

## 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)**

