Chapter 1:
Arterial Ulcers

Definition:

Arterial ulcers form when damage to arteries leads to an inadequate blood supply and inadequate oxygen delivery to the tissues, resulting in skin breakdown. Because the skin overlying the area are deprived of oxygen, breakdown occurs and a wound develops. This same lack of blood supply can result in other minor skin tears, abrasions, and other injuries failing to heal and developing into a wound. Common etiologies include lower extremity atherosclerosis, diabetic arterial disease, blood clots, rheumatologic disease, vasculitis or trauma.

These ulcers can occur on legs, toes, feet or heels and appear as punched-out ulcers with defined borders. These ulcers are painful and characteristically deep, often involving tendons. The skin on the legs will be cold, shiny, thin appearing and hairless, pulses will be absent or hard to find. Pain to the area is often worsened by exercise, but may also occur at rest.

Source: Cleveland Clinic. Lower Extremity (Leg and Foot) Ulcers. Cleveland Clinic. http://my.clevelandclinic.org/heart/disorders/vascular/legfootulcer. aspx. November 2010.

Coding rules:

To code an arterial ulcer, you must first identify the specific type of arterial disease that caused it. Then, follow the code for the arterial disease with a code for the location, laterality and severity of the ulcer, which will most often come from the L97.- category (Non-pressure chronic ulcer of lower limb, not elsewhere classified), such as L97.213 (Non-pressure chronic ulcer of right calf with necrosis of muscle).

Possible causes of an arterial ulcer include:

- **Atherosclerosis:** This condition is captured by the I70.- category, (Atherosclerosis) and will take fourth, fifth and sixth characters depending on the types of arteries involved (whether they're native or grafted), what the disease has caused (i.e. an ulcer), the laterality of the affected area (left or right side of the body) and the location of the problem (such as the calf). For example, I70.242 corresponds to Atherosclerosis of native arteries of left leg with ulceration of calf

- **Peripheral arterial disease:** This is coded with I73.9 (Peripheral vascular disease, unspecified), when the specific type of peripheral arterial disease is not specified.

- **Diabetes:** The nature of the diagnosis will determine how an arterial ulcer caused by diabetes is coded. See details below.

  - If a patient with ***diabetes has an atherosclerotic ulcer***, first assign the code for diabetic peripheral angiopathy, such as E11.51 (Type 2 diabetes mellitus with diabetic peripheral angiopathy without gangrene), then assign a code from I70.- to further describe the atherosclerosis and then assign a code from L97.- for the site and severity of the wound.

  - If the diagnosis is described as a diabetic ulcer and the patient also has peripheral arterial disease or the ulcer is described as a diabetic arterial ulcer, assign the code for a diabetic ulcer, such as E10.621 (Type 1 diabetes mellitus with foot ulcer), follow it with the code from L97.- for the site and severity of the wound, and then also include a code for the diabetic peripheral angiopathy, such as E10.51 (Type 1 diabetes mellitus with diabetic peripheral angiopathy without gangrene).

  - When a diabetic patient has ***peripheral arteriosclerosis, peripheral vascular disease*** or ***peripheral arterial disease,*** it should be coded as diabetic peripheral angiopathy in the absence of another stated etiology, according to Q2 2018 Coding Clinic guidance. Diabetic peripheral angiopathy is coded by assigning E11.51, type 2 diabetes mellitus with peripheral angiopathy without gangrene or E11.52, type 2 diabetes mellitus with peripheral angiopathy with gangrene if the presence of gangrene is noted. When a specific type of arterial disease, such as peripheral arteriosclerosis, is noted an additional code can be assigned to specify this.

  - **When coding diabetic wounds, pay attention to the PDGM primary clinical group!** While some codes like E11.621, Type 2 diabetes mellitus with foot ulcer, and E11.52, Type 2 diabetes mellitus with peripheral angiopathy with gangrene, belong to the Wounds primary diagnosis group within the PDGM grouper, others do not. For example, E11.51, Type 2 diabetes mellitus with peripheral angiopathy without gangrene, belongs to the Endocrine primary diagnosis group in the PDGM grouper and must be assigned first when coding a stasis ulcer in a diabetic patient. **If the focus of care** for the episode is wound care, Z48.00, Encounter for change or removal of nonsurgical wound dressing must first be assigned. Z48.00 belongs to the Wounds

primary diagnosis group within the PDGM grouper and will assure that the coding for the episode appropriately reflects the care being provided and payment is accurate.

- Conditions such as **Scleroderma** (such as M34.-, Systemic sclerosis [scleroderma]), **Lupus** (such as M32.-, Systemic lupus erythematosus (SLE)), **Thromboangiitis obliterans** (I73.1) and **Sickle cell disease** (D57.-, Sickle-cell disorders) do not directly lead to arterial ulcers, but they result in secondary Reynaud's phenomenon, an arterial vasospastic condition that causes arterial ulceration.

- **Arterial ulcers treated with skin grafts.** Non-pressure ulcers, including arterial ulcers, treated with skin grafts should continue to be coded as the original wounds they are, and not as surgical wounds with an aftercare code. Note, however, that all types of ulcers that are treated with grafts or flaps are captured on the OASIS as surgical wounds in M1340, according to the OASIS-E guidance manual.

  ◦ For example, an arterial ulcer of the right calf caused by atherosclerosis that's caused muscle necrosis and was treated with a skin graft, you'd assign I70.232 (Atherosclerosis of native arteries of right leg with ulceration of calf) along with L97.213 (Non-pressure chronic ulcer of right calf with necrosis of muscle).

  ◦ Assign Z48.298 (Encounter for aftercare following other organ transplant) if your agency is also caring for the skin donor site.

Source: ICD-10-CM Coding Guidelines, Alphabetic Index and Tabular Instruction, Q3 2018 Coding Clinic guidance, Cleveland Clinic. Lower Extremity (Leg and Foot) Ulcers. Cleveland Clinic. http://my.clevelandclinic.org/heart/disorders/vascular/legfootulcer.aspx. November 2010.

Guidance on determining severity for non-pressure ulcers

The ICD-10 codes that capture non-pressure ulcers are most often found in the L97.- category (Non-pressure chronic ulcer of lower limb, not elsewhere classified). Non-pressure chronic ulcers on the back, buttocks or other sites not including the lower limbs are found in the L98.4- sub-category (Non-pressure chronic ulcer of skin, not elsewhere classified). Before you can accurately assign one of these codes, three key pieces of information must be obtained:

- **Location** (thigh, calf, ankle, heel, etc.; specified by the fourth digit)

- **Laterality** (right, left, bilateral; specified by the fifth digit)

- **Severity** of the ulcer in regards to the tissue damage involved (limited to breakdown of the skin, fat layer exposed, etc.; specifed by the sixth digit)