Salem Health

ICD-10

ICD-10-CM TRAINING

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Endocrine System and Blood Disorders

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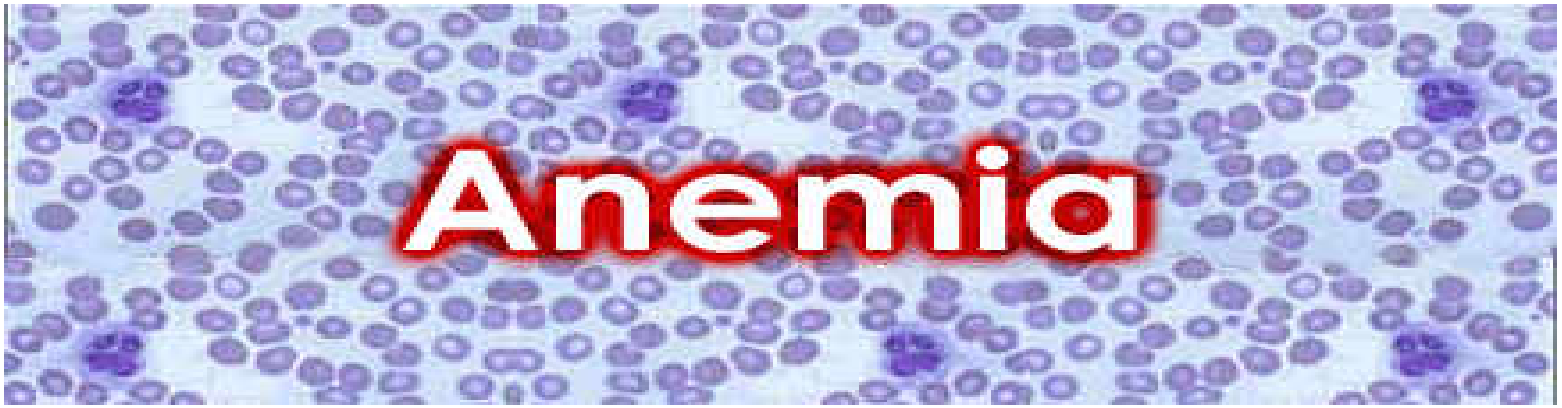
CHAPTER 3
Diseases of Blood/Blood-Forming Organs Certain Disorders Involving Immune Mechanism
(D50-D89)

"Reserved for future guideline expansion"

Diseases of Blood/Blood-Forming Organs Certain Disorders Involving Immune Mechanism (D50-D89)

1. Nutritional anemias
2. Hemolytic anemias
3. Aplastic and other bone marrow failure syndromes
4. Coagulation defects and other hemorrhagic conditions
5. Other disorders of blood and blood-forming organs
6. Intraoperative/postprocedural complications of the spleen
7. Certain disorders involving the immune mechanism



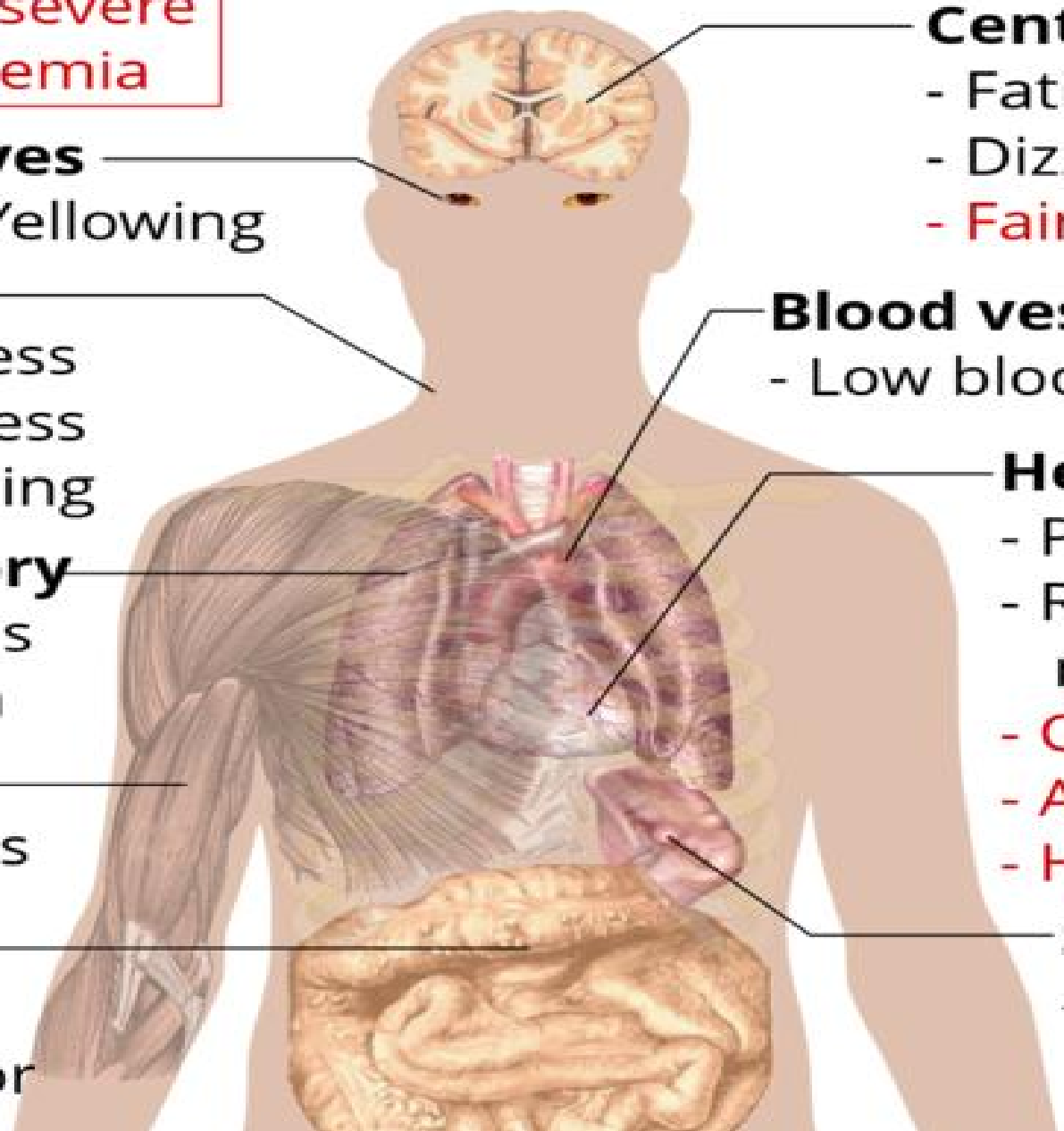
“ Decreased Red Blood Cell Volume”

Abnormally low hemoglobin/hematocrit level (Hgb/Hct)

- Etiology:
  - Blood loss
  - Decreased or faulty red blood cell production
  - Destruction of red blood cells

Symptoms of Anemia

Red = In severe anemia



Central
- Fatigue
- Dizziness
- Fainting

Eyes
- Yellowing

Skin
- Paleness
- Coldness
- Yellowing

Blood vessels
- Low blood pressu

Heart
- Palpitation
- Rapid hear rate
- Chest pain
- Angina
- Heart attac

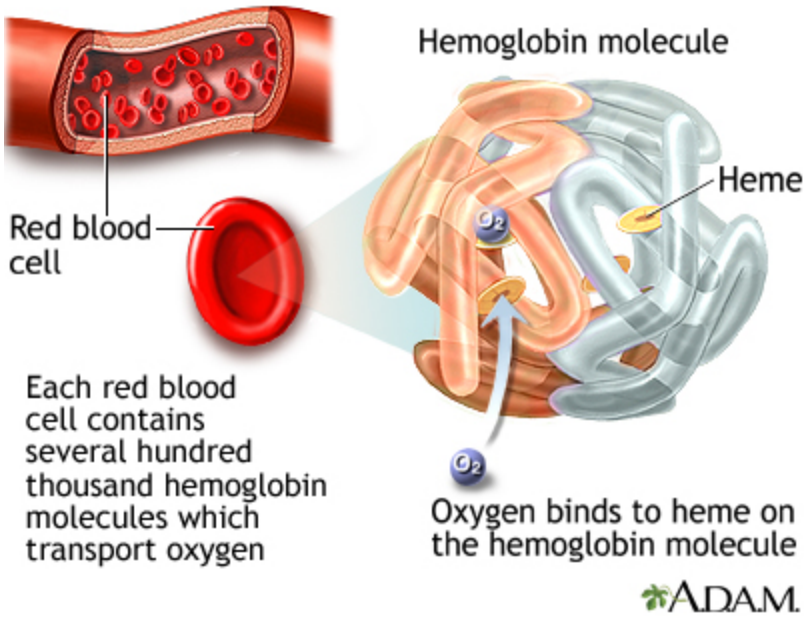
Respiratory
- Shortness of breath

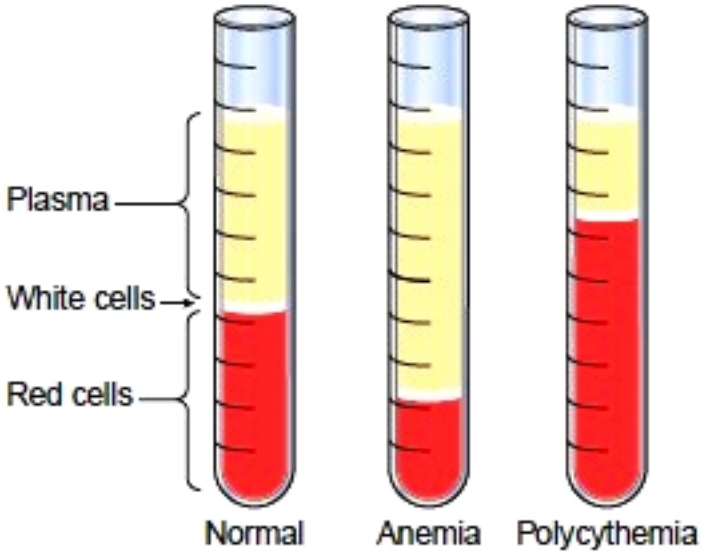
Muscular
- Weakness

Intestinal
- Changed stool color

Spleen
- Enlarge-ment

- **Hemoglobin (Hgb)-** Protein in red blood cells that carries oxygen
  - Normal values:
  - Male: 13.8 to 17.2 gm/dL
  - Female: 12.1 to 15.1 gm/dL
  - Note: gm/dL = grams per deciliter
- **Hematocrit (Hct) -** Number and size of red blood cells
  - Normal values:
  - Male: 40.7 - 50.3%
  - Female: 36.1 - 44.3%
- **Abnormal levels – Hgb/Hct**
  - Male: 12/38
  - Female: 10/32





DOCUMENTATION/CODING OF ANEMIA

- **Look for specific documentation:**
  - ✓Type of anemia (i.e. acute blood loss anemia)
- **Review:**
  - ✓Laboratory/Pathology findings
  - ✓Blood values following a surgical procedure
  - ✓Significant drop of Hgb/Hct
  - ✓Physician's orders for testing, monitoring or for procedures
- **Query the physician for:**
  - ✓Specific diagnosis relating to these findings
  - ✓Underlying cause of the anemia (e.g., due to long-term anticoagulants, gastric ulcer, neoplasm, or internal bleeding)

Anemia Due to Blood Loss

- **Acute blood-loss anemia**
  - ✓Sudden, significant loss of blood over a brief period of time
  - ✓Acute blood-loss anemia may occur following surgery, but it is not necessarily a complication of the procedure
  - ✓Arthroplasty patient averages:
    Hemoglobin drop 3 grams
    Hematocrit 10% drop
  - ✓**Anemia, unspecified (D64.9), is the default when postoperative anemia is documented without specification of blood loss**

www.aaosnotice.org/2012_Proceedings/adult-knee-BloodLoss.html
www.acphospitalist.org/archives/2012/02/coding.htm#sb1

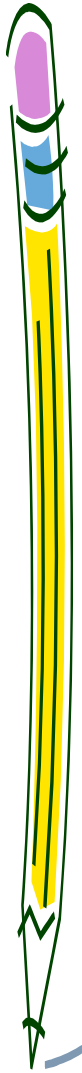
Let's Code!

- Postoperative Blood Loss Anemia Following Hip Replacement

ALPHABETIC INDEX:

Anemia (essential) (general) (hemoglobin deficiency) (infantile) (primary) (profound)

postoperative(postprocedural) **due to** (acute) **blood loss D62**



TABULAR LIST:

D62 - Acute Posthemorrhagic Anemia

EXCLUDES 1:

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

Let's Code!

- Chronic Blood Loss Anemia

ALPHABETIC INDEX:

Anemia(essential) (general) (hemoglobin deficiency) (infantile) (primary) (profound)

with(due to) (in)

blood loss(chronic) **D50.0**

TABULAR LIST:

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

Posthemorrhagic anemia (chronic)

EXCLUDES 1:
acute posthemorrhagic anemia (D62)
congenital anemia from fetal blood loss (P61.3

NUTRITIONAL ANEMIA
(D50-D53)

Iron Deficiency Anemia (D50)
Chronic Blood Loss (D50.0) vs Acute Blood Loss (D62)

Vitamin B12 Deficiency Anemia (D51)
Excludes1: Vitamin B12 Deficiency (E53.8)**"Not Coded Here"**
B12 Vitamin Deficiency due to Intrinsic Factor Deficiency (D51.0)
Pernicious (Congenital) Anemia

Other Nutritional Deficiencies (D53)

"According to my research, laughter is the best medicine, giggling is good for mild infections, chuckling works for minor cuts and bruises, and snickering only makes things worse."

ANEMIA OF CHRONIC DISEASE

Anemia in Chronic Kidney Disease (D63.1)

Anemia in Neoplastic Disease (D63.0)

Anemia of Other Chronic Disease (D63.8)

Metabolic Disorder Anemia

Code first underlying disease, such as:
Hypothyroidism (E00.0-E03.9)

Drug-Induced Anemia

Drug-Induced Autoimmune Hemolytic Anemia (D59.0)

ANEMIA OF CHRONIC DISEASE

Anemia in Chronic Kidney Disease (D63.1)

Look in the Tabular List:

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

1. CKD and Stage (N18.-)
2. Anemia in CKD (D63.1)

ANEMIA OF CHRONIC DISEASE

NEW GUIDELINE!

Anemia in Neoplastic Disease (D63.0)

"Code first the neoplasm (C00-D49)" responsible for the anemia

Code D63.0 Anemia in neoplastic disease as secondary

❖**ICD-10-CM Coding Guideline I.C.2.c.1**

ANEMIA OF CHRONIC DISEASE

Drug-Induced Anemias

Drug-Induced Autoimmune Hemolytic Anemia (D59.0)

Drug-Induced Folate Deficiency Anemia (D52.1)

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

ANEMIA DUE TO CHEMOTHERAPY (D64.81)

ICD-10-CM Official Guidelines 2013:

- Anemia associated with an adverse effect of chemotherapy
- *The only treatment is for the anemia*
- **Sequence the anemia code first** followed by the appropriate codes for the neoplasm and the adverse effect

APLASTIC ANEMIA

(D60.- and D61.-)

Failure of bone marrow to produce red blood cells

Idiopathic Aplastic Anemia (D61.3)

Aplastic Anemia due to other external agents (D61.2)

Due to:

- Underlying disease (malignant neoplasm or infection)
- Exposure to radiation, chemicals, or drugs
- Often results from treatment for malignancy

DON'T CONFUSE:

Aplastic Anemia due to Chemotherapy (D61.1)

- ✓Implies that the bone marrow is "wiped out"
- ✓Severe aplastic anemia requires immediate hospitalization for treatment

Unspecified Anemia due to Chemotherapy (D64.81)

- ✓Rarely a hemolytic process and is not truly an aplastic process
- ✓Is generally short term
- ✓Might range from mild to severe
- ✓Does not usually reduce the bone marrow cellularity to a point of aplasia

(Coding Clinic ICD-9-CM (2009, Pages: 80-82)

PANCYTOPENIA (D61.81-)

Only code D61.81 Pancytopenia when a patient has all three elements of the blood deficiencies:

Anemia, Neutropenia, Thrombocytopenia

Drug-induced pancytopenia:

Due to antineoplastic chemotherapy (D61.810)

Other drug-induced pancytopenia (D61.811)

Other constitutional aplastic anemia (D61.09)

(pancytopenia is congenital rather than due to chronic disease)

Do not assign a code D61.81 if the Pancytopenia is due to, or with:

Aplastic Anemia (D61.9)

Myelophthisis (D61.82) - Bone marrow suppression secondary to marrow infiltration by tumor with local production of myelosuppressive cytokines.

Hairy cell leukemia (C91.4-)

HIV disease (B20.-)

Myelodysplastic syndromes (D46.-)

Myeloproliferative disease (D47.1)

COAGULATION DEFECTS

Characterized by prolonged clotting time, congenital in origin or acquired

D68.31-Hemorrhagic disorder due to "intrinsic" circulating anticoagulants, antibodies, or inhibitors

Circulating anticoagulants in the blood

Interfere with normal clotting.

These anticoagulants are usually inherent or intrinsic in the blood

D68.312 –

- ✓**Lupus anticoagulant (LAC) with hemorrhagic disorder**
- ✓**Systemic lupus erythematosus [SLE] inhibitor with hemorrhagic disorder**
- ✓**Antiphospholipid antibody with hemorrhagic disorder**

D68.32, Hemorrhagic disorder due to "extrinsic" circulating anticoagulants

Assign additional code adverse effect of anticoagulant drugs

D75.82 - Heparin-induced thrombocytopenia

Heparin triggers severe platelet deficiency with severe thrombotic complications

DISORDERS OF THE IMMUNE SYSTEM

- Immunodeficiency with predominantly antibody defects (D80)
- Combined immunodeficiencies (D81)
- Immunodeficiency associated with other major defects (D82)
- Common variable immunodeficiency (D83)
- Other immunodeficiencies (D84)
- Sarcoidosis (D86)
- Other disorders involving the immune mechanism, not elsewhere classified (D89)

Exception: Conditions associated with or due to HIV (B20)

SARCOIDOSIS
D86

Most common sites affected:

- Lungs (D86.0)
- Lymph nodes (D86.1)
- Lung with lymph nodes (D86.2)
- Skin (D86.3)
- Meninges (D86.81)
- Cranial nerves (D86.82)
- Kidney and ureters (D86.84)
- Myocardium (D86.85)
- Joints (D86.86)
- Other sites including liver (D86.89)

Intraoperative and Postprocedural Complications of the Spleen (D78)

Postoperative Complications = Procedure-specific Body System Chapters

- Intraoperative complications include hemorrhage and hematoma complicating a procedure (D78.Ø)
- Accidental puncture and laceration during a procedure (D78.1)
- Postoperative complications include hemorrhage and hematoma following procedures on the spleen (D78.21)
- Following other procedure (D78.22)

ENDOCRINE SYSTEM
Nutritional
Metabolic Diseases
E00-E89
Chapter 4

Chapter 4: Endocrine, nutritional and metabolic diseases E00-E89

- E00-E07 Disorders of the thyroid gland
- E08-E13 Diabetes mellitus
- E15-E16 Other disorders of glucose regulation and pancreatic internal secretion
- E20-E35 Disorders of the endocrine glands
- E36 Intra-operative complications of endocrine
- E40- E46 Malnutrition
- E50-E64 Other nutritional deficiencies
- E65-E68 Overweight, obesity and other hyperalimentation
- E70-E88 Metabolic disorders
- E89 Post-procedural endocrine and metabolic complications and disorders, NEC

Thyroid Disorders

- Hypothyroidism E03
- Nontoxic goiter E04
- Hyperthyroidism (thyrotoxicosis) E05
- Thyroiditis E06
- Other disorders of the thyroid E07

Autoimmune Thyroiditis

Also known as Hashimoto's thyroiditis: E06.3

- Chronic thyroiditis is swelling (inflammation) of the thyroid gland that often results in reduced thyroid function (hypothyroidism).

- **Causes, incidence, and risk factors:**

- Chronic thyroiditis or Hashimoto's disease is a common thyroid gland disorder. It can occur at any age, but is most often seen in middle-aged women. It is caused by a reaction of the immune system against the thyroid gland.
- The disease begins slowly. It may take months or even years for the condition to be detected. Chronic thyroiditis is most common in women and in people with a family history of thyroid disease. It affects between 0.1% and 5% of all adults in Western countries.
- Hashimoto's disease may, in rare cases, be related to other endocrine (hormonal) disorders caused by the immune system. Hashimoto's disease can occur with adrenal insufficiency and type 1 diabetes. In these cases, the condition is called type 2 polyglandular autoimmune syndrome (PGA II).
- Less commonly, Hashimoto's disease occurs as part of a condition called type 1 polyglandular autoimmune syndrome (PGA I), along with: Adrenal insufficiency , Fungal infections of the mouth and nails, and hypoparathyroidism.

Myxedema Coma

E03.5

- Myxedema coma is a loss of brain function as a result of severe, longstanding low level of thyroid hormone in the blood (hypothyroidism). Myxedema coma is considered a life-threatening complication of hypothyroidism and represents the far more serious side of the spectrum of thyroid disease.

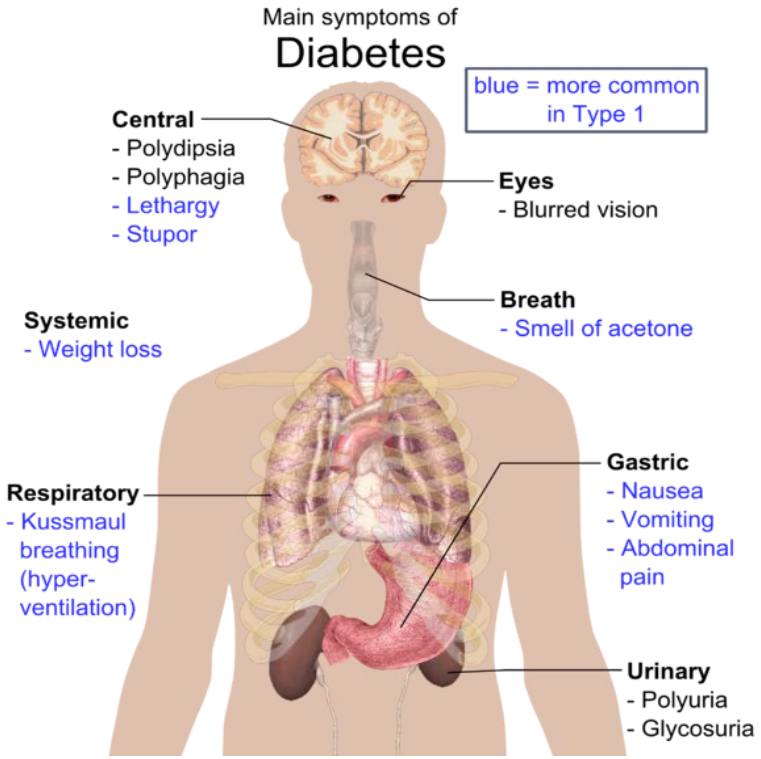
Hyperparathyroidism

- **Primary** – E21.0 - When calcium levels are too low, the body responds by making more parathyroid hormone. This hormone causes calcium levels in the blood to rise, as more calcium is taken from the bone and reabsorbed by the intestines and kidney. One or more of the parathyroid glands may grow larger. This leads to too much parathyroid hormone.

- **Secondary** – E21.1 – non-renal - When another disease of the body causes low levels of hypothyroid hormone
- ****Secondary parathyroidism of renal origin is N25.81

- **Tertiary** – E21.2 -A state of excessive secretion of parathyroid hormone (PTH) after a long period of secondary hyperparathyroidism and resulting in hypocalcaemia. It reflects development of autonomous (unregulated) parathyroid function following a period of persistent parathyroid stimulation.-

Diabetes -E08-E13



Diabetes, is a group of metabolic diseases in which a person has high blood sugar, either because the pancreas does not produce enough insulin, or because cells do not respond to the insulin that is produced. This high blood sugar produces the classical symptoms of polyuria (frequent urination), polydipsia (increased thirst) and polyphagia (increased hunger).

Differences in ICD-10-CM Diabetes coding

ICD-9-CM

- 249 – Secondary Diabetes Mellitus
- 250 – Diabetes Mellitus

ICD-10-CM

- E08 – Diabetes due to underlying condition
- E09 – Drug of chemical-induced Diabetes Mellitus
- E10 – Type I Diabetes
- E11 – Type II Diabetes
- E13 – Other specified Diabetes Mellitus

Differences in ICD-10-CM Diabetes coding

ICD-9-CM

- Diabetes codes in category with other endocrine diseases in code grouping or block.
- Diabetes code and a complication code (2 codes)
  Diabetic neuropathy 250.60 357.20
- Use as many codes as necessary to show all the complications
- Sequencing depends on the reason for admission
- **In control and out of control** (fifth digit of 1 or 3) 5th digit for type

ICD-10-CM

- Diabetes has its own block of codes separate from other endocrine diseases.
- Diabetes mellitus codes are combination codes (1 code)
  Diabetic neuropathy E11.40
- Use as many codes as necessary to code all the complications
- Sequencing depends on the reason for admission
- **With hyperglycemia as indicator of out of control** E11.65 (fifth digit 5)

Differences in ICD-10-CM Diabetes coding

ICD-10-CM

Diabetes – Three terms indicate “with hyperglycemia”

- inadequately controlled
- out of control
- poorly controlled

Manifestations of Diabetes

- Fourth - fifth – sixth characters
- Etiology manifestation replaced by combination codes
- Most codes formerly required dual coding have been replaced by single codes.
- Combination codes classify diabetes by type, body system, and certain complications.

Example:

E11.331 Type 2 diabetes with moderate nonproliferative diabetic retinopathy and macular edema.

INSULIN

- If insulin is used and type not mentioned – Code to Type II
- Code Z79.4 for use of insulin when patient uses insulin on a **long-term** basis.
- Do not use when patient is on insulin during admission to bring glucose levels in a Type II patient under control.

Types of Diabetes

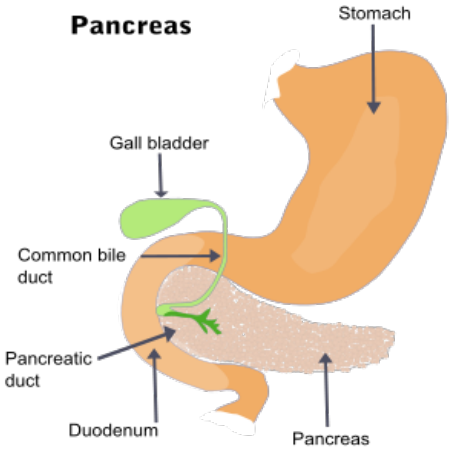
Type I – E10.xx

- The age is not the determining factor
- Most patients develop diabetes before puberty
- Juvenile diabetes

Type II – E11.xx

- If the type of diabetes is not documented, the default is type II.

Types of Diabetes



Example: Diabetes due to Malignant neoplasm of the pancreas

C25.9 E08.9

Secondary Diabetes
E08 – E13

- E08.xx Diabetes due to an underlying condition
- E09.xx Diabetes due to drugs or chemicals
- E13.xx other specified diabetes

- Secondary diabetes is always due to another condition or event such as cystic fibrosis, malignant neoplasm of the pancreas, pancreatectomy, adverse effect or poisoning.

- Code insulin Z79.4 if applicable and use is chronic.

Secondary Diagnosis sequencing

- Assigning and sequencing of secondary diabetes codes based on the Tabular List instructions for E08, E09 and E13.

Secondary Diabetes

Diabetes due to an underlying condition: E08.-

- Cushing's syndrome
- Malignant Neoplasm
- Cystic fibrosis
- Malnutrition
- Pancreatitis

Code the underlying disease first.

Use an additional code for insulin usage.

Secondary Diabetes

- Secondary diabetes due to pancreatectomy – When a patient has a pancreatectomy they have a lack of insulin due to the removal of all or part of the pancreas.

Code this scenario_____

Secondary Diabetes

- Secondary diabetes due to pancreatectomy – When a patient has a pancreatectomy they have a lack of insulin due to the removal of all or part of the pancreas.

  Assign E89.1 Postprocedural hypoinsulinemia

  E13 – secondary diabetes as an additional diagnosis

  Z90.410-Z90.411 for acquired absence of pancreas

Secondary Diabetes
E09

Diabetes due to drugs or chemicals:

- Combination codes include both the causal drug and the external cause
- Replace need for separate external cause code.
- Conditions due to the adverse affect of drugs are coded with the nature of the adverse effect sequenced first.
- A T36-50 code is used as an additional code for poisonings, adverse effects and underdosing of drugs, medicaments, and biological substances.
- A T51-65 includes toxic effects of substances – nonmedicinal as to source.

Secondary Diabetes

- Secondary diabetes due to drugs –

  Adverse effect of correctly administered medications, poisonings or sequela of poisoning.

  See section I.C.19.e for coding of adverse effects and poisonings, and section I.C.20 for external cause code reporting.

Types of Diabetes

Drug/Chemical Induced Diabetes: E09

Code first poisoning due to the drug or toxin,
T36-T65 with fifth or sixth character 1-4 or 6.

Use additional code for adverse effect, if applicable, to identify drug,

Use additional code for insulin usage Z79.4

Secondary Diabetes
E09

Diabetes due to drugs or chemicals:

- Code first poisoning due to the drug or toxin T36-65 with fifth or sixth character 1-4 or 6
- Use additional code for adverse effect to identify drug (T36-T50) with fifth or sixth character 5.
- Use additional code to identify any insulin use (Z79.4)

Example:

E09.9 Drug or chemical induced DM w/o complications

T38.0x5A Adverse effect of glucocorticoids and synthetic analogues, initial encounter.

Z79.4 Long-term (current) use of insulin

Types of Diabetes

Drug/Chemical Induced Diabetes: E09

Diabetes due to the sequela of Prednisone usage (correct dosage) in a patient with acute exacerbation of COPD (asthma) on long-term insulin.

E09.-

T38.0x5s

J44.1

Z79.4

Diabetes combination coding

- It is sometimes necessary to streamline diabetes classification by using multiple codes to report a condition in its entirety. Instructional notes prompt the coder when additional codes are necessary.

Example:

E11.22 Diabetes with diabetic chronic kidney disease

N18.3 Chronic kidney disease, stage 3.

Diabetic kidney disease

E11.2- contains an inclusion note which states a hierarchy exists, in which diabetes with kidney complications (nephropathy) that results in chronic kidney disease is reported by a specific code. E11.22.

The inclusion note states that diabetic renal complications classifiable to E11.21 are reported with E11.22 when the condition results in chronic kidney disease.

E11.22 takes precedence to code assignment and shows disease progression. An Additional code is necessary for all stages except unspecified. N18.9.

Diabetic Gastroparesis

Diabetes and Gastroparesis

Example: Type II Diabetes and Gastroparesis

E11.43 Type 2 Diabetes with diabetic autonomic (poly) neuropathy

with diabetic Gastroparesis

Gastroparesis, also called **delayed gastric emptying**, is a medical condition consisting of a paresis (partial paralysis of the stomach, resulting in food remaining in the stomach for a longer time than normal

Treatment includes dietary changes (low-fiber and low-residue diets and, in some cases, restrictions on fat and/or solids); oral medications ; adjustments in insulin dosage for those with diabetes; a jejunostomy tube; parenteral nutrition; implanted gastric neurostimulators ("stomach pacemakers"); or botulinum toxin (botox injected into the pylorus).

Types of Diabetes

- A 17 year old young woman is admitted with new onset diabetes with ketoacidosis. The physician states she is Type I, juvenile onset.

- Code this Type I diabetes with ketoacidosis_____

Types of Diabetes

- A 17 year old young woman is admitted with new onset diabetes with ketoacidosis. The physician states she is Type I, juvenile onset.

E10.10

Types of Diabetes

A 65 year old woman is admitted to the hospital with diabetes with chronic kidney disease, stage III.

Code this case:_____

Types of Diabetes

A 65-year-old woman is admitted to the hospital with diabetes with chronic kidney disease, stage III. She also has diabetes with polyneuropathy

E11.22 and N18.3

E11.42

Notice the polyneuropathy has only one code for both conditions, but the chronic kidney disease has two codes so that further specification can be shown for the Type III CKD.

Insulin Pump malfunction

- Under dosage – Due to pump failure – code to Malfunction, T85.6. Add T38.3x6- as an additional code. Under dosage of insulin and oral hypoglycemic drugs.

  Also code type of diabetes and any associated complications due to the underdosing.

- Overdose – Due to pump failure – First listed code is T85.6-. Add T38.3x1- as an additional code for Poisoning by insulin or oral hypoglycemic drugs (accidental)

  7th character denotes encounter A, D, S)

Hypoglycemia – E816-

Possible causes of hypoglycemia include:

- External insulin (usually injected subcutaneously)
- Oral hypoglycemic agents (e.g., any of the sulfonylurea's, or similar drugs, which increase insulin release from β-cells in response to a particular blood glucose level)
- Ingestion of low-carbohydrate sugar substitutes in people without diabetes or with type 2 diabetes. Animal studies show these can trigger insulin release, albeit in much smaller quantities than sugar, according to a report in *Discover* magazine, August 2004, p 18. (This can never be a cause of hypoglycemia in patients with type 1 diabetes, since there is no endogenous insulin production to stimulate.)

Hypoglycemia

- **Excessive alcohol consumption.** Drinking heavily without eating can block your liver from releasing stored glucose into your bloodstream, causing hypoglycemia.
- **Some critical illnesses.** Severe illnesses of the liver, such as severe hepatitis, can cause hypoglycemia. Disorders of the kidney, which can keep your body from properly excreting medications, can affect glucose levels due to a buildup of those medications. Long-term starvation, as may occur in the eating disorder anorexia nervosa, can result in the depletion of substances your body needs in gluconeogenesis, causing hypoglycemia.
- **Insulin overproduction.** A rare tumor of the pancreas (insulinoma) may cause overproduction of insulin, resulting in hypoglycemia. Other tumors may result in excessive production of insulin-like substances. Or the tumors themselves may use up too much glucose. Enlargement of beta cells of the pancreas that produce insulin (nesidioblastosis) may result in excessive insulin release, causing hypoglycemia. People who've undergone gastric bypass surgery are at risk of this condition.
- **Endocrine deficiencies.** Certain disorders of the adrenal glands and the pituitary gland can result in a deficiency of key hormones that regulate glucose production. Children with these disorders are more prone to hypoglycemia than are adults.

Hypoglycemia

Drug induced – without coma – E16.0

Use additional code for adverse effect, to identify drug

Medications. Taking someone else's oral diabetes medication accidentally is a possible cause of hypoglycemia.

Example: Hypoglycemic coma due to insulin

E16.0 T38.3x1A

Other medications may cause hypoglycemia, especially in children or in people with kidney failure. One example is quinine, which is used to treat malaria.

E20-E35

Disorders of the endocrine glands

Watch this video to learn a little of the anatomy/physiology of the endocrine system.

http://www.nlm.nih.gov/medlineplus/ency/anatomyvideos/000048.htm

Hyperfunction of the pituitary

- Acromegaly - E22.0

A hormonal disorder that develops when your pituitary gland produces too much growth hormone during adulthood. When this happens, your bones increase in size, including those of your hands, feet and face. Acromegaly usually affects middle-aged adults. In children who are still growing, too much growth hormone can cause a condition called gigantism. These children have exaggerated bone growth and an abnormal increase in height

Hyperfunction of the pituitary

- Hyperprolactinemia – E22.1

  A condition characterized by excess prolactin, the hormone responsible for milk production in a woman's breasts. This hypersecretion can be due to a prolactin-secreting tumor (prolactinoma), pregnancy, or the use of numerous medications, particularly psychiatric medications or to a large pituitary tumor that compresses the rest of the gland. In most cases, changes in the menstrual cycle result in early evaluation and diagnosis of hyperprolactinemia and thus most premenopausal women will present with small tumors (micro-prolactinomas, <1 cm in size). It is not unusual to present with very large tumors.

Hyperfunction of the pituitary

SIADH - E22.2 - The syndrome of inappropriate antidiuretic hormone (ADH) secretion (SIADH) is defined by the hyponatremia and hypo-osmolality resulting from inappropriate, continued secretion or action of the hormone despite normal or increased plasma volume, which results in impaired water excretion. The key to understanding the pathophysiology, signs, symptoms, and treatment of SIADH is the awareness that the hyponatremia is a result of an excess of water rather than a deficiency of sodium

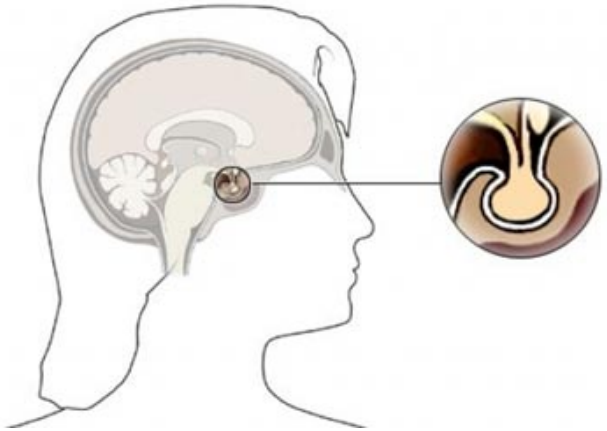
Hyperfunction of the pituitary

Central Precious puberty – E22.8

There's usually no identifiable cause for this type of precocious puberty.

In central precocious puberty, the puberty process starts too soon. Although they begin earlier than they should, the pattern and timing of the steps in the process are otherwise normal. For the majority of children with this condition, there's no underlying medical problem and no identifiable reason for the early puberty.

Hypopituitarism



Panhypopituarism E89.3

- generalized HYPOPITUITARISM due to absence of or damage to the pituitary gland; in its complete form it leads to absence of gonadal function, loss of secondary sex CHARACTERS, and insufficiency of thyroid and adrenal function.

Hypofunction of the pituitary

Diabetes Insipidus (DI) E23.2

- An uncommon condition that occurs when the kidneys are unable to conserve water as they perform their function of filtering blood. The amount of water conserved is controlled by antidiuretic hormone (ADH), also called vasopressin.
- ADH is a hormone produced in a region of the brain called the hypothalamus. It is then stored and released from the pituitary gland, a small gland at the base of the brain.
- DI caused by a lack of ADH is called central diabetes insipidus. When DI is caused by a failure of the kidneys to respond to ADH, the condition is called nephrogenic diabetes insipidus.
- Central diabetes insipidus can be caused by damage to the hypothalamus or pituitary gland as a result of: Head injury, infection, loss of blood supply to the gland, surgery, or tumor

Symptoms

- Excessive thirst , or excessive urine volume,

Signs and tests: MRI of the head, Urinalysis, urine output,

Treatment: The cause of the underlying condition should be treated when possible.

- Central diabetes insipidus may be controlled with vasopressin (desmopressin, DDAVP). You take vasopressin as either a nasal spray or tablets.
- If nephrogenic DI is caused by medication (for example, lithium), stopping the medication may help restore normal kidney function. However, after many years of lithium use, the nephrogenic DI may be permanent.
- Hereditary nephrogenic DI and lithium-induced nephrogenic DI are treated by drinking enough fluids to match urine output and with drugs that lower urine output. Drugs used to treat nephrogenic DI include:
- Anti-inflammatory medication (indomethacin)
- Diuretics [hydrochlorothiazide (HCTZ) and amiloride]

Nephrogenic Diabetic Insipidus

Nephrogenic DI (N25.1) involves a defect in the parts of the kidneys that reabsorb water back into the bloodstream. It occurs less often than central DI.

May occur as an inherited disorder in which male children receive the abnormal gene that causes the disease from their mothers.

May also be caused by:

- Certain drugs (such as lithium, amphotericin B, and demeclocycline)
- High levels of calcium in the body (hypercalcemia)
- Kidney disease (such as polycystic kidney disease)

Cushing's Syndrome E24

- A disorder that occurs when your body is exposed to high levels of the hormone cortisol. It may also occur if you take too much cortisol or other steroid hormones.
- Cushing syndrome may be caused by taking too much corticosteroid medications, such as prednisone and prednisolone. These drugs are used to treat conditions such as asthma and rheumatoid arthritis. E24.2
- Other people develop Cushing syndrome because their bodies produce too much cortisol, a hormone normally made in the adrenal gland. Causes of too much cortisol are:
- **Cushing's disease**: when the pituitary gland makes too much of the hormone ACTH. ACTH then signals the adrenal glands to produce cortisol. Tumor of the pituitary gland may cause this condition.
- **Tumor of the adrenal gland**
- Tumor elsewhere in the body that produces cortisol
- Tumors elsewhere in the body that produce ACTH (such as the pancreas, lung, and thyroid)

Disorders of the adrenal gland

Addison's disease or Primary adrenocortical insufficiency - E27.1 - A disorder that occurs when the adrenal glands do not produce enough of their hormones and results from damage to the adrenal cortex. The damage causes the cortex to produce less of its hormones. This damage may be caused by the following:

- The immune system mistakenly attacking the gland (autoimmune disease)
- Infections such as tuberculosis, HIV, or fungal infections
- Hemorrhage, blood loss
- Tumors
- Use of blood-thinning drugs (anticoagulants)

- **Addisonian crisis** E27.2 - Acute adrenal crisis is a life-threatening state caused by insufficient levels of cortisol, which is a hormone produced and released by the adrenal gland.

- **Drug induced adrenocortical insufficiency** – E27.3
  Use additional code for adverse effect to identify drug (T36-T50)
- **Adrenal hemorrhage** E27.49
- **Adrenocortical insufficiency or Hypoaldosteronism** – E27.40

Intraoperative complications of the endocrine system.

E36

- Intraoperative hemorrhage and hematoma of an endocrine system organ or structure complicating a procedure E36.0-
- Accidental puncture and laceration of an endocrine system organ or structure during a procedure. E36.1-

**Both have further specificity for endocrine system procedure vs other procedure

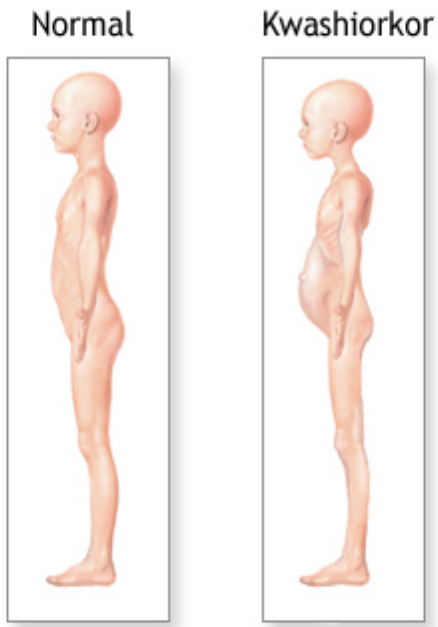
- Other intraoperative complications of the endocrine system E36.8

Malnutrition

Malnutrition codes have been restructured in ICD-10-CM.

- Separation of particular disorders
- Creation of unique categories
- Separate subchapter for malnutrition.

Malnutrition



A.D.A.M.

- E40 Kwashiorkor
- E41 Nutritional marasmus
- E42 Marasmic kwashiorkor
- E43 Unspecified protein-calorie malnutrition
- E44 Protein-calorie malnutrition, mild to moderate
- E45 Retarded development following protein-calorie malnutrition
- E46 Unspecified protein-calorie malnutrition

Malnutrition

<u>Three types we should not code</u>: These are not present in the U.S. and should be coded in children in impoverished countries only.

- **Kwashiorkor** – E40 –

Severe malnutrition with nutritional edema and dyspigmentation of skin and hair.

- **Nutritional Marasmus** – E 41 –

severe malnutrition with marasmus

- **Marasmic kwashiorkor** – E42 – **This condition could be present in the US** as a result of malnutrition in a child due to certain diseases such as cystic fibrosis.

Intermediate form of severe protein-calorie malnutrition. Severe protein-calorie malnutrition with signs and symptoms of both kwashiorkor and marasmus.

- **Retarded of development following protein – calorie malnutrition**.

Includes:

****Short stature

****Nutritional stunting

****Physical retardation due to malnutrition

Signs and Symptoms

- Decreased grip strength
- Decreased muscle mass
- Weight loss
- Decreased body fat
- Decreased energy intake
- Fluid retention

Definitions

- Marasmus is one of the 3 forms of serious protein-energy malnutrition (PEM). The other 2 forms are kwashiorkor (KW) and marasmic KW. These forms of serious PEM represent a group of pathologic conditions associated with a nutritional and energy deficit occurring mainly in young children from developing countries at the time of weaning. Marasmus is a condition primarily caused by a deficiency in calories and energy, whereas kwashiorkor indicates an associated protein deficiency, resulting in an edematous appearance. Marasmic kwashiorkor indicates that, in practice, separating these entities conclusively is difficult; this term indicates a condition that has features of both.

Correct Coding

Types we should code:

Protein-calorie Mild E44.1

Protein-calorie moderate E44.0

Protein-calorie unspecified E46

includes malnutrition, unspecified and protein-calorie imbalance

Sequela of Malnutrition and nutritional deficiencies

- Code the condition in E43, E44, E45, E50-E63 as of cause of the sequela, which are classified elsewhere. The sequela include conditions specified as such, they also include the late effects of diseases classified to the above categories if the disease itself if no longer present.

Deletion of Vitamin D osteomalacia

ICD-9-CM Code 268.2 Vitamin D Deficiency with Osteomalacia, unspecified (softening of the bone due to decrease in calcium, marked by pain, tenderness, muscular weakness, anorexia and weight loss.

ICD-10-CM Code M83 Adult osteomalacia – move to the musculoskeletal and connective tissue chapter

M83.0 Puerperal osteomalacia

M83.1 Senile osteomalacia

M83.2 Adult osteomalacia due to malabsorption

M83.3 Adult osteomalacia due to malnutrition

M83.4 Aluminum bone disease

M83.5 Other drug-induced osteomalacia in adults

M83.8 Other adult osteomalacia

M83.9 Adult osteomalacia, unspecified

Obesity

Obesity has been further specified to include:

- Morbid obesity due to excessive calories E66.01
- Other obesity due to excessive calories E66.09
- Drug-induced obesity E66.1
- Morbid obesity with alveolar hypoventilation E66.2
- Overweight E66.3
- Other and unspecified obesity E66.8-E66.9

Remember to include the BMI when documented – cc's

Disorders of Metabolism

E70-E88

Lipoid Disorders

- Pure hypercholesterolemia E78.0

Hypercholesterolemia (**hypercholesterolemia**) is the presence of high levels of cholesterol in the blood.[1] It is a form of "hyperlipidemia" (elevated levels of lipids in the blood) and "hyperlipoproteinemia" (elevated levels of lipoproteins in the blood).[1]

Cholesterol is a sterol, a sort of fat. It is one of three major classes of lipids which all animal cells utilize to construct their membranes and is thus manufactured by all animal cells. Plant cells do not manufacture cholesterol. It is also the precursor of the steroid hormones, bile acids and vitamin D. Since cholesterol is insoluble in water, it is transported in the blood plasma within protein particles (lipoproteins)

Lipoid Disorders

- **Pure hyperglyceridemia** E78.1

Hyperlipoproteinemia type IV, also known as familial hypertriglyceridemia, is a disorder in which an individual has a higher-than-normal triglyceride level due to a genetic defect. As a result, the affected individual may experience hardening of the arteries and be at risk for various heart conditions, including coronary artery disease.

- **Mixed hyperlipidemia** E78.2

Hyperlipidemia (also called multiple lipoprotein-type hyperlipidemia) is a genetic disorder in which a combination of high cholesterol and high triglycerides is inherited and passed down from family members. This is one of the most common contributors to early heart attacks. The condition may be worsened by other disorders, like hypothyroidism, diabetes and alcoholism.

Disorders of Metabolism

- Hyperuricemia
- Porphyria
- Gilbert Syndrome
- Wilson's disease
- Hemochromatosis
- Hungry bone syndrome
- Cystic fibrosis
- Amyloidosis

Dehydration

Hyponatremia

Hyperkalemia

Acidosis/Alkalosis

Fluid overload

Tumor Lysis syndrome

Metabolic syndrome

Disorders of Metabolism

- **Hyperuricemia** – Excess uric acid in the blood without manifestation of inflammatory arthritis and topheaceous disease E79.0

- **Porphyrias** are a group of genetic disorders caused by problems with how your body makes a substance called heme. Heme is found throughout the body, especially in your blood and bone marrow, where it carries oxygen.

  Porphyrias affect the skin or the nervous system. People with the skin type develop blisters, itching, and swelling of their skin when it is exposed to sunlight. The nervous system type is called acute porphyria. Symptoms include pain in the chest or abdomen, vomiting, and diarrhea or constipation. During an attack, symptoms can include muscle numbness, tingling, paralysis, cramping, and personality or mental changes. Certain triggers can cause an attack, including some medicines, smoking, drinking alcohol, infections, stress and sun exposure. Attacks develop over hours or days. They can last for days or weeks. E80.0- E80.29

Disorders of Metabolism

- **Gilbert Syndrome** is a common, harmless genetic condition in which a liver enzyme essential to the disposal of bilirubin (the chemical that results from the normal breakdown of hemoglobin from red blood cells) is abnormal. The condition has also been referred to as constitutional hepatic dysfunction and familial nonhemolytic jaundice. The enzyme abnormality in Gilbert syndrome results in mild elevations of bilirubin in the blood, particularly after starvation or dehydration.

E80.4

Disorders of Metabolism

- **Wilson's disease** is a rare inherited disorder. If both parents carry an abnormal gene for Wilson's disease, there is a 25% chance in each pregnancy that the child will have the disorder.
- Wilson's disease causes the body to take in and keep too much copper. The copper deposits in the liver, brain, kidneys, and the eyes. The deposits of copper cause tissue damage, death of the tissues, and scarring, which causes the affected organs to stop working correctly.
    - E83.01

Disorders of Metabolism

- **Hemochromatosis: E83.110-E83.119**

  Primary hemochromatosis is a genetic disorder passed down through families. It occurs at birth. People with this condition absorb too much iron through their digestive tract. Iron builds up in the body, especially the liver. You are more likely to get this disease if someone else in your family has or had the condition.

  Secondary (acquired) hemochromatosis is due to other blood-related disorders (such as thalassemia or certain anemias) or many blood transfusions. Sometimes it occurs in people with long-term alcoholism and other health conditions.

Disorders of Metabolism

- **The Hungry Bone Syndrome** (HBS) represents an important cause of prolonged hypocalcemia after parathyroidectomy (PTX) due to primary, secondary or tertiary hyperparathyroidism. The sudden postoperative withdrawal of parathyroid hormone (PTH) induces a stop in osteoclastic bone resorption without affecting the osteoblastic activity. E83.81

Disorders of Metabolism

Cystic Fibrosis - E84.0-E84.9

- A life-threatening disorder that causes severe damage to the lungs and digestive system.

  An inherited condition, cystic fibrosis affects the cells that produce mucus, sweat and digestive juices. These secreted fluids are normally thin and slippery. But in cystic fibrosis, a defective gene causes the secretions to become thick and sticky. Instead of acting as a lubricant, the secretions plug up tubes, ducts and passageways, especially in the lungs and pancreas.

Disorders of Metabolism

Amyloidosis E85

- A disease that occurs when substances called amyloid proteins build up in your organs. Amyloid is an abnormal protein usually produced by cells in your bone marrow that can be deposited in any tissue or organ.
- Amyloidosis can affect different organs in different people, and there are different types of amyloid. Amyloidosis frequently affects the heart, kidneys, liver, spleen, nervous system and gastrointestinal tract.
- Amyloidosis is rare, and the exact cause is often unknown. Treatments are available to help you manage your symptoms of amyloidosis and limit the production of amyloid protein.

Disorders of fluid, electrolyte and acid-base balance

Dehydration E86.0

- A condition that occurs when the loss of body fluids, mostly water, exceeds the amount that is taken in. With dehydration, more water is moving out of our cells and then out of our bodies than the amount of water we take in through drinking.
- We lose water every day in the form of water vapor in the breath we exhale and as water in our sweat, urine, and stool. Along with the water, small amounts of salts are also lost.
- When we lose too much water, our bodies may become out of balance or dehydrated. Severe dehydration can lead to death.

Disorders of fluid, electrolyte and acid-base balance

- **Hypovolemia** is a state of decreased blood volume; more specifically, decrease in volume of blood plasma. Hypovolemia is characterized by salt (sodium) depletion and thus differs from dehydration, which is defined as excessive loss of body water. Some causes are: hemorrhaging, dehydration, burns, trauma, or vasodilators. E86.1

- **Hyponatremia** is a metabolic condition in which there is not enough sodium (salt) in the body fluids outside the cells. E87.1 (SIADH is excluded E22.2) Sodium is found mostly in the body fluids outside the cells. It is very important for maintaining blood pressure. Sodium is also needed for nerves and muscles to work properly.

  When the amount of sodium in fluids outside cells drops, water moves into the cells to balance the levels. This causes the cells to swell with too much water. Although most cells can handle this swelling, brain cells cannot, because the skull bones confine them. Brain swelling causes most of the symptoms of hyponatremia. E87.1

Disorders of fluid, electrolyte and acid-base balance

- **Hyperkalemia:** Excess potassium in the bloodstream resulting from diseases of the kidneys or adrenal glands as well as from certain medications. Hyperkalemia can also be the result of potassium moving out of its usual location within cells into the bloodstream.

  Any condition in which there is massive tissue destruction can result in elevated levels of blood potassium as the damaged cells release their potassium. Examples of tissue destruction include: trauma, burns, surgical procedures, destruction of tumor cells or red blood cells, rhabdomyolysis, diabetic ketoacidosis, and others.

  E87.5

Fluid Overload E87.7-

- When the circulating volume is excessive, ie more than the heart can effectively cope with. This results in heart failure, which usually manifests as pulmonary edema and peripheral edema.

Causes

- Iatrogenic - excessive intravenous fluids, blood transfusions:
  - The risk of fluid overload is higher in elderly patients and if there is cardiac or renal impairment, sepsis, major injury or major surgery.
  - There may be insufficient training of junior doctors regarding intravenous fluid therapy. Postoperative patients may receive inappropriately large amounts of intravenous fluid and/or sodium.[1]
- Heart failure
- Renal failure - depending on severity and whether oliguric or not.
- Increased antidiuretic hormone (ADH) secretion, eg following head injury or major surgery.
- Responses to physiological stress:
  - Excretion of excess sodium and water is more difficult for injured or surgical patients (owing to various physiological responses to injury and surgery which affect renal function and fluid balance regulation).[1]
  - It is now recognized that there are complex interactions between heart, lung and kidneys which affect body fluid and sodium regulation. When one of these organs is stressed it may affect the functioning of the others and impact on fluid balance

Acidosis – E878.2

Acidosis - Having too many acids in the body fluids.

Respiratory - when there is too much carbon dioxide in the body and is caused when you cannot move enough carbon dioxide through breathing. Can be due to: chest deformities (kyphosis), chest injuries, chest muscle weakness, COPD, or overuse of sedatives.

Acidosis

Metabolic – Too much acid is produced or the kidneys cannot excrete enough acid from the body.

Several types include:

- **Diabetic acidosis (DKA**) when ketones build up in the body during uncontrolled diabetes.
- **Hyperchloremic** – the loss of too much sodium (diarrhea)
- **Lactic** – The build up of lactic acid. May be due to: Alcohol, cancer, exercising vigorously for a long time, liver failure, low blood sugar, Salicylates, MELAS (genetic disorder), prolonged lack of oxygen from shock, heart failure or severe anemia and seizures. Other causes are kidney disease (distal renal tubular acidosis) and proximal renal tubular acidosis., aspirin poisoning, ethylene glycol (antifreeze poisoning) or methanol, or severe dehydration.

Alkalosis – E87.3

A condition in which the body fluids have excess base (alkali)

- Cause: The kidney and lungs maintain the proper balance of chemicals, called acids and bases. Decreased carbon dioxide or increased bicarbonate levels make the body too alkaline.
- Respiratory alkalosis can be caused by: Fever, high altitude, lack of oxygen, liver disease, lung disease which causes you to hyperventilate, and aspirin poisoning.
- Symptoms are: confusion, tremors, light-headedness, muscle twitching, nausea and vomiting, numbness or tingling of face, hands or feet, and prolonged muscle spasm.
- Can be seen with hypokalemia with patients take diuretics., hypochloremia, or metabolic causes(too much bicarbonate).

Tumor Lysis Syndrome

E88.3

- Tumor lysis syndrome refers to the constellation of metabolic disturbances that may be seen after initiation of cancer treatment. It usually occurs in patients with bulky, rapidly proliferating, treatment-responsive tumors.

- It is typically associated with acute leukemia's and high-grade non-Hodgkin lymphomas, such as Burkitt lymphoma. The syndrome has also been reported with other hematologic malignancies and with solid tumors such as hepatoblastoma and stage IV neuroblastoma.

- A potentially lethal complication of anticancer treatment, tumor lysis syndrome occurs when large numbers of neoplastic cells are killed rapidly. Clinically, the syndrome is characterized by rapid development of hyperuricemia, hyperkalemia, hyperphosphatemia, hypocalcemia, and acute renal failure.

Metabolic Syndrome – E88.81

This is the name for a group of risk factors that raise your risk for heart disease, diabetes and stroke.

Risk factors include large waistline, high triglyceride level, a low HDL, hypertension and high fasting blood sugar.

You risk increases with the numbers of metabolic risk factors you have and is linked to being overweight or obese, and to a lack of physical activity. Insulin resistance may also increase your risk. Insulin resistance is when your body can't use its insulin properly and can lead to high blood sugar levels. Genetics and older age are also factors.

Smoking also increased your risk for heart disease, but is not part of metabolic syndrome.

Postprocedural Complications

ICD-9-CM Complications were listed in the 900's codes

ICD-10-CM Postprocedural complications are included in the site specific chapters of the code book.

Postprocedural endocrine and metabolic disorders

- Postprocedural hypothyroidism E89.0
- Postprocedural hypoinsulinism E89.1
- Postprocedural hypoparathyroidism E89.2
- Postprocedural hypopituitarism E89.3
- Postprocedural Ovarian failure E89.40-E89-41
- Postprocedural testicular hypofunction E89.5
- Postprocedural adrenocortical medullar hypofunction E89.6
- Postoperative hemorrhage following endocrine system procedure or other procedure E89.810-E89.811
- Other Postprocedural endocrine and metabolic complications E89.89

Postprocedural Complications

- E89 - Postprocedural endocrine and metabolic complications and disorders, NEC
- E89.1 Postprocedural hypoinsulinemia

  Use additional code to identify:

  acquired absence of pancreas (Z90.41-)

  diabetes mellitus (postpancreatectomy) (post-procedural) E13.-

  Insulin use (Z79.4)
- E78.89 Other postprocedural endocrine and metabolic complications and disorders:

  Use additional code to further specify disorder

Secondary Diabetes

- Secondary diabetes due to pancreatectomy – When a patient has a pancreatectomy they have a lack of insulin due to the removal of all or part of the pancreas.

  Assign E89.1 Postprocedural hypoinsulinemia

  E13 – secondary diabetes as an additional diagnosis

  Z90.410-Z90.411 for acquired absence of pancreas

Postprocedural endocrine and metabolic disorders

A patient is admitted with hypothyroidism after having a total thyroidectomy for thyroid cancer.

Code postprocedural hypothyroidism:_____

Postprocedural endocrine and metabolic disorders

- Postprocedural hypothyroidism

- A patient is admitted with hypothyroidism after having a total thyroidectomy for thyroid cancer.

E89.0

You will notice that the endocrine system includes diagnoses that are a result of prior treatment. This condition used to be included in the hypothyroidism area of the chapter in ICD-9-CM. 244.0.

Postprocedural endocrine and metabolic disorders

A 30-year-old patient is seen in the physician's office with sweating, sleeplessness, flushing, headache, and lack of concentration after having a bilateral salpingooophorectomy.

The physician's diagnosis is postprocedural ovarian failure.

Code this condition:_____

Postprocedural endocrine and metabolic disorders

A 30-year-old patient is seen in the physician's office with sweating, sleeplessness, flushing, headache, and lack of concentration after having a bilateral salpingo-oophorectomy.

The physician's diagnosis is Postprocedural ovarian failure.

E89.41

You will notice this diagnosis is included in the endocrine chapter instead of the genitourinary chapter in which it was in ICD-9-CM.

Salem Health

ICD-10

OrHIMA Coding Roundtable Audio Conference
http://orhima.org/index.html

Introduction to ICD-10-PCS

Part 2 of 3
May 23, 2013
2:00 - 3:00 PM
CEUs: 1

Part 3 of 3
June 27, 2013
2:00 - 3:00 PM
CEUs: 1

$25 to non-members
Did you know that AAPC now accepts CEUs from OrHIMA?

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ICD-10

REFERENCES

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- AHIMA: http://www.ahima.org/
- AAPC: http://www.aapc.com/
- ACDIS: http://www.hcpro.com/acdis/index.cfm
- HCPro Just Coding: http://www.justcoding.com/

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ICD-10

QUESTIONS?