Diseases, disorders and injuries from the musculoskeletal system are coded in ICD-10 within Chapter 13: Diseases of the Musculoskeletal System and Connective Tissue (M00-M99) and Chapter 19: Injury, Poisoning and Certain Other Consequences of External Causes (S00-T88). These chapters refer to both the muscles and bones (including diseases, fractures and injuries) within this body system.

**Documenting and reporting**

Additional documentation requires two designations: The majority of codes in Chapter 13 of ICD-10 have been expanded in some way. This is primarily due to the additional documentation that is required in regards to specificity of site and laterality.

1. **Site:** The site represents either the bone, muscle or joint involved.
   - There is an option for multiple sites when a diagnosis concerns more than one bone, muscle or joint (e.g., other juvenile arthritis, multiple sites [M08.89]).
   - When more than one bone, joint or muscle is involved and there is not a multiple site option or code, multiple codes must be used to indicate the sites involved (e.g., osteomyelitis of cervical and lumbar vertebra).
   - ICD-10: osteomyelitis of vertebra, cervical region (M46.22) and osteomyelitis of vertebra, lumbar region (M46.26).

2. **Laterality:** All codes that have laterality requirements need to have identified whether the disease, injury or diagnoses is located on the right or left region (e.g., diagnosis of an abscess of bursa of the right shoulder).
   - ICD-10: abscess of bursa, right shoulder (M71.011)

**Reorganization of codes:** Several codes from various chapters in ICD-9 were moved to Chapter 13 in ICD-10 because they were principally focused on the musculoskeletal system.

**Example:**
- Gout in Chapter 3: Endocrine, Nutritional and Metabolic Diseases and Immunity Disorders of ICD-9 was moved to Chapter 13 in ICD-10. Since Gout primarily involves joints that are a part of the musculoskeletal system, it was necessary to rearrange this disease to Chapter 13.

Combination codes for some conditions and associated symptoms: There are some codes that are comprised of various conditions, two diagnoses, or a diagnosis with an associated secondary process (manifestation) and a diagnosis with an associated complication.

**Example:**
- Endocarditis in systemic lupus erythematosus (M32.11)

**Expansion:** Due to the necessity of greater detail, the musculoskeletal code system reflects an expansion to capture with accuracy the patient’s health.

**Example:**
- Rheumatoid arthritis and bursitis ICD-9 codes are mapped to several ICD-10 codes, which offer more elements identifying laterality and body sites.
Fractures in ICD-10 have gone through a substantial amount of change. If treatment is directed at the current injury, documentation and specific information regarding the type of fracture as displaced or nondisplaced. If not indicated, fractures are coded as displaced.

Precise site of the fracture.

Documentation supporting laterality.

Identification of episode of care.

Identification of open or closed. According to ICD-10 Official Coding Guidelines section I.C.19, a fracture not identified as open or closed is coded as closed. Fracture codes require a seventh character for the episode of care (some of which are based on whether the fracture is closed or open).

ICD-10 has the Gustilo classification system for further classification of open fractures.

Example:

- A patient was diagnosed with a nonunion of a tibial fracture. The patient had a nonunion of a tibial fracture. The episode of care for fractures is more complex than other injuries because it demands supplementary information about the fracture: open or closed, healing phase, routine with or complications, nonunion or malunion.

The seventh-character extension

<table>
<thead>
<tr>
<th>Type of encounters</th>
<th>To be used</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Initial encounter for closed fracture</td>
<td>When the patient is receiving active treatment for the injury (e.g., surgical treatment or emergency department encounter)</td>
</tr>
<tr>
<td>B Initial encounter for open fracture</td>
<td>For encounters that occur after the patient has received and completed active treatment of the injury and is receiving routine care for the injury during the healing or recovery phase (e.g., cast change or removal, medication adjustment, removal of external or internal fixation device or other aftermarket and follow-up visits)</td>
</tr>
<tr>
<td>D Subsequent encounter for fracture with routine healing</td>
<td>For complications or conditions that arise as a direct result of an injury (e.g., scar formation after a burn); when using extension E, code both the injury that caused the sequela and the sequela itself. Sequence the exact type of sequela (e.g., scar) first and follow this with the injury code (e.g., burn).</td>
</tr>
<tr>
<td>G Subsequent encounter for fracture with delayed healing</td>
<td>Osteoporosis without pathological fracture:</td>
</tr>
</tbody>
</table>
| K Subsequent encounter for fracture with nonunion | Category M81.- is for use on patients with pathological fractures. These codes are organized by the general site of the injury.

ICD-10 identifies three different causes for pathological fractures:

1. Neoplastic disease: When an encounter is for a pathological fracture due to a neoplasm and the focus of treatment is the neoplasm, the neoplasm code should be sequenced first followed by the code for the pathological fracture. If the focus of the treatment is the neoplasm with an associated pathological fracture, the neoplasm code should be sequenced first, followed by a code from M84.5 for the pathological fracture.

2. Other specified disease: Among others are osteomyelitis, Paget's disease, disaudy, hyperparathyroidism, and nutritional or congenital disorders.

Osteoporosis: Osteoporosis is a systemic disease, significant, and the musculoskeletal system is affected. It is the most common, highly pathological fractures, osteoporosis has two categories:

1. Osteoporosis without pathological fracture:
   - Category M88.1- is for use on patients with pathological fractures due to the osteoporosis at this time even if they have had a fracture from the past. Site is not a component of the code under category M88.1-.
   - For patients with a history of osteoporosis fractures, status code Z87.310, personal history of healed fracture, should follow the code from M88.1-.

2. Osteoporosis with pathological fracture:
   - Category M61 is for patients who have a current pathological fracture due to osteoporosis: initial encounter of the encounter. Codes under M61- identify site and type, beginning with the more superficial injuries and ending with injuries involved in deeper body structures. It is also important to note that a code may be used for any patient with known osteoporosis who suffers a fracture even if the patient had a minor fall or trauma if that fall or trauma would not usually break a healthy bone.

For complications or conditions that arise as a direct result of an injury (e.g., scar formation after a burn); when using extension E, code both the injury that caused the sequela and the sequela itself. Sequence the exact type of sequela (e.g., scar) first and follow this with the injury code (e.g., burn).

ICD-10 has some significant coding changes related to the musculoskeletal system to allow the capture of the most specific injury code. Codes are organized by the general site of the injury and from subcategory M84.5- pathological fracture. Note from subcategory M84.5- pathological fracture in neoplastic disease, should be sequenced first followed by the code for the pathological fracture. If the focus of the treatment is the neoplasm with an associated pathological fracture, the neoplasm code should be sequenced first, followed by a code from M84.5- for the pathological fracture.

Types of encounters

- Initial encounter for closed fracture
- Initial encounter for open fracture
- Subsequent encounter for fracture with routine healing
- Subsequent encounter for fracture with delayed healing
- Subsequent encounter for fracture with nonunion
- Subsequent encounter for fracture with malunion
- Sequela

Injuries

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Calcification for open fractures

There are available multiple classification systems for fractures including the Gustilo classification, the Tscherne, the Managed Extremity Severity Scale, the Harvard Scale, and the AO Classification of Fractures and Dislocations.

ICD-10 codes for certain types of open fractures require a seventh character that categorizes open fractures using the Gustilo classification. This is the most widely used structure and is generally accepted as the primary classification system for open fractures. This classification is not recallable or types of fractures. Therefore, in addition to specifying the site of the fracture, the medical record must also provide the necessary specificity in the documentation to allow the coder to assign the correct seventh-character extension as this character is not optional.