Nutritional anemias (D50-D53)

**D50 Iron deficiency anemia**

*Includes:* asiderotic anemia
hypochromic anemia

**D50.0 Iron deficiency anemia secondary to blood loss (chronic)**
Posthemorrhagic anemia (chronic)

*Excludes1:* acute posthemorrhagic anemia (D62)
congenital anemia from fetal blood loss (P61.3)

**D50.1 Sideropenic dysphagia**
Kelly-Paterson syndrome
Plummer-Vinson syndrome

**D50.8 Other iron deficiency anemias**
Iron deficiency anemia due to inadequate dietary iron intake

**D50.9 Iron deficiency anemia, unspecified**

**D51 Vitamin B12 deficiency anemia**

*Excludes1:* vitamin B12 deficiency (E53.8)

**D51.0 Vitamin B12 deficiency anemia due to intrinsic factor deficiency**
Addison anemia
Biermer anemia
Pernicious (congenital) anemia
Congenital intrinsic factor deficiency

**D51.1 Vitamin B12 deficiency anemia due to selective vitamin B12 malabsorption with proteinuria**
Imerslund (Gräsbeck) syndrome
Megaloblastic hereditary anemia

**D51.2 Transcobalamin II deficiency**

**D51.3 Other dietary vitamin B12 deficiency anemia**
Vegan anemia

**D51.8 Other vitamin B12 deficiency anemias**

**D51.9 Vitamin B12 deficiency anemia, unspecified**

**D52 Folate deficiency anemia**

*Excludes1:* folate deficiency without anemia (E53.8)

**D52.0 Dietary folate deficiency anemia**
Nutritional megaloblastic anemia

**D52.1 Drug-induced folate deficiency anemia**

*Use additional* code for adverse effect, if applicable, to identify drug (T36-T50 with fifth or sixth character 5)

**D52.8 Other folate deficiency anemias**

**D52.9 Folate deficiency anemia, unspecified**
Folic acid deficiency anemia NOS

**D53 Other nutritional anemias**

*Includes:* megaloblastic anemia unresponsive to vitamin B12 or folate therapy

**D53.0 Protein deficiency anemia**
Amino-acid deficiency anemia
Orotaciduric anemia

*Excludes1:* Lesch-Nyhan syndrome (E79.1)

**D53.1 Other megaloblastic anemias, not elsewhere classified**
Megaloblastic anemia NOS

**Excludes1:** Di Guglielmo's disease (C94.0)

### D53.2 Scorbutic anemia

**Excludes1:** scurvy (E54)

### D53.8 Other specified nutritional anemias

- Anemia associated with deficiency of copper
- Anemia associated with deficiency of molybdenum
- Anemia associated with deficiency of zinc

**Excludes1:** nutritional deficiencies without anemia, such as:
  - copper deficiency NOS (E61.0)
  - molybdenum deficiency NOS (E61.5)
  - zinc deficiency NOS (E60)

### D53.9 Nutritional anemia, unspecified

- Simple chronic anemia

**Excludes1:** anemia NOS (D64.9)

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**Hemolytic anemias (D55-D59)**

### D55 Anemia due to enzyme disorders

**Excludes1:** drug-induced enzyme deficiency anemia (D59.2)

#### D55.0 Anemia due to glucose-6-phosphate dehydrogenase [G6PD] deficiency

- Favism
- G6PD deficiency anemia

#### D55.1 Anemia due to other disorders of glutathione metabolism

- Anemia (due to) enzyme deficiencies, except G6PD, related to the hexose monophosphate [HMP] shunt pathway
- Anemia (due to) hemolytic nonspherocytic (hereditary), type I

#### D55.2 Anemia due to disorders of glycolytic enzymes

- Hemolytic nonspherocytic (hereditary) anemia, type II
- Hexokinase deficiency anemia
- Pyruvate kinase [PK] deficiency anemia
- Triose-phosphate isomerase deficiency anemia

**Excludes1:** disorders of glycolysis not associated with anemia (E74.8)

### D55.3 Anemia due to disorders of nucleotide metabolism

### D55.8 Other anemias due to enzyme disorders

### D55.9 Anemia due to enzyme disorder, unspecified

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**D56 Thalassemia**

**Excludes1:** sickle-cell thalassemia (D57.4-)

#### D56.0 Alpha thalassemia

- Alpha thalassemia major
- Hemoglobin H Constant Spring
- Hemoglobin H disease
- Hydrops fetalis due to alpha thalassemia
- Severe alpha thalassemia
- Triple gene defect alpha thalassemia

**Use additional** code, if applicable, for hydrops fetalis due to alpha thalassemia (P56.99)

**Excludes1:** alpha thalassemia trait or minor (D56.3)
  - asymptomatic alpha thalassemia (D56.3)
  - hydrops fetalis due to isoimmunization (P56.0)
  - hydrops fetalis not due to immune hemolysis (P83.2)

#### D56.1 Beta thalassemia

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Beta thalassemia major
Cooley's anemia
Homozygous beta thalassemia
Severe beta thalassemia
Thalassemia intermedia
Thalassemia major
**Excludes1:** beta thalassemia minor (D56.3)
beta thalassemia trait (D56.3)
delta-beta thalassemia (D56.2)
hemoglobin E-beta thalassemia (D56.5)
sickle-cell beta thalassemia (D57.4-)

**D56.2 Delta-beta thalassemia**
Homozygous delta-beta thalassemia
**Excludes1:** delta-beta thalassemia minor (D56.3)
delta-beta thalassemia trait (D56.3)

**D56.3 Thalassemia minor**
Alpha thalassemia minor
Alpha thalassemia silent carrier
Alpha thalassemia trait
Beta thalassemia minor
Beta thalassemia trait
Delta-beta thalassemia minor
Delta-beta thalassemia trait
Thalassemia trait NOS
**Excludes1:** alpha thalassemia (D56.0)
beta thalassemia (D56.1)
delta-beta thalassemia (D56.2)
hemoglobin E-beta thalassemia (D56.5)
sickle-cell trait (D57.3)

**D56.4 Hereditary persistence of fetal hemoglobin [HPFH]**

**D56.5 Hemoglobin E-beta thalassemia**
**Excludes1:** beta thalassemia (D56.1)
beta thalassemia minor (D56.3)
beta thalassemia trait (D56.3)
delta-beta thalassemia (D56.2)
delta-beta thalassemia trait (D56.3)
hemoglobin E disease (D58.2)
other hemoglobinopathies (D58.2)
sickle-cell beta thalassemia (D57.4-)

**D56.8 Other thalassemias**
Dominant thalassemia
Hemoglobin C thalassemia
Mixed thalassemia
Thalassemia with other hemoglobinopathy
**Excludes1:** hemoglobin C disease (D58.2)
hemoglobin E disease (D58.2)
other hemoglobinopathies (D58.2)
sickle-cell anemia (D57.-)
sickle-cell thalassemia (D57.4)

**D56.9 Thalassemia, unspecified**
Mediterranean anemia (with other hemoglobinopathy)

**D57 Sickle-cell disorders**
**Use additional** code for any associated fever (R50.81)
**Excludes1:** other hemoglobinopathies (D58.-)
D57.0 Hb-SS disease with crisis
  Sickle-cell disease NOS with crisis
  Hb-SS disease with vasoocclusive pain

D57.00 Hb-SS disease with crisis, unspecified
D57.01 Hb-SS disease with acute chest syndrome
D57.02 Hb-SS disease with splenic sequestration

D57.1 Sickle-cell disease without crisis
  Hb-SS disease without crisis
  Sickle-cell anemia NOS
  Sickle-cell disease NOS
  Sickle-cell disorder NOS

D57.2 Sickle-cell/Hb-C disease
  Hb-SC disease
  Hb-S/Hb-C disease

D57.20 Sickle-cell/Hb-C disease without crisis
D57.21 Sickle-cell/Hb-C disease with crisis
  D57.211 Sickle-cell/Hb-C disease with acute chest syndrome
  D57.212 Sickle-cell/Hb-C disease with splenic sequestration
  D57.219 Sickle-cell/Hb-C disease with crisis, unspecified
    Sickle-cell/Hb-C disease with crisis NOS

D57.3 Sickle-cell trait
  Hb-S trait
  Heterozygous hemoglobin S

D57.4 Sickle-cell thalassemia
  Sickle-cell beta thalassemia
  Thalassemia Hb-S disease

D57.40 Sickle-cell thalassemia without crisis
  Microdrepanocytosis
  Sickle-cell thalassemia NOS

D57.41 Sickle-cell thalassemia with crisis
  Sickle-cell thalassemia with vasoocclusive pain
    D57.411 Sickle-cell thalassemia with acute chest syndrome
    D57.412 Sickle-cell thalassemia with splenic sequestration
    D57.419 Sickle-cell thalassemia with crisis, unspecified
      Sickle-cell thalassemia with crisis NOS

D57.8 Other sickle-cell disorders
  Hb-SD disease
  Hb-SE disease

D57.80 Other sickle-cell disorders without crisis
D57.81 Other sickle-cell disorders with crisis
  D57.811 Other sickle-cell disorders with acute chest syndrome
  D57.812 Other sickle-cell disorders with splenic sequestration
  D57.819 Other sickle-cell disorders with crisis, unspecified
    Other sickle-cell disorders with crisis NOS

D58 Other hereditary hemolytic anemias
  Excludes1: hemolytic anemia of the newborn (P55.-)
D58.0 Hereditary spherocytosis
Acholuric (familial) jaundice
Congenital (spherocytic) hemolytic icterus
Minkowski-Chauffard syndrome

D58.1 Hereditary elliptocytosis
Elliptocytosis (congenital)
Ovalocytosis (congenital) (hereditary)

D58.2 Other hemoglobinopathies
Abnormal hemoglobin NOS
Congenital Heinz body anemia
Hb-C disease
Hb-D disease
Hb-E disease
Hemoglobinopathy NOS
Unstable hemoglobin hemolytic disease
Excludes1: familial polycythemia (D75.0)
Hb-M disease (D74.0)
hemoglobin E-beta thalassemia (D56.5)
hereditary persistence of fetal hemoglobin [HPFH] (D56.4)
high-altitude polycythemia (D75.1)
methemoglobinemia (D74.-)
other hemoglobinopathies with thalassemia (D56.8)

D58.8 Other specified hereditary hemolytic anemias
Stomatocytosis

D58.9 Hereditary hemolytic anemia, unspecified

D59 Acquired hemolytic anemia

D59.0 Drug-induced autoimmune hemolytic anemia
Use additional code for adverse effect, if applicable, to identify drug (T36-T50 with fifth or sixth character 5)

D59.1 Other autoimmune hemolytic anemias
Autoimmune hemolytic disease (cold type) (warm type)
Chronic cold hemagglutinin disease
Cold agglutinin disease
Cold agglutinin hemoglobinuria
Cold type (secondary) (symptomatic) hemolytic anemia
Warm type (secondary) (symptomatic) hemolytic anemia
Excludes1: Evans syndrome (D69.41)
hemolytic disease of newborn (P55.-)
paroxysmal cold hemoglobinuria (D59.6)

D59.2 Drug-induced nonautoimmune hemolytic anemia
Drug-induced enzyme deficiency anemia
Use additional code for adverse effect, if applicable, to identify drug (T36-T50 with fifth or sixth character 5)

D59.3 Hemolytic-uremic syndrome
Use additional code to identify associated:
E. coli infection (B96.2-)
Pneumococcal pneumonia (J13)
Shigella dysenteriae (A03.9)

D59.4 Other nonautoimmune hemolytic anemias
Mechanical hemolytic anemia
Microangiopathic hemolytic anemia
Toxic hemolytic anemia

D59.5 Paroxysmal nocturnal hemoglobinuria [Marchiafava-Micheli]
Excludes1: hemoglobinuria NOS (R82.3)
D59.6 Hemoglobinuria due to hemolysis from other external causes
   Hemoglobinuria from exertion
   March hemoglobinuria
   Paroxysmal cold hemoglobinuria

   Use additional code (Chapter 20) to identify external cause

   Excludes1: hemoglobinuria NOS (R82.3)

D59.8 Other acquired hemolytic anemias

D59.9 Acquired hemolytic anemia, unspecified
   Idiopathic hemolytic anemia, chronic

Aplastic and other anemias and other bone marrow failure syndromes (D60-D64)

D60 Acquired pure red cell aplasia [erythroblastopenia]
   Includes: red cell aplasia (acquired) (adult) (with thymoma)

   Excludes1: congenital red cell aplasia (D61.01)

D60.0 Chronic acquired pure red cell aplasia

D60.1 Transient acquired pure red cell aplasia

D60.8 Other acquired pure red cell apsias

D60.9 Acquired pure red cell aplasia, unspecified

D61 Other aplastic anemias and other bone marrow failure syndromes

   Excludes1: neutropenia (D70.-)

D61.0 Constitutional aplastic anemia

   D61.01 Constitutional (pure) red blood cell aplasia
      Blackfan-Diamond syndrome
      Congenital (pure) red cell aplasia
      Familial hypoplastic anemia
      Primary (pure) red cell aplasia
      Red cell (pure) aplasia of infants

      Excludes1: acquired red cell aplasia (D60.9)

   D61.09 Other constitutional aplastic anemia
      Fanconi's anemia
      Pancytopenia with malformations

D61.1 Drug-induced aplastic anemia

   Use additional code for adverse effect, if applicable, to identify drug (T36-T50 with fifth or sixth character 5)

D61.2 Aplastic anemia due to other external agents

   Code first , if applicable, toxic effects of substances chiefly nonmedicinal as to source (T51-T65)

D61.3 Idiopathic aplastic anemia

D61.8 Other specified aplastic anemias and other bone marrow failure syndromes

   D61.81 Pancytopenia

   Excludes1: pancytopenia (due to) (with) aplastic anemia (D61.9)
      pancytopenia (due to) (with) bone marrow infiltration (D61.82)
      pancytopenia (due to) (with) congenital (pure) red cell aplasia (D61.01)
      pancytopenia (due to) (with) hairy cell leukemia (C91.4-)
      pancytopenia (due to) (with) human immunodeficiency virus disease (B20.-)
      pancytopenia (due to) (with) leukoerythroblastic anemia (D61.82)
      pancytopenia (due to) (with) myelodysplastic syndromes (D46.-)
      pancytopenia (due to) (with) myeloproliferative disease (D47.1)

   D61.810 Antineoplastic chemotherapy induced pancytopenia
Excludes2: aplastic anemia due to antineoplastic chemotherapy (D61.1)

D61.811 Other drug-induced pancytopenia
Excludes2: aplastic anemia due to drugs (D61.1)

D61.818 Other pancytopenia

D61.82 Myelophthisis
Leukoerythroblastic anemia
Myelophthisic anemia
Panmyelophthisis

**Code also** the underlying disorder, such as:
malignant neoplasm of breast (C50.-)
tuberculosis (A15.-)

Excludes1: idiopathic myelofibrosis (D47.1)
myelofibrosis NOS (D75.81)
myelofibrosis with myeloid metaplasia (D47.4)
primary myelofibrosis (D47.1)
secondary myelofibrosis (D75.81)

D61.89 Other specified aplastic anemias and other bone marrow failure syndromes

D61.9 Aplastic anemia, unspecified
Hypoplastic anemia NOS
Medullary hypoplasia

D62 Acute posthemorrhagic anemia

Excludes1: anemia due to chronic blood loss (D50.0)
blood loss anemia NOS (D50.0)
congenital anemia from fetal blood loss (P61.3)

D63 Anemia in chronic diseases classified elsewhere

D63.0 Anemia in neoplastic disease

**Code first** neoplasm (C00-D49)

Excludes1: anemia due to antineoplastic chemotherapy (D64.81)
aplastic anemia due to antineoplastic chemotherapy (D61.1)

D63.1 Anemia in chronic kidney disease
Erythropoietin resistant anemia (EPO resistant anemia)

**Code first** underlying chronic kidney disease (CKD) (N18.-)

D63.8 Anemia in other chronic diseases classified elsewhere

**Code first** underlying disease, such as:
diphyllobothriasis (B70.0)
hookworm disease (B76.0-B76.9)
hypothyroidism (E00.0-E03.9)
malaria (B50.0-B54)
symptomatic late syphilis (A52.79)
tuberculosis (A18.89)

D64 Other anemias

Excludes1: refractory anemia (D46.-)
refractory anemia with excess blasts in transformation [RAEB T] (C92.0-)

D64.0 Hereditary sideroblastic anemia
Sex-linked hypochromic sideroblastic anemia

D64.1 Secondary sideroblastic anemia due to disease

**Code first** underlying disease

D64.2 Secondary sideroblastic anemia due to drugs and toxins

**Code first** poisoning due to drug or toxin, if applicable (T36-T65 with fifth or sixth character 1-4 or 6)
Use additional code for adverse effect, if applicable, to identify drug (T36-T50 with fifth or sixth character 5)

D64.3 Other sideroblastic anemias
Sideroblastic anemia NOS
Pyridoxine-responsive sideroblastic anemia NEC

D64.4 Congenital dyserythropoietic anemia
Dyserythropoietic anemia (congenital)
Excludes1: Blackfan-Diamond syndrome (D61.01)
Di Guglielmo's disease (C94.0)

D64.8 Other specified anemias

D64.81 Anemia due to antineoplastic chemotherapy
Antineoplastic chemotherapy induced anemia
Excludes1: anemia in neoplastic disease (D63.0)
aplastic anemia due to antineoplastic chemotherapy (D61.1)

D64.89 Other specified anemias
Infantile pseudoleukemia

D64.9 Anemia, unspecified

Coagulation defects, purpura and other hemorrhagic conditions (D65-D69)

D65 Disseminated intravascular coagulation [defibrination syndrome]
Afibrinogenemia, acquired
Consumption coagulopathy
Diffuse or disseminated intravascular coagulation [DIC]
Fibrinolytic hemorrhage, acquired
Fibrinolytic purpura
Purpura fulminans
Excludes1: disseminated intravascular coagulation (complicating):
abortion or ectopic or molar pregnancy (O00-O07, O08.1)
in newborn (P60)
pregnancy, childbirth and the puerperium (O45.0, O46.0, O67.0, O72.3)

D66 Hereditary factor VIII deficiency
Classical hemophilia
Deficiency factor VIII (with functional defect)
Hemophilia NOS
Hemophilia A
Excludes1: factor VIII deficiency with vascular defect (D68.0)

D67 Hereditary factor IX deficiency
Christmas disease
Factor IX deficiency (with functional defect)
Hemophilia B
Plasma thromboplastin component [PTC] deficiency

D68 Other coagulation defects
Excludes1: abnormal coagulation profile (R79.1)
coaulation defects complicating abortion or ectopic or molar pregnancy (O00-O07, O08.1)
coaulation defects complicating pregnancy, childbirth and the puerperium (O45.0, O46.0, O67.0, O72.3)

D68.0 Von Willebrand's disease
Angiohemophilia
Factor VIII deficiency with vascular defect
Vascular hemophilia
Excludes1: capillary fragility (hereditary) (D69.8)
factor VIII deficiency NOS (D66)
factor VIII deficiency with functional defect (D66)