ICD-10-CM Documentation and Coding Best Practices
Coagulation Defects

Overview

Coagulation (also known as clotting) is the process by which blood changes from a liquid to a gel, forming a blood clot. Clotting results in hemostasis, the cessation of blood loss from a damaged vessel. It is achieved through a series of interactions between *platelets*, blood vessel walls, and adhesive blood proteins known as *clotting factors*.

Coagulation disorders involve disruption of the clotting process and may result in:

Hemorrhage – too little clotting that causes an increased risk of bleeding
Thrombosis – too much clotting that causes blood clots to obstruct blood flow

Hemorrhage

Signs and Symptoms

- Blood in the urine or stool
- ***Bruising*** easily and excessively, or ***petechiae***
- Sudden pain, swelling and warmth in joints or muscles
- An injury that will not stop bleeding
- ***Nosebleeds*** that seem to have no cause
- Prolonged bleeding from cuts, surgery or dental work
- Vomiting repeatedly
- Vision problems, such as double vision
- A painful headache that will not go away
- Enlarged spleen
- Extreme fatigue

Treatment

- ***RICE*** – Rest, ice, compression and elevation
- ***Replacement*** – Infusions of concentrated ***clotting factor*** may be used to treat a bleed, or may be used to prevent bleeding.
- ***Platelet and/or blood transfusions***
- ***Desmopressin*** – A synthetic hormone that stimulates the body to produce more *von Willebrand factor*.
- Discontinuing ***aspirin and NSAIDs***

Coagulation disorders resulting in bleeding:

- Hemophilia, von Willebrand disease, and other clotting factor deficiencies
- Thrombocytopenia

Thrombosis

Signs and Symptoms

- ***DVT*** – a blood clot in one of the deep veins of the body
- ***PE*** – a blood clot that has traveled to the lung
- A heart attack or stroke at a young age
- Recurrent pregnancy loss or stillbirth

Treatment

- If testing confirms a coagulation disorder but the patient has not had any clots, blood thinners generally will not be prescribed on a regular basis. Once a clot has developed, standard treatment involves blood thinners.
- ***Heparin*** – A fast-acting blood thinner that provides an immediate response
- ***Warfarin*** (brand names ***Coumadin, Jantoven***) – A blood thinner that can be used for long-term treatment

- ***Pradaxa, Xarelto, Eliquis*** – New blood thinners that don't require blood test monitoring or dose adjustments

Coagulation disorders resulting in too much clotting:

- Factor V Leiden mutation
- Prothrombin (PT) gene mutation
- Antithrombin III (ATIII) deficiency
- Protein C or protein S deficiency
- Primary thrombocytosis
- Lupus anticoagulant syndrome
- Antiphospholipid antibody syndrome

Thrombocytopenia (D69.6)

Occurs when the platelet count falls lower than 150,000 platelets per µl of blood. Thrombocytopenia can be inherited *(D69.42)*, or it may be caused by a number of medications or conditions. Whatever the cause, circulating platelets are reduced by one or more of the following processes:

- **Trapping of platelets in spleen** – An enlarged spleen, which can be caused by a number of disorders, may harbor too many platelets, causing a decrease in the number of platelets.
- **Decreased platelet production** – The body is continually renewing the platelet supply as platelet lifespan is only 10 days. Factors that can reduce platelet production include:
  - Leukemia
  - Some types of anemia
  - Viral infections (Hep B, HIV)
  - Chemotherapy drugs
  - Heavy alcohol consumption
- **Increased breakdown of platelets** – Platelets are used up more rapidly than they are produced.

Treatment

- **Treat underlying cause** – Addressing the cause may reverse condition when a medication or other disorder is involved. In *heparin-induced thrombocytopenia (D75.82)*, heparin is discontinued and a different blood-thinning drug is prescribed.
- **Corticosteroids/Immune suppressing drugs** – If an immune system problem is at cause, drugs that boost the platelet count may be prescribed. The first-choice drug may be a *corticosteroid*. If that does not work, stronger medications to suppress the immune system may be considered.
- **Splenectomy**
- **Blood or platelet transfusions**

Primary Thrombocytosis (D47.3)

Also known as ***Essential Thrombocythemia (ET)*** is an uncommon disorder in which your body produces too many blood platelets. While the exact cause of ET is not known, about 80 percent of people with the disorder have an *acquired* gene mutation contributing to the disease.

Signs and Symptoms/Complications – ET may cause you to feel fatigued, lightheaded and to experience headaches and vision changes. It also increases your risk of ***blood clots***. Clots can develop anywhere in the body, but in ET they occur most often in the *brain*, *hands* and *feet*. A small number of people with ET (1-2%) may later progress to ***acute myelogenous leukemia (AML)*** or ***myelofibrosis***.

Diagnosis

- **Blood clot** – The first indication you have the disorder may be the development of a blood clot (thrombus).
- **Blood and bone marrow tests** – If your blood count is above 450,000 platelets per microliter of blood, your doctor will look for an underlying condition. *Treatment* – This is a chronic disease that has no cure.
- **Mild Disease** – Patients younger than age 60 with no signs or symptoms may simply need periodic checkups.
- **Low-dose aspirin** reduces the risk of blood clots.
- **Hydroxyurea *(Droxia, Hydrea)*** suppresses bone marrow production of blood cells, including platelets. Long-term use may slightly increase the risk of developing AML.
- **Anagrelide *(Agrylin)*** is not considered as effective as hydroxyurea, but it is not associated with an increased risk of leukemia.
- **Interferon alfa *(Intron A)* or pegylated interferon alpha 2a *(Pegasys)***