CMS Support of Wound Care in Private Outpatient Therapy Clinics:
Measuring the Effectiveness of Physical or Occupational Therapy Intervention as the Primary Means of Managing Wounds in Medicare Recipients

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Physician-Focused Payment Model Technical Advisory Committee
c/o Assistant Secretary of Planning and Evaluation, Room 415F
U.S. Department of Health and Human Services
200 Independence Ave. S.W.
Washington, D.C. 20201
PTAC@hhs.gov

RE: Letter of Support for CMS Support of Wound Care in Private Outpatient Therapy Clinics: Measuring the Effectiveness of Physical or Occupational Therapy Intervention as the Primary Means of Managing Wounds in Medicare Recipients.

On behalf of Upstream Rehabilitation, we are happy to express our support for the accompanying Alternative Payment Model.

In March of 2017, we had the opportunity to meet with Nevin Laib and a distinguished group of representatives of the Center for Medicare and Medicaid Innovation to present our idea to measure the effectiveness of physical or occupational therapy intervention as the primary means of managing wounds in Medicare recipients. They provided us with very helpful guidance and encouragement to fully develop the model and submit it to PTAC. Our first submission was in November of 2017; the current submission follows a first submission with answered questions and a subsequent conference call with a subcommittee.

We appreciate the opportunity to propose our model to demonstrate not only the effectiveness of chronic wound care management in private outpatient facilities, but how this model will increase access for rural populations, increase the communication between primary care physicians and wound care providers, drastically decrease the costs of healing wounds, and simultaneously increase patients’ functional independence.

Thank you for your consideration of this proposal and we look forward to your feedback and further guidance.

Sincerely,

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Upstream Rehabilitation

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CMS Support of Wound Care in Private Outpatient Therapy Clinics: Measuring the Effectiveness of Physical or Occupational Therapy Intervention as the Primary Means of Managing Wounds in Medicare Recipients

Abstract:

This proposal will demonstrate how investment and support of outpatient therapy clinics to provide chronic wound care services to Medicare recipients will result in better communication between members of a patient’s healthcare team, lower cost to provide care, and greater functional outcomes for the patient that extend beyond simple healing of the wound.

Upstream Rehabilitation understands the powerful effect that physical and occupational therapists have in patients’ lives. They have the skills, training, and knowledge necessary to return patients to full and independent functioning, which includes having the ability to manage chronic wounds, keep in constant contact with physicians as their patient’s healing progresses, and aid the patient in regaining skills necessary for compensation during the active wound healing phase as well as restoration of skills once healing is complete.

Our goal in establishing and managing this program is to gather data for a two-year time period that will:

1) Measure the effectiveness of physical and occupational therapy in the healing of chronic wounds
2) Measure the overall increase in functional outcomes experienced by patients with chronic wounds who are being primarily managed by physical and occupational therapists
3) Measure the cost savings of utilizing physical and occupational therapists in outpatient, private settings versus traditional outpatient hospital-based wound care centers.

Data to measure these parameters is not currently available because the ability to effectively treat these patients in outpatient facilities is not financially feasible. This proposal seeks to incentivize physical and occupational therapists to treat these patients while measuring specific data points to gauge the cost effectiveness and comparison of functional outcomes to hospital-based outpatient wound care centers.

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Model Description:

This proposal will demonstrate how investment and support of outpatient therapy clinics to provide chronic wound care services to Medicare recipients will result in better communication between members of a patient’s healthcare team, lower cost to provide care, and greater functional outcomes for the patient that extend beyond simple healing of the wound. Our model would provide the necessary data for a cost effectiveness analysis for extending the basic provisions provided to therapists in outpatient hospital settings to those practicing in free-standing, private outpatient clinics. This program will serve as a pilot test of a long-term payment model.

Background and Model Overview:

“The objective of any cost-effectiveness analysis is to illustrate how the health benefits can be maximized for a given amount of resources.” Health economists use varying measures to determine cost-effectiveness of an approach, including utility (and change in utility over time using the quality adjusted life year, or QALY), incremental cost effective ratios (ICER), and comparative effectiveness (http://www.o-wm.com/content/cost-effectiveness-research-wound-care-definitions-approaches-and-limitations). There exists a dearth of literature reviewing the comparison of services provided in hospital-based outpatient wound care treatment centers to those in private, free-standing outpatient centers staffed by physical and occupational therapists. The importance of including private, free-standing physical and occupational therapy clinics when considering cost-effectiveness of any wound care analysis is that those clinics are often located in rural areas and serve populations that do not have the means necessary to attend the recommended frequency and duration of wound care treatment in order to prevent the very factors that drive the cost of wound care much higher per patient (such as non-healing wounds). Patients whose wounds take longer to heal are the most expensive wounds to heal (http://www.woundsresearch.com/article/wound-care-outcomes-and-associated-cost-among-patients-treated-us-outpatient-wound-centers-d). Steps that can be taken to allow patients to receive the care they need in a timely manner, and in facilities located in rural areas that are accessible to this population, should create a convenience factor that will lead to expedited healing and decreased costs for healing a wound. This model intends to fill a gap in data by measuring the amount of dollars spent per patient, per referral source, and per diagnosis, as well as incentivize clinicians in private, outpatient clinics to treat this population by extending them some of the resources provided to hospital-based wound care centers.

A large driver for the cost of wound care is the number of co-morbidities per patient. Patients with chronic wounds also often suffer from diabetes, obesity, cardiovascular disease, and cardiovascular disease. Often, patients with multiple comorbidities are omitted from randomized controlled trials (RCTs), so the data is limited on the cost to heal those patients. We do know that patients with multiple comorbidities cost significantly more to heal wounds than those with zero or one comorbidity (http://www.woundsresearch.com/article/wound-care-outcomes-and-associated-cost-among-patients-treated-us-outpatient-wound-centers-d).

Patients with chronic wounds suffer from a multitude of comorbid conditions that would have excluded them from nearly every RCT performed in the past 10 years. RCTs in wound care have also consistently failed to provide data on the most vulnerable populations such as those with dementia, the disabled, racial minorities, and the very elderly. Nevertheless, most of what we know about wound “outcomes” has been derived from these studies (eg, healing rates, time to heal). http://www.woundsresearch.com/article/wound-care-outcomes-and-associated-cost-among-patients-treated-us-outpatient-wound-centers-d
An additional benefit of utilizing physical and occupational therapists is that their breadth of knowledge extends beyond just the healing of wounds, and they are focused on the functional outcomes of increased mobility and independence of patients who suffer from deficits due to their wound as well their multiple comorbidities. However, in order to provide consistency in care to these patients, and provide for an effective, equitable system to measure the cost effectiveness of providing wound care in free-standing private outpatient clinics as compared to hospital-based wound care clinics, there must be a comparable reimbursement system for those clinicians providing care to these patients. The biggest barriers (and inequities in reimbursement) that prevent an equitable comparison of care between hospital-based outpatient clinics and free-standing private outpatient clinics are the following:

1) The Threshold on Medicare outpatient services, which bears with it the administrative burden of tracking and administering the KX-modifier exception process.

2) The inability for free-standing outpatient clinics to be reimbursed for sophisticated dressing products (eg, alginites, hydrocolloids, hydrofibers, antimicrobial and collagen-containing dressings).

3) The lack of clarity surrounding the CMS’s stance on physical and occupational therapist’s ability to apply and be reimbursed for advanced therapeutics, when prescribed by a physician (like placental products and bioengineered skin) despite the educational and national associations’ support of the use of these products.

We know that outcomes in wound care treatment need to consider not only clinical efficacy and health economics, but also health-related quality of life (HRQoL), or those outcomes the patient perceives as most important, such as pain, range-of-motion, strength, and independence (http://www.o-wm.com/content/cost-effectiveness-research-wound-care-definitions-approaches-and-limitations).

Upstream Rehabilitation understands the powerful effect that physical and occupational therapists have in patients’ lives. They have the skills, training, and knowledge necessary to return patients to full and independent functioning, which includes having the ability to manage chronic wounds, keep in constant contact with physicians as their patient’s healing progresses, and aid the patient in regaining skills necessary for compensation during the active wound healing phase as well as restoration of skills once healing is complete.

We propose a model open to 200 physical and occupational therapists operating in private, free-standing outpatient clinics nationwide to measure the cost and outcomes of physical or occupational therapy intervention as the primary means of managing wounds in Medicare recipients. For a period of two years, participating clinicians will:

1) Track functional outcomes of patients with open wounds utilizing the Bates-Jensen Wound Assessment Tool (BWAT), Patient Satisfaction, plus one of the following instruments:
   - QuickDASH (Disabilities of the Arm, Shoulder, and Hand Questionnaire)
   - LEFS (Lower Extremity Functional Scale)
   - Pain Scale
   - Oswestry Disability Index

2) Track the total cost of each patient treatment, including wound care supplies (filtered by referral source, clinician, and diagnosis)

3) Track the total time in treatment (duration of care)

In turn, we ask that we have special consideration for treating and tracking these patients, with the following conditions:

1) CMS will eliminate the Medicare threshold exceptions/review process for these specially identified patients (tracked by ICD10 code—see Appendix B for APTA’s list of ICD10 codes for Wound Care Management).
2) CMS will allow for a billable charge per patient for wound care supplies. Based on internal studies tracking this cost, we recommend a one-time reimbursable charge per patient of $250.

3) CMS will allow for the use and billing of advanced therapeutics, including skin substitutes and bioengineered dressings described in the codes C5271-C5278 and Q4100-Q4172 for the patients identified for this study.

Our goal in establishing and managing this model is to:

1) Demonstrate the effectiveness of physical and occupational therapy in the healing of chronic wounds.

2) Demonstrate the overall increase in functional outcomes experienced by patients with chronic wounds who are being primarily managed by physical and occupational therapists.

3) Demonstrate the cost savings of utilizing physical and occupational therapists in outpatient, private settings versus traditional outpatient hospital-based wound care centers by developing a database of the size and breadth suitable for further cost-effectiveness studies.

How the Model Would Work from the Patient’s Perspective:

- Patients will be identified for inclusion in this program by icd10 code provided by physician referral and by therapeutic diagnosis upon physical or occupational therapist evaluation. Note that patients referred by physicians to this program will not only have a medical diagnosis requiring wound care, but also an accompanying therapy diagnosis indicating a functional loss (e.g., pain, loss of strength, loss of motion).

- Once identified, patients will be informed of inclusion of their de-identified data by a program description, including risks and benefits of study inclusion, and be given the opportunity to opt-out of the data-collection program.

- Patients will be seen for a normal course of physical and/or occupational therapy, with goals specific to wound healing and functional outcomes.

How the Model Would Work from the Perspective of Participating Eligible Professionals, the Patient’s Primary Care Provider, and Other Providers who would Participate in or be Affected by the Model:

- Eligible clinicians would apply for inclusion in the program, attesting to their ability to meet all program criteria.

- CMS accepts or rejects the applicant for inclusion in the program, capping the program at 200 participants. Corporations can participate by a group application, attesting that each clinician listed meets the eligibility criteria and that the organization can provide the required data on each participating clinician.

- Patients will be referred by Primary Care Providers to participating physical or occupational therapists in free-standing, private outpatient clinics.

- Patients will be identified for inclusion in the program by the ICD10 provided by the referring provider or upon physical or occupational therapy evaluation.

- The patient’s course of treatment (case) will be identified in the Electronic Medical Record (EMR) as “wound care.”

- Each patient will be assessed using the BWAT at evaluation, each progress note (every 10\textsuperscript{th} visit or 30 days), re-evaluation (when necessary), and discharge; patient satisfaction at discharge, and with one of the following outcome measures at the same intervals:
  - QuickDASH (Disabilities of the Arm, Shoulder, and Hand Questionnaire)
  - LEFS (Lower Extremity Functional Scale)
- Pain Scale
- Oswestry Disability Index

- Patients will be treated for a normal course of physical and/or occupational therapy, with goals specific to wound healing and functional outcomes.
- Clinicians will track all supplies utilized during the course of treatment along with the facility cost of each supply within the EMR or other cost-tracking mechanism.
- Claims would be submitted to a separate address, utilizing a specific wound care modifier, and would be exempt from the Medicare threshold and KX modifier requirements.
- Claims will be eligible for a one-time $250 supply credit per treatment episode, excluding CTPs (cellular/tissue based products) coded as directed by CMS at evaluation.
- Claims will be eligible for reimbursement for CTPs according to the Medicare fee schedule.
- Clinicians will provide quarterly data to CMS (or at the frequency directed by CMS) for a period of two years, including:
  - Functional outcomes of patients with open wounds utilizing the Bates-Jensen Wound Assessment
  - The total cost of each patient treatment, including wound care supplies (filtered by referral source, clinician, and diagnosis)
  - The total time in treatment (duration of care)
  - Patient satisfaction scores
- Claims must demonstrate that each patient participating in the program achieved a minimal clinically-important difference (MCID) in one of the reported outcomes, excluding patient satisfaction. Claims that do not achieve a MCID in one of the reported outcomes will be refunded to CMS for the entire claim amount. Any participating therapist who does not receive 80% patient satisfaction scores across all claims submitted will be placed on probation for one quarter; any subsequent quarter achieving under 80% patient satisfaction will be dismissed from the program. Under-achieving claims will be identified at quarterly report submission to CMS and will be self-identified by the participating provider. Appeal to the refund can only be granted if:
  - Patient achieves a demonstrable increase in functional independence, as evidenced by an increase in Functional Independence Measure (FIM), evidenced by documentation in the claim, or
  - Patient achieves a demonstrable, progressive improvement in at least two objective measurements (such as range-of motion, strength, or edema) as evidenced by documentation in the claim
- Additionally, any participating clinician whose average total Medicare reimbursed cost per episode across all patients treated is greater than $3500 for all low-complexity, $4500 for all moderate-complexity, and $5500 for all high complexity, will be on probation for one quarter; following another subsequent quarter of average total Medicare reimbursed cost per visit greater than $3500 will be removed from the program.
- Any participant who demonstrates an average reimbursement cost per visit across all patients treated of less than $3500 per episode for all aggregate low complexity patients, $4500 for all moderate-complexity, and $5500 high complexity will be eligible for a 3% savings bonus at the end of the two year program.

Scope:
Impact of the proposed model on physicians or other eligible professionals & beneficiary participation:
This proposed model seeks to not only broaden the pool of available data to make future decisions for wound best practices in wound care, but opens up the opportunity to utilize physical and occupational therapy, fields that have had limited opportunities to participate in APMs in this capacity, as a primary and cost-effective method of care delivery. Physical and occupational therapists are highly trained clinicians that have the training, knowledge, and skills necessary to serve as an integral practitioner, leading and coordinating the care to allow patients to achieve not only full wound healing, but full return to functional independence that wounds often compromise.

We expect that approximately 1500 practitioners nationwide would want to be paid under this model following this pilot study. In our practice, we have seen a natural fit with rural practitioners participating in wound care due to those patients’ decreased availability to receive specialized care, lack of resources as compared to more urban-based patients, and increased tendency for physical and occupational therapists to holistically treat patients and serve as therapists-for-life. Because of the unique and inequity of payment of wound care services as compared to therapists employed by outpatient hospital-based facilities, home health agencies, and skilled nursing facilities, this program would be reserved for outpatient, free-standing private-practice physical and occupational therapists.

Inherent to the practice of physical and occupational therapy are the tenants of movement and participation in daily occupations to promote healing and independence. Research shows that participation in movement and exercise promote wound healing in both human and animal models (Emery et. al. and Keylock et. al.). Supporting physical and occupational therapists’ performance of wound care within their scope of practice not only achieves and accelerates wound healing, but allows patients to become fully independent in the activities that the wound itself has precluded.

Why physical and occupational therapists?

Physical and occupational therapists undergo basic training in wound care management as part of the curriculum dictated by their respective accrediting bodies. In addition, therapists receive on-site training to manage and heal wounds as part of their treatment plans that serve to treat patients in their entirety. Therapists can participate in wound care specialty certifications, and certification as a hand therapist (CHT) illustrates a physical or occupational therapist’s proficiency in the treatment of chronic and acute wounds to allow patients to return to full functional independence.

Outpatient wound care centers associated with hospitals widely employ physical and occupational therapists to actively treat wounds as well as to address the functional deficits that may accompany a wound-healing process.

The Academy of Clinical Electrophysiology and Wound Management’s (ACEWM) Wound Management Special Interest Group’s (WMSIG) vision for the future is that physical therapists will be recognized as vital members of the multidisciplinary wound management team. The WMSIG acknowledges the absolute need for and benefit of coordinated care delivered by multiple healthcare providers in the examination, evaluation, and intervention of patients at risk for and/or with open wounds. Multidisciplinary care is important due to the relationship between all body systems and the fact that insult to one impacts the others. Open wounds result from internal (e.g. vascular insufficiency), external (e.g. burn injury), or a combination (e.g. diabetic foot ulcer) of factors and can be complicated by various comorbidities (nutrition, drugs, disease, genetics). For these reasons, it is the WMSIG’s position that optimal patient care is accomplished through coordinated, collaborative practice that incorporates the very best that each discipline has to offer. Our position is best represented by a quote from Dr. Carrie Sussman, long-time ACEWM member and pioneer in wound management physical therapist practice: “Treat the whole patient, not just the hole in the patient.” -- ACEWM White Paper – Role of PTs in Wound Management
See Appendix A for the ACEWM enumeration of the specific training and education physical therapists receive to appropriately manage wound healing, as well as the AOTA (American Occupation Therapy Association) enumeration of the specific training and education occupational therapists receive to appropriately manage wound healing.

This model will be open to 200 participating physical or occupational therapists operating in free-standing, private outpatient clinics nationwide. Our national practice currently has 20 therapists serving in the southeast. Opening the program to 9 additional geographic regions with 20 therapists each would allow for an n of 200 to allow the results to be statistically significant. Assuming each clinician can treat an average of 3 patient treatments per day whose primary referral is for wound care (as these clinicians will most likely carry a caseload of both primarily wound-care patients as well as traditional cumulative and traumatic orthopedic and neurological injuries), a five-day work week, and an average visit count of 16.8 visits per patient (as noted in research cited above), each therapist would treat 46 unique patients per year (approximately 772 visits wound care visits per year); the full program would touch 9200 Medicare recipients per year for a total of 18,400 patients. Our company alone has 20 therapists in rural communities who have the knowledge, skills and interest in participating in this program. Allowing the concessions and tracking outlined in this proposal will encourage the participation of other physical and occupational therapists in free-standing, private outpatient clinics nationwide to participate as well.

This program would not supersede any established state practice acts limiting the participation of physical and occupational therapists in wound care practices, such as sharp debridement. However, both the APTA and AOTA (national representative bodies of physical and occupational therapists) support sharp debridement in the context of the achievement of physical and occupational therapy goals. The healing of a wound is not the end goal in the treatment of wounds in the context of physical and occupational therapy treatment; it is a means to achieve a functional goal.

Clinical Feasibility:
Each clinician participating in the model would apply for acceptance into the program. Consideration for acceptance would include:

- Is the clinician a registered physical or occupational therapist?
- Does the clinician have demonstrated advanced training in the treatment of wounds, either by advanced treatment certification (such as Certified Hand Therapist [CHT] status), wound care certification, or by eligibility to sit for wound care certification?
- Does the clinician have the means to collect the required outcomes measures (BWAT, LEFS, QuickDASH, Pain, Oswestry, Patient Satisfaction)?
- Does the clinician have the means to track frequency, duration, and supplies utilized for all patients treated in the APM?
- Does the clinician have the means to bill claims electronically with CMS?

If these criteria are met, treatment of these patients would proceed as per usual standard operating procedure in free-standing, private outpatient clinics.

The amount of time that each therapist would spend delivering wound care should this model be implemented would vary by the demographics of the area in which the therapist is treating. In rural areas with decreased access to hospital-based wound care centers and with a high population of adults with
Type 2 diabetes, a clinician who specializes in wound care could spend up to 20 to 30 hours per week with these patients.

Clinical Risks:
Clinical risks remain as per usual treatment of these patients; these patients carry an inherent risk of infection rates, and in turn, clinicians who do not involve the primary care physician quickly enough should a status change occur.

Financial risks:
Under this APM, claims must demonstrate that each patient participating in the program achieved a minimal clinically-important difference (MCID) in one of the reported outcomes, excluding patient satisfaction. Patient satisfaction scores must exceed 80% across all claims submitted. Claims that do not achieve a MCID in one of the reported outcomes will be refunded to CMS for the entire claim amount. Under-achieving claims will be identified at quarterly report submission to CMS and will be self-identified by the participating provider. Appeal to the refund can only be granted if:

- Patient achieves a demonstrable increase in functional independence, as evidenced by an increase in Functional Independence Measure (FIM), evidenced by documentation in the claim, or
- Patient achieves a demonstrable, progressive improvement in at least two objective measurements (such as range-of motion, strength, or edema) as evidenced by documentation in the claim

Additionally, any participating clinician whose average total Medicare reimbursed cost per treatment episode across all patients treated is greater than $3500 for all low complexity evaluations, $4500 for all moderate complexity evaluations, and $5500 for all high complexity evaluations will be on probation for one quarter; following another subsequent quarter of average total Medicare reimbursed cost per visit greater than $3500 will be removed from the program. Any participating therapist who does not receive 80% patient satisfaction scores across all claims submitted will be placed on probation for one quarter; any subsequent quarter achieving under 80% patient satisfaction will be dismissed from the program.

Any participant who demonstrates an average reimbursement cost per visit across all patients treated of less than $3500 per episode for all aggregate low complexity patients, $4500 for all moderate-complexity, and $5500 high complexity will be eligible for a 3% savings bonus at the end of the two-year program.

Additional risks include a higher-than-normal-level use of dressings, beyond the allotted $250.

Expanding the APM to scale:
After the initial two-year trial and data gathering period of the model, and assuming further cost-effectiveness studies comparing outcomes of this model to traditional payment models in hospital-based outpatient wound care, this program could be scaled to encompass a larger segment of the population while still controlling the number of participants in the program by employing a DMEPOS-type certification process of the participating clinicians with a yearly cap on the number of participating clinicians.

Quality and Cost:
Physical and occupational therapy provided in the free-standing, private, outpatient clinics are already governed by Medicare standards that require providers to demonstrate medical necessity and progress towards established goals (Pub. 100-04, Medicare Claims Processing Manual, chapter 5). In addition, this
model will require the tracking of clinical quality through statistically validated measures of health outcomes by:

- Each patient’s wound will be assessed using the BWAT at evaluation, each progress note (every 10th visit or 30 days), re-evaluation (when necessary), and discharge; additionally, each patient is also assessed with one of the following functional outcome measures at the same intervals:
  - QuickDASH (Disabilities of the Arm, Shoulder, and Hand Questionnaire)
  - LEFS (Lower Extremity Functional Scale)
  - Pain Scale
  - Oswestry Disability Index
  - Clinicians will provide this data quarterly to CMS (or at the frequency directed by CMS) for a period of two years.
- In addition to one of the above measures, patient satisfaction is a required reported measure.

Health care cost management will be tracked and controlled by:

- Clinicians will provide quarterly data to CMS (or at the frequency directed by CMS) for a period of two years, including:
  - The total cost of each patient treatment, including wound care supplies (filtered by referral source, clinician, and diagnosis)
  - The total time in treatment (duration of care)
- Claims must demonstrate that each patient participating in the program achieved a minimal clinically-important difference (MCID) in one of the reported outcomes, excluding patient satisfaction. Patient satisfaction scores across all submitted claims for each year must be above 80% satisfied on a 5-point Likert Scale of Very Unsatisfied, Unsatisfied, Neither Satisfied nor Unsatisfied, Satisfied, Very Satisfied. MCIDs are determined statistically by validated, published studies of each measure. Claims that do not achieve a MCID in one of the reported outcomes will be refunded to CMS for the entire claim amount. Under-achieving claims will be identified at quarterly report submission to CMS and will be self-identified by the participating provider.

Appeal to the refund can only be granted if:
  - Patient achieves a demonstrable increase in functional independence, as evidenced by an increase in Functional Independence Measure (FIM), evidenced by documentation in the claim, or
  - Patient achieves a demonstrable, progressive improvement in at least two objective measurements (such as range-of motion, strength, or edema) as evidenced by documentation in the claim.

The above exemptions to the MCID standard are included because we acknowledge that patients can improve functional independence (mobility, ROM, strength, Functional Independence Measures [FIM], increased independence in task performance [often through education in adaptations or environmental modifications]) while a wound is not healed to achieve an MCID. Additionally, patients can achieve a litany of functional increases that allow them to live their lives independently that may not be picked up by outcomes measures. An example of this would be a patient who is able to brush their teeth independently or perform toilet hygiene independently would have a significant improvement in their functional independence, but because these individual items are not asked on the DASH instrument, they might not achieve MCID on that measure.
Typical outcomes tracking systems in outpatient physical and occupational therapy practices include FOTO and WebOutcomes systems. These systems allow for tracking of frequency and duration of treatments per diagnosis, clinician, facility, region, territory, and company-wide; outcomes per diagnosis, clinician, facility, region, territory, and company-wide; and patient satisfaction and pain ratings diagnosis, clinician, facility, region, territory, and company-wide; it also compares those values to national databases of information (all customers providing data into their system).

A study performed in 2010 analyzing the dataset of traditional hospital-based outpatient wound-care patients demonstrated that patients were seen for an average of 16.8 visits “with an average cost to heal per wound of $3927. Jeopardized flaps and grafts were the most expensive wound type with a mean cost to heal per wound of $9358. Diabetic foot ulcers were the most expensive type of chronic ulcer and were twice as expensive as other types with an average cost per patient of $5391. The average cost per wound for pressure ulcers was $3349.” (http://www.woundsresearch.com/article/wound-care-outcomes-and-associated-cost-among-patients-treated-us-outpatient-wound-centers-d). The mean hospital cost to treat a deep tissue injury or unstageable ulcer is $43,180, while the average cost for a hospital to manage a pressure ulcer is $14,426 (https://blog.mediligence.com/2013/06/10/wound-management-an-18-5-billion-worldwide-market-in-2021/).

Using a typical net rate formula of $100 per visit for outpatient physical therapy, the same treatment duration of 16.8 visits referenced above would comparatively cost just $1680 (versus the average $3927 in hospital-based outpatient treatment centers). Adding the $250 per patient one-time allowance of $250 brings the total average cost to $1930. This savings, extrapolated over the two-year proposed span of the program, would result in a savings of an average $1997 per patient, or a total savings of over $36 million for the wound-healing portion of treatment. This is not accounting for inflation and increase in costs since the study referenced above was performed.

Physical and occupational therapists lack clear guidance for reimbursement from CMS for bioengineered dressings. Physical and occupational therapists have the demonstrated skill set to employ the use of bioengineered dressings and low-cost skin substitutes to complement and enhance the healing of chronic wounds. These products are described and reimbursed for other health care providers under the codes C5271-C5278 and Q4100-Q4172. Rather than have these dressings administered by other health care providers and break the continuity of care, as well as require patients to travel to different centers for application (exposing these patients to an increased chance of infection due to exposure to another facility), it is most reasonable to allow physical and occupational therapists to apply and monitor these dressings and be reimbursed according to the published fee schedule.

Metrics and performance assessment:

- Clinicians will track all supplies utilized during the course of treatment along with the facility cost of each supply within the EMR
- Claims would be submitted to a separate address, as directed by CMS, and would be exempt from the Medicare cap and KX modifier requirements.
- Claims will be eligible for a one-time $250 supply credit, coded as directed by CMS at evaluation.
- Claims will be eligible for reimbursement for CTPs (cellular and/or tissue-based products) according to the Medicare fee schedule.
- Clinicians will provide quarterly data to CMS (or at the frequency directed by CMS) for a period of two years, including:
  - Functional outcomes of patients with open wounds utilizing the Bates-Jensen Wound Assessment
The total cost of each patient treatment, including wound care supplies (filtered by referral source, clinician, and diagnosis)

- The total time in treatment (duration of care)

Claims must demonstrate that each patient participating in the program achieved a minimal clinically-important difference (MCID) in one of the reported outcomes, excluding patient satisfaction. Claims that do not achieve a MCID in one of the reported outcomes will be refunded to CMS for the entire claim amount. Under-achieving claims will be identified at quarterly report submission to CMS and will be self-identified by the participating provider. Appeal to the refund can only be granted if:

- Patient achieves a demonstrable increase in functional independence, as evidenced by an increase in Functional Independence Measure (FIM), evidenced by documentation in the claim, or
- Patient achieves a demonstrable, progressive improvement in at least two objective measurements (such as range-of-motion, strength, or edema) as evidenced by documentation in the claim

Innovative metrics for inclusion:

Each patient’s wound will be assessed using the BWAT at evaluation, each progress note (every 10th visit or 30 days), re-evaluation (when necessary), and discharge; additionally, each patient is also assessed with one of the following outcome measures at the same intervals:

- QuickDASH (Disabilities of the Arm, Shoulder, and Hand Questionnaire)
- LEFS (Lower Extremity Functional Scale)
- Pain Scale
- Oswestry Disability Index
- Patient Satisfaction

Incorporation of data to support total cost of care:

As noted above, in addition to functional outcomes gathered within our outcomes-measurement tool, our EHR will track and gather the total duration of care, total units billed, and total supplies issued to create a total cost of care.

Electronic reporting for all participating clinicians:

Claims eligible for the program would be identified by ICD 10. Appendix B contains the American Physical Therapy Association’s list of ICD10 codes for Wound Care Management. Claims with the approved ICD10 would be sent to an alternate address that CMS creates for APM claims. Claims would be exempt from the KX-modifier requirement and the cap on outpatient therapy services.

Participating clinicians will upload quarterly spreadsheets in specified formats of the requested data, both individually and in aggregate. Each participating clinician, or group if several participates are employed by a single company, should upload data for all patients whose episode of care ended by the last day of the reporting quarter. Information should be submitted one month from the end of the quarter. Participants will be asked to self-identify claims that do not achieve a minimal clinically-important difference (MCID) in one of the reported outcomes, excluding patient satisfaction. Claims that do not achieve a MCID in one of the reported outcomes will be refunded to CMS for the entire claim amount. Appeal to the refund can only be granted if:
o Patient achieves a demonstrable increase in functional independence, as evidenced by an increase in Functional Independence Measure (FIM), evidenced by documentation in the claim, or

o Patient achieves a demonstrable, progressive improvement in at least two objective measurements (such as range-of-motion, strength, or edema) as evidenced by documentation in the claim

Any claim that self-reports under achieving MCID but wishes to appeal a refund must submit the documentation to support the criteria noted above at the time of submission of the quarterly data.

Additionally, any participating clinician whose average total Medicare reimbursed cost per treatment episode across all patients treated is greater than $3500 (for low complexity evals; $4500 for moderate complexity and $5500 for high complexity) will be on probation for one quarter; following another subsequent quarter of average total Medicare reimbursed cost per visit greater than $3500 (or higher based on complexity) will be removed from the program. Treatment episode will be defined as the management of a newly presented wound, or a wound that has been interrupted due to a significant re-injury, re-hospitalization, or the introduction of a secondary factor that precludes wound healing. Treatment episode begins with an initial physical or occupational therapy evaluation and ends with a discharge from physical or occupational therapy treatment. The Medicare reimbursement upper-limit value was derived by taking the average net of Medicare payments ($100/visit) and multiplying by the outer bell curve of the average number of visits required to heal wounds (35) as seen within our internal practice models.

Sample reporting spreadsheet:

<table>
<thead>
<tr>
<th>Clinician</th>
<th>Claim#</th>
<th>DOS</th>
<th>ICD10</th>
<th>T#V</th>
<th>TSS</th>
<th>TMR</th>
<th>BWAT I/D</th>
<th>FOT I/D</th>
<th>MCID achieved?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Continued)

If MCID not achieved, state appeal reason here and attach supporting documentation

Total Avg MC reimbursement for this clinician

Legend:
Clinician
Claim #
DOS: Dates of Service
ICD10: List all applicable wound care codes
T#V: Total # of visits, from start of care to DC
TSS: Total cost of supplies
TMR: Total Medicare reimbursement
BWAT I/D: BWAT (Bates/Jensen) initial/DC scores
FOT I/D: Functional Outcome Initial/Functional Outcome DC
MCID achieved?
If MCID not achieved, state refund appeal reason & attach supporting documentation
Total average Medicare reimbursement for this clinician
Further statistical analysis:

Upon completion of the study, de-identified data would be available for cost-effectiveness statistical analysis to warrant expansion and continuation of the APM. Data derived from this study, including average cost per visit; ICD10 diagnoses most often seen in free-standing, private outpatient clinics; average total cost for wound care patients seen in free-standing, private outpatient clinics; wound healing outcomes; and functional outcomes could all be compared to the same measures in hospital-based outpatient clinics. Should the significant savings prove out as this APM predicts, recommendations for further incentives to route wound care patients to the free-standing, private outpatient physical and occupational therapy clinics is warranted.

Specifically, we believe this payment model would generate significant savings and/or improvements in outcomes for rurally-based patients (those for whom access to hospital-based wound care centers is challenging), those with significant co-morbidities (another or history of chronic wounds, Type 2 Diabetes, renal failure, compromised immune systems) and those with concurrent functional limitations who would benefit from physical or occupational therapy following healing of the wound (compromised mobility, coordination, and/or independence).

Payment Methodology:

The first issue with the current payment methodology is that physical and occupational therapist cannot clearly be reimbursed for utilizing advanced therapeutics to achieve maximal wound healing results when necessary. If they are not allowed to be reimbursed for these dressings, and they have to send them to another practitioner to be applied, the patient’s treatment is interrupted, the patient is possibly exposed to yet another environment that can compromise the wound, and the dressing gets billed to Medicare anyway in addition to the application or visit charge by another practitioner (whose E/I rates are higher).

Currently, physical and occupational therapists can bill Medicare patients utilizing the following CPT codes:

<table>
<thead>
<tr>
<th>CPT Code/ Brief Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>29445 Lower extremity application of casts</td>
</tr>
<tr>
<td>29581 Multilayer compression wraps below knee</td>
</tr>
<tr>
<td>29582 Multilayer compression wraps below knee/thigh</td>
</tr>
<tr>
<td>29583 Multilayer compression wrap hand</td>
</tr>
<tr>
<td>29584 Multilayer compression wrap hand/forearm</td>
</tr>
<tr>
<td>97014 Unattended electrical stimulation</td>
</tr>
<tr>
<td>97597 Active wound management, first 20 sq cm</td>
</tr>
<tr>
<td>97598 Active wound management, each additional 20 sq cm</td>
</tr>
<tr>
<td>97602 Non-selective debridement</td>
</tr>
<tr>
<td>97605 Negative pressure wound therapy (NPWT) &lt; 50 sq cm</td>
</tr>
<tr>
<td>97606 NPWT &gt; 50 sq cm</td>
</tr>
<tr>
<td>97607 NPWT utilizing disposable DME &lt; 50 sq cm</td>
</tr>
<tr>
<td>97608 NPWT utilizing disposable DME &gt; 50 sq cm</td>
</tr>
<tr>
<td>97610 Low frequency non-contact ultrasound</td>
</tr>
<tr>
<td>G0239 Electromagnetic therapy; pressure, diabetic, venous and arterial ulcers</td>
</tr>
<tr>
<td>G0281 Unattended electrical stimulation; pressure, diabetic, venous and arterial ulcers</td>
</tr>
<tr>
<td>G0282 Unattended electrical stimulation; other wounds not listed above</td>
</tr>
</tbody>
</table>

ACEWM White Paper – Role of PTs in Wound Management
It is not clearly defined by Medicare, and differs among LCDs, as to whether physical and occupational therapists can be reimbursed for bio-engineered dressings. As noted in criterion 1, “Why Physical And occupational therapists?” physical and occupational therapists have the demonstrated skill set to employ the use of bio-engineered dressings and low-cost skin substitutes to complement and enhance the healing of chronic wounds. These products are described and reimbursed for other health care providers under the codes C5271-C5278 and Q4100-Q4172.

The second issue with payment methodology is the current Medicare Threshold on outpatient services, set at $3000 net reimbursed in 2019, at which point a targeted manual medical review can be implemented. When the patient is approaching the threshold ($2010), clinicians must apply a modifier to the claim to demonstrate that physical and occupational therapy continues to be medically necessary. If a patient has been treated for other therapeutic interventions, this cap could be exhausted prior to them ever having begun wound care treatment. Because patients with chronic wounds, as stated before, present often with comorbidities, they frequently have undergone bouts of outpatient therapy for other conditions prior to beginning their wound care treatment. The tracking of these parameters, ensuring the application of the KX modifier, and subjecting the claim to additional review creates an additional administrative burden and cost to both the provider and to Medicare. This model proposes automatic exemption from the threshold and review process for all patients with ICD10 diagnoses listed in Appendix B, which the American Physical Therapy Association has identified as diagnoses seen by therapists for wound management. **We proposed that those patients qualifying under this pilot study be identified utilizing a -WL modifier for tracking purposes.**

We acknowledge that certain patients will require extended care beyond the $3500 net reimbursed amount triggered for probation under this model. Utilizing the tiered evaluation system introduced in 2017 for physical and occupational therapy, we proposed a further system for categorizing those patients with co-morbidities and complicating factors that wound extend the level of care needed to adequately address their wound care issues. These would be indicated as follows:

**-WL:** indicates a chronic wound whose evaluation complexity is determined to be Low complexity; target for probation is $3500 maximum Medicare reimbursement.

**-WM:** indicates a chronic wound whose evaluation complexity is determined to be Moderate complexity; target for probation is $4500 maximum Medicare reimbursement.

**-WH:** indicates a chronic wound whose evaluation complexity is determined to be High complexity; target for probation is $5500 maximum Medicare reimbursement.

Third, supplies needed to perform wound care, including basic moisture management dressings, are not covered by Medicare in the free-standing, private outpatient setting and are viewed as part of the treatment itself. Costs for these supplies grows quickly, and further increases the cost of treating these patients. We propose a $250 reimbursement for the cost of supplies to adequately meet the needs of patients both in-clinic and for at-home continued care of their wounds. This one-time per-episode of care credit was determined by evaluating the average cost of supplies per patients over a trailing twelve month period. Here are some examples of wound care patients who need wound care products for which physical and occupational therapists cannot bill:

1. Venous insufficiency: Primary dressings would be collagen, calcium or iodosorb; secondary dressing would be foam product. Then 2, 3 or 4-layer compression wrap. The compression wraps are sold either as a package or individual pieces (cast padding/unna boot/coban).
2. Diabetic patient: Primary and secondary dressings would be the same as above. The gold standard recommendation is a total contact cast, but most patients refuse. Options then include a walking boot or adhesive felt with a post op type shoe.

According to the authors of Physical Therapy in Wound Care: A Cost Effectiveness Analysis: *PT may be a cost effective referral option for physicians given the inspiring healing rates. Nonetheless, we have to recognize that the breakeven cost in the present clinic is higher than the reimbursement rate. With the current insurance company reimbursement rate for PT, the present clinic [in the study] will not be able to support itself and continue operating. Similar to care provided to a patient in outpatient orthopedic PT settings, PT wound care is subject to the same limitations such as visits per year, copays, and time limitations as per reimbursement policies. Some may argue that physical therapists may increase the number of patients per hour or decrease the patient visit frequency to balance the cost; we believe that these measures may be unjustifiable for quality of care concerns and even if plausible, more patient referrals are needed from physicians as direct access is not common in wound care, nor should it be, given the critical need for medical evaluation, and diagnostics.*

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5008497/
Visual Model of APM Process:

1. **Patient is referred to PT/OT by PCP; identified as eligible by icd10 and therapy diagnosis**
2. **Patient treated by private, outpatient PT/OT; communicates at eval, every 10th visit, at re-eval, and DC.**
3. **PT/OT charges one-time supply charge of $250; is reimbursed at Medicare Fee Schedule rate for bio-engineered dressings if needed**
4. **PT/OT measures wound and functional outcomes at eval, every 10th visit, re-eval, and DC**
5. **PT/OT (or organization if several are employed) sends quarterly spreadsheet of data to CMS**
6. **PT/OT/organization self-identifies claims that do not meet minimum standards of improvement and refunds claim to CMS**
7. **PT/OT/organization must submit documentation for exceptions to refunds (FIM or objective improvements)**
8. **CMS approves or denies request for exception to refund; PT/OT must submit refund if exception denied**
9. **Clinicians that do not maintain the assigned under average reimbursement per claim must be self identified; probation & removal process from APM follows**
Visual Model of Current Methodology (from the viewpoint of the clinician in the free-standing, private outpatient clinic):

Net result: patients are seen only in hospital-based outpatient centers where reimbursement is optimal; more money is spent by patient and Medicare
Proposed Methodology of APM (from the viewpoint of the clinician in the free-standing, private outpatient clinic):

Net result: Patient wound and/or functional outcomes are ensured, patient saves money and continuity of care is maintained through keeping care within one facility, Medicare saves money through cost containment.

RISK: Clinician must prove wound healing, functional improvement, and control supplies to avoid refunding claim to Medicare.

Clinician Revenue Neutral or Positive Factors

- Medicare reimburses clinician for bio-engineered dressings
- Patients are automatically exempt from KX modifier process
- Medicare provides $250 to cover supplies during treatment
- Medicare reimburses clinician for bio-engineered dressings

Clinician Revenue Negative Factors

- Clinician proves wound healed and functional outcomes achieved

Clinician proves wound healed and functional outcomes achieved

Patients are automatically exempt from KX modifier process

Medicare provides $250 to cover supplies during treatment

Medicare reimburses clinician for bio-engineered dressings
Value over Volume:

Under the current CMS payment methodology, despite the multiple inherent value incentives to treat outpatient wounds, including but not limited to (many of these factors are explicitly documented and referenced in other sections of this document):

- Enhanced continuity of care with the Primary Care Physician, and
- Providing a service to rural-based clientele who live at a distance from hospital-based wound care centers, de-incentivizing their compliance with care,

clinicians are not choosing to treat these patients due to the financial losses that occur.

Therefore, this plan will create a financial incentive by allowing clinicians in free-standing, private outpatient clinics to operate at the same margin as they do their non-wound care clientele.

Flexibility:

Under the proposed payment model, clinicians have the flexibility to incorporate any modalities covered by Medicare into their treatment protocols, as long as they achieve clinical outcomes in wound healing and/or function.

Practitioners will have the added reporting requirement of utilizing the outcomes tools specified as well as the tracking and quarterly preparation of the reporting spreadsheet to CMS.

Infrastructure will be minimal as long as clinicians participate in a program that records outcomes and tracks visit information. Information for reporting will need to be gleaned from patient treatment records quarterly in order to accurately report visit information and outcomes data to CMS.

Ability to be Evaluated:

As mentioned previously throughout this proposal, this model can be validated for quality improvement through achievement of MCID (minimum clinically important differences) achieved for wound care outcomes (BWAT—Bates-Jensen Wound Assessment tool) and for the following outcomes:

- QuickDASH (Disabilities of the Arm, Shoulder, and Hand Questionnaire)
- LEFS (Lower Extremity Functional Scale)
- Pain Scale
- Oswestry Disability Index
- Patient Satisfaction

In addition, with this data set, CMS can analyze the actual total cost of treatment for treating patients with chronic wounds in the private outpatient setting. Data can further be analyzed by total treatment cost per diagnosis, the average duration of treatment per diagnosis, and cost per geographic area.

Because this proposal also includes functional outcomes and patient satisfaction, further qualitative data analysis can compare patient satisfaction to outcomes (both wound outcomes and functional outcomes) as well compare patient satisfaction to duration of care.

Integration and Care Coordination:

CMS does not pay for physical or occupational services without a physician referral and signing of the Plan of Care, even in states with Direct Access laws in place; therefore, the introduction of the
communication process between physical and occupational therapists and physicians is already inherent in this relationship. Physicians who refer patients with wounds often do not have the time, training, or resources to manage these patients in-office. If they refer patients to outpatient wound care centers, their case is transferred to another physician who will oversee their care during the healing process. By utilizing ancillary providers such as physical and occupational therapists, physicians will continue to maintain oversight of the care of their patients and will be communicated with each Medicare patient, according to CMS guidelines, at least:

- At initial evaluation
- Every 10th visit or 30 days, whichever is sooner
- At re-evaluation (if necessary)
- Any time there is a significant change in process, goals, or patient status
- At discharge

Allowing this continuum of care to remain uninterrupted by foregoing the interjection of another physician-level provider allows the primary care physician, who is familiar with the patient’s history and functional status, to continue to serve as the primary coordinator of the patient’s care and ensure that the totality of the patient’s needs, including full functional return to independence, are completely addressed. We know that a sense of continuity of the patient’s care leads to improved perceptions of and realized outcomes:

For patients and their families, the experience of continuity is the perception that providers know what has happened before, that different providers agree on a management plan, and that a provider who knows them will care for them in the future. For providers, the experience of continuity relates to their perception that they have sufficient knowledge and information about a patient to best apply their professional competence and the confidence that their care inputs will be recognized and pursued by other providers. ([https://www.ncbi.nlm.nih.gov/pmc/articles/PMC274066/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC274066/))

According to the practice acts of most states, physical and occupational therapists can treat patients for chronic wounds with referrals from physician extenders as well; therefore, those providers could also be involved with initiating this relationship.

**Patient Choice:**

This proposed model increases patient choice and accessibility to wound care centers. Many private outpatient clinics are located in rural areas to allow those clients to have access to physical and occupational therapy services without having to transport to larger metropolitan areas. Adding wound care services to these clinics allows clients who are otherwise disenfranchised due to economic circumstances to have access to quality care in their communities.

Patients continue to maintain the choice of where they wish to receive their wound care services; this APM opens up a more choices for patients to receive care.

**Patient Safety:**

Our proposed APM serves to eliminate the disruption in patient care caused by several factors:

a. The patient cannot afford to drive into a metropolitan area where a wound care center is located, so they opt not to go or go much more infrequently than recommended. This
increases the length of time required to heal the wound and can lead to secondary infections and further functional deficits from remaining in a sedentary state.

b. The primary care physician who initiated the wound care treatment remains in touch with the provider of care (the physical or occupational therapist). When care is transferred to another physician to manage, there is always the possibility of uncoordinated and non-communicative decision making.

c. Allowing the physical or occupational therapist to apply and charge for the bio-engineered dressing prevents the disruption of care caused by sending the patient to another physician or facility to apply the dressing, which increases the risk of cross-contamination.

In addition to allowing for the reimbursement at the normal Medicare Fee schedule for the bioengineered dressings, the purpose of providing the $250 allowance for basic supplies (such as moisture-control dressings that are standard in wound care) is to ensure that clinicians are not providing substandard care in order to cut costs. Currently, all supplies are considered inherent to the cost of treatment, and clinicians may be tempted to use a less-expensive dressing in order to decrease the financial loss of treating wound care patients.

Health Information Technology:

Because of the limited scope of patients and clinicians proposed under this model, there would not be any need for advanced use of HIT at the onset of this program. Clinicians need to have access to a system by which they record outcomes and determine if minimal clinically important differences (MCID) are achieved. Likewise, participating clinicians will need to have functionality in an EHR that tracks patients by diagnosis and records the total treatment sessions completed as well as the supplies utilized during that treatment session. This information can then be easily recorded on a basic worksheet as described above for submission to CMS.

At the end of the proposed two-year cycle, data gathered will be able to better inform clinicians as to:
- Optimal number of treatment sessions for maximal functional outcomes, per diagnosis
- Expected spend per diagnosis
- Functional outcomes and duration of treatment variations in patients with whom bio-engineered dressings were utilized vs. those not utilized

Supplemental information:

This proposal would require an alternate claims submission address/process for receiving patients involved in this APM; additionally, resources to create a standard spreadsheet or portal into which data could be entered by the participants would aid in data collection, consolidation, and analysis.

Here are two hypothetical examples of patients who would benefit from the proposed payment model:

1) 62 year-old male lives in a rural area 25 miles from the nearest hospital facility with limited access to public transportation and relies on friends/family for transport to/from medical appointments. He suffers from a wound on the plantar surface covering 1/3 of his foot; he has Type 2 Diabetes concurrently. He walks with crutches and is unable to reach the plantar surface of his foot due to limited range of motion in his hip.
- Where and how he would receive care today: Due to the distance from the hospital-based wound care, he would either be admitted to the hospital for wound care or be seen at a hospital-based outpatient care center (if available in his area). Because of his dependence on others for transport, he might be seen 1 time per week to manage his
wound. This limited intervention will significantly increase the time required for the wound to heal. Intervention will be focused on healing of the wound. His primary care physician may or may not be involved in the care plan.

- If the proposed model were in place: He would receive intervention at a rural outpatient physical therapy clinic, which are often much more accessible for community members. He would have access to care 3 to 5 times per week, and would be simultaneously improving his hip ROM to allow him to achieve his goal of independent foot hygiene and application of footwear. His wound would be healed in much less time, and his primary care physician would receive notifications of his progress every 10 visits.

- How the change in care would improve wound healing: Accessibility to attend visits regularly is a huge factor in improving care and wound healing rates for these patients. Often, specialized dressings that are applied need to be monitored daily or several times per week. Additionally, this patient would receive intervention to improve his overall functional status in addition to healing the wound.

- How billable services and spending would differ between the two approaches to care: According to the studies cited in the original proposal, if he were admitted to the hospital, the cost to manage the wound would be above $14k, not including the increased risk for exposure to secondary infection; a hospital outpatient episode would cost more than $5k (and his functional limitations would not be addressed simultaneously, possibly necessitating the need for “regular” PT/OT following healing of the wound to manage his functional issues); this proposal would aim for management within 35 treatment sessions plus a $250 allowance for supplies. If the patient is in need of skin-substitutes, the physical or occupational therapist would be able to make that judgment and apply the dressing (whereas under the current plan, the patient would require an additional visit and intervention by another provider, often not even the referring physician, but a plastic surgeon or wound care specialist familiar with the application of these dressings).
  - Savings for this one patient vs. hospital stay: approximately $10,000
  - Savings for this one patient vs. hospital outpatient visit: ~$1000

2) 83 year-old female who suffered a burn of her right hand referred to outpatient Occupational Therapy to address wound healing, functional loss of her right hand, and pain control.

- Where and how she would receive care today: Patient would be seen in an outpatient clinic, most likely with a Certified Hand Therapist. No supplies would be paid for by Medicare, so the therapist will utilize the most cost-efficient, though not necessarily the most effective, dressings to manage the wound. Lack of access to adequate supplies could lengthen the time required for the wound to heal and could be ineffective in managing her pain. Following 20 visits, the therapist would be subject to a focused internal review; she would be required to explicitly state on each note going forward why the continued care is medically necessary. Should the patient require a skin-substitute, she would be referred back to her primary care physician to request he apply the dressing, who may or may not be comfortable with the application and might involve a further referral to a plastic surgeon. Once the patient heals and scarring begins, adhesions over the dorsum of her hand are often a complication of treatment. Because supplies of this nature are not covered by Medicare, the patient would complete an ABN and the cost of the scar management gel (pad or cream) would be out-of-pocket for the patient. Because
the patient may not be able to afford the scar management pad/cream, full ROM may not be achieved and function limited.

- If the proposed model were in place: The patient would be seen in the same venue, but because the allowance is available for wound management, the patient would be seen for less total visits due to faster wound healing and more effective scar management.

- How the change in care would improve wound healing: The allowance of $250 allows for the choice of the most appropriate dressing/scar management item to allow the wound to heal faster and ROM, strength, coordination, and other functional goals approached and achieved quicker (with less total visits).

- How billable services and spending would differ between the two approaches to care: Faster healing and more effective scar management means less overall visits, at a savings rate of $100 per visit, plus the cost to the patient of transportation to the clinic each time and any out-of-pocket costs she would incur to purchase the scar management pad/gel.
References:


Appendix A: Enumeration of qualifications of specific training and education physical and occupational therapists receive to appropriately manage wound healing:

<table>
<thead>
<tr>
<th>Normal Tissue Healing</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Anatomy &amp; function of the skin, physiology &amp; phases of tissue healing</td>
</tr>
<tr>
<td>• Types of wound closure, general positive/negative factors affecting tissue healing</td>
</tr>
<tr>
<td>• Post-graduate: In-depth knowledge of cell function. Recognition of wide range of complicating factors and methods to mitigate modifiable factors</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Examination</th>
</tr>
</thead>
<tbody>
<tr>
<td>• General health status, medical/social/family history</td>
</tr>
<tr>
<td>• Family/work/community responsibilities</td>
</tr>
<tr>
<td>• Education, ability for self-care</td>
</tr>
<tr>
<td>• Primary complaint/symptoms, current intervention/plan, functional status, &amp; medications</td>
</tr>
<tr>
<td>• Post-graduate: In-depth knowledge of how multiple factors may affect complicated patients; knowledge of imaging, nutrition, risk &amp; functional assessment, bioburden, laboratory, &amp; imaging</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Systems Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Gross screening of body systems: Musculoskeletal, neuromuscular, cardiopulmonary, immune, &amp; integumentary</td>
</tr>
<tr>
<td>• Post-graduate: In-depth knowledge of additional body systems including endocrine, lymphatic, &amp; urinary/excretory &amp; their role in overall health/ability for healing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tests and Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Wound characteristics including tissue identification &amp; quality, periwound characteristics, wound measurements (including Rule of Nines &amp; Lund and Browder) &amp; characteristics of wound drainage</td>
</tr>
<tr>
<td>• Signs of infection (local vs systemic), types of infection, awareness of tests to determine infection (serology, radiographic, biopsy, etc.), &amp; infection prevention measures</td>
</tr>
<tr>
<td>• Noninvasive vascular screening including palpation of pulses/skin temperature, skin/nail characteristics, &amp; ankle brachial testing</td>
</tr>
<tr>
<td>• Pain, sensory integrity, pressure risk, anthropometric measurements (i.e. edema/girth), mobility, &amp; function</td>
</tr>
<tr>
<td>• Post-graduate: Full integration of test &amp; measure results &amp; indications for complicated patients. In-depth knowledge of tissue oxygenation &amp; determination of wound severity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wound Etiology and Differential Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Differentiation &amp; assessment of various local/systemic etiologies/injury that increases the risk of or has resulted in integumentary compromise</td>
</tr>
<tr>
<td>• Entry-level etiologies include: Pressure, vascular compromise, neuropathic, traumatic, burns, surgical, &amp; basic dermatological issues.</td>
</tr>
<tr>
<td>• Post-graduate: In-depth knowledge of additional etiologies including Systemic Lupus Erythematosus, sickle cell, arthritic &amp; vasculitic, infection, complex pressure ulcers, pyoderma gangrenosum, calciphylaxis, malignancy, etc.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Psychosocial</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Effect of integumentary compromise on community/family/ social/work life, emotional status, &amp; ability for participation in self-care</td>
</tr>
</tbody>
</table>
**Intervention**

- Pressure redistribution, offloading, positioning
- Prescription/management of assistive devices, splints, & orthotics
- Wound cleansing/irrigation
- Knowledge regarding non-surgical, debridement (mechanical, autolytic, enzymatic, sharp, chemical, & biosurgical)
- Qualities of advanced dressings & use of common topical agents
- Suture/staple removal
- Basic scar management

Utilization of active biophysical agents including compression, electrical stimulation, pulsed lavage, ultrasound, & negative pressure

**Post-graduate:** Knowledge and skill in performing sharp/non-surgical debridement, ultrasonic debridement, & various methods of wound cleansing, irrigation, & tissue stimulation. Advanced skill with various compression methods/technologies & offloading. Management of bioengineered tissue & advanced topical therapeutic agents. Monitoring pharmacologic indications & side effects

In relation to wound care, the American Occupational Therapy Association outlines the role of occupational therapy in the treatment of Upper Extremity rehabilitation, noting that occupational therapists have the skills, background knowledge, and qualifications to treat:

- Crush injuries or trauma
- Tendon injuries and conditions (e.g., lacerations, tendonitis, ruptures)
- Nerve injuries and conditions (e.g., neuropathies, palsies, nerve repair)
- Pain (e.g., complex regional pain syndrome, fibromyalgia)
- Replantation and revascularization
- Wounds and scars
- Thermal and electrical injuries

Occupational therapy interventions are designed to meet individual client needs and may include the following as part of a comprehensive plan of care:

2. Therapeutic activities
3. Therapeutic exercise
4. Orthosis design, fabrication, fitting, and training
5. Joint protection and/or energy modification in home, work, school, or leisure activities
6. Sensory re-education
7. Scar management
8. Pain management
9. Work conditioning or work hardening
10. Training in activities of daily living and adaptive or assistive devices
11. Education for post-surgical or post-injury safety, including sensory loss

From a practical perspective, occupational therapy practitioners working in the area of upper-extremity rehabilitation achieve competency in adjunct areas of intervention, which may include:

- Design and fabrication of selected orthoses for post-surgical, post-injury, or long-term use
- Ergonomic principles
Comparing the wound care education of physical and occupational therapists to physicians, according to Patel and Granick, “American medical students receive very little education on the science and care of wounds during their medical studies. The mean hours of education in physiology of tissue injury at fifty American medical schools are 0.5 hours and 0.2 hours, respectively, in the first year and second years and none in the third and fourth years. The mean hours of directed education in the physiology of wound healing are 2.1 hours and 1.9 hours in the first and second years” (Patel & Granick 2009).

A 2009 study by NIH determined that the use of physical and occupational therapists to treat chronic ulcers of patients with spinal cord injury in VA settings was frequent enough to qualify as Usual Care by both disciplines. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2792462/

Using physical and occupational therapists in the outpatient setting as the primary coordinator of the care of patients with chronic wounds allows for a patient-centered approach that ultimately decreases the overall cost of care for the patient. As noted in Wound Care Advisor:

> When dealing with the challenge of healing chronic wounds, one can’t be a short-term thinker, especially in regard to the cost of different treatment interventions. Pinching pennies in the short term (using “cheaper” treatments to save money) generally leads to increased healing times, which ultimately lead to higher overall costs—not to mention a lower quality of life for the patient who has to endure an open wound for a longer time.

> Many chronic wounds have an increased healing time because the basics of wound healing haven’t been addressed, including effectively treating the cause of the wound; managing the bioburden; managing exudate; promoting appropriate moist wound therapy, efficient removal of the necrotic burden, and appropriate nutritional interventions; and ensuring good tissue perfusion.

> The ineffective and inefficient addressing of the basics of wound healing can be attributed to a lack of education and knowledge of current wound care approaches among clinicians. A proactive rehab team can address many of these basic factors and essentially increase the speed at which wounds will heal, thereby lowering the overall costs of wound care, because the longer the healing time, the higher the cost to the facility.

> How exactly can a rehab team decrease healing times and lower the costs of wound care? Effectively managing necrotic tissue is an integral part of moving the wound from an inflammatory to a proliferative healing phase. Physical and occupational therapists are able to debride necrotic tissue through conservative sharp debridement, application of biological debridement, and the use of modalities at a fraction of the time required by enzymatic or autolytic debridement methods...

> Physical and occupational therapy can provide modalities, such as high-voltage galvanic electrical stimulation or diathermy, that can increase circulation, decrease pain and healing times, and increase the comfort and quality of life of the patient. In addition,
electrical stimulation and diathermy have bactericidal properties that can help manage the bioburden in a wound.

Removing the cause of wounds is essential to their healing. For example, physical and occupational therapists can perform ankle-brachial index/Lanarkshire oximetry index, then safely choose and apply compression bandaging systems in conjunction with massage techniques that can remove edema associated with venous insufficiency and lymphedema.

Physical and occupational therapists can also assess for positioning limitations and educate patients and staff in effective positioning methods that can prevent continued pressure to the wounds and further tissue breakdown. Physical therapists can assess the feet of patients with diabetes for deformities and high-pressure points. Performing a gait analysis can contribute to the proper use of effective offloading footwear and devices to allow neuropathic ulcers to heal and prevent future ulcerations.

(https://woundcareadvisor.com/role-of-rehab-in-wound-care/)

Appendix B: APTA’s list of ICD10 codes for Wound Management
(begins following page)
Instructions:
To best navigate the list, first download this PDF file to your computer. Then navigate the document using the bookmarks feature in the left column. The bookmarks expand and collapse. Finally, ensure that you look at the top of each category and work down to review notes or specific instructions.
Abnormality (Disorder) of lymphatic system

I89 Other noninfective disorders of lymphatic vessels and lymph nodes

Excludes1: chylocele, tunica vaginalis (nonfilarial) NOS (N50.8)
  enlarged lymph nodes NOS (R59.-)
  filarial chylocele (B74.-)
  hereditary lymphedema (Q82.0)

I89.0 Lymphedema, not elsewhere classified
  Elephantiasis (nonfilarial) NOS
  Lymphangiectasis
  Obliteration, lymphatic vessel
  Praecox lymphedema
  Secondary lymphedema

Excludes1: postmastectomy lymphedema (I97.2)

I89.8 Other specified noninfective disorders of lymphatic vessels and lymph nodes

  Chylocele (nonfilarial)
  Chylous ascites
  Chylous cyst
  Lipomelanotic reticulosis
  Lymph node or vessel fistula
  Lymph node or vessel infarction
  Lymph node or vessel rupture

I89.9 Noninfective disorder of lymphatic vessels and lymph nodes, unspecified

  Disease of lymphatic vessels NOS

I97.2 Postmastectomy lymphedema syndrome
  Elephantiasis due to mastectomy
  Obliteration of lymphatic vessels

Abnormality (Disorder) of peripheral nervous system

  Neuropathic wounds Code (Code first the reason for the encounter and include health conditions that is the cause of the wound.)

  E10.62 Type 1 diabetes mellitus with skin complications
    E10.620 Type 1 diabetes mellitus with diabetic dermatitis
      Type 1 diabetes mellitus with diabetic necrobiosis lipoidica
    E10.621 Type 1 diabetes mellitus with foot ulcer
      Use additional code to identify site of ulcer (L97.4-, L97.5-)
    E10.622 Type 1 diabetes mellitus with other skin ulcer
      Use additional code to identify site of ulcer (L97.1-L97.9, L98.41-L98.49)

  E11.62 Type 2 diabetes mellitus with skin complications
    E11.620 Type 2 diabetes mellitus with diabetic dermatitis
    Type 2 diabetes mellitus with diabetic necrobiosis lipoidica
E11.621 Type 2 diabetes mellitus with foot ulcer
Use additional code to identify site of ulcer (L97.4-, L97.5-)
E11.622 Type 2 diabetes mellitus with other skin ulcer
Use additional code to identify site of ulcer (L97.1-L97.9, L98.41-L98.49)
E11.628 Type 2 diabetes mellitus with other skin complications

E13.62 Other specified diabetes mellitus with skin complications
E13.620 Other specified diabetes mellitus with diabetic dermatitis
E13.621 Other specified diabetes mellitus with foot ulcer
Use additional code to identify site of ulcer (L97.4-, L97.5-)
E13.622 Other specified diabetes mellitus with other skin ulcer
Use additional code to identify site of ulcer (L97.1-L97.9, L98.41-L98.49)
E13.628 Other specified diabetes mellitus with other skin complications

L97.1 Non-pressure chronic ulcer of thigh
L97.11 Non-pressure chronic ulcer of right thigh
   L97.111 Non-pressure chronic ulcer of right thigh limited to breakdown of skin
   L97.112 Non-pressure chronic ulcer of right thigh with fat layer exposed
   L97.113 Non-pressure chronic ulcer of right thigh with necrosis of muscle
   L97.114 Non-pressure chronic ulcer of right thigh with necrosis of bone
   L97.119 Non-pressure chronic ulcer of right thigh with unspecified severity
L97.12 Non-pressure chronic ulcer of left thigh
   L97.121 Non-pressure chronic ulcer of left thigh limited to breakdown of skin
   L97.122 Non-pressure chronic ulcer of left thigh with fat layer exposed
   L97.123 Non-pressure chronic ulcer of left thigh with necrosis of muscle
   L97.124 Non-pressure chronic ulcer of left thigh with necrosis of bone
   L97.129 Non-pressure chronic ulcer of left thigh with unspecified severity

L97.2 Non-pressure chronic ulcer of calf
L97.21 Non-pressure chronic ulcer of right calf
   L97.211 Non-pressure chronic ulcer of right calf limited to breakdown of skin
   L97.212 Non-pressure chronic ulcer of right calf with fat layer exposed
   L97.213 Non-pressure chronic ulcer of right calf with necrosis of muscle
   L97.214 Non-pressure chronic ulcer of right calf with necrosis of bone
   L97.219 Non-pressure chronic ulcer of right calf with unspecified severity
L97.22 Non-pressure chronic ulcer of left calf
  L97.221 Non-pressure chronic ulcer of left calf limited to breakdown of skin
  L97.222 Non-pressure chronic ulcer of left calf with fat layer exposed
  L97.223 Non-pressure chronic ulcer of left calf with necrosis of muscle
  L97.224 Non-pressure chronic ulcer of left calf with necrosis of bone
  L97.229 Non-pressure chronic ulcer of left calf with unspecified severity

L97.3 Non-pressure chronic ulcer of ankle
  L97.31 Non-pressure chronic ulcer of right ankle
    L97.311 Non-pressure chronic ulcer of right ankle limited to breakdown of skin
    L97.312 Non-pressure chronic ulcer of right ankle with fat layer exposed
    L97.313 Non-pressure chronic ulcer of right ankle with necrosis of muscle
    L97.314 Non-pressure chronic ulcer of right ankle with necrosis of bone
    L97.319 Non-pressure chronic ulcer of right ankle with unspecified severity
  L97.32 Non-pressure chronic ulcer of left ankle
    L97.321 Non-pressure chronic ulcer of left ankle limited to breakdown of skin
    L97.322 Non-pressure chronic ulcer of left ankle with fat layer exposed
    L97.323 Non-pressure chronic ulcer of left ankle with necrosis of muscle
    L97.324 Non-pressure chronic ulcer of left ankle with necrosis of bone
    L97.329 Non-pressure chronic ulcer of left ankle with unspecified severity

L97.4 Non-pressure chronic ulcer of heel and midfoot
  Non-pressure chronic ulcer of plantar surface of midfoot
  L97.41 Non-pressure chronic ulcer of right heel and midfoot
    L97.411 Non-pressure chronic ulcer of right heel and midfoot limited to breakdown of skin
    L97.412 Non-pressure chronic ulcer of right heel and midfoot with fat layer exposed
    L97.413 Non-pressure chronic ulcer of right heel and midfoot with necrosis of muscle
    L97.414 Non-pressure chronic ulcer of right heel and midfoot with necrosis of bone
    L97.419 Non-pressure chronic ulcer of right heel and midfoot with unspecified severity
  L97.42 Non-pressure chronic ulcer of left heel and midfoot
    L97.421 Non-pressure chronic ulcer of left heel and midfoot limited to breakdown of skin
    L97.422 Non-pressure chronic ulcer of left heel and midfoot with fat layer exposed
L97.423 Non-pressure chronic ulcer of left heel and midfoot with necrosis of muscle
L97.424 Non-pressure chronic ulcer of left heel and midfoot with necrosis of bone
L97.429 Non-pressure chronic ulcer of left heel and midfoot with unspecified severity
L97.5 Non-pressure chronic ulcer of other part of foot
   Non-pressure chronic ulcer of toe
L97.51 Non-pressure chronic ulcer of other part of right foot
   L97.511 Non-pressure chronic ulcer of other part of right foot limited to breakdown of skin
   L97.512 Non-pressure chronic ulcer of other part of right foot with fat layer exposed
   L97.513 Non-pressure chronic ulcer of other part of right foot with necrosis of muscle
   L97.514 Non-pressure chronic ulcer of other part of right foot with necrosis of bone
   L97.519 Non-pressure chronic ulcer of other part of right foot with unspecified severity
L97.52 Non-pressure chronic ulcer of other part of left foot
   L97.521 Non-pressure chronic ulcer of other part of left foot limited to breakdown of skin
   L97.522 Non-pressure chronic ulcer of other part of left foot with fat layer exposed
   L97.523 Non-pressure chronic ulcer of other part of left foot with necrosis of muscle
   L97.524 Non-pressure chronic ulcer of other part of left foot with necrosis of bone
   L97.529 Non-pressure chronic ulcer of other part of left foot with unspecified severity
L97.8 Non-pressure chronic ulcer of other part of lower leg
   L97.81 Non-pressure chronic ulcer of other part of right lower leg
      L97.811 Non-pressure chronic ulcer of other part of right lower leg limited to breakdown of skin
      L97.812 Non-pressure chronic ulcer of other part of right lower leg with fat layer exposed
      L97.813 Non-pressure chronic ulcer of other part of right lower leg with necrosis of muscle
      L97.814 Non-pressure chronic ulcer of other part of right lower leg with necrosis of bone
      L97.819 Non-pressure chronic ulcer of other part of right lower leg with unspecified severity
L97.82 Non-pressure chronic ulcer of other part of left lower leg
   L97.821 Non-pressure chronic ulcer of other part of left lower leg limited to breakdown of skin
   L97.822 Non-pressure chronic ulcer of other part of left lower leg with fat layer exposed
   L97.823 Non-pressure chronic ulcer of other part of left lower leg with necrosis of muscle
   L97.824 Non-pressure chronic ulcer of other part of left lower leg with necrosis of bone
   L97.829 Non-pressure chronic ulcer of other part of left lower leg with unspecified severity

L97.9 Non-pressure chronic ulcer of unspecified part of lower leg
   L97.91 Non-pressure chronic ulcer of unspecified part of right lower leg
      L97.911 Non-pressure chronic ulcer of unspecified part of right lower leg limited to breakdown of skin
      L97.912 Non-pressure chronic ulcer of unspecified part of right lower leg with fat layer exposed
      L97.913 Non-pressure chronic ulcer of unspecified part of right lower leg with necrosis of muscle
      L97.914 Non-pressure chronic ulcer of unspecified part of right lower leg with necrosis of bone
      L97.919 Non-pressure chronic ulcer of unspecified part of right lower leg with unspecified severity
   L97.92 Non-pressure chronic ulcer of unspecified part of left lower leg
      L97.921 Non-pressure chronic ulcer of unspecified part of left lower leg limited to breakdown of skin
      L97.922 Non-pressure chronic ulcer of unspecified part of left lower leg with fat layer exposed
      L97.923 Non-pressure chronic ulcer of unspecified part of left lower leg with necrosis of muscle
      L97.924 Non-pressure chronic ulcer of unspecified part of left lower leg with necrosis of bone
      L97.929 Non-pressure chronic ulcer of unspecified part of left lower leg with unspecified severity

Charcot fracture
   E11.610 Type 2 diabetes mellitus with diabetic neuropathic arthropathy
   Type 2 diabetes mellitus with Charcot’s joints

Abnormality of arterial system
   I70.2 Atherosclerosis of native arteries of the extremities
      Mönckeberg’s (medial) sclerosis
      Use additional code, if applicable, to identify chronic total occlusion of artery of extremity (I70.92)
      Excludes2: atherosclerosis of bypass graft of extremities (I70.30-I70.79)
I70.20 Unspecified atherosclerosis of native arteries of extremities
  I70.201 Unspecified atherosclerosis of native arteries of extremities, right leg
  I70.202 Unspecified atherosclerosis of native arteries of extremities, left leg
  I70.203 Unspecified atherosclerosis of native arteries of extremities, bilateral legs
  I70.208 Unspecified atherosclerosis of native arteries of extremities, other extremity
  I70.209 Unspecified atherosclerosis of native arteries of extremities, unspecified extremity

I70.21 Atherosclerosis of native arteries of extremities with intermittent claudication
  I70.211 Atherosclerosis of native arteries of extremities with intermittent claudication, right leg
  I70.212 Atherosclerosis of native arteries of extremities with intermittent claudication, left leg
  I70.213 Atherosclerosis of native arteries of extremities with intermittent claudication, bilateral legs
  I70.218 Atherosclerosis of native arteries of extremities with intermittent claudication, other extremity
  I70.219 Atherosclerosis of native arteries of extremities with intermittent claudication, unspecified extremity

I70.22 Atherosclerosis of native arteries of extremities with rest pain
  Includes: any condition classifiable to I70.21-
  I70.221 Atherosclerosis of native arteries of extremities with rest pain, right leg
  I70.222 Atherosclerosis of native arteries of extremities with rest pain, left leg
  I70.223 Atherosclerosis of native arteries of extremities with rest pain, bilateral legs
  I70.228 Atherosclerosis of native arteries of extremities with rest pain, other extremity

I70.23 Atherosclerosis of native arteries of right leg with ulceration
  Includes: any condition classifiable to I70.211 and I70.221
  Use additional code to identify severity of ulcer (L97.-)
  I70.231 Atherosclerosis of native arteries of right leg with ulceration of thigh
  I70.232 Atherosclerosis of native arteries of right leg with ulceration of calf
  I70.233 Atherosclerosis of native arteries of right leg with ulceration of ankle
  I70.234 Atherosclerosis of native arteries of right leg with ulceration of heel and midfoot
    Atherosclerosis of native arteries of right leg with ulceration of plantar surface of midfoot
  I70.235 Atherosclerosis of native arteries of right leg with ulceration of other part of foot
    Atherosclerosis of native arteries of right leg extremities with ulceration of toe
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I70.238 Atherosclerosis of native arteries of right leg with ulceration of other part of lower right leg
I70.239 Atherosclerosis of native arteries of right leg with ulceration of unspecified site
I70.24 Atherosclerosis of native arteries of left leg with ulceration
   Includes: any condition classifiable to I70.212 and I70.222
   Use additional code to identify severity of ulcer (L97.-)
I70.241 Atherosclerosis of native arteries of left leg with ulceration of thigh
I70.242 Atherosclerosis of native arteries of left leg with ulceration of calf
I70.243 Atherosclerosis of native arteries of left leg with ulceration of ankle
I70.244 Atherosclerosis of native arteries of left leg with ulceration of heel and midfoot
   Atherosclerosis of native arteries of left leg with ulceration of plantar surface of midfoot
I70.245 Atherosclerosis of native arteries of left leg with ulceration of other part of foot
Atherosclerosis of native arteries of left leg extremities with ulceration of toe
I70.248 Atherosclerosis of native arteries of left leg with ulceration of other part of lower left leg
I70.249 Atherosclerosis of native arteries of left leg with ulceration of unspecified site

I70.25 Atherosclerosis of native arteries of other extremities with ulceration
   Includes: any condition classifiable to I70.218 and I70.228
   Use additional code to identify the severity of the ulcer (L98.49-)

I70.26 Atherosclerosis of native arteries of extremities with gangrene
   Includes: any condition classifiable to I70.21-", I70.22-", I70.23-, I70.24-, and I70.25-
   Use additional code to identify the severity of any ulcer (L97.-, L98.49-), if applicable
I70.261 Atherosclerosis of native arteries of extremities with gangrene, right leg
I70.262 Atherosclerosis of native arteries of extremities with gangrene, left leg
I70.263 Atherosclerosis of native arteries of extremities with gangrene, bilateral legs
I70.268 Atherosclerosis of native arteries of extremities with gangrene, other extremity

I70.29 Other atherosclerosis of native arteries of extremities
I70.291 Other atherosclerosis of native arteries of extremities, right leg
I70.292 Other atherosclerosis of native arteries of extremities, left leg
I70.293 Other atherosclerosis of native arteries of extremities, bilateral legs
I70.298 Other atherosclerosis of native arteries of extremities, other extremity
I70.299 Other atherosclerosis of native arteries of extremities, unspecified extremity
L97 Non-pressure chronic ulcer of lower limb, not elsewhere classified

Includes: chronic ulcer of skin of lower limb NOS
    non-healing ulcer of skin
    non-infected sinus of skin
    trophic ulcer NOS
    tropical ulcer NOS
    ulcer of skin of lower limb NOS

Code first any associated underlying condition, such as:
    any associated gangrene (I96)
    atherosclerosis of the lower extremities (I70.23-, I70.24-, I70.33-, I70.34-
        I70.43-, I70.44-, I70.53-,I70.54-, I70.63-, I70.64-, I70.73-, I70.74-)
    chronic venous hypertension (I87.31-, I87.33-)
    diabetic ulcers (E08.621, E08.622, E09.621, E09.622, E10.621, E10.622,
    postphlebitic syndrome (I87.01-, I87.03-)
    postthrombotic syndrome (I87.01-, I87.03-)
    varicose ulcer (I83.0-, I83.2-)

Excludes2: pressure ulcer (pressure area) (L89.-)
    skin infections (L00-L08)
    specific infections classified to A00-B99

L97.1 Non-pressure chronic ulcer of thigh

L97.11 Non-pressure chronic ulcer of right thigh
    L97.111 Non-pressure chronic ulcer of right thigh limited to breakdown
        of skin
    L97.112 Non-pressure chronic ulcer of right thigh with fat layer exposed
    L97.113 Non-pressure chronic ulcer of right thigh with necrosis of
        muscle
    L97.114 Non-pressure chronic ulcer of right thigh with necrosis of bone
    L97.119 Non-pressure chronic ulcer of right thigh with unspecified
        severity

L97.12 Non-pressure chronic ulcer of left thigh
    L97.121 Non-pressure chronic ulcer of left thigh limited to breakdown of
        skin
    L97.122 Non-pressure chronic ulcer of left thigh with fat layer exposed
    L97.123 Non-pressure chronic ulcer of left thigh with necrosis of muscle
    L97.124 Non-pressure chronic ulcer of left thigh with necrosis of bone
    L97.129 Non-pressure chronic ulcer of left thigh with unspecified
        severity

L97.2 Non-pressure chronic ulcer of calf

L97.21 Non-pressure chronic ulcer of right calf
    L97.211 Non-pressure chronic ulcer of right calf limited to breakdown of
        skin
    L97.212 Non-pressure chronic ulcer of right calf with fat layer exposed
L97.213 Non-pressure chronic ulcer of right calf with necrosis of muscle  
L97.214 Non-pressure chronic ulcer of right calf with necrosis of bone  
L97.219 Non-pressure chronic ulcer of right calf with unspecified severity

L97.22 Non-pressure chronic ulcer of left calf  
L97.221 Non-pressure chronic ulcer of left calf limited to breakdown of skin  
L97.222 Non-pressure chronic ulcer of left calf with fat layer exposed  
L97.223 Non-pressure chronic ulcer of left calf with necrosis of muscle  
L97.224 Non-pressure chronic ulcer of left calf with necrosis of bone  
L97.229 Non-pressure chronic ulcer of left calf with unspecified severity

L97.3 Non-pressure chronic ulcer of ankle  
L97.31 Non-pressure chronic ulcer of right ankle  
L97.311 Non-pressure chronic ulcer of right ankle limited to breakdown of skin  
L97.312 Non-pressure chronic ulcer of right ankle with fat layer exposed  
L97.313 Non-pressure chronic ulcer of right ankle with necrosis of muscle  
L97.314 Non-pressure chronic ulcer of right ankle with necrosis of bone  
L97.319 Non-pressure chronic ulcer of right ankle with unspecified severity

L97.32 Non-pressure chronic ulcer of left ankle  
L97.321 Non-pressure chronic ulcer of left ankle limited to breakdown of skin  
L97.322 Non-pressure chronic ulcer of left ankle with fat layer exposed  
L97.323 Non-pressure chronic ulcer of left ankle with necrosis of muscle  
L97.324 Non-pressure chronic ulcer of left ankle with necrosis of bone  
L97.329 Non-pressure chronic ulcer of left ankle with unspecified severity

L97.4 Non-pressure chronic ulcer of heel and midfoot  
Non-pressure chronic ulcer of plantar surface of midfoot

L97.41 Non-pressure chronic ulcer of right heel and midfoot  
L97.411 Non-pressure chronic ulcer of right heel and midfoot limited to breakdown of skin  
L97.412 Non-pressure chronic ulcer of right heel and midfoot with fat layer exposed  
L97.413 Non-pressure chronic ulcer of right heel and midfoot with necrosis of muscle  
L97.414 Non-pressure chronic ulcer of right heel and midfoot with necrosis of bone  
L97.419 Non-pressure chronic ulcer of right heel and midfoot with unspecified severity
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L97.42 Non-pressure chronic ulcer of left heel and midfoot
  L97.421 Non-pressure chronic ulcer of left heel and midfoot limited to breakdown of skin
  L97.422 Non-pressure chronic ulcer of left heel and midfoot with fat layer exposed
  L97.423 Non-pressure chronic ulcer of left heel and midfoot with necrosis of muscle
  L97.424 Non-pressure chronic ulcer of left heel and midfoot with necrosis of bone
  L97.429 Non-pressure chronic ulcer of left heel and midfoot with unspecified severity

L97.5 Non-pressure chronic ulcer of other part of foot
  Non-pressure chronic ulcer of toe

L97.51 Non-pressure chronic ulcer of other part of right foot
  L97.511 Non-pressure chronic ulcer of other part of right foot limited to breakdown of skin
  L97.512 Non-pressure chronic ulcer of other part of right foot with fat layer exposed
  L97.513 Non-pressure chronic ulcer of other part of right foot with necrosis of muscle
  L97.514 Non-pressure chronic ulcer of other part of right foot with necrosis of bone
  L97.519 Non-pressure chronic ulcer of other part of right foot with unspecified severity

L97.52 Non-pressure chronic ulcer of other part of left foot
  L97.521 Non-pressure chronic ulcer of other part of left foot limited to breakdown of skin
  L97.522 Non-pressure chronic ulcer of other part of left foot with fat layer exposed
  L97.523 Non-pressure chronic ulcer of other part of left foot with necrosis of muscle
  L97.524 Non-pressure chronic ulcer of other part of left foot with necrosis of bone
  L97.529 Non-pressure chronic ulcer of other part of left foot with unspecified severity

L97.8 Non-pressure chronic ulcer of other part of lower leg

L97.81 Non-pressure chronic ulcer of other part of right lower leg
  L97.811 Non-pressure chronic ulcer of other part of right lower leg limited to breakdown of skin
  L97.812 Non-pressure chronic ulcer of other part of right lower leg with fat layer exposed
  L97.813 Non-pressure chronic ulcer of other part of right lower leg with necrosis of muscle
L97.814 Non-pressure chronic ulcer of other part of right lower leg with necrosis of bone
L97.819 Non-pressure chronic ulcer of other part of right lower leg with unspecified severity

L97.82 Non-pressure chronic ulcer of other part of left lower leg
L97.821 Non-pressure chronic ulcer of other part of left lower leg limited to breakdown of skin
L97.822 Non-pressure chronic ulcer of other part of left lower leg with fat layer exposed
L97.823 Non-pressure chronic ulcer of other part of left lower leg with necrosis of muscle
L97.824 Non-pressure chronic ulcer of other part of left lower leg with necrosis of bone
L97.829 Non-pressure chronic ulcer of other part of left lower leg with unspecified severity

L97.9 Non-pressure chronic ulcer of unspecified part of lower leg
L97.91 Non-pressure chronic ulcer of unspecified part of right lower leg
L97.911 Non-pressure chronic ulcer of unspecified part of right lower leg limited to breakdown of skin
L97.912 Non-pressure chronic ulcer of unspecified part of right lower leg with fat layer exposed
L97.913 Non-pressure chronic ulcer of unspecified part of right lower leg with necrosis of muscle
L97.914 Non-pressure chronic ulcer of unspecified part of right lower leg with necrosis of bone
L97.919 Non-pressure chronic ulcer of unspecified part of right lower leg with unspecified severity

L97.92 Non-pressure chronic ulcer of unspecified part of left lower leg
L97.921 Non-pressure chronic ulcer of unspecified part of left lower leg limited to breakdown of skin
L97.922 Non-pressure chronic ulcer of unspecified part of left lower leg with fat layer exposed
L97.923 Non-pressure chronic ulcer of unspecified part of left lower leg with necrosis of muscle
L97.924 Non-pressure chronic ulcer of unspecified part of left lower leg with necrosis of bone
L97.929 Non-pressure chronic ulcer of unspecified part of left lower leg with unspecified severity

Abnormality of surgical wound

T81.3 Disruption of wound, not elsewhere classified
Disruption of any suture materials or other closure methods
Excludes1: breakdown (mechanical) of permanent sutures (T85.612)
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displacement of permanent sutures (T85.622)
disruption of cesarean delivery wound (O90.0)
disruption of perineal obstetric wound (O90.1)
mechanical complication of permanent sutures NEC (T85.692)

T81.30 Disruption of wound, unspecified
  Disruption of wound NOS

T81.31 Disruption of external operation (surgical) wound, not elsewhere classified
  Dehiscence of operation wound NOS
  Disruption of operation wound NOS
  Disruption or dehiscence of closure of cornea
  Disruption or dehiscence of closure of mucosa
  Disruption or dehiscence of closure of skin and subcutaneous tissue
  Full-thickness skin disruption or dehiscence
  Superficial disruption or dehiscence of operation wound
  Excludes1: dehiscence of amputation stump (T87.81)

T81.32 Disruption of internal operation (surgical) wound, not elsewhere classified
  Deep disruption or dehiscence of operation wound NOS
  Disruption or dehiscence of closure of internal organ or other internal tissue
  Disruption or dehiscence of closure of muscle or muscle flap
  Disruption or dehiscence of closure of ribs or rib cage
  Disruption or dehiscence of closure of skull or craniotomy
  Disruption or dehiscence of closure of sternum or sternotomy
  Disruption or dehiscence of closure of tendon or ligament
  Disruption or dehiscence of closure of superficial or muscular fascia

T81.4 Infection following a procedure
  Intra-abdominal abscess following a procedure
  Postprocedural infection, not elsewhere classified
  Sepsis following a procedure
  Stitch abscess following a procedure
  Subphrenic abscess following a procedure
  Wound abscess following a procedure
  Use additional code to identify infection
  Use additional code (R65.2-) to identify severe sepsis, if applicable
  Excludes1: obstetric surgical wound infection (O86.0)
    postprocedural fever NOS (R50.82)
    postprocedural retroperitoneal abscess (K68.11)
  Excludes2: bleb associated endophthalmitis (H59.4-)
    infection due to infusion, transfusion and therapeutic injection (T80.2-)
    infection due to prosthetic devices, implants and grafts (T82.6-T82.7, T83.5-T83.6, T84.5-T84.7,T85.7)
Abnormality of traumatic wound

**S01 Open wound of head**

Code also any associated:
- injury of cranial nerve (S04.-)
- injury of muscle and tendon of head (S09.1-)
- intracranial injury (S06.-)
- wound infection

Excludes1: open skull fracture (S02.- with 7th character B)
Excludes2: injury of eye and orbit (S05.-)
- traumatic amputation of part of head (S08.-)

The appropriate 7th character is to be added to each code from category S01

A - initial encounter
D - subsequent encounter
S - sequela

**S01.0 Open wound of scalp**

Excludes1: avulsion of scalp (S08.0)
S01.00 Unspecified open wound of scalp
S01.01 Laceration without foreign body of scalp
S01.02 Laceration with foreign body of scalp
S01.03 Puncture wound without foreign body of scalp
S01.04 Puncture wound with foreign body of scalp
S01.05 Open bite of scalp
- Bite of scalp NOS
  Excludes1: superficial bite of scalp (S00.06, S00.07-)

**S21 Open wound of thorax**

Code also any associated injury, such as:
- injury of heart (S26.-)
- injury of intrathoracic organs (S27.-)
- rib fracture (S22.3-, S22.4-)
- spinal cord injury (S24.0-, S24.1-)
- traumatic hemopneumothorax (S27.3)
- traumatic hemothorax (S27.1)
- traumatic pneumothorax (S27.0)
- wound infection

Excludes1: traumatic amputation (partial) of thorax (S28.1)

The appropriate 7th character is to be added to each code from category S21

A - initial encounter
D - subsequent encounter
S - sequela
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S21.2 Open wound of back wall of thorax without penetration into thoracic cavity
  S21.20 Unspecified open wound of back wall of thorax without penetration into thoracic cavity
    S21.201 Unspecified open wound of right back wall of thorax without penetration into thoracic cavity
    S21.202 Unspecified open wound of left back wall of thorax without penetration into thoracic cavity
  S21.21 Laceration without foreign body of back wall of thorax without penetration into thoracic cavity
    S21.211 Laceration without foreign body of right back wall of thorax without penetration into thoracic cavity
    S21.212 Laceration without foreign body of left back wall of thorax without penetration into thoracic cavity
  S21.22 Laceration with foreign body of back wall of thorax without penetration into thoracic cavity
    S21.221 Laceration with foreign body of right back wall of thorax without penetration into thoracic cavity
    S21.222 Laceration with foreign body of left back wall of thorax without penetration into thoracic cavity
S21.4 Open wound of back wall of thorax with penetration into thoracic cavity
  S21.40 Unspecified open wound of back wall of thorax with penetration into thoracic cavity
    S21.401 Unspecified open wound of right back wall of thorax with penetration into thoracic cavity
    S21.402 Unspecified open wound of left back wall of thorax with penetration into thoracic cavity
  S21.41 Laceration without foreign body of back wall of thorax with penetration into thoracic cavity
    S21.411 Laceration without foreign body of right back wall of thorax with penetration into thoracic cavity
    S21.412 Laceration without foreign body of left back wall of thorax with penetration into thoracic cavity
    S21.419 Laceration without foreign body of unspecified back wall of thorax with penetration into thoracic cavity
  S21.42 Laceration with foreign body of back wall of thorax with penetration into thoracic cavity
    S21.421 Laceration with foreign body of right back wall of thorax with penetration into thoracic cavity
    S21.422 Laceration with foreign body of left back wall of thorax with penetration into thoracic cavity
    S21.429 Laceration with foreign body of unspecified back wall of thorax with penetration into thoracic cavity
Wound Care Management

S21.43 Puncture wound without foreign body of back wall of thorax with penetration into thoracic cavity
  
  S21.431 Puncture wound without foreign body of right back wall of thorax with penetration into thoracic cavity
  
  S21.432 Puncture wound without foreign body of left back wall of thorax with penetration into thoracic cavity
  
  S21.439 Puncture wound without foreign body of unspecified back wall of thorax with penetration into thoracic cavity

S21.44 Puncture wound with foreign body of back wall of thorax with penetration into thoracic cavity
  
  S21.441 Puncture wound with foreign body of right back wall of thorax with penetration into thoracic cavity
  
  S21.442 Puncture wound with foreign body of left back wall of thorax with penetration into thoracic cavity
  
  S21.449 Puncture wound with foreign body of unspecified back wall of thorax with penetration into thoracic cavity

S31 Open wound of abdomen, lower back, pelvis and external genitals
  
  Code also any associated:
  
  spinal cord injury (S24.0, S24.1-, S34.0-, S34.1-)
  wound infection
  
  Excludes1: traumatic amputation of part of abdomen, lower back and pelvis (S38.2-, S38.3)
  
  Excludes2: open wound of hip (S71.00-S71.02)
  open fracture of pelvis (S32.1--S32.9 with 7th character B)
  
  The appropriate 7th character is to be added to each code from category S31
  
  A - initial encounter
  D - subsequent encounter
  S - sequela

S31.0 Open wound of lower back and pelvis
  
  S31.00 Unspecified open wound of lower back and pelvis
    
    S31.000 Unspecified open wound of lower back and pelvis without penetration into retroperitoneum
    
    Unspecified open wound of lower back and pelvis NOS
    
    S31.001 Unspecified open wound of lower back and pelvis with penetration into retroperitoneum
    
  S31.01 Laceration without foreign body of lower back and pelvis
    
    S31.010 Laceration without foreign body of lower back and pelvis without penetration into retroperitoneum
    
    Laceration without foreign body of lower back and pelvis NOS
    
    S31.011 Laceration without foreign body of lower back and pelvis with penetration into retroperitoneum
S31.02 Laceration with foreign body of lower back and pelvis
  S31.020 Laceration with foreign body of lower back and pelvis without penetration into retroperitoneum
  Laceration with foreign body of lower back and pelvis NOS
  S31.021 Laceration with foreign body of lower back and pelvis with penetration into retroperitoneum

S31.03 Puncture wound without foreign body of lower back and pelvis
  S31.030 Puncture wound without foreign body of lower back and pelvis without penetration into retroperitoneum
  Puncture wound without foreign body of lower back and pelvis NOS
  S31.031 Puncture wound without foreign body of lower back and pelvis with penetration into retroperitoneum

S31.04 Puncture wound with foreign body of lower back and pelvis
  S31.040 Puncture wound with foreign body of lower back and pelvis without penetration into retroperitoneum
  Puncture wound with foreign body of lower back and pelvis NOS
  S31.041 Puncture wound with foreign body of lower back and pelvis with penetration into retroperitoneum

S31.1 Open wound of abdominal wall without penetration into peritoneal cavity
  Open wound of abdominal wall NOS
  Excludes2: open wound of abdominal wall with penetration into peritoneal cavity (S31.6-)

S31.10 Unspecified open wound of abdominal wall without penetration into peritoneal cavity
  S31.100 Unspecified open wound of abdominal wall, right upper quadrant without penetration into peritoneal cavity
  S31.101 Unspecified open wound of abdominal wall, left upper quadrant without penetration into peritoneal cavity
  S31.102 Unspecified open wound of abdominal wall, epigastric region without penetration into peritoneal cavity
  S31.103 Unspecified open wound of abdominal wall, right lower quadrant without penetration into peritoneal cavity
  S31.104 Unspecified open wound of abdominal wall, left lower quadrant without penetration into peritoneal cavity
  S31.105 Unspecified open wound of abdominal wall, periumbilic region without penetration into peritoneal cavity
  S31.109 Unspecified open wound of abdominal wall, unspecified quadrant without penetration into peritoneal cavity
  Unspecified open wound of abdominal wall NOS

S31.11 Laceration without foreign body of abdominal wall without penetration into peritoneal cavity
  S31.110 Laceration without foreign body of abdominal wall, right upper quadrant without penetration into peritoneal cavity
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S31.111 Laceration without foreign body of abdominal wall, left upper quadrant without penetration into peritoneal cavity
S31.112 Laceration without foreign body of abdominal wall, epigastric region without penetration into peritoneal cavity
S31.113 Laceration without foreign body of abdominal wall, right lower quadrant without penetration into peritoneal cavity
S31.114 Laceration without foreign body of abdominal wall, left lower quadrant without penetration into peritoneal cavity
S31.115 Laceration without foreign body of abdominal wall, periumbilic region without penetration into peritoneal cavity
S31.119 Laceration without foreign body of abdominal wall, unspecified quadrant without penetration into peritoneal cavity

S31.12 Laceration with foreign body of abdominal wall without penetration into peritoneal cavity
S31.120 Laceration of abdominal wall with foreign body, right upper quadrant without penetration into peritoneal cavity
S31.121 Laceration of abdominal wall with foreign body, left upper quadrant without penetration into peritoneal cavity
S31.122 Laceration of abdominal wall with foreign body, epigastric region without penetration into peritoneal cavity
S31.123 Laceration of abdominal wall with foreign body, right lower quadrant without penetration into peritoneal cavity
S31.124 Laceration of abdominal wall with foreign body, left lower quadrant without penetration into peritoneal cavity
S31.125 Laceration of abdominal wall with foreign body, periumbilic region without penetration into peritoneal cavity
S31.129 Laceration of abdominal wall with foreign body, unspecified quadrant without penetration into peritoneal cavity

S31.13 Puncture wound of abdominal wall without foreign body without penetration into peritoneal cavity
S31.130 Puncture wound of abdominal wall without foreign body, right upper quadrant without penetration into peritoneal cavity
S31.131 Puncture wound of abdominal wall without foreign body, left upper quadrant without penetration into peritoneal cavity
S31.132 Puncture wound of abdominal wall without foreign body, epigastric region without penetration into peritoneal cavity
S31.133 Puncture wound of abdominal wall without foreign body, right lower quadrant without penetration into peritoneal cavity
S31.134 Puncture wound of abdominal wall without foreign body, left lower quadrant without penetration into peritoneal cavity
S31.135 Puncture wound of abdominal wall without foreign body, periumbilic region without penetration into peritoneal cavity
Wound Care Management

S31.139 Puncture wound of abdominal wall without foreign body, unspecified quadrant without penetration into peritoneal cavity

S31.14 Puncture wound of abdominal wall with foreign body without penetration into peritoneal cavity

S31.140 Puncture wound of abdominal wall with foreign body, right upper quadrant without penetration into peritoneal cavity

S31.141 Puncture wound of abdominal wall with foreign body, left upper quadrant without penetration into peritoneal cavity

S31.142 Puncture wound of abdominal wall with foreign body, epigastric region without penetration into peritoneal cavity

S31.143 Puncture wound of abdominal wall with foreign body, right lower quadrant without penetration into peritoneal cavity

S31.144 Puncture wound of abdominal wall with foreign body, left lower quadrant without penetration into peritoneal cavity

S31.145 Puncture wound of abdominal wall with foreign body, periumbilic region without penetration into peritoneal cavity

S31.149 Puncture wound of abdominal wall with foreign body, unspecified quadrant without penetration into peritoneal cavity

S31.15 Open bite of abdominal wall without penetration into peritoneal cavity

Bite of abdominal wall NOS

Excludes1: superficial bite of abdominal wall (S30.871)

S31.150 Open bite of abdominal wall, right upper quadrant without penetration into peritoneal cavity

S31.151 Open bite of abdominal wall, left upper quadrant without penetration into peritoneal cavity

S31.152 Open bite of abdominal wall, epigastric region without penetration into peritoneal cavity

S31.153 Open bite of abdominal wall, right lower quadrant without penetration into peritoneal cavity

S31.154 Open bite of abdominal wall, left lower quadrant without penetration into peritoneal cavity

S31.155 Open bite of abdominal wall, periumbilic region without penetration into peritoneal cavity

S31.159 Open bite of abdominal wall, unspecified quadrant without penetration into peritoneal cavity

S41 Open wound of shoulder and upper arm

Code also any associated wound infection

Excludes1: traumatic amputation of shoulder and upper arm (S48.-)

Excludes2: open fracture of shoulder and upper arm (S42.- with 7th character B or C)

The appropriate 7th character is to be added to each code from category S41

A - initial encounter

D - subsequent encounter

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Wound Care Management

S - sequela

S41.0 Open wound of shoulder
  S41.00 Unspecified open wound of shoulder
    S41.001 Unspecified open wound of right shoulder
    S41.002 Unspecified open wound of left shoulder
  S41.01 Laceration without foreign body of shoulder
    S41.011 Laceration without foreign body of right shoulder
    S41.012 Laceration without foreign body of left shoulder
  S41.02 Laceration with foreign body of shoulder
    S41.021 Laceration with foreign body of right shoulder
    S41.022 Laceration with foreign body of left shoulder
  S41.03 Puncture wound without foreign body of shoulder
    S41.031 Puncture wound without foreign body of right shoulder
    S41.032 Puncture wound without foreign body of left shoulder
  S41.04 Puncture wound with foreign body of shoulder
    S41.041 Puncture wound with foreign body of right shoulder
    S41.042 Puncture wound with foreign body of left shoulder
  S41.05 Open bite of shoulder
    Bite of shoulder NOS
    Excludes1: superficial bite of shoulder (S40.27)
    S41.051 Open bite of right shoulder
    S41.052 Open bite of left shoulder

S41.1 Open wound of upper arm
  S41.10 Unspecified open wound of upper arm
    S41.101 Unspecified open wound of right upper arm
    S41.102 Unspecified open wound of left upper arm
  S41.11 Laceration without foreign body of upper arm
    S41.111 Laceration without foreign body of right upper arm
    S41.112 Laceration without foreign body of left upper arm
  S41.12 Laceration with foreign body of upper arm
    S41.121 Laceration with foreign body of right upper arm
    S41.122 Laceration with foreign body of left upper arm
  S41.13 Puncture wound without foreign body of upper arm
    S41.131 Puncture wound without foreign body of right upper arm
    S41.132 Puncture wound without foreign body of left upper arm
  S41.14 Puncture wound with foreign body of upper arm
    S41.141 Puncture wound with foreign body of right upper arm
    S41.142 Puncture wound with foreign body of left upper arm

S51 Open wound of elbow and forearm
  Code also any associated wound infection
  Excludes1: open fracture of elbow and forearm (S52.- with open fracture 7th character)
  traumatic amputation of elbow and forearm (S58.-)
Wound Care Management

Excludes2: open wound of wrist and hand (S61.-)
The appropriate 7th character is to be added to each code from category S51
A - initial encounter
D - subsequent encounter
S - sequela

S51.0 Open wound of elbow
   S51.00 Unspecified open wound of elbow
      S51.001 Unspecified open wound of right elbow
      S51.002 Unspecified open wound of left elbow
      Open wound of elbow NOS
   S51.01 Laceration without foreign body of elbow
      S51.011 Laceration without foreign body of right elbow
      S51.012 Laceration without foreign body of left elbow
   S51.02 Laceration with foreign body of elbow
      S51.021 Laceration with foreign body of right elbow
      S51.022 Laceration with foreign body of left elbow
   S51.03 Puncture wound without foreign body of elbow
      S51.031 Puncture wound without foreign body of right elbow
      S51.032 Puncture wound without foreign body of left elbow
   S51.04 Puncture wound with foreign body of elbow
      S51.041 Puncture wound with foreign body of right elbow
      S51.042 Puncture wound with foreign body of left elbow
   S51.05 Open bite of elbow
      Bite of elbow NOS
      Excludes1: superficial bite of elbow (S50.36, S50.37)
      S51.051 Open bite, right elbow
      S51.052 Open bite, left elbow

S51.8 Open wound of forearm
   Excludes2: open wound of elbow (S51.0-)
   S51.80 Unspecified open wound of forearm
      S51.801 Unspecified open wound of right forearm
      S51.802 Unspecified open wound of left forearm
      Open wound of forearm NOS
   S51.81 Laceration without foreign body of forearm
      S51.811 Laceration without foreign body of right forearm
      S51.812 Laceration without foreign body of left forearm
   S51.82 Laceration with foreign body of forearm
      S51.821 Laceration with foreign body of right forearm
      S51.822 Laceration with foreign body of left forearm
   S51.83 Puncture wound without foreign body of forearm
      S51.831 Puncture wound without foreign body of right forearm
      S51.832 Puncture wound without foreign body of left forearm
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S51.84 Puncture wound with foreign body of forearm
  S51.841 Puncture wound with foreign body of right forearm
  S51.842 Puncture wound with foreign body of left forearm

S51.85 Open bite of forearm
  Bite of forearm NOS
  Excludes1: superficial bite of forearm (S50.86, S50.87)
  S51.851 Open bite of right forearm
  S51.852 Open bite of left forearm

S71 Open wound of hip and thigh
  Code also any associated wound infection
  Excludes1: open fracture of hip and thigh (S72.-)
    traumatic amputation of hip and thigh (S78.-)
  Excludes2: bite of venomous animal (T63.-)
    open wound of ankle, foot and toes (S91.-)
    open wound of knee and lower leg (S81.-)
  The appropriate 7th character is to be added to each code from category S71
  A - initial encounter
  D - subsequent encounter
  S - sequela

S71.0 Open wound of hip

S71.00 Unspecified open wound of hip
  S71.001 Unspecified open wound, right hip
  S71.002 Unspecified open wound, left hip

S71.01 Laceration without foreign body of hip
  S71.011 Laceration without foreign body, right hip
  S71.012 Laceration without foreign body, left hip

S71.02 Laceration with foreign body of hip
  S71.021 Laceration with foreign body, right hip
  S71.022 Laceration with foreign body, left hip

S71.03 Puncture wound without foreign body of hip
  S71.031 Puncture wound without foreign body, right hip
  S71.032 Puncture wound without foreign body, left hip

S71.04 Puncture wound with foreign body of hip
  S71.041 Puncture wound with foreign body, right hip
  S71.042 Puncture wound with foreign body, left hip

S71.05 Open bite of hip
  Bite of hip NOS
  Excludes1: superficial bite of hip (S70.26, S70.27)
  S71.051 Open bite, right hip
  S71.052 Open bite, left hip
S71.1 Open wound of thigh
   S71.10 Unspecified open wound of thigh
      S71.101 Unspecified open wound, right thigh
      S71.102 Unspecified open wound, left thigh
   S71.11 Laceration without foreign body of thigh
      S71.111 Laceration without foreign body, right thigh
      S71.112 Laceration without foreign body, left thigh
   S71.12 Laceration with foreign body of thigh
      S71.121 Laceration with foreign body, right thigh
      S71.122 Laceration with foreign body, left thigh
   S71.13 Puncture wound without foreign body of thigh
      S71.131 Puncture wound without foreign body, right thigh
      S71.132 Puncture wound without foreign body, left thigh
   S71.14 Puncture wound with foreign body of thigh
      S71.141 Puncture wound with foreign body, right thigh
      S71.142 Puncture wound with foreign body, left thigh
   S71.15 Open bite of thigh
      Bite of thigh NOS
      Excludes1: superficial bite of thigh (S70.37-)
      S71.151 Open bite, right thigh
      S71.152 Open bite, left thigh

S81 Open wound of knee and lower leg
   Code also any associated wound infection
   Excludes1: open fracture of knee and lower leg (S82.-)
      traumatic amputation of lower leg (S88.-)
   Excludes2: open wound of ankle and foot (S91.-)
   The appropriate 7th character is to be added to each code from category S81
      A - initial encounter
      D - subsequent encounter
      S - sequela

S81.0 Open wound of knee
   S81.00 Unspecified open wound of knee
      S81.001 Unspecified open wound, right knee
      S81.002 Unspecified open wound, left knee
   S81.01 Laceration without foreign body of knee
      S81.011 Laceration without foreign body, right knee
      S81.012 Laceration without foreign body, left knee
   S81.02 Laceration with foreign body of knee
      S81.021 Laceration with foreign body, right knee
      S81.022 Laceration with foreign body, left knee
   S81.03 Puncture wound without foreign body of knee
      S81.031 Puncture wound without foreign body, right knee
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S81.032</td>
<td>Puncture wound without foreign body, left knee</td>
</tr>
<tr>
<td>S81.04</td>
<td>Puncture wound with foreign body of knee</td>
</tr>
<tr>
<td>S81.041</td>
<td>Puncture wound with foreign body, right knee</td>
</tr>
<tr>
<td>S81.042</td>
<td>Puncture wound with foreign body, left knee</td>
</tr>
<tr>
<td>S81.05</td>
<td>Open bite of knee</td>
</tr>
<tr>
<td></td>
<td>Bite of knee NOS</td>
</tr>
<tr>
<td></td>
<td>Excludes1: superficial bite of knee (S80.27-)</td>
</tr>
<tr>
<td>S81.051</td>
<td>Open bite, right knee</td>
</tr>
<tr>
<td>S81.052</td>
<td>Open bite, left knee</td>
</tr>
<tr>
<td>S81.8</td>
<td>Open wound of lower leg</td>
</tr>
<tr>
<td></td>
<td>S81.80 Unspecified open wound of lower leg</td>
</tr>
<tr>
<td></td>
<td>S81.801 Unspecified open wound, right lower leg</td>
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<tr>
<td></td>
<td>S81.802 Unspecified open wound, left lower leg</td>
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<tr>
<td>S81.81</td>
<td>Laceration without foreign body of lower leg</td>
</tr>
<tr>
<td></td>
<td>S81.811 Laceration without foreign body, right lower leg</td>
</tr>
<tr>
<td></td>
<td>S81.812 Laceration without foreign body, left lower leg</td>
</tr>
<tr>
<td>S81.82</td>
<td>Laceration with foreign body of lower leg</td>
</tr>
<tr>
<td></td>
<td>S81.821 Laceration with foreign body, right lower leg</td>
</tr>
<tr>
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<td>S81.822 Laceration with foreign body, left lower leg</td>
</tr>
<tr>
<td>S81.83</td>
<td>Puncture wound without foreign body of lower leg</td>
</tr>
<tr>
<td></td>
<td>S81.831 Puncture wound without foreign body, right lower leg</td>
</tr>
<tr>
<td></td>
<td>S81.832 Puncture wound without foreign body, left lower leg</td>
</tr>
<tr>
<td>S81.84</td>
<td>Puncture wound with foreign body of lower leg</td>
</tr>
<tr>
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<td>S81.841 Puncture wound with foreign body, right lower leg</td>
</tr>
<tr>
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<td>S81.842 Puncture wound with foreign body, left lower leg</td>
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<td>S81.85</td>
<td>Open bite of lower leg</td>
</tr>
<tr>
<td></td>
<td>Bite of lower leg NOS</td>
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<tr>
<td></td>
<td>Excludes1: superficial bite of lower leg (S80.86-, S80.87-)</td>
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<td></td>
<td>S81.851 Open bite, right lower leg</td>
</tr>
<tr>
<td></td>
<td>S81.852 Open bite, left lower leg</td>
</tr>
<tr>
<td>T81.33</td>
<td>Disruption of traumatic injury wound repair</td>
</tr>
<tr>
<td></td>
<td>Disruption or dehiscence of closure of traumatic laceration (external) (internal)</td>
</tr>
<tr>
<td>I83.2</td>
<td>Varicose veins of lower extremities with both ulcer and inflammation</td>
</tr>
<tr>
<td></td>
<td>Use additional code to identify severity of ulcer (L97.-)</td>
</tr>
<tr>
<td>I83.20</td>
<td>Varicose veins of unspecified lower extremity with both ulcer and inflammation</td>
</tr>
<tr>
<td></td>
<td>I83.201 Varicose veins of unspecified lower extremity with both ulcer of thigh and inflammation</td>
</tr>
</tbody>
</table>
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I83.202 Varicose veins of unspecified lower extremity with both ulcer of calf and inflammation
I83.203 Varicose veins of unspecified lower extremity with both ulcer of ankle and inflammation
I83.204 Varicose veins of unspecified lower extremity with both ulcer of heel and midfoot and inflammation
Varicose veins of unspecified lower extremity with both ulcer of plantar surface of midfoot and inflammation
I83.205 Varicose veins of unspecified lower extremity with both ulcer other part of foot and inflammation
Varicose veins of unspecified lower extremity with both ulcer of toe and inflammation
I83.208 Varicose veins of unspecified lower extremity with both ulcer of other part of lower extremity and inflammation
I83.209 Varicose veins of unspecified lower extremity with both ulcer of unspecified site and inflammation

I83.21 Varicose veins of right lower extremity with both ulcer and inflammation
I83.211 Varicose veins of right lower extremity with both ulcer of thigh and inflammation
I83.212 Varicose veins of right lower extremity with both ulcer of calf and inflammation
I83.213 Varicose veins of right lower extremity with both ulcer of ankle and inflammation
I83.214 Varicose veins of right lower extremity with both ulcer of heel and midfoot and inflammation
Varicose veins of right lower extremity with both ulcer of plantar surface of midfoot and inflammation
I83.215 Varicose veins of right lower extremity with both ulcer other part of foot and inflammation
Varicose veins of right lower extremity with both ulcer of toe and inflammation
I83.218 Varicose veins of right lower extremity with both ulcer of other part of lower extremity and inflammation
I83.219 Varicose veins of right lower extremity with both ulcer of unspecified site and inflammation

I83.22 Varicose veins of left lower extremity with both ulcer and inflammation
I83.221 Varicose veins of left lower extremity with both ulcer of thigh and inflammation
I83.222 Varicose veins of left lower extremity with both ulcer of calf and inflammation
I83.223 Varicose veins of left lower extremity with both ulcer of ankle and inflammation
I83.224 Varicose veins of left lower extremity with both ulcer of heel and midfoot and inflammation
Varicose veins of left lower extremity with both ulcer of plantar surface of midfoot and inflammation

I83.225 Varicose veins of left lower extremity with both ulcer other part of foot and inflammation
Varicose veins of left lower extremity with both ulcer of toe and inflammation
I83.228 Varicose veins of left lower extremity with both ulcer of other part of lower extremity and inflammation
I83.229 Varicose veins of left lower extremity with both ulcer of unspecified site and inflammation

I83.8 Varicose veins of lower extremities with other complications

I83.81 Varicose veins of lower extremities with pain
I83.811 Varicose veins of right lower extremities with pain
I83.812 Varicose veins of left lower extremities with pain
I83.813 Varicose veins of bilateral lower extremities with pain
I83.819 Varicose veins of unspecified lower extremities with pain

I83.89 Varicose veins of lower extremities with other complications
Varicose veins of lower extremities with edema
Varicose veins of lower extremities with swelling
I83.891 Varicose veins of right lower extremities with other complications
I83.892 Varicose veins of left lower extremities with other complications
I83.893 Varicose veins of bilateral lower extremities with other complications
I83.899 Varicose veins of unspecified lower extremities with other complications

I87.3 Chronic venous hypertension (idiopathic)

Stasis edema
Excludes1: chronic venous hypertension due to deep vein thrombosis (I87.0-)
varicose veins of lower extremities (I83.-)

I87.31 Chronic venous hypertension (idiopathic) with ulcer
Use additional code to specify site and severity of ulcer (L97.-)
I87.311 Chronic venous hypertension (idiopathic) with ulcer of right lower extremity
I87.312 Chronic venous hypertension (idiopathic) with ulcer of left lower extremity
I87.313 Chronic venous hypertension (idiopathic) with ulcer of bilateral lower extremity

I87.32 Chronic venous hypertension (idiopathic) with inflammation
I87.321 Chronic venous hypertension (idiopathic) with inflammation of right lower extremity
I87.322 Chronic venous hypertension (idiopathic) with inflammation of left lower extremity
I87.323 Chronic venous hypertension (idiopathic) with inflammation of bilateral lower extremity
I87.33 Chronic venous hypertension (idiopathic) with ulcer and inflammation
Use additional code to specify site and severity of ulcer (L97.-)
I87.331 Chronic venous hypertension (idiopathic) with ulcer and inflammation of right lower extremity
I87.332 Chronic venous hypertension (idiopathic) with ulcer and inflammation of left lower extremity
I87.333 Chronic venous hypertension (idiopathic) with ulcer and inflammation of bilateral lower extremity
I87.9 Disorder of vein, unspecified

L97 Non-pressure chronic ulcer of lower limb, not elsewhere classified
Includes: chronic ulcer of skin of lower limb NOS
non-healing ulcer of skin
non-infected sinus of skin
trophic ulcer NOS
rural ulcer NOS
ulcer of skin of lower limb NOS
Code first any associated underlying condition, such as:
any associated gangrene (I96)
atherosclerosis of the lower extremities (I70.23, I70.24, I70.33, I70.34, I70.43, I70.44, I70.53, I70.54, I70.63, I70.64, I70.73, I70.74)
chronic venous hypertension (I87.31, I87.33)
postphlebitic syndrome (I87.01, I87.03)
postthrombotic syndrome (I87.01, I87.03)
varicose ulcer (I83.0, I83.2)
Excludes2: pressure ulcer (pressure area) (L89.-)
skin infections (L00-L08)
specific infections classified to A00-B99

L97.1 Non-pressure chronic ulcer of thigh
L97.10 Non-pressure chronic ulcer of unspecified thigh
L97.101 Non-pressure chronic ulcer of unspecified thigh limited to breakdown of skin
L97.102 Non-pressure chronic ulcer of unspecified thigh with fat layer exposed
L97.103 Non-pressure chronic ulcer of unspecified thigh with necrosis of muscle
L97.104 Non-pressure chronic ulcer of unspecified thigh with necrosis of bone
L97.105 Non-pressure chronic ulcer of unspecified thigh with muscle involvement without evidence of necrosis
L97.106 Non-pressure chronic ulcer of unspecified thigh with bone involvement without evidence of necrosis
L97.108 Non-pressure chronic ulcer of unspecified thigh with other specified severity
L97.109 Non-pressure chronic ulcer of unspecified thigh with unspecified severity

L97.11 Non-pressure chronic ulcer of right thigh
L97.111 Non-pressure chronic ulcer of right thigh limited to breakdown of skin
L97.112 Non-pressure chronic ulcer of right thigh with fat layer exposed
L97.113 Non-pressure chronic ulcer of right thigh with necrosis of muscle
L97.114 Non-pressure chronic ulcer of right thigh with necrosis of bone
L97.115 Non-pressure chronic ulcer of right thigh with muscle involvement without evidence of necrosis
L97.116 Non-pressure chronic ulcer of right thigh with bone involvement without evidence of necrosis
L97.118 Non-pressure chronic ulcer of right thigh with other specified severity
L97.119 Non-pressure chronic ulcer of right thigh with unspecified severity

L97.12 Non-pressure chronic ulcer of left thigh
L97.121 Non-pressure chronic ulcer of left thigh limited to breakdown of skin
L97.122 Non-pressure chronic ulcer of left thigh with fat layer exposed
L97.123 Non-pressure chronic ulcer of left thigh with necrosis of muscle
L97.124 Non-pressure chronic ulcer of left thigh with necrosis of bone
L97.125 Non-pressure chronic ulcer of left thigh with muscle involvement without evidence of necrosis
L97.126 Non-pressure chronic ulcer of left thigh with bone involvement without evidence of necrosis
L97.128 Non-pressure chronic ulcer of left thigh with other specified severity
L97.129 Non-pressure chronic ulcer of left thigh with unspecified severity

L97.2 Non-pressure chronic ulcer of calf

L97.20 Non-pressure chronic ulcer of unspecified calf
L97.201 Non-pressure chronic ulcer of unspecified calf limited to breakdown of skin
L97.202 Non-pressure chronic ulcer of unspecified calf with fat layer exposed
L97.203 Non-pressure chronic ulcer of unspecified calf with necrosis of muscle
L97.204 Non-pressure chronic ulcer of unspecified calf with necrosis of bone
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L97.205 Non-pressure chronic ulcer of unspecified calf with muscle involvement without evidence of necrosis
L97.206 Non-pressure chronic ulcer of unspecified calf with bone involvement without evidence of necrosis
L97.208 Non-pressure chronic ulcer of unspecified calf with other specified severity
L97.209 Non-pressure chronic ulcer of unspecified calf with unspecified severity

L97.21 Non-pressure chronic ulcer of right calf
L97.211 Non-pressure chronic ulcer of right calf limited to breakdown of skin
L97.212 Non-pressure chronic ulcer of right calf with fat layer exposed
L97.213 Non-pressure chronic ulcer of right calf with necrosis of muscle
L97.214 Non-pressure chronic ulcer of right calf with necrosis of bone
L97.215 Non-pressure chronic ulcer of right calf with muscle involvement without evidence of necrosis
L97.216 Non-pressure chronic ulcer of right calf with bone involvement without evidence of necrosis
L97.218 Non-pressure chronic ulcer of right calf with other specified severity
L97.219 Non-pressure chronic ulcer of right calf with unspecified severity

L97.22 Non-pressure chronic ulcer of left calf
L97.221 Non-pressure chronic ulcer of left calf limited to breakdown of skin
L97.222 Non-pressure chronic ulcer of left calf with fat layer exposed
L97.223 Non-pressure chronic ulcer of left calf with necrosis of muscle
L97.224 Non-pressure chronic ulcer of left calf with necrosis of bone
L97.225 Non-pressure chronic ulcer of left calf with muscle involvement without evidence of necrosis
L97.226 Non-pressure chronic ulcer of left calf with bone involvement without evidence of necrosis
L97.228 Non-pressure chronic ulcer of left calf with other specified severity
L97.229 Non-pressure chronic ulcer of left calf with unspecified severity

L97.3 Non-pressure chronic ulcer of ankle
L97.30 Non-pressure chronic ulcer of unspecified ankle
L97.301 Non-pressure chronic ulcer of unspecified ankle limited to breakdown of skin
L97.302 Non-pressure chronic ulcer of unspecified ankle with fat layer exposed
L97.303 Non-pressure chronic ulcer of unspecified ankle with necrosis of muscle
L97.304 Non-pressure chronic ulcer of unspecified ankle with necrosis of bone
L97.305 Non-pressure chronic ulcer of unspecified ankle with muscle involvement without evidence of necrosis
L97.306 Non-pressure chronic ulcer of unspecified ankle with bone involvement without evidence of necrosis
L97.308 Non-pressure chronic ulcer of unspecified ankle with other specified severity
L97.309 Non-pressure chronic ulcer of unspecified ankle with unspecified severity
L97.31 Non-pressure chronic ulcer of right ankle
   L97.311 Non-pressure chronic ulcer of right ankle limited to breakdown of skin
   L97.312 Non-pressure chronic ulcer of right ankle with fat layer exposed
   L97.313 Non-pressure chronic ulcer of right ankle with necrosis of muscle
   L97.314 Non-pressure chronic ulcer of right ankle with necrosis of bone
   L97.315 Non-pressure chronic ulcer of right ankle with muscle involvement without evidence of necrosis
   L97.316 Non-pressure chronic ulcer of right ankle with bone involvement without evidence of necrosis
   L97.318 Non-pressure chronic ulcer of right ankle with other specified severity
   L97.319 Non-pressure chronic ulcer of right ankle with unspecified severity
L97.32 Non-pressure chronic ulcer of left ankle
   L97.321 Non-pressure chronic ulcer of left ankle limited to breakdown of skin
   L97.322 Non-pressure chronic ulcer of left ankle with fat layer exposed
   L97.323 Non-pressure chronic ulcer of left ankle with necrosis of muscle
   L97.324 Non-pressure chronic ulcer of left ankle with necrosis of bone
   L97.325 Non-pressure chronic ulcer of left ankle with muscle involvement without evidence of necrosis
   L97.326 Non-pressure chronic ulcer of left ankle with bone involvement without evidence of necrosis
   L97.328 Non-pressure chronic ulcer of left ankle with other specified severity
   L97.329 Non-pressure chronic ulcer of left ankle with unspecified severity
L97.4 Non-pressure chronic ulcer of heel and midfoot
   Non-pressure chronic ulcer of plantar surface of midfoot
L97.40 Non-pressure chronic ulcer of unspecified heel and midfoot
   L97.401 Non-pressure chronic ulcer of unspecified heel and midfoot limited to breakdown of skin
L97.402 Non-pressure chronic ulcer of unspecified heel and midfoot with fat layer exposed
L97.403 Non-pressure chronic ulcer of unspecified heel and midfoot with necrosis of muscle
L97.404 Non-pressure chronic ulcer of unspecified heel and midfoot with necrosis of bone
L97.405 Non-pressure chronic ulcer of unspecified heel and midfoot with muscle involvement without evidence of necrosis
L97.406 Non-pressure chronic ulcer of unspecified heel and midfoot with bone involvement without evidence of necrosis
L97.408 Non-pressure chronic ulcer of unspecified heel and midfoot with other specified severity
L97.409 Non-pressure chronic ulcer of unspecified heel and midfoot with unspecified severity

L97.41 Non-pressure chronic ulcer of right heel and midfoot
L97.411 Non-pressure chronic ulcer of right heel and midfoot limited to breakdown of skin
L97.412 Non-pressure chronic ulcer of right heel and midfoot with fat layer exposed
L97.413 Non-pressure chronic ulcer of right heel and midfoot with necrosis of muscle
L97.414 Non-pressure chronic ulcer of right heel and midfoot with necrosis of bone
L97.415 Non-pressure chronic ulcer of right heel and midfoot with muscle involvement without evidence of necrosis
L97.416 Non-pressure chronic ulcer of right heel and midfoot with bone involvement without evidence of necrosis
L97.418 Non-pressure chronic ulcer of right heel and midfoot with other specified severity
L97.419 Non-pressure chronic ulcer of right heel and midfoot with unspecified severity

L97.42 Non-pressure chronic ulcer of left heel and midfoot
L97.421 Non-pressure chronic ulcer of left heel and midfoot limited to breakdown of skin
L97.422 Non-pressure chronic ulcer of left heel and midfoot with fat layer exposed
L97.423 Non-pressure chronic ulcer of left heel and midfoot with necrosis of muscle
L97.424 Non-pressure chronic ulcer of left heel and midfoot with necrosis of bone
L97.425 Non-pressure chronic ulcer of left heel and midfoot with muscle involvement without evidence of necrosis
L97.426 Non-pressure chronic ulcer of left heel and midfoot with bone involvement without evidence of necrosis
L97.428 Non-pressure chronic ulcer of left heel and midfoot with other specified severity
L97.429 Non-pressure chronic ulcer of left heel and midfoot with unspecified severity

L97.5 Non-pressure chronic ulcer of other part of foot

L97.50 Non-pressure chronic ulcer of other part of unspecified foot
  L97.501 Non-pressure chronic ulcer of other part of unspecified foot limited to breakdown of skin
  L97.502 Non-pressure chronic ulcer of other part of unspecified foot with fat layer exposed
  L97.503 Non-pressure chronic ulcer of other part of unspecified foot with necrosis of muscle
  L97.504 Non-pressure chronic ulcer of other part of unspecified foot with necrosis of bone
  L97.505 Non-pressure chronic ulcer of other part of unspecified foot with muscle involvement without evidence of necrosis
  L97.506 Non-pressure chronic ulcer of other part of unspecified foot with bone involvement without evidence of necrosis
  L97.508 Non-pressure chronic ulcer of other part of unspecified foot with other specified severity
  L97.509 Non-pressure chronic ulcer of other part of unspecified foot with unspecified severity

L97.51 Non-pressure chronic ulcer of other part of right foot
  L97.511 Non-pressure chronic ulcer of other part of right foot limited to breakdown of skin
  L97.512 Non-pressure chronic ulcer of other part of right foot with fat layer exposed
  L97.513 Non-pressure chronic ulcer of other part of right foot with necrosis of muscle
  L97.514 Non-pressure chronic ulcer of other part of right foot with necrosis of bone
  L97.515 Non-pressure chronic ulcer of other part of right foot with muscle involvement without evidence of necrosis
  L97.516 Non-pressure chronic ulcer of other part of right foot with bone involvement without evidence of necrosis
  L97.518 Non-pressure chronic ulcer of other part of right foot with other specified severity
  L97.519 Non-pressure chronic ulcer of other part of right foot with unspecified severity

L97.52 Non-pressure chronic ulcer of other part of left foot
  L97.521 Non-pressure chronic ulcer of other part of left foot limited to breakdown of skin
Non-pressure chronic ulcer of other part of left foot with fat layer exposed
L97.522

Non-pressure chronic ulcer of other part of left foot with necrosis of muscle
L97.523

Non-pressure chronic ulcer of other part of left foot with necrosis of bone
L97.524

Non-pressure chronic ulcer of other part of left foot with muscle involvement without evidence of necrosis
L97.525

Non-pressure chronic ulcer of other part of left foot with bone involvement without evidence of necrosis
L97.526

Non-pressure chronic ulcer of other part of left foot with other specified severity
L97.528

Non-pressure chronic ulcer of other part of left foot with unspecified severity
L97.529

Non-pressure chronic ulcer of other part of left foot with necrosis of muscle
L97.523

Non-pressure chronic ulcer of other part of left foot with necrosis of bone
L97.524

Non-pressure chronic ulcer of other part of left foot with muscle involvement without evidence of necrosis
L97.525

Non-pressure chronic ulcer of other part of left foot with bone involvement without evidence of necrosis
L97.526

Non-pressure chronic ulcer of other part of left foot with other specified severity
L97.528

Non-pressure chronic ulcer of other part of left foot with unspecified severity
L97.529

Non-pressure chronic ulcer of other part of left foot with necrosis of muscle
L97.523

Non-pressure chronic ulcer of other part of left foot with necrosis of bone
L97.524

Non-pressure chronic ulcer of other part of left foot with muscle involvement without evidence of necrosis
L97.525

Non-pressure chronic ulcer of other part of left foot with bone involvement without evidence of necrosis
L97.526

Non-pressure chronic ulcer of other part of left foot with other specified severity
L97.528

Non-pressure chronic ulcer of other part of left foot with unspecified severity
L97.529

Non-pressure chronic ulcer of other part of lower leg
L97.8

Non-pressure chronic ulcer of other part of unspecified lower leg
L97.80

Non-pressure chronic ulcer of other part of unspecified lower leg limited to breakdown of skin
L97.801

Non-pressure chronic ulcer of other part of unspecified lower leg with fat layer exposed
L97.802

Non-pressure chronic ulcer of other part of unspecified lower leg with necrosis of muscle
L97.803

Non-pressure chronic ulcer of other part of unspecified lower leg with necrosis of bone
L97.804

Non-pressure chronic ulcer of other part of unspecified lower leg with muscle involvement without evidence of necrosis
L97.805

Non-pressure chronic ulcer of other part of unspecified lower leg with bone involvement without evidence of necrosis
L97.806

Non-pressure chronic ulcer of other part of unspecified lower leg with other specified severity
L97.808

Non-pressure chronic ulcer of other part of unspecified lower leg with unspecified severity
L97.809

Non-pressure chronic ulcer of other part of right lower leg
L97.81

Non-pressure chronic ulcer of other part of right lower leg limited to breakdown of skin
L97.811

Non-pressure chronic ulcer of other part of right lower leg with fat layer exposed
L97.812

Non-pressure chronic ulcer of other part of right lower leg with necrosis of muscle
L97.813

Non-pressure chronic ulcer of other part of right lower leg with necrosis of bone
L97.814

Non-pressure chronic ulcer of other part of right lower leg with muscle involvement without evidence of necrosis
L97.815
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L97.816 Non-pressure chronic ulcer of other part of right lower leg with bone involvement without evidence of necrosis
L97.818 Non-pressure chronic ulcer of other part of right lower leg with other specified severity
L97.819 Non-pressure chronic ulcer of other part of right lower leg with unspecified severity

L97.82 Non-pressure chronic ulcer of other part of left lower leg
L97.821 Non-pressure chronic ulcer of other part of left lower leg limited to breakdown of skin
L97.822 Non-pressure chronic ulcer of other part of left lower leg with fat layer exposed
L97.823 Non-pressure chronic ulcer of other part of left lower leg with necrosis of muscle
L97.824 Non-pressure chronic ulcer of other part of left lower leg with necrosis of bone
L97.825 Non-pressure chronic ulcer of other part of left lower leg with muscle involvement without evidence of necrosis
L97.826 Non-pressure chronic ulcer of other part of left lower leg with bone involvement without evidence of necrosis
L97.828 Non-pressure chronic ulcer of other part of left lower leg with other specified severity
L97.829 Non-pressure chronic ulcer of other part of left lower leg with unspecified severity

L97.9 Non-pressure chronic ulcer of unspecified part of lower leg

L97.90 Non-pressure chronic ulcer of unspecified part of unspecified lower leg
L97.901 Non-pressure chronic ulcer of unspecified part of unspecified lower leg limited to breakdown of skin
L97.902 Non-pressure chronic ulcer of unspecified part of unspecified lower leg with fat layer exposed
L97.903 Non-pressure chronic ulcer of unspecified part of unspecified lower leg with necrosis of muscle
L97.904 Non-pressure chronic ulcer of unspecified part of unspecified lower leg with necrosis of bone
L97.905 Non-pressure chronic ulcer of unspecified part of unspecified lower leg with muscle involvement without evidence of necrosis
L97.906 Non-pressure chronic ulcer of unspecified part of unspecified lower leg with bone involvement without evidence of necrosis
L97.908 Non-pressure chronic ulcer of unspecified part of unspecified lower leg with other specified severity
L97.909 Non-pressure chronic ulcer of unspecified part of unspecified lower leg with unspecified severity
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L97.91 Non-pressure chronic ulcer of unspecified part of right lower leg
   L97.911 Non-pressure chronic ulcer of unspecified part of right lower leg limited to breakdown of skin
   L97.912 Non-pressure chronic ulcer of unspecified part of right lower leg with fat layer exposed
   L97.913 Non-pressure chronic ulcer of unspecified part of right lower leg with necrosis of muscle
   L97.914 Non-pressure chronic ulcer of unspecified part of right lower leg with necrosis of bone
   L97.915 Non-pressure chronic ulcer of unspecified part of right lower leg with muscle involvement without evidence of necrosis
   L97.916 Non-pressure chronic ulcer of unspecified part of right lower leg with bone involvement without evidence of necrosis
   L97.918 Non-pressure chronic ulcer of unspecified part of right lower leg with other specified severity
   L97.919 Non-pressure chronic ulcer of unspecified part of right lower leg with unspecified severity

L97.92 Non-pressure chronic ulcer of unspecified part of left lower leg
   L97.921 Non-pressure chronic ulcer of unspecified part of left lower leg limited to breakdown of skin
   L97.922 Non-pressure chronic ulcer of unspecified part of left lower leg with fat layer exposed
   L97.923 Non-pressure chronic ulcer of unspecified part of left lower leg with necrosis of muscle
   L97.924 Non-pressure chronic ulcer of unspecified part of left lower leg with necrosis of bone
   L97.925 Non-pressure chronic ulcer of unspecified part of left lower leg with muscle involvement without evidence of necrosis
   L97.926 Non-pressure chronic ulcer of unspecified part of left lower leg with bone involvement without evidence of necrosis
   L97.928 Non-pressure chronic ulcer of unspecified part of left lower leg with other specified severity
   L97.929 Non-pressure chronic ulcer of unspecified part of left lower leg with unspecified severity

Amputation

Z47.8 Encounter for other orthopedic aftercare
   Z47.81 Encounter for orthopedic aftercare following surgical amputation
      Use additional code to identify the limb amputated (Z89.-)

Z89 Acquired absence of limb
   Includes: amputation status
   postprocedural loss of limb
   post-traumatic loss of limb

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Excludes1: acquired deformities of limbs (M20-M21)  
congenital absence of limbs (Q71-Q73)  

Z89.0 Acquired absence of thumb and other finger(s)  
Z89.01 Acquired absence of thumb  
  Z89.011 Acquired absence of right thumb  
  Z89.012 Acquired absence of left thumb  
Z89.02 Acquired absence of other finger(s)  
  Excludes2: acquired absence of thumb (Z89.01-)  
  Z89.021 Acquired absence of right finger(s)  
  Z89.022 Acquired absence of left finger(s)  
  Z89.029 Acquired absence of unspecified finger(s)  

Z89.1 Acquired absence of hand and wrist  
Z89.11 Acquired absence of hand  
  Z89.111 Acquired absence of right hand  
  Z89.112 Acquired absence of left hand  
Z89.12 Acquired absence of wrist  
  Disarticulation at wrist  
  Z89.121 Acquired absence of right wrist  
  Z89.122 Acquired absence of left wrist  

Z89.2 Acquired absence of upper limb above wrist  
Z89.20 Acquired absence of upper limb, unspecified level  
  Z89.201 Acquired absence of right upper limb, unspecified level  
  Z89.202 Acquired absence of left upper limb, unspecified level  
  Acquired absence of arm NOS  
Z89.21 Acquired absence of upper limb below elbow  
  Z89.211 Acquired absence of right upper limb below elbow  
  Z89.212 Acquired absence of left upper limb below elbow  
Z89.22 Acquired absence of upper limb above elbow  
  Disarticulation at elbow  
  Z89.221 Acquired absence of right upper limb above elbow  
  Z89.222 Acquired absence of left upper limb above elbow  

Z89.23 Acquired absence of shoulder  
  Acquired absence of shoulder joint following explantation of shoulder joint  
  prosthesis, with or without presence of antibiotic-impregnated cement spacer  
  Z89.231 Acquired absence of right shoulder  
  Z89.232 Acquired absence of left shoulder  

Z89.4 Acquired absence of toe(s), foot, and ankle  
Z89.41 Acquired absence of great toe  
  Z89.411 Acquired absence of right great toe  
  Z89.412 Acquired absence of left great toe
Z89.42 Acquired absence of other toe(s)
   Excludes2: acquired absence of great toe (Z89.41-)
Z89.421 Acquired absence of other right toe(s)
Z89.422 Acquired absence of other left toe(s)
Z89.429 Acquired absence of other toe(s), unspecified side

Z89.43 Acquired absence of foot
   Z89.431 Acquired absence of right foot
   Z89.432 Acquired absence of left foot

Z89.44 Acquired absence of ankle
   Disarticulation of ankle
   Z89.441 Acquired absence of right ankle
   Z89.442 Acquired absence of left ankle

Z89.5 Acquired absence of leg below knee
   Z89.51 Acquired absence of leg below knee
      Z89.511 Acquired absence of right leg below knee
      Z89.512 Acquired absence of left leg below knee
   Z89.52 Acquired absence of knee
      Acquired absence of knee joint following explantation of knee joint prosthesis, with or without presence of antibiotic-impregnated cement spacer
      Z89.521 Acquired absence of right knee
      Z89.522 Acquired absence of left knee

Z89.6 Acquired absence of leg above knee
   Z89.61 Acquired absence of leg above knee
      Acquired absence of leg NOS
      Disarticulation at knee
      Z89.611 Acquired absence of right leg above knee
      Z89.612 Acquired absence of left leg above knee
   Z89.62 Acquired absence of hip
      Acquired absence of hip joint following explantation of hip joint prosthesis, with or without presence of antibiotic-impregnated cement spacer
      Disarticulation at hip
      Z89.621 Acquired absence of right hip joint
      Z89.622 Acquired absence of left hip joint

Burn

T21 Burn and corrosion of trunk
   Includes: burns and corrosion of hip region
   Excludes2: burns and corrosion of axilla (T22.- with fifth character 4)
      burns and corrosion of scapular region (T22.- with fifth character 6)
      burns and corrosion of shoulder (T22.- with fifth character 5)
   The appropriate 7th character is to be added to each code from category T21
   A - initial encounter
D - subsequent encounter
S – sequela

T21.1 Burn of first degree of trunk
Use additional external cause code to identify the source, place and intent of the burn (X00-X19, X75-X77, X96-X98, Y92)
T21.10 Burn of first degree of trunk, unspecified site
T21.11 Burn of first degree of chest wall
  Burn of first degree of breast
T21.12 Burn of first degree of abdominal wall
  Burn of first degree of flank
  Burn of first degree of groin
T21.13 Burn of first degree of upper back
  Burn of first degree of interscapular region
T21.14 Burn of first degree of lower back
T21.15 Burn of first degree of buttock
  Burn of first degree of anus
T21.16 Burn of first degree of male genital region
  Burn of first degree of penis
  Burn of first degree of scrotum
  Burn of first degree of testis
T21.17 Burn of first degree of female genital region
  Burn of first degree of labium (majus) (minus)
  Burn of first degree of perineum
  Burn of first degree of vulva
Excludes2: burn of vagina (T28.3)
T21.19 Burn of first degree of other site of trunk

T21.2 Burn of second degree of trunk
Use additional external cause code to identify the source, place and intent of the burn (X00-X19, X75-X77, X96-X98, Y92)
T21.20 Burn of second degree of trunk, unspecified site
T21.21 Burn of second degree of chest wall
  Burn of second degree of breast
T21.22 Burn of second degree of abdominal wall
  Burn of second degree of flank
  Burn of second degree of groin
T21.23 Burn of second degree of upper back
  Burn of second degree of interscapular region
T21.24 Burn of second degree of lower back
T21.25 Burn of second degree of buttock
  Burn of second degree of anus
T21.26 Burn of second degree of male genital region
  Burn of second degree of penis
  Burn of second degree of scrotum
  Burn of second degree of testis
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T21.27 Burn of second degree of female genital region
  Burn of second degree of labium (majus) (minus)
  Burn of second degree of perineum
  Burn of second degree of vulva
  Excludes2: burn of vagina (T28.3)
T21.29 Burn of second degree of other site of trunk

T21.3 Burn of third degree of trunk
  Use additional external cause code to identify the source, place and intent of
  the burn (X00-X19, X75-X77,X96-X98, Y92)
T21.30 Burn of third degree of trunk, unspecified site
T21.31 Burn of third degree of chest wall
  Burn of third degree of breast
T21.32 Burn of third degree of abdominal wall
  Burn of third degree of flank
  Burn of third degree of groin
T21.33 Burn of third degree of upper back
  Burn of third degree of interscapular region
T21.34 Burn of third degree of lower back
T21.35 Burn of third degree of buttock
  Burn of third degree of anus
T21.36 Burn of third degree of male genital region
  Burn of third degree of penis
  Burn of third degree of scrotum
  Burn of third degree of testis
T21.37 Burn of third degree of female genital region
  Burn of third degree of labium (majus) (minus)
  Burn of third degree of perineum
  Burn of third degree of vulva
  Excludes2: burn of vagina (T28.3)
T21.39 Burn of third degree of other site of trunk

T22 Burn and corrosion of shoulder and upper limb, except wrist and hand
  Excludes2: burn and corrosion of interscapular region (T21.-)
  burn and corrosion of wrist and hand (T23.-)
  The appropriate 7th character is to be added to each code from category T22
  A - initial encounter
  D - subsequent encounter
  S - sequela
T22.0 Burn of unspecified degree of shoulder and upper limb, except wrist and hand
  Use additional external cause code to identify the source, place and intent of
  the burn (X00-X19, X75-X77,X96-X98, Y92)
T22.00 Burn of unspecified degree of shoulder and upper limb, except wrist and hand, unspecified site
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T22.01 Burn of unspecified degree of forearm
  T22.011 Burn of unspecified degree of right forearm
  T22.012 Burn of unspecified degree of left forearm

T22.02 Burn of unspecified degree of elbow
  T22.021 Burn of unspecified degree of right elbow
  T22.022 Burn of unspecified degree of left elbow

T22.03 Burn of unspecified degree of upper arm
  T22.031 Burn of unspecified degree of right upper arm
  T22.032 Burn of unspecified degree of left upper arm

T22.04 Burn of unspecified degree of axilla
  T22.041 Burn of unspecified degree of right axilla
  T22.042 Burn of unspecified degree of left axilla

T22.05 Burn of unspecified degree of shoulder
  T22.051 Burn of unspecified degree of right shoulder
  T22.052 Burn of unspecified degree of left shoulder

T22.06 Burn of unspecified degree of scapular region
  T22.061 Burn of unspecified degree of right scapular region
  T22.062 Burn of unspecified degree of left scapular region
  T22.069 Burn of unspecified degree of unspecified scapular region

T22.09 Burn of unspecified degree of multiple sites of shoulder and upper limb, except wrist and hand
  T22.091 Burn of unspecified degree of multiple sites of right shoulder and upper limb, except wrist and hand
  T22.092 Burn of unspecified degree of multiple sites of left shoulder and upper limb, except wrist and hand
  T22.099 Burn of unspecified degree of multiple sites of unspecified shoulder and upper limb, except wrist and hand

T22.1 Burn of first degree of shoulder and upper limb, except wrist and hand
  Use additional external cause code to identify the source, place and intent of the burn (X00-X19, X75-X77,X96-X98, Y92)

T22.10 Burn of first degree of shoulder and upper limb, except wrist and hand, unspecified site

T22.11 Burn of first degree of forearm
  T22.111 Burn of first degree of right forearm
  T22.112 Burn of first degree of left forearm

T22.12 Burn of first degree of elbow
  T22.121 Burn of first degree of right elbow
  T22.122 Burn of first degree of left elbow

T22.13 Burn of first degree of upper arm
  T22.131 Burn of first degree of right upper arm
  T22.132 Burn of first degree of left upper arm

T22.14 Burn of first degree of axilla
  T22.141 Burn of first degree of right axilla
T22.142 Burn of first degree of left axilla
T22.15 Burn of first degree of shoulder
  T22.151 Burn of first degree of right shoulder
  T22.152 Burn of first degree of left shoulder
T22.16 Burn of first degree of scapular region
  T22.161 Burn of first degree of right scapular region
  T22.162 Burn of first degree of left scapular region
T22.19 Burn of first degree of multiple sites of shoulder and upper limb, except wrist and hand
  T22.191 Burn of first degree of multiple sites of right shoulder and upper limb, except wrist and hand
  T22.192 Burn of first degree of multiple sites of left shoulder and upper limb, except wrist and hand
  T22.199 Burn of first degree of multiple sites of unspecified shoulder and upper limb, except wrist and hand
T22.2 Burn of second degree of shoulder and upper limb, except wrist and hand
  Use additional external cause code to identify the source, place and intent of the burn (X00-X19, X75-X77,X96-X98, Y92)
T22.20 Burn of second degree of shoulder and upper limb, except wrist and hand, unspecified site
T22.21 Burn of second degree of forearm
  T22.211 Burn of second degree of right forearm
  T22.212 Burn of second degree of left forearm
T22.22 Burn of second degree of elbow
  T22.221 Burn of second degree of right elbow
  T22.222 Burn of second degree of left elbow
T22.23 Burn of second degree of upper arm
  T22.231 Burn of second degree of right upper arm
  T22.232 Burn of second degree of left upper arm
T22.24 Burn of second degree of axilla
  T22.241 Burn of second degree of right axilla
  T22.242 Burn of second degree of left axilla
T22.25 Burn of second degree of shoulder
  T22.251 Burn of second degree of right shoulder
  T22.252 Burn of second degree of left shoulder
  T22.259 Burn of second degree of unspecified shoulder
T22.26 Burn of second degree of scapular region
  T22.261 Burn of second degree of right scapular region
  T22.262 Burn of second degree of left scapular region
T22.29 Burn of second degree of multiple sites of shoulder and upper limb, except wrist and hand
  T22.291 Burn of second degree of multiple sites of right shoulder and upper limb, except wrist and hand

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T22.292 Burn of second degree of multiple sites of left shoulder and upper limb, except wrist and hand

T22.3 Burn of third degree of shoulder and upper limb, except wrist and hand
Use additional external cause code to identify the source, place and intent of the burn (X00-X19, X75-X77,X96-X98, Y92)

T22.30 Burn of third degree of shoulder and upper limb, except wrist and hand, unspecified site

T22.31 Burn of third degree of forearm
T22.311 Burn of third degree of right forearm
T22.312 Burn of third degree of left forearm

T22.32 Burn of third degree of elbow
T22.321 Burn of third degree of right elbow
T22.322 Burn of third degree of left elbow

T22.33 Burn of third degree of upper arm
T22.331 Burn of third degree of right upper arm
T22.332 Burn of third degree of left upper arm

T22.34 Burn of third degree of axilla
T22.341 Burn of third degree of right axilla
T22.342 Burn of third degree of left axilla

T22.35 Burn of third degree of shoulder
T22.351 Burn of third degree of right shoulder
T22.352 Burn of third degree of left shoulder

T22.36 Burn of third degree of scapular region
T22.361 Burn of third degree of right scapular region
T22.362 Burn of third degree of left scapular region

T22.39 Burn of third degree of multiple sites of shoulder and upper limb, except wrist and hand
T22.391 Burn of third degree of multiple sites of right shoulder and upper limb, except wrist and hand
T22.392 Burn of third degree of multiple sites of left shoulder and upper limb, except wrist and hand

T23 Burn and corrosion of wrist and hand
The appropriate 7th character is to be added to each code from category T23
A - initial encounter
D - subsequent encounter
S - sequela

T23.0 Burn of unspecified degree of wrist and hand
Use additional external cause code to identify the source, place and intent of the burn (X00-X19, X75-X77,X96-X98, Y92)

T23.00 Burn of unspecified degree of hand, unspecified site
T23.001 Burn of unspecified degree of right hand, unspecified site
T23.002 Burn of unspecified degree of left hand, unspecified site
T23.009 Burn of unspecified degree of unspecified hand, unspecified site

T23.01 Burn of unspecified degree of thumb (nail)
  T23.011 Burn of unspecified degree of right thumb (nail)
  T23.012 Burn of unspecified degree of left thumb (nail)
  T23.019 Burn of unspecified degree of unspecified thumb (nail)

T23.02 Burn of unspecified degree of single finger (nail) except thumb
  T23.021 Burn of unspecified degree of single right finger (nail) except thumb
  T23.022 Burn of unspecified degree of single left finger (nail) except thumb
  T23.029 Burn of unspecified degree of unspecified single finger (nail) except thumb

T23.03 Burn of unspecified degree of multiple fingers (nail), not including thumb
  T23.031 Burn of unspecified degree of multiple right fingers (nail), not including thumb
  T23.032 Burn of unspecified degree of multiple left fingers (nail), not including thumb
  T23.039 Burn of unspecified degree of unspecified multiple fingers (nail), not including thumb

T23.04 Burn of unspecified degree of multiple fingers (nail), including thumb
  T23.041 Burn of unspecified degree of multiple right fingers (nail), including thumb
  T23.042 Burn of unspecified degree of multiple left fingers (nail), including thumb
  T23.049 Burn of unspecified degree of unspecified multiple fingers (nail), including thumb

T23.05 Burn of unspecified degree of palm
  T23.051 Burn of unspecified degree of right palm
  T23.052 Burn of unspecified degree of left palm
  T23.059 Burn of unspecified degree of unspecified palm

T23.06 Burn of unspecified degree of back of hand
  T23.061 Burn of unspecified degree of back of right hand
  T23.062 Burn of unspecified degree of back of left hand
  T23.069 Burn of unspecified degree of back of unspecified hand

T23.07 Burn of unspecified degree of wrist
  T23.071 Burn of unspecified degree of right wrist
  T23.072 Burn of unspecified degree of left wrist
  T23.079 Burn of unspecified degree of unspecified wrist

T23.09 Burn of unspecified degree of multiple sites of wrist and hand
  T23.091 Burn of unspecified degree of multiple sites of right wrist and hand
T23.092 Burn of unspecified degree of multiple sites of left wrist and hand
T23.099 Burn of unspecified degree of multiple sites of unspecified wrist and hand

T23.1 Burn of first degree of wrist and hand
Use additional external cause code to identify the source, place and intent of the burn (X00-X19, X75-X77, X96-X98, Y92)

T23.10 Burn of first degree of hand, unspecified site
   T23.101 Burn of first degree of right hand, unspecified site
   T23.102 Burn of first degree of left hand, unspecified site

T23.11 Burn of first degree of thumb (nail)
   T23.111 Burn of first degree of right thumb (nail)
   T23.112 Burn of first degree of left thumb (nail)

T23.12 Burn of first degree of single finger (nail) except thumb
   T23.121 Burn of first degree of single right finger (nail) except thumb
   T23.122 Burn of first degree of single left finger (nail) except thumb
   T23.129 Burn of first degree of unspecified single finger (nail) except thumb

T23.13 Burn of first degree of multiple fingers (nail), not including thumb
   T23.131 Burn of first degree of multiple right fingers (nail), not including thumb
   T23.132 Burn of first degree of multiple left fingers (nail), not including thumb
   T23.139 Burn of first degree of unspecified multiple fingers (nail), not including thumb

T23.14 Burn of first degree of multiple fingers (nail), including thumb
   T23.141 Burn of first degree of multiple right fingers (nail), including thumb
   T23.142 Burn of first degree of multiple left fingers (nail), including thumb
   T23.149 Burn of first degree of unspecified multiple fingers (nail), including thumb

T23.15 Burn of first degree of palm
   T23.151 Burn of first degree of right palm
   T23.152 Burn of first degree of left palm

T23.16 Burn of first degree of back of hand
   T23.161 Burn of first degree of back of right hand
   T23.162 Burn of first degree of back of left hand

T23.17 Burn of first degree of wrist
   T23.171 Burn of first degree of right wrist
   T23.172 Burn of first degree of left wrist
   T23.179 Burn of first degree of unspecified wrist
T23.19 Burn of first degree of multiple sites of wrist and hand
  T23.191 Burn of first degree of multiple sites of right wrist and hand
  T23.192 Burn of first degree of multiple sites of left wrist and hand
  T23.199 Burn of first degree of multiple sites of unspecified wrist and hand

T23.2 Burn of second degree of wrist and hand
  Use additional external cause code to identify the source, place and intent of the burn (X00-X19, X75-X77,X96-X98, Y92)

T23.20 Burn of second degree of hand, unspecified site
  T23.201 Burn of second degree of right hand, unspecified site
  T23.202 Burn of second degree of left hand, unspecified site

T23.21 Burn of second degree of thumb (nail)
  T23.211 Burn of second degree of right thumb (nail)
  T23.212 Burn of second degree of left thumb (nail)
  T23.219 Burn of second degree of unspecified thumb (nail)

T23.22 Burn of second degree of single finger (nail) except thumb
  T23.221 Burn of second degree of single right finger (nail) except thumb
  T23.222 Burn of second degree of single left finger (nail) except thumb
  T23.229 Burn of second degree of unspecified single finger (nail) except thumb

T23.23 Burn of second degree of multiple fingers (nail), not including thumb
  T23.231 Burn of second degree of multiple right fingers (nail), not including thumb
  T23.232 Burn of second degree of multiple left fingers (nail), not including thumb
  T23.239 Burn of second degree of unspecified multiple fingers (nail), not including thumb

T23.24 Burn of second degree of multiple fingers (nail), including thumb
  T23.241 Burn of second degree of multiple right fingers (nail), including thumb
  T23.242 Burn of second degree of multiple left fingers (nail), including thumb
  T23.249 Burn of second degree of unspecified multiple fingers (nail), including thumb

T23.25 Burn of second degree of palm
  T23.251 Burn of second degree of right palm
  T23.252 Burn of second degree of left palm
  T23.259 Burn of second degree of unspecified palm

T23.26 Burn of second degree of back of hand
  T23.261 Burn of second degree of back of right hand
  T23.262 Burn of second degree of back of left hand

T23.27 Burn of second degree of wrist
  T23.271 Burn of second degree of right wrist
T23.272 Burn of second degree of left wrist
T23.29 Burn of second degree of multiple sites of wrist and hand
   T23.291 Burn of second degree of multiple sites of right wrist and hand
   T23.292 Burn of second degree of multiple sites of left wrist and hand

T23.3 Burn of third degree of wrist and hand
   Use additional external cause code to identify the source, place and intent of the burn (X00-X19, X75-X77,X96-X98, Y92)

T23.30 Burn of third degree of hand, unspecified site
   T23.301 Burn of third degree of right hand, unspecified site
   T23.302 Burn of third degree of left hand, unspecified site

T23.31 Burn of third degree of thumb (nail)
   T23.311 Burn of third degree of right thumb (nail)
   T23.312 Burn of third degree of left thumb (nail)
   T23.319 Burn of third degree of unspecified thumb (nail)

T23.32 Burn of third degree of single finger (nail) except thumb
   T23.321 Burn of third degree of single right finger (nail) except thumb
   T23.322 Burn of third degree of single left finger (nail) except thumb
   T23.329 Burn of third degree of unspecified single finger (nail) except thumb

T23.33 Burn of third degree of multiple fingers (nail), not including thumb
   T23.331 Burn of third degree of multiple right fingers (nail), not including thumb
   T23.332 Burn of third degree of multiple left fingers (nail), not including thumb
   T23.339 Burn of third degree of unspecified multiple fingers (nail), not including thumb

T23.34 Burn of third degree of multiple fingers (nail), including thumb
   T23.341 Burn of third degree of multiple right fingers (nail), including thumb
   T23.342 Burn of third degree of multiple left fingers (nail), including thumb
   T23.349 Burn of third degree of unspecified multiple fingers (nail), including thumb

T23.35 Burn of third degree of palm
   T23.351 Burn of third degree of right palm
   T23.352 Burn of third degree of left palm

T23.36 Burn of third degree of back of hand
   T23.361 Burn of third degree of back of right hand
   T23.362 Burn of third degree of back of left hand

T23.37 Burn of third degree of wrist
   T23.371 Burn of third degree of right wrist
   T23.372 Burn of third degree of left wrist
   T23.379 Burn of third degree of unspecified wrist
T23.39 Burn of third degree of multiple sites of wrist and hand  
   T23.391 Burn of third degree of multiple sites of right wrist and hand  
   T23.392 Burn of third degree of multiple sites of left wrist and hand

T24 Burn and corrosion of lower limb, except ankle and foot  
Excludes2: burn and corrosion of ankle and foot (T25.  )  
burn and corrosion of hip region (T21.  )  
The appropriate 7th character is to be added to each code from category T24  
   A - initial encounter  
   D - subsequent encounter  
   S - sequela

T24.0 Burn of unspecified degree of lower limb, except ankle and foot  
Use additional external cause code to identify the source, place and intent of the burn (X00-X19, X75-X77,X96-X98, Y92)

T24.00 Burn of unspecified degree of unspecified site of lower limb, except ankle and foot  
   T24.001 Burn of unspecified degree of unspecified site of right lower limb, except ankle and foot  
   T24.002 Burn of unspecified degree of unspecified site of left lower limb, except ankle and foot

T24.01 Burn of unspecified degree of thigh  
   T24.011 Burn of unspecified degree of right thigh  
   T24.012 Burn of unspecified degree of left thigh

T24.02 Burn of unspecified degree of knee  
   T24.021 Burn of unspecified degree of right knee  
   T24.022 Burn of unspecified degree of left knee

T24.03 Burn of unspecified degree of lower leg  
   T24.031 Burn of unspecified degree of right lower leg  
   T24.032 Burn of unspecified degree of left lower leg

T24.09 Burn of unspecified degree of multiple sites of lower limb, except ankle and foot  
   T24.091 Burn of unspecified degree of multiple sites of right lower limb, except ankle and foot  
   T24.092 Burn of unspecified degree of multiple sites of left lower limb, except ankle and foot

T24.1 Burn of first degree of lower limb, except ankle and foot  
Use additional external cause code to identify the source, place and intent of the burn (X00-X19, X75-X77,X96-X98, Y92)

T24.10 Burn of first degree of unspecified site of lower limb, except ankle and foot  
   T24.101 Burn of first degree of unspecified site of right lower limb, except ankle and foot  
   T24.102 Burn of first degree of unspecified site of left lower limb, except ankle and foot
Wound Care Management

T24.11 Burn of first degree of thigh
   T24.111 Burn of first degree of right thigh
   T24.112 Burn of first degree of left thigh

T24.12 Burn of first degree of knee
   T24.121 Burn of first degree of right knee
   T24.122 Burn of first degree of left knee

T24.13 Burn of first degree of lower leg
   T24.131 Burn of first degree of right lower leg
   T24.132 Burn of first degree of left lower leg

T24.19 Burn of first degree of multiple sites of lower limb, except ankle and foot
   T24.191 Burn of first degree of multiple sites of right lower limb, except ankle and foot
   T24.192 Burn of first degree of multiple sites of left lower limb, except ankle and foot

T24.2 Burn of second degree of lower limb, except ankle and foot
   Use additional external cause code to identify the source, place and intent of the burn (X00-X19, X75-X77, X96-X98, Y92)

T24.20 Burn of second degree of unspecified site of lower limb, except ankle and foot
   T24.201 Burn of second degree of unspecified site of right lower limb, except ankle and foot
   T24.202 Burn of second degree of unspecified site of left lower limb, except ankle and foot

T24.21 Burn of second degree of thigh
   T24.211 Burn of second degree of right thigh
   T24.212 Burn of second degree of left thigh

T24.22 Burn of second degree of knee
   T24.221 Burn of second degree of right knee
   T24.222 Burn of second degree of left knee

T24.23 Burn of second degree of lower leg
   T24.231 Burn of second degree of right lower leg
   T24.232 Burn of second degree of left lower leg

T24.29 Burn of second degree of multiple sites of lower limb, except ankle and foot
   T24.291 Burn of second degree of multiple sites of right lower limb, except ankle and foot
   T24.292 Burn of second degree of multiple sites of left lower limb, except ankle and foot

T24.3 Burn of third degree of lower limb, except ankle and foot
   Use additional external cause code to identify the source, place and intent of the burn (X00-X19, X75-X77, X96-X98, Y92)
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T24.30 Burn of third degree of unspecified site of lower limb, except ankle and foot
  T24.301 Burn of third degree of unspecified site of right lower limb, except ankle and foot
  T24.302 Burn of third degree of unspecified site of left lower limb, except ankle and foot

T24.31 Burn of third degree of thigh
  T24.311 Burn of third degree of right thigh
  T24.312 Burn of third degree of left thigh

T24.32 Burn of third degree of knee
  T24.321 Burn of third degree of right knee
  T24.322 Burn of third degree of left knee

T24.33 Burn of third degree of lower leg
  T24.331 Burn of third degree of right lower leg
  T24.332 Burn of third degree of left lower leg

T24.39 Burn of third degree of multiple sites of lower limb, except ankle and foot
  T24.391 Burn of third degree of multiple sites of right lower limb, except ankle and foot
  T24.392 Burn of third degree of multiple sites of left lower limb, except ankle and foot

T25 Burn and corrosion of ankle and foot
  The appropriate 7th character is to be added to each code from category T25
  A - initial encounter
  D - subsequent encounter
  S - sequela

T25.0 Burn of unspecified degree of ankle and foot
  Use additional external cause code to identify the source, place and intent of the burn (X00-X19, X75-X77, X96-X98, Y92)

T25.01 Burn of unspecified degree of ankle
  T25.011 Burn of unspecified degree of right ankle
  T25.012 Burn of unspecified degree of left ankle
  T25.019 Burn of unspecified degree of unspecified ankle

T25.02 Burn of unspecified degree of foot
  Excludes2: burn of unspecified degree of toe(s) (nail) (T25.03-)
  T25.021 Burn of unspecified degree of right foot
  T25.022 Burn of unspecified degree of left foot
  T25.029 Burn of unspecified degree of unspecified foot

T25.03 Burn of unspecified degree of toe(s) (nail)
  T25.031 Burn of unspecified degree of right toe(s) (nail)
  T25.032 Burn of unspecified degree of left toe(s) (nail)
  T25.039 Burn of unspecified degree of unspecified toe(s) (nail)
Wound Care Management

T25.09 Burn of unspecified degree of multiple sites of ankle and foot
  T25.091 Burn of unspecified degree of multiple sites of right ankle and foot
  T25.092 Burn of unspecified degree of multiple sites of left ankle and foot
  T25.099 Burn of unspecified degree of multiple sites of unspecified ankle and foot

T25.1 Burn of first degree of ankle and foot
  Use additional external cause code to identify the source, place and intent of the burn (X00-X19, X75-X77,X96-X98, Y92)

T25.11 Burn of first degree of ankle
  T25.111 Burn of first degree of right ankle
  T25.112 Burn of first degree of left ankle

T25.12 Burn of first degree of foot
  Excludes2: burn of first degree of toe(s) (nail) (T25.13-)
  T25.121 Burn of first degree of right foot
  T25.122 Burn of first degree of left foot

T25.13 Burn of first degree of toe(s) (nail)
  T25.131 Burn of first degree of right toe(s) (nail)
  T25.132 Burn of first degree of left toe(s) (nail)
  T25.139 Burn of first degree of unspecified toe(s) (nail)

T25.19 Burn of first degree of multiple sites of ankle and foot
  T25.191 Burn of first degree of multiple sites of right ankle and foot
  T25.192 Burn of first degree of multiple sites of left ankle and foot
  T25.199 Burn of first degree of multiple sites of unspecified ankle and foot

T25.2 Burn of second degree of ankle and foot
  Use additional external cause code to identify the source, place and intent of the burn (X00-X19, X75-X77,X96-X98, Y92)

T25.21 Burn of second degree of ankle
  T25.211 Burn of second degree of right ankle
  T25.212 Burn of second degree of left ankle

T25.22 Burn of second degree of foot
  Excludes2: burn of second degree of toe(s) (nail) (T25.23-)
  T25.221 Burn of second degree of right foot
  T25.222 Burn of second degree of left foot

T25.23 Burn of second degree of toe(s) (nail)
  T25.231 Burn of second degree of right toe(s) (nail)
  T25.232 Burn of second degree of left toe(s) (nail)
  T25.239 Burn of second degree of unspecified toe(s) (nail)

T25.29 Burn of second degree of multiple sites of ankle and foot
  T25.291 Burn of second degree of multiple sites of right ankle and foot
  T25.292 Burn of second degree of multiple sites of left ankle and foot
Wound Care Management

T25.3 Burn of third degree of ankle and foot
Use additional external cause code to identify the source, place and intent of the burn (X00-X19, X75-X77,X96-X98, Y92)

T25.31 Burn of third degree of ankle
T25.311 Burn of third degree of right ankle
T25.312 Burn of third degree of left ankle

T25.32 Burn of third degree of foot
Excludes2: burn of third degree of toe(s) (nail) (T25.33-)
T25.321 Burn of third degree of right foot
T25.322 Burn of third degree of left foot

T25.33 Burn of third degree of toe(s) (nail)
T25.331 Burn of third degree of right toe(s) (nail)
T25.332 Burn of third degree of left toe(s) (nail)
T25.339 Burn of third degree of unspecified toe(s) (nail)

T25.39 Burn of third degree of multiple sites of ankle and foot
T25.391 Burn of third degree of multiple sites of right ankle and foot
T25.392 Burn of third degree of multiple sites of left ankle and foot

T31 Burns classified according to extent of body surface involved
Note: This category is to be used as the primary code only when the site of the burn is unspecified. It should be used as a supplementary code with categories T20-T25 when the site is specified.

T31.0 Burns involving less than 10% of body surface

T31.1 Burns involving 10-19% of body surface
T31.10 Burns involving 10-19% of body surface with 0% to 9% third degree burns
Burns involving 10-19% of body surface NOS
T31.11 Burns involving 10-19% of body surface with 10-19% third degree burns

T31.2 Burns involving 20-29% of body surface
T31.20 Burns involving 20-29% of body surface with 0% to 9% third degree burns
Burns involving 20-29% of body surface NOS
T31.21 Burns involving 20-29% of body surface with 10-19% third degree burns
T31.22 Burns involving 20-29% of body surface with 20-29% third degree burns

T31.3 Burns involving 30-39% of body surface
T31.30 Burns involving 30-39% of body surface with 0% to 9% third degree burns
Burns involving 30-39% of body surface NOS
T31.31 Burns involving 30-39% of body surface with 10-19% third degree burns
T31.32 Burns involving 30-39% of body surface with 20-29% third degree burns
T31.33 Burns involving 30-39% of body surface with 30-39% third degree burns
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T31.4 Burns involving 40-49% of body surface
   T31.40 Burns involving 40-49% of body surface with 0% to 9% third degree burns
   Burns involving 40-49% of body surface NOS
   T31.41 Burns involving 40-49% of body surface with 10-19% third degree burns
   T31.42 Burns involving 40-49% of body surface with 20-29% third degree burns
   T31.43 Burns involving 40-49% of body surface with 30-39% third degree burns
   T31.44 Burns involving 40-49% of body surface with 40-49% third degree burns

T31.5 Burns involving 50-59% of body surface
   T31.50 Burns involving 50-59% of body surface with 0% to 9% third degree burns
   Burns involving 50-59% of body surface NOS
   T31.51 Burns involving 50-59% of body surface with 10-19% third degree burns
   T31.52 Burns involving 50-59% of body surface with 20-29% third degree burns
   T31.53 Burns involving 50-59% of body surface with 30-39% third degree burns
   T31.54 Burns involving 50-59% of body surface with 40-49% third degree burns
   T31.55 Burns involving 50-59% of body surface with 50-59% third degree burns

T31.6 Burns involving 60-69% of body surface
   T31.60 Burns involving 60-69% of body surface with 0% to 9% third degree burns
   Burns involving 60-69% of body surface NOS
   T31.61 Burns involving 60-69% of body surface with 10-19% third degree burns
   T31.62 Burns involving 60-69% of body surface with 20-29% third degree burns
   T31.63 Burns involving 60-69% of body surface with 30-39% third degree burns
   T31.64 Burns involving 60-69% of body surface with 40-49% third degree burns
   T31.65 Burns involving 60-69% of body surface with 50-59% third degree burns
   T31.66 Burns involving 60-69% of body surface with 60-69% third degree burns

T31.7 Burns involving 70-79% of body surface
   T31.70 Burns involving 70-79% of body surface with 0% to 9% third degree burns
   Burns involving 70-79% of body surface NOS
   T31.71 Burns involving 70-79% of body surface with 10-19% third degree burns
   T31.72 Burns involving 70-79% of body surface with 20-29% third degree burns
   T31.73 Burns involving 70-79% of body surface with 30-39% third degree burns
   T31.74 Burns involving 70-79% of body surface with 40-49% third degree burns
   T31.75 Burns involving 70-79% of body surface with 50-59% third degree burns
   T31.76 Burns involving 70-79% of body surface with 60-69% third degree burns
   T31.77 Burns involving 70-79% of body surface with 70-79% third degree burns

T31.8 Burns involving 80-89% of body surface
   T31.80 Burns involving 80-89% of body surface with 0% to 9% third degree burns
   Burns involving 80-89% of body surface NOS
   T31.81 Burns involving 80-89% of body surface with 10-19% third degree burns
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T31.82 Burns involving 80-89% of body surface with 20-29% third degree burns
T31.83 Burns involving 80-89% of body surface with 30-39% third degree burns
T31.84 Burns involving 80-89% of body surface with 40-49% third degree burns
T31.85 Burns involving 80-89% of body surface with 50-59% third degree burns
T31.86 Burns involving 80-89% of body surface with 60-69% third degree burns
T31.87 Burns involving 80-89% of body surface with 70-79% third degree burns
T31.88 Burns involving 80-89% of body surface with 80-89% third degree burns

T31.9 Burns involving 90% or more of body surface

T31.90 Burns involving 90% or more of body surface with 0% to 9% third degree burns
Burns involving 90% or more of body surface NOS
T31.91 Burns involving 90% or more of body surface with 10-19% third degree burns
T31.92 Burns involving 90% or more of body surface with 20-29% third degree burns
T31.93 Burns involving 90% or more of body surface with 30-39% third degree burns
T31.94 Burns involving 90% or more of body surface with 40-49% third degree burns
T31.95 Burns involving 90% or more of body surface with 50-59% third degree burns
T31.96 Burns involving 90% or more of body surface with 60-69% third degree burns
T31.97 Burns involving 90% or more of body surface with 70-79% third degree burns
T31.98 Burns involving 90% or more of body surface with 80-89% third degree burns
T31.99 Burns involving 90% or more of body surface with 90% or more third degree burns

L90.5 Scar conditions and fibrosis of skin
Adherent scar (skin)
Cicatrix
Disfigurement of skin due to scar
Fibrosis of skin NOS
Scar NOS
Excludes2: hypertrophic scar (L91.0)
keloid scar (L91.0)

L91.0 Hypertrophic scar
Keloid
Keloid scar
Excludes2: acne keloid (L73.0)
scar NOS (L90.5)
Disorder of skin

Fungal rashes

B35 Dermatophytosis
  Includes: favus
  infections due to species of Epidermophyton, Micro-sporum and
  Trichophyton
  tinea, any type except those in B36.-

B35.0 Tinea barbae and tinea capitis
  Beard ringworm
  Kerion
  Scalp ringworm
  Sycosis, mycotic

B35.1 Tinea unguium
  Dermatophytic onychia
  Dermatophytosis of nail
  Onychomycosis
  Ringworm of nails

B35.2 Tinea manuum
  Dermatophytosis of hand
  Hand ringworm

B35.3 Tinea pedis
  Athlete's foot
  Dermatophytosis of foot
  Foot ringworm

B35.4 Tinea corporis
  Ringworm of the body

B35.5 Tinea imbricata
  Tokelau

B35.6 Tinea cruris
  Dhobi itch
  Groin ringworm
  Jock itch

B35.8 Other dermatophytoses
  Disseminated dermatophytosis
  Granulomatous dermatophytosis

B35.9 Dermatophytosis, unspecified
  Ringworm NOS

Contact dermatitis

L25.9 Unspecified contact dermatitis, unspecified cause
  Contact dermatitis (occupational) NOS

Moisture associated dermatitis

Dermatitis and eczema (L20-L30)
Note: In this block the terms dermatitis and eczema are used synonymously and interchangeably.

**L22 Diaper dermatitis**
- Diaper erythema
- Diaper rash
- Psoriasiform diaper rash

**L23 Allergic contact dermatitis**
- Excludes1: allergy NOS (T78.40)
- contact dermatitis NOS (L25.9)
- dermatitis NOS (L30.9)

Excludes2:
- dermatitis due to substances taken internally (L27-)
- dermatitis of eyelid (H01.1-)
- diaper dermatitis (L22)
- eczema of external ear (H60.5-)
- irritant contact dermatitis (L24-)
- perioral dermatitis (L71.0)
- radiation-related disorders of the skin and subcutaneous tissue (L55-L59)

**L23.1 Allergic contact dermatitis due to adhesives**

**L23.9 Allergic contact dermatitis, unspecified cause**
- Allergic contact eczema NOS

**Psoriasis**

**L40 Psoriasis**

**L40.0 Psoriasis vulgaris**
- Nummular psoriasis
- Plaque psoriasis

**L40.1 Generalized pustular psoriasis**
- Impetigo herpetiformis
- Von Zumbusch's disease

**L40.2 Acrodermatitis continua**

**L40.3 Pustulosis palmaris et plantaris**

**L40.4 Guttate psoriasis**

**L40.5 Arthropathic psoriasis**
- L40.50 Arthropathic psoriasis, unspecified
- L40.51 Distal interphalangeal psoriatic arthropathy
- L40.52 Psoriatic arthritis mutilans
- L40.53 Psoriatic spondylitis
- L40.54 Psoriatic juvenile arthropathy
- L40.59 Other psoriatic arthropathy

**L40.8 Other psoriasis**
- Flexural psoriasis
Pressure Ulcer

L89 Pressure ulcer
Includes: bed sore
decubitus ulcer
plaster ulcer
pressure area
pressure sore

Excludes2: decubitus (trophic) ulcer of cervix (uteri) (N86)
non-pressure chronic ulcer of skin (L97.-)
skin infections (L00-L08)
varicose ulcer (L83.0, L83.2)

L89.15 Pressure ulcer of sacral region
Pressure ulcer of coccyx
Pressure ulcer of tailbone

L89.150 Pressure ulcer of sacral region, unstageable
L89.151 Pressure ulcer of sacral region, stage 1
  Healing pressure ulcer of sacral region, stage 1
  Pressure pre-ulcer skin changes limited to persistent focal edema, sacral region
L89.152 Pressure ulcer of sacral region, stage 2
  Healing pressure ulcer of sacral region, stage 2
  Pressure ulcer with abrasion, blister, partial thickness skin loss involving epidermis and/or dermis, sacral region
L89.153 Pressure ulcer of sacral region, stage 3
  Healing pressure ulcer of sacral region, stage 3
  Pressure ulcer with full thickness skin loss involving damage or necrosis of subcutaneous tissue, sacral region
L89.154 Pressure ulcer of sacral region, stage 4
  Healing pressure ulcer of sacral region, stage 4
  Pressure ulcer with necrosis of soft tissues through to underlying muscle, tendon, or bone, sacral region
L89.159 Pressure ulcer of sacral region, unspecified stage
  Healing pressure ulcer of sacral region NOS
  Healing pressure ulcer of sacral region, unspecified stage

L89.2 Pressure ulcer of hip

L89.21 Pressure ulcer of right hip
  L89.210 Pressure ulcer of right hip, unstageable
  L89.211 Pressure ulcer of right hip, stage 1
    Healing pressure ulcer of right hip back, stage 1
Pressure pre-ulcer skin changes limited to persistent focal edema, right hip
L89.212 Pressure ulcer of right hip, stage 2
  Healing pressure ulcer of right hip, stage 2
  Pressure ulcer with abrasion, blister, partial thickness skin loss involving epidermis and/or dermis, right hip
L89.213 Pressure ulcer of right hip, stage 3
  Healing pressure ulcer of right hip, stage 3
  Pressure ulcer with full thickness skin loss involving damage or necrosis of subcutaneous tissue, right hip
L89.214 Pressure ulcer of right hip, stage 4
  Healing pressure ulcer of right hip, stage 4
  Pressure ulcer with necrosis of soft tissues through to underlying muscle, tendon, or bone, right hip
L89.219 Pressure ulcer of right hip, unspecified stage
  Healing pressure ulcer of right hip NOS
  Healing pressure ulcer of right hip, unspecified stage
L89.22 Pressure ulcer of left hip
L89.220 Pressure ulcer of left hip, unstageable
L89.221 Pressure ulcer of left hip, stage 1
  Healing pressure ulcer of left hip back, stage 1
  Pressure pre-ulcer skin changes limited to persistent focal edema, left hip
L89.222 Pressure ulcer of left hip, stage 2
  Healing pressure ulcer of left hip, stage 2
  Pressure ulcer with abrasion, blister, partial thickness skin loss involving epidermis and/or dermis, left hip
L89.223 Pressure ulcer of left hip, stage 3
  Healing pressure ulcer of left hip, stage 3
  Pressure ulcer with full thickness skin loss involving damage or necrosis of subcutaneous tissue, left hip
L89.224 Pressure ulcer of left hip, stage 4
  Healing pressure ulcer of left hip, stage 4
  Pressure ulcer with necrosis of soft tissues through to underlying muscle, tendon, or bone, left hip
L89.229 Pressure ulcer of left hip, unspecified stage
  Healing pressure ulcer of left hip NOS
  Healing pressure ulcer of left hip, unspecified stage
L89.3 Pressure ulcer of buttock
  89.31 Pressure ulcer of right buttock
    L89.310 Pressure ulcer of right buttock, unstageable
    L89.311 Pressure ulcer of right buttock, stage 1
      Healing pressure ulcer of right buttock, stage 1
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Pressure pre-ulcer skin changes limited to persistent focal edema, right buttock

L89.312 Pressure ulcer of right buttock, stage 2
  Healing pressure ulcer of right buttock, stage 2
  Pressure ulcer with abrasion, blister, partial thickness skin loss involving epidermis and/dermis, right buttock

L89.313 Pressure ulcer of right buttock, stage 3
  Healing pressure ulcer of right buttock, stage 3
  Pressure ulcer with full thickness skin loss involving damage or necrosis of subcutaneous tissue, right buttock

L89.314 Pressure ulcer of right buttock, stage 4
  Healing pressure ulcer of right buttock, stage 4
  Pressure ulcer with necrosis of soft tissues through to underlying muscle, tendon, or bone, right buttock

L89.319 Pressure ulcer of right buttock, unspecified stage
  Healing pressure ulcer of right buttock NOS
  Healing pressure ulcer of right buttock, unspecified stage

L89.32 Pressure ulcer of left buttock

L89.320 Pressure ulcer of left buttock, unstageable

L89.321 Pressure ulcer of left buttock, stage 1
  Healing pressure ulcer of left buttock, stage 1
  Pressure pre-ulcer skin changes limited to persistent focal edema, left buttock

L89.322 Pressure ulcer of left buttock, stage 2
  Healing pressure ulcer of left buttock, stage 2
  Pressure ulcer with abrasion, blister, partial thickness skin loss involving epidermis and/dermis, left buttock

L89.323 Pressure ulcer of left buttock, stage 3
  Healing pressure ulcer of left buttock, stage 3
  Pressure ulcer with full thickness skin loss involving damage or necrosis of subcutaneous tissue, left buttock

L89.324 Pressure ulcer of left buttock, stage 4
  Healing pressure ulcer of left buttock, stage 4
  Pressure ulcer with necrosis of soft tissues through to underlying muscle, tendon, or bone, left buttock

L89.329 Pressure ulcer of left buttock, unspecified stage
  Healing pressure ulcer of left buttock NOS
  Healing pressure ulcer of left buttock, unspecified stage

L89.4 Pressure ulcer of contiguous site of back, buttock and hip

L89.40 Pressure ulcer of contiguous site of back, buttock and hip, unspecified stage
  Healing pressure ulcer of contiguous site of back, buttock and hip NOS
  Healing pressure ulcer of contiguous site of back, buttock and hip, unspecified stage

L89.41 Pressure ulcer of contiguous site of back, buttock and hip, stage 1
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Healing pressure ulcer of contiguous site of back, buttock and hip, stage 1
Pressure pre-ulcer skin changes limited to persistent focal edema, contiguous site of back, buttock and hip
L89.42 Pressure ulcer of contiguous site of back, buttock and hip, stage 2
Healing pressure ulcer of contiguous site of back, buttock and hip, stage 2
Pressure ulcer with abrasion, blister, partial thickness skin loss involving epidermis and/or dermis, contiguous site of back, buttock and hip
L89.43 Pressure ulcer of contiguous site of back, buttock and hip, stage 3
Healing pressure ulcer of contiguous site of back, buttock and hip, stage 3
Pressure ulcer with full thickness skin loss involving damage or necrosis of subcutaneous tissue, contiguous site of back, buttock and hip
L89.44 Pressure ulcer of contiguous site of back, buttock and hip, stage 4
Healing pressure ulcer of contiguous site of back, buttock and hip, stage 4
Pressure ulcer with necrosis of soft tissues through to underlying muscle, tendon, or bone, contiguous site of back, buttock and hip
L89.45 Pressure ulcer of contiguous site of back, buttock and hip, unstageable

L89.6 Pressure ulcer of heel
L89.61 Pressure ulcer of right heel
L89.610 Pressure ulcer of right heel, unstageable
L89.611 Pressure ulcer of right heel, stage 1
  Healing pressure ulcer of right heel, stage 1
  Pressure pre-ulcer skin changes limited to persistent focal edema, right heel
L89.612 Pressure ulcer of right heel, stage 2
  Healing pressure ulcer of right heel, stage 2
  Pressure ulcer with abrasion, blister, partial thickness skin loss involving epidermis and/or dermis, right heel
L89.613 Pressure ulcer of right heel, stage 3
  Healing pressure ulcer of right heel, stage 3
  Pressure ulcer with full thickness skin loss involving damage or necrosis of subcutaneous tissue, right heel
L89.614 Pressure ulcer of right heel, stage 4
  Healing pressure ulcer of right heel, stage 4
  Pressure ulcer with necrosis of soft tissues through to underlying muscle, tendon, or bone, right heel
L89.619 Pressure ulcer of right heel, unspecified stage
  Healing pressure ulcer of right heel NOS
  Healing pressure ulcer of unspecified heel, right stage

L89.62 Pressure ulcer of left heel
L89.620 Pressure ulcer of left heel, unstageable
L89.621 Pressure ulcer of left heel, stage 1
  Healing pressure ulcer of left heel, stage 1
  Pressure pre-ulcer skin changes limited to persistent focal edema, left heel
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L89.622 Pressure ulcer of left heel, stage 2
   Healing pressure ulcer of left heel, stage 2
   Pressure ulcer with abrasion, blister, partial thickness skin loss involving epidermis and/or dermis, left heel
L89.623 Pressure ulcer of left heel, stage 3
   Healing pressure ulcer of left heel, stage 3
   Pressure ulcer with full thickness skin loss involving damage or necrosis of subcutaneous tissue, left heel
L89.624 Pressure ulcer of left heel, stage 4
   Healing pressure ulcer of left heel, stage 4
   Pressure ulcer with necrosis of soft tissues through to underlying muscle, tendon, or bone, left heel
L89.629 Pressure ulcer of left heel, unspecified stage
   Healing pressure ulcer of left heel NOS
   Healing pressure ulcer of left heel, unspecified stage

Signs and symptoms commonly seen in patients with wound care management needs

L90.5 Scar conditions and fibrosis of skin
   Adherent scar (skin)
   Cicatrix
   Disfigurement of skin due to scar
   Fibrosis of skin NOS
   Scar NOS
   Excludes2: hypertrophic scar (L91.0)
      keloid scar (L91.0)
L91.0 Hypertrophic scar
   Keloid
   Keloid scar
   Excludes2: acne keloid (L73.0)
      scar NOS (L90.5)

G89 Pain, not elsewhere classified
   Code also related psychological factors associated with pain (F45.42)
   Excludes1: generalized pain NOS (R52)
      pain disorders exclusively related to psychological factors (F45.41)
      pain NOS (R52)
   Excludes2: atypical face pain (G50.1)
      headache syndromes (G44.-)
      localized pain, unspecified type - code to pain by site, such as:
      abdomen pain (R10.-)
      back pain (M54.9)
      breast pain (N64.4)
      chest pain (R07.1-R07.9)
ear pain (H92.0-)
eye pain (H57.1)
headache (R51)
joint pain (M25.5-)
limb pain (M79.6-)
lumbar region pain (M54.5)
painful urination (R30.9)
pelvic and perineal pain (R10.2)
shoulder pain (M25.51-)
spine pain (M54-)
throat pain (R07.0)
tongue pain (K14.6)
tooth pain (K08.8)
renal colic (N23)
migraines (G43.-)
myalgia (M79.1)
pain from prosthetic devices, implants, and grafts (T82.84, T83.84, T84.84, T85.84)
phantom limb syndrome with pain (G54.6)
vulvar vestibulitis (N94.810)
vulvodynia (N94.81-)

G89.1 Acute pain, not elsewhere classified
  G89.11 Acute pain due to trauma
  G89.12 Acute post-thoracotomy pain
    Post-thoracotomy pain NOS
  G89.18 Other acute postprocedural pain
    Postoperative pain NOS
    Postprocedural pain NOS

G89.2 Chronic pain, not elsewhere classified
  Excludes1: causalgia, lower limb (G57.7-)
    causalgia, upper limb (G56.4-)
    central pain syndrome (G89.0)
    chronic pain syndrome (G89.4)
    complex regional pain syndrome II, lower limb (G57.7-)
    complex regional pain syndrome II, upper limb (G56.4-)
    neoplasm related chronic pain (G89.3)
    reflex sympathetic dystrophy (G90.5-)
  G89.21 Chronic pain due to trauma
  G89.22 Chronic post-thoracotomy pain
  G89.28 Other chronic postprocedural pain
    Other chronic postoperative pain
  G89.29 Other chronic pain

G89.3 Neoplasm related pain (acute) (chronic)
  Cancer associated pain
Pain due to malignancy (primary) (secondary)
Tumor associated pain

G89.4 Chronic pain syndrome
Chronic pain associated with significant psychosocial dysfunction

M79.6 Pain in limb, hand, foot, fingers and toes
Excludes2: pain in joint (M25.5-)

M79.60 Pain in limb, unspecified
M79.601 Pain in right arm
  Pain in right upper limb NOS
M79.602 Pain in left arm
  Pain in left upper limb NOS
M79.603 Pain in arm, unspecified
  Pain in upper limb NOS
M79.604 Pain in right leg
  Pain in right lower limb NOS
M79.605 Pain in left leg
  Pain in left lower limb NOS
M79.606 Pain in leg, unspecified
  Pain in lower limb NOS
M79.609 Pain in unspecified limb
  Pain in limb NOS

M79.62 Pain in upper arm
  Pain in axillary region
M79.621 Pain in right upper arm
M79.622 Pain in left upper arm
M79.629 Pain in unspecified upper arm

M79.63 Pain in forearm
M79.631 Pain in right forearm
M79.632 Pain in left forearm

M79.64 Pain in hand and fingers
M79.641 Pain in right hand
M79.642 Pain in left hand
M79.644 Pain in right finger(s)
M79.645 Pain in left finger(s)

M79.65 Pain in thigh
M79.651 Pain in right thigh
M79.652 Pain in left thigh

M79.66 Pain in lower leg
M79.661 Pain in right lower leg
M79.662 Pain in left lower leg

M79.67 Pain in foot and toes
M79.671 Pain in right foot
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M79.672 Pain in left foot
M79.674 Pain in right toe(s)
M79.675 Pain in left toe(s)

R20 Disturbances of skin sensation
Excludes1: dissociative anesthesia and sensory loss (F44.6)
psychogenic disturbances (F45.8)
R20.0 Anesthesia of skin
R20.1 Hypoesthesia of skin
R20.2 Paresthesia of skin
Formication
Pins and needles
Tingling skin
Excludes1: acroparesthesia (I73.8)
R20.3 Hyperesthesia
R20.8 Other disturbances of skin sensation
R20.9 Unspecified disturbances of skin sensation

R26.2 Difficulty in walking, not elsewhere classified (Excludes: falling R29.6)
R26.81 Unsteadiness on feet
R26.89 Other abnormalities of gait and mobility
R27.8 Other lack of coordination
R29.3 Abnormal posture
R53 Malaise and fatigue
R53.0 Neoplastic (malignant) related fatigue
Code first associated neoplasm
R53.1 Weakness
Asthenia NOS
Excludes1: age-related weakness (R54)
muscle weakness (M62.8-)
senile asthenia (R54)
R53.2 Functional quadriplegia
Complete immobility due to severe physical disability or frailty
Excludes1: frailty NOS (R54)
hysterical paralysis (F44.4)
immobility syndrome (M62.3)
neurologic quadriplegia (G82.5-)
quadriplegia (G82.50)
R53.8 Other malaise and fatigue
Excludes1: combat exhaustion and fatigue (F43.0)
congenital debility (P96.9)
exhaustion and fatigue due to depressive episode (F32.-)
exhaustion and fatigue due to excessive exertion (T73.3)
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exhaustion and fatigue due to exposure (T73.2)
exhaustion and fatigue due to heat (T67.8)
exhaustion and fatigue due to pregnancy (O26.8)
exhaustion and fatigue due to recurrent depressive episode (F33)
exhaustion and fatigue due to senile debility (R54)

R53.81 Other malaise
  Chronic debility
  Debility NOS
  General physical deterioration
  Malaise NOS
  Nervous debility
  Excludes1: age-related physical debility (R54)

R53.82 Chronic fatigue, unspecified
  Chronic fatigue syndrome NOS
  Excludes1: postviral fatigue syndrome (G93.3)

R53.83 Other fatigue
  Fatigue NOS
  Lack of energy
  Lethargy
  Tiredness

R54 Age-related physical debility
  Frailty
  Old age
  Senescence
  Senile asthenia
  Senile debility
  Excludes1: age-related cognitive decline (R41.81)
    senile psychosis (F03)
    senility NOS (R41.81)