

Clinical overview

Definitions

- **Deep vein thrombosis (DVT):** The presence of a blood clot in a deep vein
- **Thrombophlebitis:** Inflammation of a vein caused by or associated with a blood clot
- **Thrombus:** A blood clot that develops inside a blood vessel and stays in place
- **Embolus:** A blood clot that develops inside a blood vessel and subsequently breaks loose and travels to another location
- **Pulmonary embolus (embolism):** A deep vein thrombosis that breaks loose and travels to the lungs

Additional background

A blood clot occurs when blood thickens from a liquid state and hardens into a solid mass.

Most blood clots form in the lower extremities, but they can form in the upper extremities or other locations.

Blood clots can form in superficial veins that are close to the surface, but these are usually not dangerous, as they do not break loose and travel to other locations.

Causes

- Damage to inner lining of a vein (due to injury, inflammation, immune response, etc.)
- Sluggish blood flow (due to prolonged inactivity, such as immobility after surgery or prolonged sitting while traveling)
- Any condition that causes blood to be thicker than normal (e.g., certain medications or medical conditions that increase blood clotting)

Signs and symptoms of current DVT/thrombophlebitis

Often, there are no signs or symptoms. Typically, signs and symptoms develop when there is inflammation associated with the deep vein thrombosis (this is known as thrombophlebitis). These symptoms may include:

- Edema (swelling of affected extremity)
- Pain or tenderness in the affected extremity (positive Homans' sign – pain in the calf or behind the knee with passive flexion of the foot in an upward direction – may indicate the presence of a deep vein thrombosis)
- Increased warmth or redness

Diagnostic tools

- Medical history and physical exam
- Ultrasound/Doppler
- Venography (dye is injected into the vein followed by X-ray of the extremity)
- D-dimer test (measures a substance in the blood that is released when a blood clot dissolves)
- MRI and CT scanning are used less frequently

Main goals of treatment

- Prevent blood clot from enlarging
- Prevent blood clot from breaking loose and traveling to another location
- Prevent future blood clots

Treatment

Medications

- Anticoagulants (blood thinners) decrease the blood's clotting ability and prevent existing clots from getting bigger (blood thinners do not break up existing clots; existing clots usually dissolve with time). Anticoagulant therapy may be used for three to six months or longer, or indefinitely, to prevent recurrence of blood clots. Anticoagulants include:
 - Heparin – acts immediately to thin the blood
 - Coumadin/warfarin – starts to work within three to four days
 - Low-molecular-weight heparins (enoxaparin/Lovenox, dalteparin/Fragmin or tinzaparin/Innohep)
 - Newer advances in drug therapies, such as fondaparinux (Arixtra), rivaroxaban (Xarelto)
- Thrombin inhibitors interfere with the blood-clotting process; they may be used for patients who cannot take heparin.
- Thrombolytics break up blood clots quickly; they are used only in life-threatening situations, as they can cause sudden bleeding.

Compression stockings

Vena cava filter (to catch clots that break loose to prevent them from traveling to the lungs or other locations)

Surgery to remove clot (rarely used)

Best documentation practices for physicians

Abbreviations

A good rule of thumb for any medical record is to limit – or avoid altogether – the use of abbreviations. While DVT is a commonly accepted medical abbreviation for deep vein thrombosis, best documentation practice is as follows:

- The initial notation of an abbreviation or acronym should be spelled out in full with the abbreviation/ acronym in parentheses — e.g., “deep vein thrombosis (DVT).”
- Subsequent mention of the condition can be made using the abbreviation or acronym.

Subjective

The subjective section of the office note should document the presence of any current symptoms related to deep vein thrombosis (e.g., pain, swelling, redness, etc.).

Objective

The objective section of the office note should include any current associated physical exam findings (e.g., edema, redness, warmth, related diagnostic testing results, etc.).

Current versus “history of”

- A current DVT should not be described anywhere in the record as “history of” DVT. In diagnosis coding, the description “history of” means DVT is historical and no longer exists.
- A deep vein thrombosis that occurred in the past and is no longer present should not be documented in the final assessment as if it is current (assessment: “DVT”). Rather, in this scenario, it is appropriate to describe DVT as “history of” along with specification that the condition is no longer current.

Suspected versus confirmed

- Do not document a suspected deep vein thrombosis as if it were confirmed. Instead, document the signs and symptoms in the absence of a confirmed diagnosis.
- Do not describe a confirmed DVT with terms that imply uncertainty (such as “probable,” “apparently,” “likely” or “consistent with”).

Final assessment/impression

Describe DVT with the highest level of specificity (e.g., acute, chronic, recurrent, historical, exact location, including laterality).

The American Heart Association advises generally a thrombus is referred to as “acute” within the first two weeks after the thrombus forms; “subacute” when more than two weeks and potentially up to six months after thrombus forms; or “chronic” once the thrombus is more than six months old.

- A coder cannot clinically interpret these time frames to determine whether DVT is acute or chronic. Code assignment must strictly correlate with the specific DVT description documented in the medical record.

When a patient is on long-term anticoagulant therapy related to DVT, accurate code assignment requires the physician to clearly link this therapy to the DVT diagnosis and to state the purpose of anticoagulant therapy in the individual case – i.e., whether this therapy is:

- a) Part of active treatment of a current acute, current subacute or current chronic DVT, versus
- b) Prophylactic treatment related to a historical DVT (to prevent a recurrence).

Best practice is to specifically state whether DVT is acute, chronic or historical and the purpose of associated anticoagulant therapy.

Note: Chronic anticoagulant therapy does not equal a diagnosis of chronic deep vein thrombosis or a coagulation defect.

DVT can occur with or without inflammation.

- Deep vein thrombosis is rarely an acute finding without the associated inflammation that occurs with thrombophlebitis.
- Do not document simply “DVT” when there is also associated thrombophlebitis. Document both conditions to the highest level of specificity. Example: “Acute DVT of the right femoral vein with associated thrombophlebitis.”

Best documentation practices for physicians

Electronic medical record (EMR) reminder

- Some electronic medical records insert ICD-10-CM code descriptions into the medical record to represent the final diagnosis. Example: “I82.599 Chronic embolism and thrombosis of other specified deep vein of unspecified lower extremity.”
- With these types of vague descriptions, the diagnosis will not be complete unless the physician clearly documents the specific “other” deep vein, as well as the unspecified extremity.

Note: ICD-10-CM is a statistical classification; it is not a substitute for a healthcare provider’s final diagnostic statement. It is the healthcare provider’s responsibility to offer legible, clear, concise and specific documentation of a final diagnosis, which is then translated to a code for reporting purposes. It is not appropriate for healthcare providers to simply list a code number or select a code number from a list of codes in place of a written final diagnosis.

Plan

Document a specific and concise treatment plan for DVT, including the purpose of any associated long-term anticoagulant therapy and the date of the patient’s next appointment.

ICD-10-CM tips and resources for coders

Coding basics

For accurate and specific diagnosis code assignment, the coder must:

- Review the entire medical record to verify DVT is a current condition and not historical.
- Note the exact description of the DVT or related condition documented in the medical record; then, in accordance with ICD-10-CM official coding conventions and guidelines:
- Search the alphabetic index for that specific description.
- Verify the code in the tabular list, following all instructional notes.

Phlebitis and thrombophlebitis

- Phlebitis and thrombophlebitis of deep vessels of the lower extremities classify to category I80. Fourth, fifth and sixth characters specify the exact location, including the blood vessel affected and laterality.
 - Review all instructional notes under category I80.
- Category I80 excludes (**Excludes1**) venous embolism and thrombosis of lower extremities (I82.4-, I82.5-, I82.81-). An **Excludes1** note indicates that the code excluded should not be used at the same time as the code above the **Excludes1** note.
- When a final diagnosis is stated simply as “DVT” but the body of the record documents signs and symptoms that are associated with thrombophlebitis (swelling, erythema, pain and induration), the physician should be queried for clarification and an addendum/ correction created when indicated.

Deep vein thrombosis (DVT)

- Acute embolism and thrombosis of deep veins of the lower extremities classify to subcategory I82.4.
 - Subcategory I82.4 includes deep vein thrombosis not otherwise specified (NOS) and DVT NOS.
 - When a medical record supports a current final diagnosis stated simply as “deep vein thrombosis” or “DVT” (with no further description or specification), assign code I82.409, acute embolism and thrombosis of unspecified deep veins of unspecified lower extremity.

Deep vein thrombosis (DVT) – continued

- Chronic embolism and thrombosis of deep veins of the lower extremities classify to subcategory I82.5. For both subcategories, I82.4 and I82.5, fifth and sixth characters are required to specify the exact location – the particular vein affected and laterality (right, left or bilateral).
- There are no specific timelines for when DVT becomes chronic. Code assignment is based solely on the physician’s specific description of the condition.
- Acute and chronic embolism and thrombosis of deep veins of the upper extremity classify to subcategories I82.6 (acute) and I82.7 (chronic), with fifth and sixth characters required to specify the site (the particular deep vein affected and laterality).

Long-term anticoagulation therapy

- Z79.01 is assigned for long-term (current) use of anticoagulants.
- Query the physician for clarification when a medical record documents long-term anticoagulant therapy related to DVT but does not specify whether the long-term anticoagulant therapy is being used as:
 - Active treatment of a current acute, current sub-acute, or current chronic DVT or deep vein thrombophlebitis, versus
 - Prophylactic treatment of a historical DVT with the goal of preventing recurrence.
- Chronic anticoagulant therapy does not equal a diagnosis of chronic deep vein thrombosis or a coagulation defect.

History of DVT

- Z86.718 represents a personal history of venous thrombosis and embolism.

References: American Heart Association; American Hospital Association Coding Clinic; ICD-10-CM Official Guidelines for Coding and Reporting; Mayo Clinic; MedlinePlus; Merck Manual; National Heart, Lung and Blood Institute