

## ICD-10 Procedure Coding System (ICD-10-PCS)

### Development Background

CMS awarded a contract to 3M Health Information Systems to develop a new procedure coding system

The new system is intended to replace ICD-9-CM Volume 3 for reporting inpatient procedures

### Development History

1995 - 1996: First draft of ICD-10-PCS completed

1996 - 1997: Training program developed

Informal testing conducted

ICD-10-PCS revised

1997 - 1998: Independent formal testing conducted

ICD-10-PCS revised

Final draft completed

1998-present ICD-10-PCS updated annually

### Major Development Goals

Improve accuracy and efficiency of coding

Reduce training effort

Improve communication with physicians

### Essential Attributes

Completeness

All substantially different procedures have a unique code

Expandability

The structure of the system allows incorporation of new procedures as unique codes

Essential Attributes

## Standardized terminology

Includes definitions of the terminology used.

While the meaning of specific words can vary in common usage, ICD-10-PCS defines a single meaning for each term used in the system.

## Essential Attributes

### Multiaxial

The system has a multi-axial structure.

Each character has the same meaning within a section and across sections to the extent possible

## General Principles

Diagnostic information is not included in the code description

A 'not elsewhere classified' option is allowed for new devices and substances

All substantially different procedures are defined

## General Principles

### Limited NOS Option

A general body part, approach, or root operation can be used when the level of specificity required is not available in the record or cannot otherwise be obtained

## General Principles

### Limited NOS Option

### Body Part:

Example: "Liver" is used when the specific liver lobe is not identified

### Approach:

"Open", "Percutaneous" and "Via Natural or Artificial Opening" are used when a more specific type of approach is not documented and cannot otherwise be determined

### Root Operation:

“Repair” is used when the procedure documentation does not support a specific root operation and the information cannot otherwise be obtained

## Code Structure

Codes are comprised of seven components. Each component is called a “character”

All codes are seven characters long

Individual units for each character are represented by a letter or number

Each unit is called a “value”

34 possible values for each character

Digits 0- 9

Letters A-H, J-N, P-Z

## System Structure

16 Sections

Medical and Surgical

Obstetrics

Placement

Administration

Measurement and Monitoring

Extracorporeal Assistance and Performance

Extracorporeal Therapies

Osteopathic

Other Procedures

Chiropractic

Imaging

Nuclear Medicine

Radiation Oncology

Physical Rehabilitation and Diagnostic Audiology

Mental Health

Substance Abuse Treatment

ICD-10-PCS Tables

Each table contains four columns and varying numbers of rows

Column: Specifies the allowable values for characters 4-7

Row: Specifies the valid combinations of values

Example: Table 0DB Excerpt

ICD-10-PCS Index

Provides the first three or four values of the code

The tables must always be used to obtain the complete code

No eponyms are included

Index Conventions

Main index term is a root operation, root procedure type, or common procedure name

*Examples:* Resection (root operation)

Fluoroscopy (root type)

Prostatectomy (common procedure name)

Secondary entries are underneath the main term

PCS Table or code reference as specific as possible

Index Entry by Body Part

**Bypass**

Aorta, Thoracic **021W**

Aorta, Abdominal **0410**

Artery, Axillary, Left **03160**

Artery, Axillary, Right **03150**

Artery, Brachial, Left **03180**

Artery, Brachial, Right **03170**

Artery, Common Carotid, Left **031J0**

Artery, Common Carotid, Right **031H0**

Medical and Surgical Section

Medical and Surgical Section

Character Specification

1<sup>st</sup> Character = Section

2<sup>nd</sup> Character = Body System

3<sup>rd</sup> Character = Root Operation

4<sup>th</sup> Character = Body Part

5<sup>th</sup> Character = Approach

6<sup>th</sup> Character = Device

7<sup>th</sup> Character = Qualifier

Medical and Surgical Section Principles

The root operation is based on the objective of the procedure

If multiple procedures as defined by distinct objectives are performed, then multiple codes are assigned

Medical and Surgical Section Principles

Root Operation

Value is consistent throughout the section

Approach

Value is consistent throughout the section

Body part

Value is consistent within a specific body system

Section Character  
Medical and Surgical Section

Section  
(Character 1)

Defines the general type of procedure

In the Medical and Surgical Section the first character is always the number “0”

Body System Character  
Medical and Surgical Section

Body System  
(Character 2)

Defines the general physiological system on which the procedure is performed, or anatomical region where the procedure is performed

Uses generally accepted anatomical or physiological categories

Some traditional categories are subdivided into several body systems.

Cardiovascular is subdivided into five body systems:

Heart and Great Vessels                      Upper Veins

Upper Arteries                                      Lower Veins

Lower Arteries

Medical and Surgical Section  
Body Systems

**Central Nervous**

**Peripheral Nervous**

**Heart and Great Vessels**

**Upper Arteries**

**Lower Arteries**

**Upper Veins**

**Lower Veins**

**Lymphatic and Hemic**

**Eye**

**Ear, Nose, Sinus**

**Respiratory**

**Mouth and Throat**

**Gastrointestinal**

**Hepatobiliary and Pancreas**

**Endocrine**

**Skin and Breast**

**Subcutaneous Tissue and Fascia**

**Muscles**

**Tendons**

**Bursae and Ligaments**

**Head and Facial Bones**

**Upper Bones**

**Lower Bones**

**Upper Joints**

**Lower Joints**

**Urinary**

**Female Reproductive**

**Male Reproductive**

**Anatomical Regions, General**

**Anatomical Regions, Upper Extremities**

**Anatomical Regions, Lower Extremities**

Root Operation Character  
Medical and Surgical Section

Medical and Surgical Section  
Root Operation  
(Character 3)

Defines the objective of the procedure

31 different root operation values

Each root operation identifies a precise and distinct objective

Medical and Surgical Section  
Root Operations

Alteration

Bypass

Change

Control

Creation

Destruction

Detachment

Dilation

Division

Drainage

Release

Removal

Repair

Replacement

Reposition

Resection

Restriction

Revision

Supplement

Transfer

Transplantation

Medical and Surgical Section

Root Operation Principles

The root operation is coded according to the objective of the procedure actually performed

Discontinued or modified procedures coded to procedure actually performed

Composite terms (e.g., colonoscopy, sigmoidectomy) are not root operations

Medical and Surgical Section

Root Operation Principles

Combination procedures are coded separately

Each procedure with a distinct objective during an operative episode is coded separately

The complete or partial redo of a procedure is coded to the root operation performed rather than *Revision*

Revision is confined to correcting a malfunctioning or displaced device

Medical and Surgical Section

Root Operation Groups

Procedures that take out or eliminate all or a portion of a body part

Procedures that involve putting in or on, putting back, or moving body parts

Procedures that take out or eliminate solid matter, fluids, or gases from a body part

Procedures that only involve examination of body parts and regions

Medical and Surgical Section

Root Operation Groups

Procedures that can be performed only on tubular body parts

Procedures that always involve devices

Procedures involving cutting or separation only

Procedures involving other repairs

Procedures with other objectives

Medical and Surgical Section

Root Operations

Procedures that take out or eliminate

all or a portion of a body part

Excision

Resection

Extraction

Destruction

Detachment

Medical and Surgical Section

Root Operations

Excision

Definition Cutting out or off, without replacement, a portion of a body part

Explanation The qualifier *Diagnostic* is used to identify excision procedures that are biopsies

Examples Partial nephrectomy Liver biopsy

Medical and Surgical Section

Root Operations

Resection

Definition Cutting out or off, without replacement, all of a body part

Examples Total nephrectomy Total lobectomy of lung

Medical and Surgical Section

Root Operations

Extraction

Definition Pulling or stripping out or off all or a portion of a body part by the use of force

Explanation The qualifier *Diagnostic* is used to identify extraction procedures that are biopsies

Examples Dilation and curettage Vein stripping

Medical and Surgical Section

Root Operations

Destruction

Definition Physical eradication of all or a portion of a body part by the direct use of energy, force or a destructive agent

Explanation None of the body part is physically taken out

Examples Fulguration of rectal polyp Cautery of skin lesion

Medical and Surgical Section

Root Operations

Detachment

Definition Cutting off all or part of the upper or lower extremities

Explanation The body part value is the site of the detachment, with a qualifier if applicable to further specify the level where the extremity was detached

Examples Below knee amputation Disarticulation of shoulder

Medical and Surgical Section

Root Operations

Procedures that involve putting in or on, putting back, or moving living body parts

Transplantation

Reattachment

Reposition

Transfer

Medical and Surgical Section

Root Operations

Transplantation

**Definition** Putting in or on all or a portion of a living body part taken from another individual or animal to physically take the place and/or function of all or a portion of a similar body part

**Explanation** The native body part may or may not be taken out, and the transplanted body part may take over all or a portion of its function

**Examples** Kidney transplant Heart transplant

Medical and Surgical Section

Root Operations

Reattachment

**Definition** Putting back in or on all or a portion of a separated body part to its normal location or other suitable location

**Explanation** Vascular circulation and nervous pathways may or may not be reestablished

**Examples** Reattachment of hand Reattachment of avulsed kidney

Medical and Surgical Section

Root Operations

Reposition

**Definition** Moving to its normal location or other suitable location all or a portion of a body part

**Explanation** The body part is moved to a new location from an abnormal location, or from a normal location where it is not functioning correctly. The body part may or may not be cut out or off to be moved to the new location

**Examples** Reposition of undescended testicle Fracture reduction

Medical and Surgical Section

Root Operations

Transfer

**Definition** Moving, without taking out, all or a portion of a body part to another location to take over the function of all or a portion of a body part

Explanation The body part transferred remains connected to its vascular and nervous supply

Examples Tendon transfer

Skin pedicle flap transfer

Medical and Surgical Section

Root Operations

Procedures that take out or eliminate

solid matter, fluids or gases from a body part

Drainage

Extirpation

Fragmentation

Medical and Surgical Section

Root Operations

Drainage

Definition Taking or letting out fluids and/or gases from a body part

Explanation The qualifier *Diagnostic* is used to identify drainage procedures that are biopsies

Examples Thoracentesis Incision and drainage

Medical and Surgical Section

Root Operations

Extirpation

Definition Taking or cutting out solid matter from a body part

Explanation The solid matter may be an abnormal byproduct of a biological function or a foreign body; it may be imbedded in a body part or in the lumen of a tubular body part. The solid matter may or may not have been previously broken into pieces

Examples Thrombectomy Choledocholithotomy

Medical and Surgical Section

Root Operations

Fragmentation

Definition Breaking solid matter in a body part into pieces

Explanation Physical force (e.g., manual, ultrasonic) applied directly or indirectly is used to break the solid matter into pieces. The solid matter may be an abnormal byproduct of a biological function or a foreign body. The pieces of solid matter are not taken out

Examples Extracorporeal shockwave lithotripsy Transurethral lithotripsy

Medical and Surgical Section

Root Operations

Procedures that only involve examination of body parts and regions

Inspection

Map

Medical and Surgical Section

Root Operations

Inspection

Definition Visually and/or manually exploring a body part

Explanation Visual exploration may be performed with or without optical instrumentation. Manual exploration may be performed directly or through intervening body layers

Examples Diagnostic arthroscopy Exploratory laparotomy

Medical and Surgical Section

Root Operations

**Map**

Definition Locating the route of passage of electrical impulses and/or locating functional areas in a body part

Explanation Applicable only to the cardiac conduction mechanism and the central nervous system

Examples Cardiac mapping Cortical mapping

Medical and Surgical Section

Root Operations

Procedures that can be performed only on tubular body parts

Bypass

Dilation

Occlusion

Restriction

Medical and Surgical Section

Root Operations

Bypass

Definition Altering the route of passage of the contents of a tubular body part

Explanation Rerouting contents of a body part to a downstream area of the normal route, to a similar route and body part, or to an abnormal route and dissimilar body part. Includes one or more anastomoses, with or without the use of a device

Examples Coronary artery bypass Colostomy formation

Medical and Surgical Section

Root Operations

Dilation

Definition Expanding an orifice or the lumen of a tubular body part

Explanation The orifice can be a natural orifice or an artificially created orifice.  
Accomplished by stretching a tubular body part using intraluminal pressure or by cutting part of the orifice or wall of the tubular body part

Examples Percutaneous transluminal angioplasty Pyloromyotomy

Medical and Surgical Section

Root Operations

Occlusion

Definition Completely closing the orifice or lumen of a tubular body part

Explanation The orifice can be a natural orifice or an artificially created orifice

Example Fallopian tube ligation Ligation of inferior vena cava

Medical and Surgical Section

Root Operations

Restriction

Definition Partially closing the orifice or lumen of a tubular body part

Explanation The orifice can be a natural orifice or an artificially created orifice

Examples Esophagogastric fundoplication Cervical cerclage

Medical and Surgical Section

Root Operations

Procedures that always involve devices

Insertion

Replacement

Supplement

Removal

Change

Revision

Medical and Surgical Section

Root Operations

Insertion

Definition Putting in a nonbiological appliance that monitors, assists, performs or prevents a physiological function but does not physically take the place of a body part

Examples Insertion of radioactive implant Insertion of central venous catheter

Medical and Surgical Section

Root Operations

Replacement

Definition Putting in or on biological or synthetic material that physically takes the place and/or function of all or a portion of a body part

**Explanation** The body part may have been taken out or replaced, or may be taken out, physically eradicated, or rendered nonfunctional during the Replacement procedure. A Removal procedure is coded for taking out the device used in a previous replacement procedure

**Examples** Total hip replacement, bone graft Free skin graft

### Medical and Surgical Section

Root Operations

#### Supplement

**Definition** Putting in or on biological or synthetic material that physically reinforces or augments the function of a body part

**Explanation** The biological material is non-living, or the biological material is living and from the same individual. The body part may have been previously replaced. If the body part has been previously replaced, the *Supplement* procedure is performed to physically reinforce and/or augment the function of the replaced body part

**Examples** Herniorrhaphy using mesh, free nerve mitral valve ring annuloplasty, put a new acetabular liner in a previous hip replacement

### Medical and Surgical Section

Root Operations

#### Removal

**Definition** Taking out or off a device from a body part

**Explanation** If a device is taken out and a similar device put in without cutting or puncturing the skin or mucous membrane, the procedure is coded to the root operation *Change*. Otherwise, the procedure for taking out a device is coded to the root operation *Removal*

**Examples** Drainage tube removal Cardiac pacemaker removal

### Medical and Surgical Section

Root Operations

#### Change





Explanation Used only when the method to accomplish the repair is not one of the other root operations

Examples Colostomy takedown

Suture of laceration

Medical and Surgical Section

Root Operations

Procedures with other objectives

Alteration

Creation

Fusion

Medical and Surgical Section

Root Operations

Alteration

Definition Modifying the anatomical structure of a body part without affecting the function of the body part

Explanation Principal purpose is to improve appearance

Examples Face lift Breast augmentation

Medical and Surgical Section

Root Operations

Creation

Definition Making a new genital structure that does not take over the function of a body part

Explanation Used only for sex change operations

Examples Creation of vagina in a male Creation of penis in a female

Medical and Surgical Section

Root Operations

Fusion

Definition	Joining together portions of an articular part immobile	body part rendering the
Explanation	The body part is joined together by other means	fixation device, bone graft, or
Examples	Spinal fusion	Ankle arthrodesis

Body Part Character  
 Medical and Surgical Section

Medical and Surgical Section  
 Body Part Character  
 (Character 4)

Defines the specific anatomical site where the procedure is performed

34 possible body part values in each body system

Medical and Surgical Section  
 Body Part Values  
 Hepatobiliary and Pancreas

Liver

Liver, Right Lobe

Liver, Left Lobe

Gallbladder

Hepatic Duct, Right

Hepatic Duct, Left

Cystic Duct

Common Bile Duct

Ampulla of Vater

Pancreatic Duct

Pancreatic Duct, Accessory

Pancreas

Approach Character  
Medical and Surgical Section

Medical and Surgical Section  
Approach  
(Character 5)

Defines the technique used to reach the site of the procedure

7 different approach values

Medical and Surgical Section  
Approach

Approaches through the skin or mucous membrane

Open

Percutaneous

Percutaneous Endoscopic

Medical and Surgical Section  
Approach Definitions  
OPEN

Cutting through the skin or mucous membrane and any other body layers necessary to expose the site of the procedure

*Example:* Abdominal hysterectomy

Medical and Surgical Section  
Approach Definitions  
PERCUTANEOUS

Entry, by puncture or minor incision, of instrumentation through the skin or mucous membrane and any other body layers necessary to reach the site of the procedure

*Example:* Needle biopsy of liver

Medical and Surgical Section  
Approach Definitions  
PERCUTANEOUS ENDOSCOPIC

Entry, by puncture or minor incision, of instrumentation through the skin or mucous membrane and any other body layers necessary to reach and visualize the site of the procedure

*Example:* Arthroscopy

Medical and Surgical Section  
Approach

Approaches through an orifice

Via Natural or Artificial Opening

Via Natural or Artificial Opening Endoscopic

Via Natural or Artificial Opening Endoscopic with Percutaneous Endoscopic Assistance

Medical and Surgical Section  
Approach Definitions  
VIA NATURAL OR ARTIFICIAL OPENING

Entry of instrumentation through a natural or artificial external opening to reach the site of the procedure

*Example:* Endotracheal intubation

Medical and Surgical Section  
Approach Definitions  
VIA NATURAL OR ARTIFICIAL OPENING ENDOSCOPIC

Entry of instrumentation through a natural or artificial external opening to reach and visualize the site of the procedure

*Example:* Sigmoidoscopy

Medical and Surgical Section  
Approach Definitions

VIA NATURAL OR ARTIFICIAL OPENING ENDOSCOPIC WITH PERCUTANEOUS  
ENDOSCOPIC ASSISTANCE

Entry of instrumentation through a natural or artificial external opening and entry, by puncture or minor incision, of instrumentation through the skin or mucous membrane and any other body layers necessary to aid in the performance of the procedure

*Example:* Laparoscopic-assisted vaginal hysterectomy

Medical and Surgical Section

Approach Definitions

EXTERNAL

Procedures performed directly on the skin or mucous membrane and procedures performed indirectly by the application of external force through the skin or mucous membrane

*Example:* Closed fracture reduction

Device Character

Medical and Surgical Section

Medical and Surgical Section

Device Character

(Character 6)

The term “device” includes only devices that remain after the procedure is completed

Instruments that describe how a procedure is performed are not specified in the device character

Instruments for visualization are specified in the approach character

Materials incidental to a procedure such as clips and sutures are not considered devices

Medical and Surgical Section

Device Categories

Biological or synthetic material that takes the place of all or a portion of a body part (e.g., skin graft, joint prosthesis)

Biological or synthetic material that assists or prevents a physiological function (e.g., urinary catheter, IUD)

Medical and Surgical Section  
Device Categories

Therapeutic material that is not absorbed by, eliminated by, or incorporated into a body part (e.g., radioactive implant, orthopedic pins). Therapeutic materials that are considered devices can be removed

Mechanical or electronic appliances used to assist, monitor, take the place of, or prevent a physiological function (e.g., diaphragmatic pacemaker, hearing device)

Medical and Surgical Section  
Examples of Device Values

Drainage Device

Radioactive Element

Autologous Tissue Substitute

Extraluminal Device

Intraluminal Device

Synthetic Substitute

Nonautologous Tissue Substitute

Qualifier

Medical and Surgical Section

Medical and Surgical Section

Qualifier

(Character 7)

Defines an additional attribute of the procedure performed, if applicable

May have a narrow application, to a specific root operation, body system, or body part

Medical and Surgical Section

Examples of Qualifiers

Type of transplant

Second site for a bypass

Diagnostic excision (biopsy)

Obstetrics Section

Obstetrics Section

Character Specification

1<sup>st</sup> Character = Section

2<sup>nd</sup> Character = Body System

3<sup>rd</sup> Character = Root Operation

4<sup>th</sup> Character = Body Part

5<sup>th</sup> Character = Approach

6<sup>th</sup> Character = Device

7<sup>th</sup> Character = Qualifier

Obstetrics Section

Includes only procedures performed on the products of conception

Operations on the pregnant female are coded in the Medical and Surgical section (e.g., episiotomy)

Two root operations unique to this section

Other root operations same as Medical and Surgical section (e.g., Drainage, Inspection)

Obstetrics Section

Body System

(Character 2)

Contains a single body system:

Pregnancy

Obstetrics Section

Root Operation

(Character 3)

**Abortion:** Artificially terminating a pregnancy

**Delivery:** Assisting the passage of the products of conception from the genital canal

Obstetrics Section

Body Part

(Character 4)

Contains three different values for body part

Products of Conception

Products of Conception, Retained

Products of Conception, Ectopic

Obstetrics Section

Body Part

Products of conception refers to all components of a pregnancy, including the fetus, embryo, amnion, umbilical cord and placenta

There is no differentiation of the products of conception based on gestational age

Obstetrics Section

Device

(Character 6)

Some device values unique to this section

*Examples:*

Laminaria

Abortifacient

Monitoring Electrode

Obstetrics Section

Qualifier

(Character 7)

Values are dependent on the root operation, approach, or body part

*Examples (root operation dependent):*

Method of extraction (e.g., low forceps, vacuum)

Substance drained (e.g., amniotic fluid, fetal blood)

Obstetrics Section Table 10Q

Placement Section

Placement Section

Character Specification

1<sup>st</sup> Character = Section

2<sup>nd</sup> Character = Body System

3<sup>rd</sup> Character = Root Operation

4<sup>th</sup> Character = Body Region/ Orifice

5<sup>th</sup> Character = Approach

6<sup>th</sup> Character = Device

7<sup>th</sup> Character = Qualifier

Placement Section

Body System

(Character 2)

Contains two body system values:

Anatomical Regions

Anatomical Orifices

Placement Section

Root Operation

(Character 3)

Five root operations unique to this section

Compression

Dressing

Immobilization

Packing

Traction

Two root operations common to other sections

Change

Removal

Placement Section

Root Operation

(Character 3)

**Compression:** Putting pressure on a body region

**Dressing:** Putting material on a body region for protection

**Immobilization:** Limiting or preventing motion of a body region

**Packing:** Putting material in a body region or orifice

**Traction:** Exerting a pulling force on a body region in a distal direction

Placement Section

Body Regions/Orifices

(Character 4)

Two types of values:

External body regions (e.g., chest wall)

Natural orifices (e.g., mouth and pharynx)

Placement Section

Device

(Character 6)

Specifies the material or device in the placement procedure (e.g., splint, bandage)

Includes casts for fractures and dislocations

Devices in the placement section are off the shelf and do not require any extensive design, fabrication or fitting

The placement of devices that require extensive design, fabrication or fitting are coded in the Rehabilitation section

Placement Section

Table 2Y4

Administration Section

Administration Section

Character Specification

1<sup>st</sup> Character = Section

2<sup>nd</sup> Character = Physiological System

3<sup>rd</sup> Character = Root Operation

4<sup>th</sup> Character = Body System/ Region

5<sup>th</sup> Character = Approach

6<sup>th</sup> Character = Substance

7<sup>th</sup> Character = Qualifier

Administration Section

Body System

(Character 2)

Contains three body system values:

Physiological Systems and Anatomical Regions

Circulatory

Indwelling Device

Administration Section

Root Operation

(Character 3)

**Physiological Systems and Anatomical Regions**

**Introduction:** Putting in a therapeutic, diagnostic,  
prophylactic substance except blood

nutritional, physiological or  
or blood products

**Irrigation:** Putting in or on a cleansing

substance

Administration Section

Root Operation

(Character 3)

## **Circulatory System**

**Transfusion:** Putting in blood or blood

products

Administration Section

Root Operation

(Character 3)

## **Indwelling Device**

**Irrigation:** Putting in or on a cleansing

substance

Administration Section

Body Part

(Character 4)

For Introduction, the body part specifies where the procedure occurs and not necessarily the site where the substance introduced has an effect

For Irrigation, the body part specifies the site of the irrigation

Administration Section

Approach

(Character 5)

Approach uses values defined in the Medical and Surgical section

The approach value for intradermal, subcutaneous and intramuscular introductions (i.e., injections) is percutaneous

If a catheter is used to introduce a substance into a site within the circulatory system, the approach value is also percutaneous

Administration Section  
Substance  
(Character 6)

Substances are specified in broad categories

Substance values depend on body part

Administration Section  
Substance  
Physiological System & Anatomical Regions

Antineoplastic

Thrombolytic

Anti-infective

Anti-inflammatory

Radioactive Substance

Nutritional Substance

Electrolytic and Water Balance Substance

Irrigating Substance

Dialysate

Local Anesthetic

Regional Anesthetic

Inhalation Anesthetic

Gas

Contrast Agent

Fertilized Ovum

Sperm

Pigment

Platelet Inhibitor

Destructive Agent

Administration Section  
Substance  
Circulatory System

*Examples:*

Serum Albumin

Frozen Plasma

Fresh Plasma

Plasma Cryoprecipitate

Red Blood Cells

Stem Cells, Hematopoietic

Administration Section  
Qualifier  
(Character 7)

May further specify a substance

*Examples:*

High-dose Interleukin-2

Liquid Brachytherapy Isotope

Insulin

Administration Section  
Table 302

Measurement and Monitoring Section

Measurement and Monitoring Section  
Character Specification

1<sup>st</sup> Character = Section

2<sup>nd</sup> Character = Physiological System

3<sup>rd</sup> Character = Root Operation

4<sup>th</sup> Character = Body System

5<sup>th</sup> Character = Approach

6<sup>th</sup> Character = Function

7<sup>th</sup> Character = Qualifier

Measurement and Monitoring

Body System

(Character 2)

Contains a single body system value:

Physiological Systems

Measurement and Monitoring

Root Operation

(Character 3)

**Measurement:** Determining the level of a physiological or physical function at a point in time

**Monitoring:** Determining the level of a physiological or physical function repetitively over a period of time

Measurement and Monitoring

Approach

(Character 5)

Approach contains values also in the Medical and Surgical section

*Examples:*

Percutaneous

Via Natural or Artificial Opening Endoscopic

Measurement and Monitoring

Function

(Character 6)

Specifies physiological or physical functions (e.g., nerve conductivity, cardiac electrical activity, respiratory capacity)

Measurement and Monitoring  
Table 4A1

Extracorporeal Assistance and Performance Section

Extracorporeal Assistance  
and Performance Section  
Character Specification

1<sup>st</sup> Character = Section

2<sup>nd</sup> Character = Physiological System

3<sup>rd</sup> Character = Root Operation

4<sup>th</sup> Character = Body System

5<sup>th</sup> Character = Duration

6<sup>th</sup> Character = Function

7<sup>th</sup> Character = Qualifier

Extracorporeal Assistance  
and Performance  
Body System  
(Character 2)

Contains a single body system value:

Physiological Systems

Extracorporeal Assistance  
and Performance  
Root Operation  
(Character 3)

**Assistance:** Taking over a portion of a physiological function by extracorporeal means

**Performance:** Completely taking over a physiological function by extracorporeal means

**Restoration:** Returning, or attempting to return, a physiological function to its normal state by extracorporeal means

Extracorporeal Assistance  
and Performance

Duration  
(Character 5)

Specifies whether the procedure was a single occurrence, multiple occurrence, intermittent, or continuous

For respiratory ventilation assistance or performance, the range of hours is specified

(<24 hours, 24-96 hours or >96 hours)

Extracorporeal Assistance  
and Performance

Function  
(Character 6)

Specifies the physiological function assisted or performed (e.g., oxygenation, ventilation)

Extracorporeal Assistance  
and Performance

Qualifier  
(Character 7)

May specify equipment used in the procedure (e.g., balloon pump)

Extracorporeal Assistance  
and Performance

Table 5A2

Extracorporeal Therapies  
Section

Extracorporeal Therapies Section  
Character Specification

1<sup>st</sup> Character = Section

2<sup>nd</sup> Character = Physiological System

3<sup>rd</sup> Character = Root Operation

4<sup>th</sup> Character = Body System

5<sup>th</sup> Character = Duration

6<sup>th</sup> Character = Qualifier

7<sup>th</sup> Character = Qualifier

Extracorporeal Therapies

Body System

(Character 2)

Contains a single body system value:

Physiological Systems

Extracorporeal Therapies

Root Operation

(Character 3)

Contains ten root operation values:

Atmospheric Control

Pheresis

Decompression

Phototherapy

Electromagnetic Therapy

Ultrasound Therapy

Hyperthermia

Ultraviolet Light

Hypothermia

Therapy

Shock Wave Therapy

Extracorporeal Therapies

Duration

(Character 5)

Specifies whether the procedure was a single occurrence, multiple occurrence, or intermittent

Osteopathic Section

Osteopathic Section

Character Specification

1<sup>st</sup> Character = Section

2<sup>nd</sup> Character = Anatomical Regions

3<sup>rd</sup> Character = Root Operation

4<sup>th</sup> Character = Body Region

5<sup>th</sup> Character = Approach

6<sup>th</sup> Character = Method

7<sup>th</sup> Character = Qualifier

Osteopathic Section

Body System

(Character 2)

Contains a single body system value:

Anatomical Regions

Osteopathic Section

Root Operation

(Character 3)

Contains a single root operation value

Treatment:

Manual treatment to eliminate or alleviate somatic dysfunction and related disorders

Osteopathic Section

Method

(Character 6)

Articulatory - Raising

Fascial Release

General Mobilization

High Velocity - Low Amplitude

Indirect

Low Velocity- High Amplitude

Lymphatic Pump

Muscle Energy - Isometric

Muscle Energy - Isotonic

Other Method

Other Procedures Section

Other Procedures Section

Character Specification

1<sup>st</sup> Character = Section

2<sup>nd</sup> Character = Physiological Systems/ Anatomical Regions

3<sup>rd</sup> Character = Root Operation

4<sup>th</sup> Character = Body Region

5<sup>th</sup> Character = Approach

6<sup>th</sup> Character = Method

7<sup>th</sup> Character = Qualifier

Other Procedures Section

Root Operation

(Character 3)

Contains a single root operation value

Other Procedures:

Methodologies which attempt to remediate or cure a disorder or disease

Other Procedures Section

Body Region

(Character 4)

Contains physiological system and anatomical region values:

Nervous System

Circulatory System

Head and Neck Region

Integumentary System and Breast

Musculoskeletal System

Female Reproductive System

Male Reproductive System

Trunk Region

Upper Extremity

Lower Extremity

None

Miscellaneous Section

Method

(Character 6)

Acupuncture

Therapeutic Massage

Collection

Chiropractic Section

Chiropractic Section

Character Specification

1<sup>st</sup> Character = Section

2<sup>nd</sup> Character = Anatomical Regions

3<sup>rd</sup> Character = Root Operation

4<sup>th</sup> Character = Body Region

5<sup>th</sup> Character = Approach

6<sup>th</sup> Character = Method

7<sup>th</sup> Character = Qualifier

Chiropractic Section

Body System

(Character 2)

Contains a single body system value:

Anatomical Regions

Chiropractic Section

Root Operation

(Character 3)

Contains a single root operation value

Manipulation:

Manual procedure that involves a directed thrust to move a joint past the physiological range of motion, without exceeding the anatomical limit

Chiropractic Section

Method

(Character 6)

Non-Manual

Indirect Visceral

Extra-Articular

Direct Visceral

Long Lever Specific Contact

Long and Short Lever Specific Contact

Mechanically Assisted

Other Method

Imaging Section

Imaging Section

Character Specification

1<sup>st</sup> Character = Section

2<sup>nd</sup> Character = Body System

3<sup>rd</sup> Character = Root Type

4<sup>th</sup> Character = Body Part

5<sup>th</sup> Character = Contrast

6<sup>th</sup> Character = Qualifier

7<sup>th</sup> Character = Qualifier

Imaging Section

Contains diagnostic radiology procedures

Nuclear medicine is a separate section

Radiation Oncology is a separate section

Interventional Radiology

The intervention procedure is coded in the Medical and Surgical section

Imaging Section

Root Type

(Character 3)

Plain Radiography

Fluoroscopy

CT Scan

MRI

Ultrasound

Imaging Section

Root Type Definitions

(Character 3)

Imaging Section

Root Type

Plain Radiography

Planar display of an image developed from the capture of external ionizing radiation on photographic or photoconductive plate

Imaging Section

Root Type

Fluoroscopy

Single plane or bi-plane real time display of an image developed from the capture of external ionizing radiation on a fluorescent screen. The image may also be stored by either digital or analog means

Imaging Section

Root Type

Computerized Tomography

(CT Scan)

Computer-reformatted digital display of multiplanar images developed from the capture of multiple exposures of external ionizing radiation

Imaging Section

Root Type

Magnetic Resonance Imaging

(MRI)

Computer-reformatted digital display of multiplanar images developed from the capture of radio-frequency signals emitted by nuclei in a body site excited within a magnetic field

Imaging Section

Root Type

Ultrasonography

Real time display of images of anatomy or flow information developed from the capture of reflected and attenuated high frequency sound waves

Imaging Section

Contrast Material

(Character 5)

Contrast is differentiated by the concentration of the contrast material (e.g., high or low osmolar)

Imaging Section

Qualifier

(Character 6)

Specifies an imaging procedure without contrast followed by contrast

Nuclear Medicine Section

Nuclear Medicine Section

Character Specification

1<sup>st</sup> Character = Section

2<sup>nd</sup> Character = Body System

3<sup>rd</sup> Character = Root Type

4<sup>th</sup> Character = Body Part

5<sup>th</sup> Character = Radionuclide

6<sup>th</sup> Character = Qualifier

7<sup>th</sup> Character = Qualifier

Nuclear Medicine Section

Type Definitions

(Character 3)

Nuclear Medicine

Root Type

Planar Imaging

Introduction of radioactive materials into the body for a single plane display of images developed from the capture of radioactive emissions

Nuclear Medicine

Root Type

Tomographic (Tomo) Imaging

Introduction of radioactive materials into the body for three dimensional display of images developed from the capture of radioactive emissions

Nuclear Medicine

Root Type

Positron Emission

Tomographic (PET) Imaging

Introduction of radioactive materials into the body for three dimensional display of images developed from the simultaneous capture, 180 degrees apart, of radioactive emissions

Nuclear Medicine

Root Type

Nonimaging Uptake

Introduction of radioactive materials into the body for measurements of organ function, from the detection of radioactive emissions

Nuclear Medicine

Root Type

Nonimaging Probe

Introduction of radioactive materials into the body for the study of distribution and fate of certain substances by the detection of radioactive emissions; or, alternatively, measurement of absorption of radioactive emissions from an external source

Nuclear Medicine

Root Type

Nonimaging Assay

Introduction of radioactive materials into the body for the study of body fluids and blood elements, by the detection of radioactive emissions

Nuclear Medicine

Root Type

Systemic Therapy

Introduction of unsealed radioactive materials into the body for treatment

Nuclear Medicine Section

Body Part

(Character 4)

Indicates the body part or region to the degree of specificity that is usual and appropriate for the section

Regional (e.g., lower extremity veins) and combination body parts (e.g., liver and spleen) are commonly used

Nuclear Medicine Section

Radionuclide

(Character 5)

Character 5 is the source of the radiation

An “Other Radionuclide” option is included for new FDA approved radiopharmaceuticals

Radiation Oncology Section

Radiation Oncology Section

Character Specification

1<sup>st</sup> Character = Section

2<sup>nd</sup> Character = Body System

3<sup>rd</sup> Character = Root Type

4<sup>th</sup> Character = Treatment Site

5<sup>th</sup> Character = Modality Qualifier

6<sup>th</sup> Character = Isotope

7<sup>th</sup> Character = Qualifier

Radiation Oncology Section

Root Type

(Character 3)

Classified by the basic mode of radiation delivery used:

Beam Radiation

Brachytherapy

Stereotactic Radiosurgery

Other Radiation

Radiation Oncology Section

Treatment Site

(Character 4)

Specifies the body part that is the target of the radiation therapy

Radiation Oncology Section

Modality Qualifier

(Character 5)

Further specifies the type of radiation used:

photons

electrons

heavy particles

contact radiation

Radiation Oncology Section

Isotope

(Character 6)

Specifies the isotope administered in oncology treatments

Physical Rehabilitation and  
Diagnostic Audiology Section

Physical Rehabilitation and  
Diagnostic Audiology Section

Character Specification

1<sup>st</sup> Character = Section

2<sup>nd</sup> Character = Section Qualifier

3<sup>rd</sup> Character = Root Type

4<sup>th</sup> Character = Body System and Region

5<sup>th</sup> Character = Type Qualifier

6<sup>th</sup> Character = Equipment

7<sup>th</sup> Character = Qualifier

Physical Rehabilitation and  
Diagnostic Audiology

Root Type

(Character 3)

**Treatment:**

Use of specific activities or methods to develop, improve and/or restore the performance of necessary functions, compensate for dysfunction and /or minimize debilitation

**Assessment:**

Includes a determination of the patient's diagnosis when appropriate, need for treatment, planning for treatment, periodic assessment and documentation related to these activities

Physical Rehabilitation and  
Diagnostic Audiology

Root Type

(Character 3)

**Fitting(s):**

Design, fabrication, modification, selection and/or application of splint, orthosis, prosthesis, hearing aids and/or rehabilitation device

**Caregiver Training:**

Educating caregiver with the skills and knowledge used to interact with and assist the patient

Physical Rehabilitation and  
Diagnostic Audiology  
Body System and Region  
(Character 4)

Body Systems

Neurological System

Circulatory System

Respiratory System

Integumentary System

Musculoskeletal System

Genitourinary System

Body Regions

Head and Neck

Upper Back/Upper Extremity

Lower Back/Lower Extremity

Whole Body

Physical Rehabilitation and  
Diagnostic Audiology  
Type Qualifier  
(Character 5)

Specifies the precise test or method employed

*Examples:*

Therapeutic exercise treatment

Dressing or transfer assessment

Prosthesis fitting

Transfer caregiver training

Physical Rehabilitation and  
Diagnostic Audiology  
Equipment  
(Character 6)

Specific types of equipment are not listed

General categories of equipment are listed (e.g., physical agents, mechanical modalities,  
assistive/adaptive/supportive devices)

Mental Health Section

Mental Health Section  
Character Specification

1<sup>st</sup> Character = Section

2<sup>nd</sup> Character = Body System

3<sup>rd</sup> Character = Root Type

4<sup>th</sup> Character = Type Qualifier

5<sup>th</sup> Character = Qualifier

6<sup>th</sup> Character = Qualifier

7<sup>th</sup> Character = Qualifier

Mental Health Section

Root Type  
(Character 3)

Psychological Tests

Crisis Intervention

Medication Management

Individual Psychotherapy

Counseling

Family Psychotherapy

Electroconvulsive Therapy

Biofeedback

Hypnosis

Narcosynthesis

Group Psychotherapy

Light Therapy

Mental Health Section

Type Qualifier

(Character 4)

Type qualifier provides additional specificity

Not all types have type qualifier

Mental Health Section

Type Qualifier

(Character 4)

*Example:*

Psychological Tests

Developmental

Personality and Behavioral

Intellectual and Psychoeducational

Neuropsychological

Neurobehavioral and Cognitive Status

Mental Health Section

Qualifier

(Character 5 - 7 )

Have a value of “Z” None

Substance Abuse Treatment Section

Substance Abuse Section

Character Specification

1<sup>st</sup> Character = Section

2<sup>nd</sup> Character = Body System

3<sup>rd</sup> Character = Root Type

4<sup>th</sup> Character = Type Qualifier

5<sup>th</sup> Character = Qualifier

6<sup>th</sup> Character = Qualifier

7<sup>th</sup> Character = Qualifier

Substance Abuse Treatment

Root Type

(Character 3)

Detoxification Services

Individual Counseling

Group Counseling

Individual Psychotherapy

Family Counseling

Medication Management

Pharmacotherapy

Substance Abuse Treatment

Type Qualifier

(Character 4)

Type qualifier provides additional specificity

Not all types have type qualifier

Substance Abuse Treatment  
Type Qualifier  
(Character 4)

*Example:*

Pharmacotherapy

Nicotine Replacement Therapy

Methadone Maintenance

LAAM

Antabuse

Naltrexone

Naloxone

Clonidine

Bupropion

Psychiatric Medications

Other Replacement Medication

Substance Abuse Treatment  
Qualifier  
(Character 5 - 7 )

Have a value of “Z” None

ICD-10-PCS Testing

ICD-10-PCS Testing

Tested by Clinical Data Abstraction Centers (CDACs)

FMAS, Columbia, MD

DynKePRO, York, PA

Coded 5,000 records

Offered feedback on issues found

Suggested improvements

Additional comparison test of 100 records

Additional testing on ambulatory records

Major Modifications as  
a Result of Testing

Limited Not Otherwise Specified (NOS) options added

Number of approaches reduced

Training manual revised

Index entries added

Testing Findings

More complete than ICD-9-CM, greater specificity

Easy to expand the system

Multi-axial structure makes it easier to analyze

Standardized terminology makes it easier to use once the coder has initial training

Testing Findings

Initial training time will be a factor since it differs significantly from ICD-9-CM

Having all terms defined makes it easier to teach

Once basic knowledge is acquired, the coder does not use the index