative pressure wound therapy, and debridement. Of note: staff member and physician documentation must support one another. Conflicting documentation (e.g., differing extremities, numbers of wounds, measurements, or diagnosis) will almost guarantee no reimbursement for that visit.**

Source: Today’s Wound Clinic, Spring 2008 issue

DEBRIDMENT EXAMPLE – SELECTIVE DEBRIDEMENT

Patient is seen in the Wound Healing Center for evaluation of the wound on the lateral aspect of the right calf. BP is 129/83, temperature is 97.4 and the respirations are 16. There is no drainage. No sign of cellulitis or infection. There are areas of devitalized tissue along the margin. His wound measures 3.2 x 1.0 x 0.02 cm. It does show improvement with Bactroban and gauze dressing. Using forceps and scissors, devitalized tissue was removed from the wound along the margin of viable tissue. Patient tolerated the procedure well. Dressing as stated above. Patient to return to the Wound Healing Center in one week.

DEBRIDEMENT EXAMPLE – PARTIAL THICKNESS

History: This patient is a 55 year old lady who had been suffering from venous insufficiency and ulcerations on both legs.

ROS: No new complaints, the patient feels her ulcer is looking better. However, she does show us a new ulcer on the left lateral ankle.

EXAM: Her blood pressure taken today was 140/90. A recheck of her blood pressure came back as 145/99. I spoke with her primary care physician and he said I could raise her dose of Thiazide by 20 mg.

After compression bandage dressings, the edema has subsided and the ulcer on the right leg has healed. The ulcer on the left heel is looking much better with a small amount of pink granulation tissue. It measures 2.0 x 1.5 x 0.02, there is no swelling, redness, or exudate. The wound bed is quite clean and will not require debridement today. This is determined to be a Stage II ulcer. The new ulcer on her left lateral ankle measures 1.2cm x 0.8cm x 0.05cm. There is a moderate amount of serosanguineous exudate and devitalized tissue is present. This is also a Stage II ulcer.

IMPRESSION

1. Chronic venous ulcer, left heel.
2. Chronic venous ulcer, right leg, healed.
3. Hypertension.
4. Cerebrovascular insufficiency
5. Morbid Obesity.

PROCEDURE PERFORMED

Partial-Thickness debridement of the left ankle ulcer

DESCRIPTION OF PROCEDURE

With the patient lying on her back, under clean technique, the ulcer on the left ankle was anesthetized by application of Cetacaine spray and it was excisionally debrided with a sharp 10-blade knife. Partial thickness devitalized tissue was excised along with some crusty exudate. Bleeding was minimal and stopped on its own. The ulcer bed is clean with healthy appearing granulation tissue and post debridement measurements are 1.2 x 0.8 x 0.07 cm. Subsequently the patient was given Acticoat and Profore dressings to both legs. She tolerated the procedure well and will be followed in a weeks' time.

DEBRIDEMENT EXAMPLE - FULL THICKNESS

TYPE OF PROCEDURE

Debridement of ulcer #1, right lateral malleolus, laterally

INDICATION FOR PROCEDURE

Diabetic non healing ulcer of the right lateral malleolus, laterally

APPEARANCE OF THE ULCER

Ulcer #1 on the right lateral malleolus measures 5.6 x 2.6 x 0.1 cm. There is no sinus tract or undermining. There is a moderate amount of serosanguineous exudate. There is a large amount of red granulation tissue. There is a small amount of yellow slough and fibrin. There is no sign of infection. It is a Grade 2 ulcer.

TECHNIQUE

Clean

ANESTHESIA

5% Lidocaine ointment

PROCEDURE

With a #15 scalpel and pickups, the devitalized full thickness tissue was sharply debrided and removed. There was a very slight amount of bleeding that stopped spontaneously. Silver Nitrate was applied to hypertrophic granulation tissue. The ulcer was redressed with Acticoat #7 and an Unna boot. Good pink epithelialization tissue was revealed. Post debridement measurements were 5.7 x 2.8 x 0.3 cm. Patient tolerated procedure well.

PLAN

Follow up in the wound healing center in 1 week.

DEBRIDEMENT EXAMPLE -- SUBCUTANEOUS

HISTORY OF PRESENT ILLNESS

The patient returns with her daughter for evaluation of her bilateral pressure heel ulcers. The ulcer #1 to the left heel appears to be slightly smaller with a minimal amount of necrotic tissue at the base. The ulcer to the left heel measures 1.3 x 0.6 x 0.3 cm. There is evidence of epithelial noted. The ulcer #2 to the right heel measures 1.5 x 0.8 x 0.3 cm. The ulcer on the right heel has necrotic tissue present at the base of the ulcer. There is some slight maceration to the periulcer margins. There are no signs of infection. There is some small amount of serous drainage from these areas. These are both Grade II diabetic ulcers. The ulcers have been dressed on every other day basis by the visiting nurse with Accuzyme.

IMPRESSIONS

Bilateral pressure heel ulcers

PLAN

Ulcer #1: Under sterile technique, the left heel was sharply debrided with a curette, removing necrotic subcutaneous tissue along with fibrous material from the base of the ulcer. There was no tunneling or undermining noted. Moderate bleeding was controlled through pressure. No anesthetic was used as the patient has diabetic neuropathy. This was an excisional debridement. She tolerated the procedure well. The areas were then dressed with Accuzyme and All-Dress. Post debridement measurements were 1.3 x 0.6 x 0.4 cm and the ulcer were clean with a healthy appearing base.

Ulcer #2: Under sterile technique, the right heel was sharply debrided with a curette, removing necrotic subcutaneous tissue along with fibrous material and slough from the base of the ulcer. There was no tunneling or undermining noted. Moderate bleeding was controlled through pressure. No anesthetic was used as the patient has diabetic neuropathy. This was an excisional debridement. She tolerated the procedure well. The areas were then dressed with Accuzyme and All-Dress. The right heel ulcer post debridement measured 1.5 x 0.8 x 0.4 cm. and the ulcer was clean with a healthy appearing base.

She should continue having dressings of Accuzyme to the areas on an every-other-day basis when the visiting nurse evaluates the ulcers. She will follow up in 1 week's time.

DERIDEMENT EXAMPLE – MUSCLE DEBRIDEMENT

HISTORY OF PRESENT ILLNESS

Patient is seen for follow up today for a non-healing ulcer over the left Achilles tendon. The patient has been receiving whirlpool treatments at the nursing home. She voices back pain of 5/10, an intermittent type of pain. Repositioning tends to aggravate the pain. She does not take pain medication for this. She is not ambulatory.

PHYSICAL EXAMINATION

GENERAL: On examination today, the patient is seen resting comfortably. She is alert and in no obvious distress.

VITAL SIGNS: Her temperature is 97.9, pulse 76, respirations 16, blood pressure 140/82.

WOUND EXAMINATION

Ulcer #2 over the left heel today measures 6.0 x 3.5 x 0.6 cm. Again, there is a large amount of serous drainage, essentially no granulation tissue, as the base of the wound is all exposed tendon. There was some nonviable tissue around the periphery of the tendon. There was no odor. It is a Stage IV ulcer.

PROCEDURE NOTE:

The patient was anesthetized with approximately 1 cc of 1% Lidocaine after having her skin cleansed. Under sterile technique, a curette was used to sharply debride subcutaneous and muscle tissues, removing the nonviable tissue, some of which was necrotic tendon. We then did use a #4 curette to debride the periphery of the wound medially. The patient did have adequate anesthesia, and did have a great deal of bleeding, which limited the debridement. The bleeding was controlled with pressure and gauze. We then applied a hydrocolloid dressing to the left Achilles with instructions to change this every 3 days or as needed if the dressing comes off. Post debridement measurements were 6.0 x 4.0 x 0.7 cm. There was a moderate amount of epithelial tissue apparent in the wound bed. I wrote the patient a prescription for Physical Therapy 2 times per week for 1 month to help with the back pain. Patient tolerated the procedure well and will return to the clinic in 1 week.

PLAN

We will hold on the whirlpool treatments for now, since she will have the hydrocolloid dressing in place. We are going to request a PT INR prior to her next appointment so that we have a better idea as to how thin her blood is before we begin attempting to debride. We will then follow up with the patient in 1 week.

DEBRIDEMENT EXAMPLE – BONE

HISTORY

Patient is an 87 year-old female with a chronic non healing ulcer of the sacrum that has been present for over six months.

EXAM

Vital signs are stable, patient appears to be in good spirits, is alert and oriented times three. The ulcer of the sacrum is covered by slough and fibrin with some necrosis apparent. A recent MRI has revealed osteomyelitis. The ulcer itself measures 3.8 x 1.1 x 3.1 cm. It is a Stage IV ulcer.

PREOPERATIVE DIAGNOSIS:

Non healing Stage IV ulcer to the sacrum measuring 3.8cm in length, 1.1 cm in width, 3.1 cm in depth.

POSTOPERATIVE DIAGNOSIS:

Non healing Stage IV ulcer to the sacrum measuring 3.8 cm in length, 1.2 cm in width, 3.3 cm in depth.

PROCEDURE:

Excisional debridement

ANESTHESIA:

5 percent Lidocaine gel

DESCRIPTION OF PROCEDURE:

Using normal sterile technique, a #2 surgical steel loop curette, the wound was gently debrided sharply down into subcutaneous tissues with removal of thick, yellow, fibrinous sloughing material. We excised further into the bone, removing bone which will be cultured. Scant amount of necrotic tissue removed from the peri sacral area. Nice pink granulation base noted. There was associated appropriate bleeding. Bleeding controlled with pressure. The patient tolerated the procedure extremely well. Dressing applied. Deemed stable for discharge to return in one week.

4.3.1 What are the correct CPT codes for documenting excisional debridements and selective debridements?

Excisional Debridement Codes (11040-11044) are used when surrounding healthy tissue is exposed.

- Excisional debridement is the definite cutting away of tissue, going beyond the dead or damaged tissue.
- It includes cutting outside or beyond the wound margin.
- Documentation must be descriptive enough to create a clear picture of the type of debridement performed and should include the method, depth and instrument.
 - What tissue and how much tissue was removed.
 - Noting wound dimensions both pre and post procedure is important, since the wound margins change in an excisional debridement.

Selective Debridement Codes (97597 & 97598) are used when:

- The sharp debridement occurs at the line of demarcation between non-viable and viable tissue; that is, the physician is removing necrotic tissue or slough, and not removing healthy tissue.
- A sharp or surgical instrument must be used (scalpel, blade, curette, scissors, nippers).
- Generally there is little or no bleeding with this procedure.

Discussion and Sample Procedure Notes

(Please see sample procedure notes following the discussion below)

For the purpose of reimbursement by Medicare, debridement is the removal of a foreign material and/or devitalized or contaminated tissue from or adjacent to a traumatic or infected lesion until surrounding healthy tissue is exposed.

Debridement will not be considered a reasonable and necessary procedure for a wound that is clean and free of necrotic tissue.

CPT codes 11040-11044 can be performed and billed only by doctors of medicine, doctors of osteopathy, and doctors of podiatry. Non-physician practitioners can perform and bill these services only if they are adequately trained and if these services are within their scope of practice.

Surgical (Excisional) Debridement CPT Codes 11040 – 11044

Definition as per MedicineNet.com: Surgical removal; to excise tissue).

Surgical debridement is typically reported for the treatment of a wound to clear the site and to establish the margins of viable tissue. It is suited for removal of thick, adherent eschar and devitalized tissue in large ulcers. It is also appropriate when there is evidence of infection, sepsis, or osteomyelitis. Bleeding is likely and anesthesia is often required for deeper lesions of neurologically intact skin.

The CPT code selected should report the level of debrided tissue (e.g. partial thickness skin, full thickness skin, subcutaneous tissue, muscle and/or bone), not the extent, depth, or grade of the ulcer or wound. For example, use CPT code 11042 if only necrotic skin and subcutaneous tissue are debrided, even though the ulcer or wound might extend to bone.

CPT Codes 11040 - 11044 are not appropriate for washing bacterial or fungal debris from the feet, paring or cutting of corns or calluses, incision and drainage of abscess including paronychia, trimming or debridement of nails, avulsion of nail plates, acne surgery, or destruction of warts. Report such procedures, when they represent covered, reasonable and necessary services, using the CPT code(s) that most closely describes the service performed. Do not use debridement codes when the only wound care service provided is the non-surgical cleansing of the ulcer site, with or without the application of a surgical dressing.

The code selected must be based on the type of nonviable tissue removed, not the depth or grade of the ulcer or wound. For example, in a patient with a deep ulcer with exposed bone who only requires removal of necrotic tissue of the skin and subcutaneous tissue, the appropriate CPT code is 11042. On the other hand, debris cleaned from a Stage II ulcer does not warrant the billing of CPT code 11042. Debridement codes may be billed once per lesion per session.

Code 11040 is appropriate for debridement of epidermis and partial thickness of the dermis. It is for wounds that are considered superficial, i.e. abrasion, blister, or shallow crater.

Code 11041 – is appropriate for debridement of epidermis and dermis.

Code 11042 – for debridement of injured or necrotic subcutaneous tissue that may extend to, but not involve, underlying fascia.

Code 11043 – for debridement of fascia, tendon, joint capsule and/or muscle.

Code 11044 – for debridement of bone.

Skin Debridement (CPT codes 11000-11001). Codes 11000 and 11001 describe removal of extensive eczematous or infected skin. A key word is extensive. Conditions that may require debridement of large amounts of skin include: rapidly spreading necrotizing process (sometimes seen with aggressive streptococcal infections), severe eczema,

bullous skin diseases, extensive skin trauma (including large abraded areas with ground-in dirt), or autoimmune skin diseases (such as pemphigus).

Active Wound Care Management (Selective Debridement)

According to several fiscal intermediaries, "Active wound care procedures are performed to remove devitalized tissue and promote healing, and involve selective and non-selective debridement techniques. Debridement is indicated whenever necrotic tissue is present on an open wound. Debridement may also be indicated in cases of abnormal wound healing or repair.

Selective Debridement Codes 97597 and 97598 are for the removal of specific, targeted areas of devitalized or necrotic tissue from a wound along the margin of viable tissue. Occasional bleeding and pain may occur. The routine application of a topical or local anesthetic does not elevate active wound care management to surgical debridement.

Selective debridement includes:

- Selective removal of necrotic tissue by sharp dissection including scissors, scalpel, and forceps.
- Selective removal of necrotic tissue by high pressure water jet.

Debridement will not be considered a reasonable and necessary procedure for a wound that is clean and free of necrotic tissue. This procedure includes wound assessment; debridement; application of ointments, creams, sealants, and other wound coverings; and instructions for ongoing care. It should be billed no more than once per day, regardless of the number of wounds.

Sample Procedure Notes:

Selective Debridement

The ulcer of the right distal tibia measures 2.8 x 2.5 x 0.02 cm with a slight amount of yellow slough and an area of red hypergranulation tissue. After using 4% Lidocaine cream, a #2 curette was used to debride the ulcer of the right distal tibia, removing the chronic inflammatory cells and necrotic tissue. The procedure was tolerated with mild discomfort and a very slight amount of bleeding which stopped spontaneously. The ulcer was dressed with silver alginate and the patient will return in one week.

Excisional Debridement

HISTORY OF PRESENT ILLNESS

The patient returns with her daughter for evaluation of her pressure ulcer of the right heel. The ulcer measures 1.5 x 0.8 x 0.1 cm. There is necrotic tissue, slough, and fibrous material to the base that is tenacious. There is some slight maceration to the per ulcer margins. There are no signs of infection. There is some small amount of serous drainage from these areas. This is a Grade II diabetic ulcer. The ulcer has been dressed on every other day basis by the visiting nurse with Accuzyme.

IMPRESSIONS

Right heel pressure ulcer

PLAN

Under sterile technique, the right heel was sharply debrided with a curette, removing necrotic subcutaneous tissue along with fibrous material from the base of the ulcer. There was no tunneling or undermining noted. Moderate bleeding was controlled through pressure. No anesthetic was used as the patient is neuropathic. This was an excisional debridement. She tolerated the procedure well. The area was then dressed with Accuzyme and All-Dress. The right heel ulcer post debridement measured 1.5 x 0.8 x 0.3 cm. and the ulcer was clean with a healthy appearing base.

She should continue having dressings of Accuzyme to the areas on an every-other-day basis when the visiting nurse evaluates the ulcers. She will follow up in 1 week's time.

Important Note: As with all issues regarding documentation, coding, billing and charge capture, the Hospital's Health Information Management and Patient Accounting departments have final responsibility for determining the appropriate treatment of these issues, subject to their local Fiscal Intermediary. If you have any questions, comments or concerns, please do not hesitate to call NHC's Revenue Cycle Management Group or NHC's Corporate Compliance Officer.

Research & Opinion:	RCM Education Specialist 6/09/06
Technical Review:	Ted Tomter, Paula Threet, RCM Education Specialist 8/07/06
Revised	RCM Education Specialist 5/30/07, 7/1/09, Paula Threet 12/3/09
Sources Utilized:	AMA CPT Manual 2009 NGS LCD for Debridement Services L27373 6/5/09 Trailblazer LCD L26721 for Wound Care 10/1/08
RCM Reference Manual:	Chapter 4: <u>Documenting Specific Services and Procedures</u> Section 3: <u>Documenting Specific Services and Diagnoses</u>

4.3.3 What is the difference between debridement and paring of callus?

Both paring and debridement require the use of a sharp instrument. However, callus refers to a hardened lesion which lies above the skin, whereas an ulcer or wound sits below the skin. Excisional and selective debridement refers to the removal of devitalized tissue within an ulcer or wound; paring of callus refers to the removal of the hardened callus tissue.

In dictation, sometimes physicians will refer directly to callus tissue. However, other keywords include **hyperkeratosis** or **hyperkeratotic tissue**. These also indicate callus, and should alert to the reader to the possibility that this is not an excisional or selective debridement.

If there is only hyperkeratosis or callus, and no existing ulcer, then a paring of callus should be charged.

If the physician removes the hyperkeratosis and goes on to debride within the wound, then only the debridement should be charged.

However, if the physician removes the callus around an existing ulcer (without continuing to debride within the ulcer), then it is necessary to know your LCD to know how to charge. Some LCDs consider this to be a paring of callus, and other LCDs consider this to be a partial thickness debridement.

11055 for paring of one callus appears on the superbill. 11056 for paring of two to four lesions has been added to the 2010 superbill. However, only the most commonly used charges appear on the superbill. While doing the daily charge review, it is also important to be aware of 11057 for paring of more than four calluses.

***Important Note:** As with all issues regarding documentation, coding, billing and charge capture, the Hospital's Health Information Management and Patient Accounting departments have final responsibility for determining the appropriate treatment of these issues, subject to their local Fiscal Intermediary. If you have any questions, comments or concerns, please do not hesitate to call NHC's Revenue Cycle Management Group or NHC's Corporate Compliance Officer.*

Research & Opinion:	Jennie Feight 12/15/09
Technical Review:	Paula Threet, Linda Martien 12/15/09
Sources Utilized:	AMA CPT Manual 2010 Merriam Webster's Medical Dictionary (online) 12/15/09 Taber's Cyclopedic Medical Dictionary, 19 th Ed.
RCM Reference Manual:	Chapter 4: <u>Documenting Specific Services and Procedures</u> Section 3: <u>Documenting Specific Services and Diagnoses</u>

CALLUSES

Subjective:

Mr. John Doe returns today to the center for evaluation and management of the ulcers on his left lower extremity. He saw Dr. X last week who says that he is doing well. He has no specific complaints.

Objective:

Vital Signs: Blood pressure 155/92. Pulse 76. Respiratory rate 20.
Temperature 96.6.

General:

No apparent distress. Appears well nourished and hydrated. Skin: Ulcer #1 left second toe plantar surface is healed. Ulcer #2 left fourth toe plantar surface measuring 0.7 x 0.4 x nonstageable. This is a callus. Ulcer #3 left fifth toe measuring 0.7 x 0.3 x nonstageable. This is also another callus. There is no edema in the right or left leg.

Assessment/Plan:

Pre-ulcerative calluses on the left fourth and fifth toes plantar surface. Please note that both of these calluses were pared down using thumb forceps with teeth #15 blade. There is no ulcer underneath them. He is to continue wearing his diabetic shoes. He will follow up in four weeks and if there is no further injury or ulcer, then he will be discharged from the Wound Healing Center.

Discussion:

- Calluses are never staged. A callus sits on top of the skin and the ulcer is below the skin. If the physician removed the callus and performed an excisional debridement, you can only charge for the excisional debridement. However, this dictation was just the removal of the callus.
- If the physician debrides the callus around an existing ulcer, it is necessary to know your LCD to know how to charge. Some LCDs consider this to be a paring of callus, and other LCDs consider this to be a partial thickness debridement.

Wound Care Terminology

Abscess. A circumscribed collection of pus that forms in tissue as a result of acute or chronic localized infection. It is associated with tissue destruction and frequently swelling.

Acute Wounds. Disruptions in the skin integrity and underlying tissues that progress through the healing process in a timely manner without complications.

Adherent Materials. Matter attached to the wound bed such as eschar, dirt particles, or bacteria.

Albumin. A major plasma protein. Numerous studies have revealed increased morbidity and mortality in patients with decreased serum albumin levels. The normal serum albumin concentration is 3.5 to 5.0 gm/dL. This value is effective showing nutritional status 3-4 weeks prior to lab draw. (See Hypoalbuminemia)

Ankle-Brachial Index. Doppler-derived lower extremity arterial pressures are measured and an ankle-brachial index (ABI) is calculated by making a ratio of pressure at the ankle to pressure in the arm. The normal ABI is 0.9 to 1.1.

Antiseptic (Topical). Product with antimicrobial activity designed for use on skin or other superficial tissues; may damage cells.

Arterial Ulcer. Wounds that are caused by insufficient arterial perfusion. These wounds are usually painful. Clinically, they may appear as "punched out" wounds that have pale wound beds, well-defined wound edges, and minimal exudate.

Atherosclerosis. Plaque formation on the walls of arteries causing a narrowing of the lumen and decreased blood flow.

Bottoming Out. Expression used to describe inadequate support from a mattress overlay or seat cushion as determined by a "hand check." To perform a hand check, the caregiver places and outstretched hand (palm up) under the overlay or cushion below the pressure ulcer or that part of the body at risk for a pressure ulcer. If the caregiver feels less than an inch of support material, the patient has bottomed out and the support surface is therefore inadequate.

Cellulitis. Inflammation of cellular or connective tissue. Inflammation may be diminished or absent in immunosuppressed individuals.

Cellulitis (Advancing). Cellulitis that is visibly spreading in the area of the wound. Advancement can be monitored by marking the outer edge of the cellulitis and assessing the area for advancement or spread 24 hours later.

Chronic Wounds. These nonhealing wounds deviate from the expected sequence of repair in terms of time, appearance, and response to appropriate treatments.

Clean. Containing no foreign material or debris.

Clean Dressing. Dressing that is not sterile but is free of environmental contaminants such as water damage, dust, pest and rodent contaminants, and gross soiling.

Clean Wound. Wound free of purulent drainage, devitalized tissue, or dirt.

Colonized. The presence of bacteria on the surface or in the tissue of a wound without indications of infection such as purulent exudate, foul odor, or surrounding inflammation. All Stage II, III and IV pressure ulcers are colonized.

Contaminated. Containing bacteria, other microorganisms, or foreign material. The term usually refers to bacterial contamination and in this context is synonymous with colonized. Wounds with bacterial counts of 10 organisms per gram of tissue or less are generally considered contaminated; those with higher counts are generally considered infected.

Culture and Sensitivity. Removal of bacteria from a wound for the purpose of placing them in a growth medium in the laboratory to propagate to the point where they can be identified and tested for sensitivity to various antibiotics.

Culture (Swab). Technique involving the use of a swab to remove bacteria from a wound and place them in a growth medium for propagation and identification. Swab cultures obtained from the surface of a pressure ulcer are usually positive because of surface colonization and should not be used to diagnose ulcer infection.

Dead Space. A cavity remaining in a wound.

Debridement. Removal of devitalized tissue and foreign matter from a wound. Various methods can be used for this purpose:

- **Autolytic Debridement.** The use of synthetic dressings to cover a wound and allow eschar to self-digest by the action of enzymes present in wound fluids.
- **Enzymatic (Chemical) Debridement.** The topical application of proteolytic substances (enzymes) to break down devitalized tissue.
- **Mechanical Debridement.** Removal of foreign material and devitalized or contaminated tissue from a wound by physical forces rather than by chemical (enzymatic) or natural (autolytic) forces. Examples are wet-to-dry dressings, wound irrigation, whirlpool, and dextranomers.
- **Sharp Debridement.** Removal of foreign material or devitalized tissue by a sharp instrument such as a scalpel. Laser debridement is also considered a type of sharp debridement.

Dehiscence. Separation of the layers of a surgical wound.

Dermis. Inner layer of skin that contains the hair follicles and sweat glands. A stage II pressure ulcer will involve this layer of skin.

Deterioration. Negative course. Failure of the pressure ulcer to heal, as shown by wound enlargement that is not brought about by debridement.

Dextranomers. Highly hydrophilic dextran-polymer beads that are poured into secreting wounds to absorb wound exudates and act as a debriding agent.

Dressing. The material applied to a wound for the protection of the wound and absorbance of drainage.

- **Alginate Dressing.** A nonwoven, absorptive dressing manufactured from seaweed.
- **Film Dressing.** A clear, adherent, nonabsorptive, polymer-based dressing that is permeable to oxygen and water vapor but not to water.
- **Foam Dressing.** A spongelike polymer dressing that may or may not be adherent; it may be impregnated or coated with other materials and has some absorptive properties.

- **Gauze Dressing.** A cotton or synthetic fabric dressing that is absorptive and permeable to water, water vapor, and oxygen. This dressing may be impregnated with petrolatum, antiseptics, or other agents.
- **Continuously Moist Saline Gauze.** A dressing technique in which gauze moistened with normal saline is applied to the wound and remoistened frequently enough so it will remain moist. The goal is to maintain a continuously moist wound environment.
- **Wet-to-Dry Saline Gauze.** A dressing technique in which gauze moistened with normal saline is applied wet to the wound and removed once the gauze becomes dry and adheres to the wound bed. The goal is to debride the wound as the dressing is removed.
- **Hydrocolloid Dressing.** An adhesive, moldable wafer made of a carbohydrate-based material, usually with a waterproof backing. This dressing usually is impermeable to oxygen, water, and water vapor and has some absorptive properties.
- **Hydrogel Dressing.** A water-based, nonadherent, polymer-based dressing that has some absorptive properties.
- **Pastes/Powders/Beads.** Agents formulated primarily to fill wound cavities that may have some absorptive properties.

Epidermis. Avascular outer layer of the skin.

Epithelialization. The stage of tissue healing in which the epithelial cells migrate (move) across the surface of a wound. During this stage of healing, the epithelium appears the color of "ground glass" to pink.

Erythema. Redness of the skin.

- **Blanchable Erythema.** Reddened area that temporarily turns white or pale when pressure is applied with a fingertip. Blanchable erythema over a pressure site is usually due to a normal reactive hyperemic response.
- **Nonblanchable Erythema.** Redness that persists when fingertip pressure is applied. Nonblanchable erythema over a pressure site is a symptom of a Stage I pressure ulcer.

Eschar. Thick, leathery, necrotic, devitalized tissue.

Exudate. Any fluid that has been extruded from a tissue or its capillaries, more specifically because of injury or inflammation. It is characteristically high in protein and white blood cells.

Fascia. A sheet or band of fibrous tissue that lies deep below the skin or encloses muscles and various organs of the body.

Fluid Irrigation. Cleansing by means of a stream of fluid, preferably saline.

Friction. Mechanical force exerted when skin is dragged across a coarse surface such as bed linens.

Full-Thickness Tissue Loss. The absence of epidermis and dermis.

Granulation Tissue. The pink/red, moist tissue that contains new blood vessels, collagen, fibroblasts, and inflammatory cells, which fills an open, previously deep wound when it starts to heal

Growth Factors. Proteins that affect the proliferation, movement, maturation, and biosynthetic activity of cells. For the purposes of this guideline, these are proteins that can be produced by living cells.

Handwashing. Handwashing is the cornerstone of any infection-control program. Handwashing should be of sufficient duration to remove the transient microbial flora (10 seconds of soap and friction, followed by rinsing with running water).

Healing. A dynamic process in which anatomical and functional integrity is restored. This process can be monitored and measured. For wounds of the skin, it involves repair of the dermis (granulation tissue formation) and epidermis (epithelialization). Healed wounds represent a spectrum of repair: They can be ideally healed (tissue regeneration), minimally healed (sustained functional and anatomical result). The acceptably healed wound is the ultimate outcome of wound healing but not necessarily the appropriate outcome for all patients.

- **Primary Intention Healing.** Closure and healing of a sutured wound.
- **Secondary Intention Healing.** Closure and healing of a wound by the formation of granulation tissue and epithelialization.

Hydrotherapy. Use of whirlpool or submersion for wound cleansing.

Hyperkeratotic Tissue. Corn or callus.

Hypoalbuminemia. An abnormally low amount of albumin in the blood. A value less than 3.5 mg/dL is clinically significant. Albumin is the major serum protein that maintains plasma colloidal osmotic pressure (pressure within blood vessels) and transports fatty acids, bilirubin, and many drugs as well as certain hormones, such as cortisol and thyroxine, through the blood. Low serum albumin may be due to inadequate protein intake, active inflammation, or serious hepatic and renal disease and is associated with pressure ulcer development.

Infection. The presence of bacteria or other microorganisms in sufficient quantity to damage tissue or impair healing. Clinical experience has indicated that wounds can be classified as infected when the wound tissue contains 10⁵ or greater microorganisms per gram of tissue. Clinical signs of infection may not be present, especially in the immunocompromised patient or the patient with a chronic wound.

Infection (Clinical). The presence of bacteria or other microorganisms in sufficient quantity to overwhelm the tissue defenses and produce the inflammatory signs of infection (i.e., purulent exudate, odor, erythema, warmth, tenderness, edema, pain, fever, and elevated white cell count).

- **Local Clinical Infection.** A clinical infection that is confined to the wound and within a few millimeters of its margins.
- **Systemic Clinical Infection.** A clinical infection that extends beyond the margins of the wound. Some systemic infectious complications of pressure ulcers include cellulites, advancing cellulites, osteomyelitis, meningitis, endocarditis, septic arthritis, bacteremia and sepsis.

Inflammatory Response. A localized protective response elicited by injury or destruction of tissues that serves to destroy, dilute, or wall off both the injurious agent and the injured tissue. Clinical signs include pain, heat, redness, swelling, and loss of function. Inflammation may be diminished or absent in immunosuppressed patients.

Innervation. Nerve supply to an area of the body. Innervation is considered adequate if it is sufficient to sense temperature, touch, and pressure/pain and communicate this sensory information to the brain.

Intention. See healing.

Irrigation. Cleansing by a stream of fluid, preferably saline.

Ischemia. Deficiency of blood to a tissue, often leading to tissue necrosis.

Macerate. To soften by wetting or soaking. In this context, it refers to degenerative changes and disintegration of skin when it has been kept too moist.

Malnutrition. State of nutritional insufficiency due to either inadequate dietary intake or defective assimilation or utilization of food ingested. Clinically significant malnutrition is diagnosed if (1) serum albumin is less than 3.5 mg/dL, (2) the total lymphocyte count is less than 1800/mm³ or (3) body weight has decreased more than 15%.

Necrotic Tissue. Tissue that has died and has therefore lost its usual physical properties and biological activity. Also called "devitalized tissue".

No-Touch Technique. Method of changing surface dressings without touching the wound or the surface of any dressing that may be in contact with the wound. Adherent dressings should be grasped by the corner and removed slowly, whereas gauze dressings can be pinched in the center and lifted off.

Osteomyelitis. An infectious inflammatory disease process in the bone that is often bacterial. One cost-effective method to determine osteomyelitis is to probe the wound with a sterile cotton-tipped application. If the tip can touch bone, osteomyelitis will be present in as many as 85% of the cases.

Pain. Nerve endings exposed to dressing removal and air can cause patients extreme discomfort. Moist wound healing is highly successful at reducing pain related trauma of dressing removal.

Partial-Thickness Tissue Loss. Wounds that involve the epidermis and can extend into, but not through, the dermis. These wounds heal mainly by epithelialization, from the wound edges and from epithelial cells in the remaining hair follicles and glands.

Peri-Wound. The area surrounding the wound. Assessment of the edges may help to identify undermining (blue-gray or blanched), infection (erythema), or maceration (white margins).

Pressure (Interface). Force per unit area that acts perpendicularly to the body from the support surface. This parameter is affected by the stiffness of the support surface, the composition of the body tissue, and the geometry of the body being supported.

Pressure Reduction. Reduction of interface pressure, not necessarily below the level required to close capillaries (i.e., capillary-closing pressure).

Pressure Relief. Reduction of interface pressure below capillary-closing pressure.

Pressure Ulcer. Any lesion caused by unrelieved pressure resulting in damage of underlying tissue. They are also called decubitus ulcers, pressure sores, or bed sores. They are usually located over bony prominences and are graded or staged to classify the degree of tissue damage observed.

PSI. Pounds per square inch – a unit of pressure; in this case, the pressure exerted by a stream of fluid against 1 square inch of skin or wound surface.

Purulent Discharge/Drainage. A product of inflammation that contains pus – i.e., cells (leukocytes, bacteria) and liquefied necrotic debris.

Reactive Hyperemia. Reddening of the skin caused by blood rushing back into ischemic tissue.

Repositioning. Any change in body position that relieves pressure from tissue overlying bony prominences. Periodic repositioning of chairbound and bedfast individuals is one of the most basic and frequently used methods of reducing pressure. The overall goal of repositioning is to allow tissue reperfusion and thus prevent ischemic tissue changes. The

term "repositioning" implies a sustained relief of pressure, not just a temporary shift. Specific repositioning techniques and the frequency of repositioning should be individualized according to the patient's level of risk and the goals of care.

Sepsis. The presence of various pus-forming and other pathogenic organisms or their toxins in the blood or tissues. Clinical signs of bloodborne sepsis include fever, tachycardia, hypotension, leukocytosis, and deterioration in mental status. The same organism is often isolated in both the blood and the pressure ulcer.

Shear. Mechanical force that acts on a unit area of skin in a direction parallel to the body's surface. Shear is affected by the amount of pressure exerted, the coefficient of friction between the materials contacting each other, and the extent to which the body makes contact with the support surface.

Sinus Tract. A cavity or channel underlying a wound that involves an area larger than the visible surface of the wound.

Slough. Necrotic (dead) tissue in the process of separating from viable portions of the body.

Stasis Ulcer. Ulceration associated with ambulatory venous hypertension.

Support Surfaces. Special beds, mattresses, mattress overlays, or seat cushions that reduce or relieve pressure while sitting or lying.

Surfactants. A surface-active agent that reduces the surface tension of fluids to allow a greater penetration.

Topical Antibiotic. A drug known to inhibit or kill microorganisms that can be applied locally to a tissue surface.

Topical Antiseptic. Product with antimicrobial activity designed for use on skin or other superficial tissues; may damage some cells.

Trochanter. Bony prominence on the upper part of the femur.

Tunneling. A passageway under the surface of the skin that is generally open at the skin level; however, most of the tunneling is not visible.

Underlying Tissue. Tissue that lies beneath the surface of the skin such as fatty tissue, supporting structures, muscle and bone.

Undermining. A closed passageway under the surface of the skin that is open only at the skin surface. Generally it appears as an area of skin ulceration at the margins of the ulcer with skin overlying the area. Undermining often develops from shearing forces.

Section 9.5 - Glossary of Medical Terms

The following are commonly used terms you may see in dictation. While you are not expected to understand medical terminology, you may find this helpful for reference. Contact your RDC or RCM support person to clarify terminology.

<u>Abscess</u>	<u>Dermatitis</u>	<u>Intermediate</u>
<u>Acute Wounds</u>	<u>Dermis</u>	<u>Ipsilateral</u>
<u>Adenopathy</u>	<u>Deterioration</u>	<u>Irrigation</u>
<u>Adherent Materials</u>	<u>Devitalized</u>	<u>Ischemia</u>
<u>Afebrile</u>	<u>Dextranomers</u>	<u>Lateral</u>
<u>Albumin</u>	<u>Distal</u>	<u>Macerated</u>
<u>Ankle-Brachial Index</u>	<u>Dorsal</u>	<u>Malleolus</u>
<u>Anterior</u>	<u>Dressing</u>	<u>Malnutrition</u>
<u>Antiseptic (Topical)</u>	<u>DVT (Deep Vein Thrombosis)</u>	<u>Medial</u>
<u>Arterial Ulcer</u>	<u>Edema</u>	<u>Necrosis</u>
<u>Aspect</u>	<u>Epidermis</u>	<u>Necrotic</u>
<u>Atherosclerosis</u>	<u>Epithelialization</u>	<u>Necrotic Tissue</u>
<u>Bilateral</u>	<u>Epithelium</u>	<u>Neuron</u>
<u>Bottoming Out</u>	<u>Erythema</u>	<u>Neuropathy</u>
<u>Cellulitis</u>	<u>Eschar</u>	<u>Neurotrophic</u>
<u>Cellulitis (Advancing)</u>	<u>Exudate</u>	<u>No Touch Technique</u>
<u>Chronic Wounds</u>	<u>Fascia</u>	<u>Onychomycosis</u>
<u>Claudication</u>	<u>Fibrin</u>	<u>ORIF</u>
<u>Clean</u>	<u>Fibrinous</u>	<u>Osteomyelitis</u>
<u>Clean Dressing</u>	<u>Fluid Irrigation</u>	<u>Pain</u>
<u>Clean Wound</u>	<u>Friction</u>	<u>Paresthesia</u>
<u>Clubbing</u>	<u>Full Thickness Loss</u>	<u>Partial Thickness Loss</u>
<u>Colonized</u>	<u>Granulation</u>	<u>Peri-Wound</u>
<u>Contaminated</u>	<u>Growth Factors</u>	<u>Plantar</u>
<u>Contralateral</u>	<u>Handwashing</u>	<u>Posterior</u>
<u>Culture and Sensitivity</u>	<u>Healing</u>	<u>Pressure (Interface)</u>
<u>Culture (Swab)</u>	<u>Hydrotherapy</u>	<u>Pressure Reduction</u>
<u>Cyanosis</u>	<u>Hyperkeratotic Tissue</u>	<u>Pressure Relief</u>
<u>Dead Space</u>	<u>Hypoalbuminemia</u>	<u>Pressure Ulcer</u>
<u>Debridement</u>	<u>Infection</u>	<u>Proximal</u>
<u>Decubitus (ulcer)</u>	<u>Infection (Clinical)</u>	<u>Purulent</u>
<u>Deep</u>	<u>Inferior</u>	<u>Serosanguinous</u>
<u>Dehiscence</u>	<u>Inflammatory Response</u>	<u>Slough</u>
<u>Dermal</u>	<u>Innervation</u>	<u>Superficial</u>
		<u>Superior</u>

9.5.1 Glossary of Medical Terms

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

A

[back to top](#)

Abscess

A circumscribed collection of pus that forms in tissue as a result of acute or chronic localized infection. It is associated with tissue destruction and frequently swelling.

Acute Wounds

Disruptions in the skin integrity and underlying tissues that progress through the healing process in a timely manner without complications.

Adenopathy

Swelling or enlargement of the lymph nodes.

Adherent Materials

Matter attached to the wound bed such as eschar, dirt particles, or bacteria.

Afebrile

Without fever; having a normal body temperature.

Albumin

A major plasma protein. Numerous studies have revealed increased morbidity and mortality in patients with decreased serum albumin levels. The normal serum albumin concentration is 3.5 to 5.0 gm/dL. This value is effective showing nutritional status 3-4 weeks prior to lab draw. (See Hypoalbuminemia)

Ankle-Brachial Index

Doppler-derived lower extremity arterial pressures are measured and an ankle-brachial index (ABI) is calculated by making a ratio of pressure at the ankle to pressure in the arm. The normal ABI is 0.9 to 1.1.

Anterior

Near or to the front of the body.

Antiseptic (Topical)

Product with antimicrobial activity designed for use on skin or other superficial tissues; may damage cells.

Arterial Ulcer

Wounds that are caused by insufficient arterial perfusion. These wounds are usually painful. Clinically, they may appear as "punched out" wounds that have pale wound beds, well-defined wound edges, and minimal exudate.

Aspect

Surface or orientation of a body area or part.

Atherosclerosis

Plaque formation on the walls of arteries causing a narrowing of the lumen and decreased blood flow.

B

[back to top](#)

Bilateral

Related to, or having, two sides.

Bottoming Out

Expression used to describe inadequate support from a mattress overlay or seat cushion as determined by a "hand check." To perform a hand check, the caregiver places an outstretched hand (palm up) under the overlay or cushion below the pressure ulcer or that part of the body at risk for a pressure ulcer. If the caregiver feels less than an inch of support material, the patient has bottomed out and the support surface is therefore inadequate.

[back to top](#)

C**Cellulitis**

Inflammation of cellular or connective tissue. Inflammation may be diminished or absent in immunosuppressed individuals

Cellulitis (Advancing)

Cellulitis that is visibly spreading in the area of the wound. Advancement can be monitored by marking the outer edge of the cellulitis and assessing the area for advancement or spread 24 hours later.

Chronic Wounds

These nonhealing wounds deviate from the expected sequence of repair in terms of time, appearance, and response to appropriate treatments.

Claudication

Limping, usually referring to intermittent claudication.

Clean

Containing no foreign material or debris.

Clean Dressing

Dressing that is not sterile but is free of environmental contaminants such as water damage, dust, pest and rodent contaminants, and gross soiling.

Clean Wound

Wound free of purulent drainage, devitalized tissue, or dirt.

Clubbing

A condition affecting the fingers and toes in which proliferation of distal tissues, especially the nail beds, results in thickening and widening of the extremities of the digits.

Colonized

The presence of bacteria on the surface or in the tissue of a wound without indications of infection such as purulent exudate, foul odor, or surrounding inflammation. All Stage II, III and IV pressure ulcers are colonized.

Contaminated

Containing bacteria, other microorganisms, or foreign material. The term usually refers to bacterial contamination and in this context is synonymous with colonized. Wounds with bacterial counts of 10 organisms per gram of tissue or less are generally considered contaminated; those with higher counts are generally considered infected.

Contralateral

On the opposite side of the body.

Culture and Sensitivity

Removal of bacteria from a wound for the purpose of placing them in a growth medium in the laboratory to propagate to the point where they can be identified and tested for sensitivity to various antibiotics.

Culture (Swab)

Technique involving the use of a swab to remove bacteria from a wound and place them in a growth medium for propagation and identification. Swab cultures obtained from the surface of a pressure ulcer are usually positive because of surface colonization and should not be used to diagnose ulcer infection.

Cyanosis

A dark blue or purplish coloration of the skin, nail beds, lips or mucous membranes due to deficient oxygenation of the blood.

D

[back to top](#)

Dead Space

A cavity remaining in a wound.

Debridement

Removal of devitalized tissue and foreign matter from a wound. Various methods can be used for this purpose:

- **Autolytic Debridement.** The use of synthetic dressings to cover a wound and allow eschar to self-digest by the action of enzymes present in wound fluids.
- **Enzymatic (Chemical) Debridement.** The topical application of proteolytic substances (enzymes) to break down devitalized tissue.

- **Mechanical Debridement.** Removal of foreign material and devitalized or contaminated tissue from a wound by physical forces rather than by chemical (enzymatic) or natural (autolytic) forces. Examples are wet-to-dry dressings, wound irrigation, whirlpool, and dextranomers.
- **Sharp Debridement.** Removal of foreign material or devitalized tissue by a sharp instrument such as a scalpel. Laser debridement is also considered a type of sharp debridement.

Decubitus (ulcer)

The position of a patient in bed; dorsal decubitus (lying on the back), lateral decubitus (lying on the side), etc.

Deep

Away from the surface of the body.

Dehiscence

Separation of the layers of a surgical wound.

Dermal

Relating to the skin.

Dermatitis

Inflammation of the skin.

Dermis

Inner layer of skin that contains the hair follicles and sweat glands. A stage II pressure ulcer will involve this layer of skin.

Deterioration

Negative course. Failure of the pressure ulcer to heal, as shown by wound enlargement that is not brought about by debridement.

Devitalized

Devoid of life; dead.

Dextranomers

Highly hydrophilic dextran-polymer beads that are poured into secreting wounds to absorb wound exudates and act as a debriding agent.

Distal

Farthest from the trunk or the point of origin; said of part of a limb, of an artery or a nerve, etc.

Dorsal

Pertaining to the back.

DVT (Deep Vein Thrombosis)

A blood clot or obstruction of a deep vein (such as the femoral vein).

Dressing

The material applied to a wound for the protection of the wound and absorbance of drainage.

- **Alginate Dressing.** A nonwoven, absorptive dressing manufactured from seaweed.
- **Film Dressing.** A clear, adherent, nonabsorptive, polymer-based dressing that is permeable to oxygen and water vapor but not to water.
- **Foam Dressing.** A sponge-like polymer dressing that may or may not be adherent; it may be impregnated or coated with other materials and has some absorptive properties.
- **Gauze Dressing.** A cotton or synthetic fabric dressing that is absorptive and permeable to water, water vapor, and oxygen. This dressing may be impregnated with petrolatum, antiseptics, or other agents.
- **Continuously Moist Saline Gauze.** A dressing technique in which gauze moistened with normal saline is applied to the wound and remoistened frequently enough so it will remain moist. The goal is to maintain a continuously moist wound environment.
- **Wet-to-Dry Saline Gauze.** A dressing technique in which gauze moistened with normal saline is applied wet to the wound and removed once the gauze becomes dry and adheres to the wound bed. The goal is to debride the wound as the dressing is removed.
- **Hydrocolloid Dressing.** An adhesive, moldable wafer made of a carbohydrate-based material, usually with a waterproof backing. This dressing usually is impermeable to oxygen, water, and water vapor and has some absorptive properties.
- **Hydrogel Dressing.** A water-based, nonadherent, polymer-based dressing that has some absorptive properties.
- **Pastes/Powders/Beads.** Agents formulated primarily to fill wound cavities that may have some absorptive properties.

E

[back to top](#)

Edema

An accumulation of an excessive amount of watery fluid in cells, tissues, or serous cavities.

Epidermis

Avascular outer layer of the skin.

Epithelialization

Formation of epithelium: The stage of tissue healing in which the epithelial cells migrate (move) across the surface of a wound. During this stage of healing, the epithelium appears the color of "ground glass" to pink.

Epithelium

The cellular layer covering all surfaces of the body, including skin, mucous, and serous structures.

Erythema

Redness of the skin.

- **Blanchable Erythema.** Reddened area that temporarily turns white or pale when pressure is applied with a fingertip. Blanchable erythema over a pressure site is usually due to a normal reactive hyperemic response.
- **Nonblanchable Erythema.** Redness that persists when fingertip pressure is applied. Nonblanchable erythema over a pressure site is a symptom of a Stage I pressure ulcer.

Eschar

Scab-like covering on an ulcer, wound or burn.

Exudate

Any fluid that is exuded (oozes) out of a tissue.

[back to top](#)

F**Fascia**

A sheet or band of fibrous tissue that lies deep below the skin or encloses muscles and various organs of the body.

Fibrin

An elastic tissue (fiber) found primarily in collagenous fibers of connective tissue. A fibrous protein produced by the action of thrombin on fibrinogen and essential to the coagulation of blood. Fibrin works by forming a fibrous network in which blood cells become trapped, producing a clot.

Fibrinous

Pertaining to or composed of fibrin.

Fluid Irrigation

Cleansing by means of a stream of fluid, preferably saline.

Friction

Mechanical force exerted when skin is dragged across a coarse surface such as bed linens.

Full Thickness Loss

The absence of epidermis and dermis.

G

[back to top](#)

Granulation

The formation of minute, rounded, fleshy connective tissue projections on the surface of a wound, ulcer, or inflamed tissue surface during healing.

Growth Factors

Proteins that affect the proliferation, movement, maturation, and biosynthetic activity of cells. For the purposes of this guideline, these are proteins that can be produced by living cells.

H

[back to top](#)

Handwashing

Handwashing is the cornerstone of any infection-control program. Handwashing should be of sufficient duration to remove the transient microbial flora (10 seconds of soap and friction, followed by rinsing with running water).

Healing

A dynamic process in which anatomical and functional integrity is restored. This process can be monitored and measured. For wounds of the skin, it involves repair of the dermis (granulation tissue formation) and epidermis (epithelialization). Healed wounds represent a spectrum of repair: They can be ideally healed (tissue regeneration), minimally healed (sustained functional and anatomical result). The acceptably healed wound is the ultimate outcome of wound healing but not necessarily the appropriate outcome for all patients.

- **Primary Intention Healing.** Closure and healing of a sutured wound.
- **Secondary Intention Healing.** Closure and healing of a wound by the formation of granulation tissue and epithelialization.

Hydrotherapy

Use of whirlpool or submersion for wound cleansing.

Hyperkeratotic Tissue

Corn or callus.

Hypoalbuminemia

An abnormally low amount of albumin in the blood. A value less than 3.5 mg/dL is clinically significant. Albumin is the major serum protein that maintains plasma colloidal osmotic pressure (pressure within blood vessels) and transports fatty acids, bilirubin, and many drugs as well as certain hormones, such as cortisol and thyroxine, through the blood. Low serum albumin may be due to inadequate protein intake, active inflammation,

or serious hepatic and renal disease and is associated with pressure ulcer development.

[back to top](#)

I

Infection

The presence of bacteria or other microorganisms in sufficient quantity to damage tissue or impair healing. Clinical experience has indicated that wounds can be classified as infected when the wound tissue contains 10⁵ or greater microorganisms per gram of tissue. Clinical signs of infection may not be present, especially in the immunocompromised patient or the patient with a chronic wound.

Infection (Clinical)

The presence of bacteria or other microorganisms in sufficient quantity to overwhelm the tissue defenses and produce the inflammatory signs of infection (i.e., purulent exudate, odor, erythema, warmth, tenderness, edema, pain, fever, and elevated white cell count).

- **Local Clinical Infection.** A clinical infection that is confined to the wound and within a few millimeters of its margins.
- **Systemic Clinical Infection.** A clinical infection that extends beyond the margins of the wound. Some systemic infectious complications of pressure ulcers include cellulites, advancing cellulites, osteomyelitis, meningitis, endocarditis, septic arthritis, bacteremia and sepsis.

Inferior

Away from the head or toward the lower part of a structure.

Inflammatory Response

A localized protective response elicited by injury or destruction of tissues that serves to destroy, dilute, or wall off both the injurious agent and the injured tissue. Clinical signs include pain, heat, redness, swelling, and loss of function. Inflammation may be diminished or absent in immunosuppressed patients.

Innervation

Nerve supply to an area of the body. Innervation is considered adequate if it is sufficient to sense temperature, touch, and pressure/pain and communicate this sensory information to the brain.

Intermediate

Between two structures.

Ipsilateral

On the same side of the body.

Irrigation

Cleansing by a stream of fluid, preferably saline.

Ischemia

Local anemia due to mechanical obstruction of the blood supply; often marked by pain.

L[back to top](#)**Lateral**

Away from the midline of the body, towards the side.

M[back to top](#)**Macerated**

Softened by the action of liquid; softening of tissues after death (of tissue).

Malleolus

A rounded bony prominence such as those on either side of the ankle joint.

Malnutrition

State of nutritional insufficiency due to either inadequate dietary intake or defective assimilation or utilization of food ingested. Clinically significant malnutrition is diagnosed if (1) serum albumin is less than 3.5 mg/dL, (2) the total lymphocyte count is less than 1800/mm³ or (3) body weight has decreased more than 15%.

Medial

Towards the midline of the body.

N[back to top](#)**Necrosis**

Pathologic death of cells, or of a portion of tissue or organ.

Necrotic

Pertaining to or affected by necrosis.

Necrotic Tissue

Tissue that has died and has therefore lost its usual physical properties and biological activity. Also called "devitalized tissue".

Neuron

The basic unit of the nervous system.

Neuropathy

Disorder of the neuron.

Neurotrophic

Relating to neuropathy.

No Touch Technique

Method of changing surface dressings without touching the wound or the surface of any

dressing that may be in contact with the wound. Adherent dressings should be grasped by the corner and removed slowly, whereas gauze dressings can be pinched in the center and lifted off.

O

[back to top](#)

Onychomycosis

Fungus infection of the nails.

ORIF

Open Reduction Internal Fixation of a fractured bone.

Osteomyelitis

Inflammation of the bone marrow and adjacent bone: An infectious inflammatory disease process in the bone that is often bacterial. One cost-effective method to determine osteomyelitis is to probe the wound with a sterile cotton-tipped application. If the tip can touch bone, osteomyelitis will be present in as many as 85% of the cases.

[back to top](#)

P

Pain

Nerve endings exposed to dressing removal and air can cause patients extreme discomfort. Moist wound healing is highly successful at reducing pain related trauma of dressing removal.

Paresthesia

An abnormal sensation (e.g., burning, pricking, tickling, or tingling).

Partial Thickness Loss

Wounds that involve the epidermis and can extend into, but not through, the dermis. These wounds heal mainly by epithelialization, from the wound edges and from epithelial cells in the remaining hair follicles and glands.

Peri-Wound

The area surrounding the wound. Assessment of the edges may help to identify undermining (blue-gray or blanched), infection (erythema), or maceration (white margins).

Plantar

Relating to the sole of the foot.

Posterior

Nearer to or toward the back of the body.

Pressure (Interface)

Force per unit area that acts perpendicularly to the body from the support surface. This parameter is affected by the stiffness of the support surface, the composition of the body tissue, and the geometry of the body being supported.

Pressure Reduction

Reduction of interface pressure, not necessarily below the level required to close capillaries (i.e., capillary-closing pressure).

Pressure Relief

Reduction of interface pressure below capillary-closing pressure.

Pressure Ulcer

Any lesion caused by unrelieved pressure resulting in damage of underlying tissue. They are also called decubitus ulcers, pressure sores, or bed sores. They are usually located over bony prominences and are graded or staged to classify the degree of tissue damage observed.

Proximal

Nearest the trunk or the point of origin; said of part of a limb, of an artery or a nerve, etc.

Purulent

Containing, consisting of, or forming pus.

S

[back to top](#)

Serosanguinous

Denoting an exudate or discharge composed of both serum and blood.

Slough

Necrosed tissue separated from the living structure.

Superficial

Toward or on the surface of the body.

Superior

Toward the head or upper part of a structure.

E/M CRITERIA IN THE FACILITY

In the facility an E/M charge will be made in two different circumstances.

- 1) When a patient is seen and there is no procedure performed
- 2) When a patient is seen and a procedure is performed, and a separate, identifiable E/M service is documented (append modifier -25)

When a procedure is performed it is understood that the E/M service is included in the procedure, EXCEPT when a separate, identifiable service apart or above and beyond the procedure or reason for the procedure is documented.

To report modifier -25, a physician must indicate that on the day that he or she performed a procedure or service identified by a CPT code, the patient's condition required a significant and separately identifiable evaluation and management (E/M) service that went above and beyond the other service or procedure provided (including the usual preoperative and postoperative care associated with the procedure performed).

The following three-step approach might assist coders and practitioners in determining when to append modifier -25.

1. **Step one:** Identify the activity that makes up the "service or procedure" (including the usual preoperative and postoperative care associated with the performed procedure).

Although the goal is to identify the "above and beyond" activity, the initial focus should be to identify the "service or procedure" components of the clinical activity. Unless this is done, it is very difficult to identify the clinical activity components that were not part of (and therefore "above and beyond") the service or procedure.

The physician can greatly assist with this step of the process by segregating (in either a separate note or a separately titled part of the same note) his or her documentation of the clinical activity included in the "other service or procedure" from his or her documentation of the "above and beyond activity" that will potentially form the basis for coding an E/M code with modifier-25 attached.

This documentation discipline greatly simplifies the subsequent process steps. The physician will have a better appreciation of whether he or she has done anything clinically that is "above and beyond" the other service or procedure, and if so, how much. A coder or auditor will be able to easily determine what clinical activity the clinician has identified as the above and beyond activity that should be counted when determining the level of the E/M code that will be submitted with the modifier -25 attached.

2. **Step two:** Identify the activity that is "above and beyond" the activity identified in the first step. This should present no difficulty if the above described documentation discipline is practiced.

3. **Step three:** Apply the usual E/M criteria to the separately identified “above and beyond activity” to determine whether there is enough of it to qualify, on its own, for any level of E/M code. If there is, bill it with modifier-25.

Test your knowledge with these scenarios:

Scenario #1

A patient returns to the wound center with a chronic non healing ulcer of the scalp. At the same time the patient complains of dizziness. The physician performs a thorough neurological examination. After the physician’s evaluation, he or she debrides the scalp ulcer. A prescription for Antivert for 1 week is given. If the patient has no improvement after one week, the patient will be referred to an ENT physician for further follow up.

1. Step one - Identify the “service or procedure.” In this case, the procedure is the ulcer debridement. Recommended documentation practice would be to document the debridement procedure in a titled procedure note.
2. Step two - Identify the “above and beyond activity.” In this case, the neurological exam would be the “above and beyond activity” that the physician performed in that it was not part of the debridement (or its usual pre- or post-operative care).

Here is a simple mental exercise that you may find helpful in separating the “above and beyond” activity from the activity that was part of a procedure (or its usual pre- or post-operative care). Imagine that everything else remains the same, but that the dizziness did not cause the chronic non healing ulcer of the patient’s head. There would be no procedure performed, so everything else that was done would not have been part of a procedure (or its usual pre- or post-operative care).

3. Step three - Capture the now separately identified, “above and beyond activity.” The activity of the thorough neurologic exam and prescription would undoubtedly provide enough history, exam, and medical decision-making to justify, on its own, billing a separate E/M code. Therefore, it satisfies the “significant” requirement for reporting the E/M code with the modifier-25 appended.

Scenario #2

A patient suffers a spider bite on the fingertip while at home. The physician examines the finger and debrides the ulcer. The physician advises the patient to take Tylenol®, as needed, for pain.

1. Step one - Identify the “other service or procedure.” In this case, the “other procedure” is debridement.
2. Step two - Identify the “above and beyond” activity. In this case, there is no separate clinical activity, other than the physician’s prescription of Tylenol® that is not part of the procedure.

3. Step three - Is the "above and beyond activity" significant? The physician's advice that the patient should take Tylenol® for pain does not provide sufficient history, exam, and medical decision making to justify, on its own, billing a separate E/M code. The "significant" requirement has not been met. The pain is related to the ulcer and there is no exam documented.

Scenario #3

The patient returns today on July 13, 2009. She complains of pain in the back of her left leg and down into the bottom of the foot. I think her edema today is much more brawny. The open wound on her left lower leg is larger. Today it measures 4.8 x 2.4 x 0.2. She continues with chronic venous issues. The circumference of the left leg is markedly larger than the right and is warm and tender to the touch.

Without anesthesia, we used a curette to excise nonviable material and the necrotic subcutaneous tissue down into healthier subcutaneous tissues. There was a small amount of bleeding which was controlled with pressure. She tolerated this excisional debridement well. With her development of pain in the back of her leg, swelling and tenderness, and marked obesity, we will need to get a venous Doppler on a stat basis to see if she has thrombophlebitis. In the meantime she is to dress her leg as usual and we will see her in 1 week.

1. Step one - Identify the "other procedure or service". In this case, the "other" procedure is the doppler exam.
2. Step two - Identify the "above and beyond" activity. In this case it is the examination of the leg for potential thrombophlebitis.
3. Step three - Is the "above and beyond activity" significant? If the history, exam, and medical decision making involved in the examination of the leg apart from the ulcer was sufficient to justify, on its own, charging a separate E/M code. The separate E/M code would be charged with the modifier -25 attached.

Note: *As with all issues regarding documentation, coding, and billing, the hospital's Health Information Management and Patient Accounting Departments, or the physician, has final responsibility for determining the appropriate treatment of this issue, subject to their local Fiscal Intermediary or Carrier. If you have any questions, comments, or concerns, please do not hesitate to call NHC's Revenue Cycle Management Group or NHC's Corporate Compliance Officer.*

Characteristics of Good Documentation

In addressing physicians' and other clinicians' documentation in a patient's health record, the following characteristics should be reviewed:

Legibility: Illegible documentation can be reason to deny payment for services as well as to provoke possible quality issues with the care of the patient.

Completeness: To determine completeness of documentation, you need to ask the following questions:

- does the information flow logically
- are there any information gaps
- are there abnormal test results without explanatory documentation
- is there conflicting documentation in the patient record
- are there any required reports that are missing

Timeliness: Timeliness is prescribed by regulations and laws. For example, certain documents need to be in the patient's record within 24 or 48 hours. All hospitals have policies in place dictating the timeliness of dictation and when documents must be complete and on the patient charts. Timeliness of documentation affects the quality of patient care. If important information that other clinicians treating the patient need to know to take proper care of the patient is missing - there could be disastrous results.

Authentication: Physicians' (and other clinicians treating the patient) signatures are required on all their own documentation. As well, physicians need to co-sign and often document more detailed information along with documentation for other clinicians whose work they are responsible for. This applies, for example, to residents and interns in teaching facilities.

Corrections and Alterations: It is important to address making corrections and alterations in patient records. Because of human error, it is inevitable that clinicians will make mistakes. It is the hospital's choice in how corrections and alternations need to be made. They can be made either by dictating an addendum to the original dictation or corrections and alterations can be made by hand. In general, when an author makes an error, it should be corrected in the following manner:

When dictating an addendum to the original record the original record number must be indicated, and then any corrections or alterations dictated.

- When done by hand,
 - put a line through the documentation made in error (the line should allow the documentation to show through - don't smear it out or cross it out completely)
 - write the word error above the line
 - initial and date just after the word error
 - finally, erasures, whiteout or other cover-up techniques should never be used in patient medical records - they call in to question the credibility of the entire record.

Important note: Check with your hospital HIM department to determine their policy for corrections and alterations in documentation in the medical record and in the Wound Care Center.

E/M DICTATION EXAMPLE

SUBJECTIVE: The patient is here for follow-up wound care visit for his left posterior calf ulcer. Panafil daily has been used but he has still not received any arterial Doppler studies by Dr. J. P. from Medical Center. The patient tells me that Dr. P. has left the practice and has joined up with her father. Therefore, the chances of getting a report are slim to none. The patient has no complaints.

OBJECTIVE: VITAL SIGNS: Afebrile, vital signs are stable. **GENERAL:** Alert and oriented times three and in no acute distress. **EXTREMITIES:** Left lower extremity demonstrates no significant pretibial pitting edema. The distal calf demonstrates venous stasis dermatitis, medial posterior calf demonstrates an ulcer measuring 5.8 x 2.8 cm with a depth of 0.3 cm. Granulation tissue is filling in the base of the ulcer and is pink and healthy appearing. The peri-wound demonstrates signs of attenuation. No erythema or purulence, foul odor or fluctuance.

No debridement necessary today.

IMPRESSION:

1. Left posterior distal calf ulcer
2. Diabetes
3. Venous peripheral insufficiency
4. Suspected peripheral vascular disease

PLAN:

1. Discontinue Panafil
2. Start a program of Hydrofera Blue twice a week
3. Will order arterial Doppler segmental pressure to rule out and quantify peripheral vascular disease
4. Return to clinic in one week.

E/M DOCUMENTATION EXAMPLE – WITH PROCEDURE

HISTORY:

The patient presents with a diabetic ulcer of the right medial ankle, Grade 2 non-healing ulcer, which has been present for over three months.

EXAM:

There was a moderate amount of serosanguineous exudate exuding from the right medial ankle ulcer. There was also a scant amount of fibrin and slough. There is no sign of infection. The right medial ankle ulcer is ulcer #1 and measures 1.0 x 0.8 x 0.2 cm. On the left great toe has an elongated, sharp toenail which is catching on the patient's socks.

PROCEDURE PERFORMED:

Full-Thickness debridement, ulcer right medial ankle. No anesthesia required due to neuropathy and under clean technique, a curette was used to sharply debride the ulcer with overlying callus, dead skin, and necrotic tissue down into and removing full-thickness tissue. Minimal bleeding controlled with pressure. This is decreasing in size and should heal soon as it is progressing at this time. It looks healthier to me. It is still quite tender. We will continue the Prisma dressing to this area. Post debridement measurements were 1.0 x 0.9 x 0.3 cm. Good pink epithelial tissue is present. The patient tolerated the procedure well.

On the left great toe, there was no ulcer present. No debridement was performed. I did remove the top part of his nail since it was sharp, pointed and could easily be torn out with his stocking. Either way the patient is progressing quite well. I think this should heal just with local wound care. Patient tolerated both procedures well. We will see the patient again in one week.

4.4.13 Skin Substitute Chart – 2010 Codes

Note: The Q code (product) APC rate is updated quarterly, based on average sales price. Please check the CPT tab in your OPPS workbook for the current rate.

APLIGRAF®		
CPT Code	Description	Comment
Q4101	Dermal and epidermal, (substitute) tissue of human origin, with or without bioengineered or processed elements, with metabolically active elements, per square centimeter	Per sq cm APC 1240
15340	Application of bilaminate (first 25 sq cm)	This CPT Code has a 10-day global for physicians. APC 0134
15341	Application of bilaminate (each additional 25 sq cm)	APC 0134
Cannot use debridement codes or preparation of site when applying this product. Must be surgically fixated.		

OASIS®		
CPT Code	Description	Comment
Q4102 - Wound Q4103 - Burn	Dermal (substitute) tissue of non-human origin, with or without other bioengineered or processed elements, with metabolically active elements, per square centimeter	Per sq cm APC 1241 – Wound APC 1242 – Burn
15430	Application of acellular Xenograft (first 100 sq cm)	This has a 90-day global for physicians. APC 0135
15431	Application of each additional 100 sq cm	APC 0135
Cannot use debridement codes or preparation of site when applying this product. Must be surgically fixated.		

DERMAGRAFT®		
CPT Code	Description	Comment
Q4106	Dermal (substitute) tissue of human origin, with or without other bioengineered or processed elements, with metabolically active elements per square centimeter	Per sq cm APC 1245
15365	Application of tissue cultured allogeneic dermal substitute, face, scalp, eyelids, mouth, neck, ears, orbits, genitalia, hands, feet and/or multiple digits; first 100 sq cm	This has a 90-day global for physicians. APC 0134
15366	Application of each additional 100 sq cm	APC 0134
Can use preparation of site 15004 on initial application only. Must be surgically fixated.		

***Important Note:** As with all issues regarding documentation, coding, billing and charge capture, the Hospital's Health Information Management and Patient Accounting departments have final responsibility for determining the appropriate treatment of these issues, subject to their local Fiscal Intermediary. If you have any questions, comments or concerns, please do not hesitate to call NHC's Revenue Cycle Management Group or NHC's Corporate Compliance Officer.*

Research & Opinion: RCM Education Specialist 2/22/07
 Technical Review: Ted Tomter, Paula Threet, RCM Education Specialist 3/6/07
 Maureen Fera, RCM Education Specialist 1/15/08
 Revised: Paula Threet 1/14/08, 12/3/09
 Sources Utilized: 2010 CPT-HCPCS Manual
 RCM Reference Manual: Chapter 4: Documenting Specific Services and Procedures
 Section 4: Documenting Products and Procedures

HBO Worksheets

- Medicare HBO Worksheet
- Commercial Insurance Guide with UHMS indications for HBO

Skin Substitute Worksheets

- Apligraf worksheets
- Dermagraft worksheets
- Oasis worksheets

Insert copies of your worksheets here

6.1.1 What is Hyperbaric Oxygen Therapy?

Hyperbaric oxygen therapy (referred to as HBO or HBOT) is a modality in which the entire body is exposed to oxygen under increased atmospheric pressure.

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Research & Opinion:
Technical Review:
Sources Utilized:
RCM Reference Manual:

RCM Education Specialist 12/04
RCM Education Specialist 12/04, Paula Threet 2/1/09
<Medicare §35-10 (A)>
Chapter 6: Hyperbaric Oxygen Therapy
Section 1: Basic Information on HBO

6.1.2 What conditions are covered and what conditions are not covered?

Medicare §35-10 defines covered and non-covered conditions for hyperbaric oxygen therapy as listed below.

Note: Individual FAQs on some covered conditions can be found in Section 2 – How to Document for Specific Diagnoses of this chapter. Also refer to the HBO Reference Chart – Covered Diagnoses in Chapter 10, Section 3 – Medicare Memoranda, Code Charts, Other References.

A. **Covered Conditions.** Program reimbursement for HBO therapy will be limited to that which is administered in a chamber (including the one-man unit) and is limited to the following conditions:

1. Acute carbon monoxide intoxication (ICD-9 -CM diagnosis 986).
2. Decompression illness (ICD-9-CM diagnosis 993.2, 993.3).
3. Gas embolism (ICD-9-CM diagnosis 958.0, 999.1).
4. Gas gangrene (ICD-9-CM diagnosis 0400).
5. Acute traumatic peripheral ischemia. HBO therapy is a valuable adjunctive treatment to be used in combination with accepted standard therapeutic measures when loss of function, limb, or life is threatened. (ICD-9-CM diagnosis 902.53, 903.01, 903.1, 904.0, 904.41.)
6. Crush injuries and suturing of severed limbs. As in the previous conditions, HBO therapy would be an adjunctive treatment when loss of function, limb, or life is threatened. (ICD-9-CM diagnosis 927.00-927.03, 927.09-927.11, 927.20-927.21, 927.8-927.9, 928.00-928.01, 928.10-928.11, 928.20-928.21, 928.3, 928.8-928.9, 929.0, 929.9, 996.90-996.99.)
7. Progressive necrotizing infections (necrotizing fasciitis), (ICD-9-CM diagnosis 728.86).
8. Acute peripheral arterial insufficiency (ICD-9-CM diagnosis 444.21, 444.22, 444.81).
9. Preparation and preservation of compromised skin grafts (not for primary management of wounds), (ICD-9CM diagnosis 996.52; excludes artificial skin graft).
10. Chronic refractory osteomyelitis, unresponsive to conventional medical and surgical management (ICD-9-CM diagnosis 730.10-730.19).
11. Osteoradionecrosis as an adjunct to conventional treatment (ICD-9-CM diagnosis 526.89).
12. Soft tissue radionecrosis as an adjunct to conventional treatment (ICD-9-CM diagnosis 990).

13. Cyanide poisoning (ICD-9-CM diagnosis 987.7, 989.0).
14. Actinomycosis, only as an adjunct to conventional therapy when the disease process is refractory to antibiotics and surgical treatment (ICD-9-CM diagnosis 039.0-039.4, 039.8, 039.9).
15. Diabetic Wounds of the lower extremities in patients who meet the following three criteria:
 - a. Patient has Type I or Type II diabetes and has a lower extremity wound that is due to diabetes; (ICD-9-CM diagnosis 250.8X, 250.7X secondary codes 707.10-19)
 - b. Patient has a wound classified as Wagner grade III or higher; and
 - c. Patient has failed an adequate course of standard wound therapy.

#15 and the following paragraph are an update to §35-10 (A), dated 10-03-03. For detailed information on HBO and diabetic lower extremity ulcer, see Section 2 - How to Document for Specific Diagnoses of this chapter.

The use of HBO therapy is covered as adjunctive therapy only after there are no measurable signs of healing for at least 30 days of treatment with standard wound therapy, and must be used in addition to standard wound care. Standard wound care in patients with diabetic wounds includes: assessment of a patient's vascular status and correction of any vascular problems in the affected limb if possible, optimization of nutritional status, optimization of glucose control, granulation tissue with appropriate moist dressings, appropriate off-loading, and necessary treatment to resolve any infection that might be present. Failure to respond to standard wound care occurs when there are no measurable signs of healing for at least 30 consecutive days. Wounds must be evaluated at least every 30 days during administration of HBO therapy. Continued treatment with HBO therapy is not covered if measurable signs of healing have not been demonstrated within any 30-day period of treatment.

B. Non-covered Conditions. All other indications not specified under §35-10 (A) are not covered under the Medicare program. No program payment may be made for any conditions other than those listed in §35-10 (A).

No program payment may be made for HBO in the treatment of the following conditions:

1. Cutaneous, decubitus, and stasis ulcers
2. Chronic peripheral vascular insufficiency
3. Anaerobic septicemia and infection other than clostridial
4. Skin burns (thermal)
5. Senility
6. Myocardial infarction
7. Cardiogenic shock

8. Sickle cell anemia
9. Acute thermal and chemical pulmonary damage, i.e., smoke inhalation with pulmonary insufficiency
10. Acute or chronic cerebral vascular insufficiency
11. Hepatic necrosis
12. Aerobic septicemia
13. Nonvascular causes of chronic brain syndrome (Pick's disease, Alzheimer's disease, Korsakoff's disease)
14. Tetanus
15. Systemic aerobic infection
16. Organ transplantation
17. Organ storage
18. Pulmonary emphysema
19. Exceptional blood loss anemia
20. Multiple Sclerosis
21. Acute cerebral edema

C. Reasonable Utilization Parameters. Make payment where HBO therapy is clinically practical. HBO therapy should not be a replacement for other standard successful therapeutic measures. Depending on the response of the individual patient and the severity of the original problem, treatment may range from less than 1 week to several months duration, the average being 2 to 4 weeks. Review and document the medical necessity for use of hyperbaric oxygen for more than 2 months, regardless of the condition of the patient, before further reimbursement is made.

Topical Application of Oxygen. This method of administering oxygen does not meet the definition of HBO therapy as stated above. Also, its clinical efficacy has not been established. Therefore, no Medicare reimbursement may be made for the topical application of oxygen. (Cross refer: §35-31.)

***Important Note:** As with all issues regarding documentation, coding, billing and charge capture, the Hospital's Health Information Management and Patient Accounting departments have final responsibility for determining the appropriate treatment of these issues, subject to their local Fiscal Intermediary. If you have any questions, comments or concerns, please do not hesitate to call NHC's Revenue Cycle Management Group or NHC's Corporate Compliance Officer.*

Research & Opinion: RCM Education Specialist 12/04
Technical Review: RCM Education Specialist 12/04, Paula Threet 2/1/09
Sources Utilized: <Medicare §35-10 (A)>
RCM Reference Manual: Chapter 6: Hyperbaric Oxygen Therapy
Section 1: Basic Information on HBO

10.3.1 HBO Reference Chart - covered diagnoses

DIAGNOSIS	ICD-9 CODE	ICD-9 DESCRIPTION	ADDITIONAL CODES NEEDED
Acute carbon monoxide intoxication.	986	Toxic effect of carbon monoxide	<p>Include appropriate E code as secondary diagnosis.</p> <p>E868.3 Accidental poisoning by carbon monoxide from incomplete combustion of other domestic fuels</p> <p>E868.8 Accidental poisoning by carbon monoxide from other sources</p> <p>E868.9 Accidental poisoning by unspecified carbon monoxide</p>
Decompression illness.	993.2 993.3	Other and unspecified effects of high altitude Caisson disease	Include appropriate E code as indicated
Gas embolism.	958.0 999.1	Air embolism – complication of trauma Air embolism to any site following infusion, perfusion, or transfusion	Include V or E code as secondary diagnosis as appropriate.
Gas gangrene (clostridial myonecrosis).	040.0	Gas Gangrene	Include wound diagnosis as a secondary diagnosis as appropriate.
Acute traumatic peripheral ischemia, crush injuries, and suturing of severed limbs.	902.53 903.01 903.1 904.0	<p>Injury to iliac artery</p> <p>Injury to axillary artery</p> <p>Injury to brachial blood vessels</p> <p>Injury to common femoral artery</p>	Include E code as a secondary diagnosis as appropriate

DIAGNOSIS	ICD-9 CODE	ICD-9 DESCRIPTION	ADDITIONAL CODES NEEDED
	904.41	Injury to popliteal artery	
	927.00 – 927.09	Crushing injury shoulder, scapular region, axillary region, upper arm, multiple sites	
	927.10– 927.11	Crushing injury elbow and forearm	
	927.20– 927.21	Crushing injury, wrist and hands, except finger(s) alone	
	927.8 – 927.9	Crushing injury, multiple sites of upper limb, unspecified site	
	928.00 - 928.01	Crushing injury, hip and thigh	
	928.10– 928.11	Crushing injury, knee and lower leg	
	928.20– 928.21	Crushing injury, ankle and foot, excluding toe(s) alone	
	928.3	Crushing injury, toes	
	928.8 – 928.9	Crushing injury, multiple and unspecified sites of lower limb	
	929.0, 929.9	Crushing injury, of multiple and unspecified sites	
Progressive necrotizing	728.86	Necrotizing	Include wound diagnosis as

DIAGNOSIS	ICD-9 CODE	ICD-9 DESCRIPTION	ADDITIONAL CODES NEEDED
infections (necrotizing fasciitis).		fasciitis	appropriate as a secondary diagnosis
Acute peripheral arterial insufficiency (thrombosis and embolus of the upper and lower extremities, i.e., the sudden occlusion of a major artery in an extremity such as the femoral or brachial artery (e.g., saddle embolus))	444.21– 441.22 444.81	Arterial embolism and thrombosis of arteries of the extremities Arterial embolism and thrombosis of iliac artery	
Preparation and preservation of compromised skin grafts or flaps.	996.52 996.90– 996.99	Mechanical complication of graft of other tissue, not elsewhere classified Complications of reattached extremity or body part	
Chronic refractory osteomyelitis, unresponsive to conventional medical and surgical management.	730.10– 730.19	Chronic osteomyelitis	
Osteoradionecrosis and/or soft tissue radionecrosis.	526.89 595.82 990*	Other specified diseases of the jaws (osteoradionecrosis) Irradiation cystitis Effects of radiation, unspecified	Include appropriate E code as secondary diagnosis. Must include a secondary diagnosis that defines the anatomical location of the osteoradionecrosis. For example, 385.24 (partial loss or necrosis of ear ossicles) or 478.79 (necrosis of larynx).
Cyanide poisoning.	987.7 989.0	Toxic effect of hydrocyanic acid gas Toxic effects of hydrocyanic acid and cyanides	
Actinomycosis.	039.0 – 039.8	Actinomycotic infections	

DIAGNOSIS	ICD-9 CODE	ICD-9 DESCRIPTION	ADDITIONAL CODES NEEDED
Diabetic wounds of the lower extremities. Must include BOTH diabetes and wound diagnoses.	250.70– 250.73	Diabetes with peripheral circulatory disorders	
	250.80– 250.83	Diabetes with other specified manifestations	
	707.10– 707.19	Ulcer of lower limb, except decubitus	

**Adapted from CMS National Coverage Determination*

6.3.1 HBO Consultation Report and History & Physical Template

Patient Name _____
 Medical Record # _____
 Patient _____
 Date of Service _____

Chief Complaint: (choose one)

- Acute Carbon monoxide intoxication
- Decompression Illness
- Gas Embolism
- Gas Gangrene
- Acute traumatic peripheral ischemia
- Crush injuries and suturing of several limbs
- Progressive necrotizing infections (necrotizing fasciitis, Meleny's ulcer)
- Acute peripheral arterial insufficiency
- Diabetic lower extremity ulcer
- Preparation and preservation of compromised skin grafts
- Chronic refractory osteomyelitis, unresponsive to conventional and surgical management
- Osteoradionecrosis as an adjunct to conventional treatment
- Soft tissue radionecrosis as an adjunct to conventional treatment.
- Cyanide poisoning
- Actinomycosis, only as an adjunct to conventional therapy, when the disease is refractory to antibiotics and surgical treatment.

History of Present Illness:

- Name/ age/ sex of the patient
- Duration of the illness
- Comorbid factors
- Readdress the chief complaint

Medications:

Allergies:

Past medical History:

- Diabetes
- Hypertension
- Cancer
- Coronary Arterial Disease
- Seizures

Past Surgical History:

Family History:

Social History:**Habits:**

- Cigarette Smoking
- ETOH
- Drugs

Review of Systems: **Allergic/Immunologic**

- No history of allergies
- Immunocomprised or autoimmune disorders

 Cardiovascular

- No chest pain or palpitations
- no swelling at the ankles

 Constitutional:

- No fever, sweats or chills
- No fatigue, anorexia or weight loss > 5 lbs
- Chest XRAY within the past year, any abnormalities

 Ears, Nose, Mouth and Throat

- No ear aches
- No sinus problems
- No dry mouth, mouth ulcers or sore throat
- Ear Surgery
- Allergies

 Endocrine:

- No history of diabetes
- Thyroid
- other endocrine disorders

 Eyes

- No dry eyes or eye irritation
- Optic Neurotosis

 Gastrointestinal:

- No heartburn or indigestion
- No difficulty swallowing
- No recent nausea or vomiting
- No recent abdominal pain

 Genitourinary:

- No frequent, difficult or painful urination
- No recent irregular menstrual periods or vaginal bleeding
- Last menstrual period or pregnancy.

Hematologic / Lymphatics

- No history of anemia
- No history of blood dyscrasias
- Spherocytosis
- Sick cell trait

 Musculoskeletal:

- No muscle aches
- No arthralgias
- No arthritis

 Neurological:

- No headaches
- No unusual dizziness, faintness or loss of consciousness
- No focal weakness if numbness

 Psychiatric:

- No anxiety or depression

 Respiratory:

- No shortness of breath
- No productive cough
- Thoracic Surgery
- Asthma
- COPD
- Spontaneous PTX
- Wheezing
- SOB
- Emphysema
- Any disease involving?

 Skin

- No rashes

 Physical Examination:

- Vital Signs Temp, BP, P, RR
- Constitutional:
- Normal general appearance
- Abnormal general appearance

 Eyes:

- Conjunctive
- Pupils
- Abnormal

 ENMT:

- nasal mucosa; septum
- ext canals; tympanic membranes

- teeth; lips, gums, oropharynx
- abnormal

- Neck:**
- normal appearance and jugular veins
- no enlargement of thyroid
- Abnormal

- Respiratory:**
- symmetrical chest expansion/respiratory effort
- normal percussion and palpitation
- normal auscultation
- abnormal

- CV:**
- normal carotid pulse; no bruit
- normal heart sounds, no murmurs
- normal pulses (femoral) (pedal)
- normal abdominal aorta
- normal PMI, no thrill
- Abnormal

- Abdominal:**
- no tenderness
- no hernia
- no hepatosplenomegaly
- rectal exam WNL
- no masses
- neg heme test (when indicated)
- abnormal

- Lymphatics:**
- no adenopathy
- cervical
- axillary
- inguinal
- abnormal

- Musculoskeletal:**
- normal head/neck
- normal spine, ribs, pelvis
- normal muscle strength, tone, movement
- abnormal

- Extremities:**
- No clubbing, cyanosis
- normal digits, nails
- normal symmetry, no dislocations

No edema in right and left upper/Lower extremities

Skin:

- no rashes or ulcers
- no nodules or sclerosis
- abnormal

Neuro:

- cranial nerves WNL
- normal gait
- reflexes WNL
- sensation to touch, position WNL
- abnormal

Psych:

- normal mood and affect
- recent and remote memory intact
- oriented to person, place and time
- abnormal

Data Reviewed/ Ordered / Requested/ and Results:

- Chest X-ray
- Blood gas
- Lab results
- MRI
- 3 phase bone scans
- Pathology
- TCPO2
- ABI
- Additional records

Contraindications to HBO:

Impression/Plan (including the number of HBO treatments)

Diagnosis:

8.2.2 Sample Appeal Letter 2 – HBO/GeneralSample Appeal Letter 2

{FI or Carrier Name and Address}

RE: Patient Name:
Address
Medicare #
DOB
Claim Acct #(s)

Mr(s) _____ was seen in our Wound Healing Center on the above dates for the purpose of receiving hyperbaric oxygen therapy, presenting with a diagnosis of _____. According to your LMRP (policy # 2000-07) this is an approved diagnosis.

Attached you will find:

- An initial assessment inclusive of a history and physical describing the above diagnosis, addressing the prior medical and surgical treatments Mr(s)_____ received prior to presenting to our Center.
- Physician progress notes for the above claims
- Reports from Dr. _____ who had previously treated Mr(s) _____ (or those notes of physicians who are treating at present time along with the HBO physician)
- Laboratory reports(list these), radiology reports (list these)
- HBOT records that describe the physical findings, type of treatments and effect of treatment
- Documentation of direct physician supervision, along with the ACLS credentials of our HBOT physician and attendant.

Referring to your LCD for this diagnosis, we treated this patient appropriately and would request a reversal of your decision to deny this claim.