

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 ODB

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

1st Character = Section

2nd Character = Body System

3rd Character = Root Operation

4th Character = Body Part

5th Character = Approach

6th Character = Device

7th 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

Ex amples Reattachment of hand
kidney

Reattachment of avulsed

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
reduction

Fracture

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. The solid matter is imbedded in a body part, or is in the lumen of a tubular body part. The solid matter may or may not have been previously broken into pieces. No appreciable amount of the body part is taken out
Examples Thrombectomy Choledocholithotomy

Medical and Surgical Section

Root Operations

Fragmentation

Definition Breaking solid matter in a body part into pieces
Explanation The solid matter may be an abnormal byproduct of a biological function or a foreign body. Physical force (e.g., manual, ultrasonic) applied directly or indirectly through intervening body parts is used to break the solid matter into pieces. The pieces of solid matter are not taken out, but are eliminated or absorbed through normal biological functions
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 around an area of a body part to another distal (downstream) area in the normal route; rerouting the contents to another different but similar route and body part; or to an abnormal route and another dissimilar body part. It includes one or more concurrent anastomoses with or without the use of a device such as autografts, tissue substitutes and synthetic substitutes

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 biological material is non-living, or the biological material is living and from the same individual. The body part may have been previously taken out, previously replaced, or may be taken out concomitantly with the *Replacement* procedure. If the body part has been previously replaced, a separate *Removal* procedure is coded for taking out the device used in the previous replacement

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 the device is taken out and a similar device is 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 the device is coded to the root operation *Removal* and the procedure for putting in the new device is coded to the root operation performed

Examples Drainage tube removal Cardiac pacemaker removal

Medical and Surgical Section

Root Operations

Change

Definition Taking out or off a device from a body part and putting back an identical or similar device in or on the same body part without cutting or puncturing the skin or a mucous membrane

Explanation All Change procedures are coded using the approach *External*

Examples Urinary catheter change Gastrostomy tube change

Medical and Surgical Section

Root Operation

Revision

Definition Correcting, to the extent possible, a malfunctioning or displaced device

Explanation Revision can include correcting a malfunctioning or displaced device by taking out or putting in components of the device such as a screw

Examples Adjustment of pacemaker lead Adjustment of hip prosthesis

Medical and Surgical Section

Root Operations

Procedures involving cutting or separation only

Division
Release

Medical and Surgical Section

Root Operations

Division

Definition Cutting into a body part without draining fluids and/or gasses from the body part in order to separate or transect a body part

Explanation All or a portion of the body part is separated into two or more portions

Examples Spinal cordotomy, osteotomy

Medical and Surgical Section Root Operations Release

Definition Freeing a body part from an abnormal physical constraint by cutting or by use of force

Explanation Some of the restraining tissue may be taken out but none of the body part is taken out

Examples Adhesiolysis Carpal tunnel release

Medical and Surgical Section Root Operations

Procedures involving other repairs

Control

Repair

Medical and Surgical Section Root Operations Control

Definition Stopping, or attempting to stop, post-procedure bleeding

Explanation The site of the bleeding is coded as an anatomical region and not to a specific body part

Examples Control of post-prostatectomy hemorrhage
Control of post-tonsillectomy hemorrhage

Medical and Surgical Section Root Operations Repair

Definition Restoring, to the extent possible, a body part to its normal anatomic structure and function

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

Examples Herniorrhaphy 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	body
	part rendering the articular body	part immobile
Explanation	The body part is joined together by	
	fixation device, bone graft, or other	means
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

1st Character = Section
2nd Character = Body System

3rd Character = Root Operation

4th Character = Body Part

5th Character = Approach

6th Character = Device

7th 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

1st Character = Section

2nd Character = Body System

3rd Character = Root Operation

4th Character = Body Region/ Orifice

5th Character = Approach

6th Character = Device

7th 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 region

Packing: Putting material in a body region or

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

a body

orifice

region

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

- 1st Character = Section
- 2nd Character = Physiological System
- 3rd Character = Root Operation
- 4th Character = Body System/ Region
- 5th Character = Approach
- 6th Character = Substance
- 7th 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,
nutritional, physiological or prophylactic
substance except blood 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

- 1st Character = Section
- 2nd Character = Physiological System
- 3rd Character = Root Operation
- 4th Character = Body System
- 5th Character = Approach
- 6th Character = Function
- 7th 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
in time

function at a point

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

- 1st Character = Section
- 2nd Character = Physiological System
- 3rd Character = Root Operation
- 4th Character = Body System
- 5th Character = Duration
- 6th Character = Function
- 7th 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**

- 1st Character = Section
- 2nd Character = Physiological System
- 3rd Character = Root Operation
- 4th Character = Body System
- 5th Character = Duration
- 6th Character = Qualifier
- 7th 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

- 1st Character = Section
- 2nd Character = Anatomical Regions
- 3rd Character = Root Operation
- 4th Character = Body Region
- 5th Character = Approach
- 6th Character = Method
- 7th 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

1st Character = Section
2nd Character = Physiological Systems/ Anatomical Regions
3rd Character = Root Operation
4th Character = Body Region
5th Character = Approach
6th Character = Method
7th 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

1st Character = Section
2nd Character = Anatomical Regions
3rd Character = Root Operation
4th Character = Body Region
5th Character = Approach
6th Character = Method
7th 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

1st Character = Section

2nd Character = Body System

3rd Character = Root Type

4th Character = Body Part

5th Character = Contrast

6th Character = Qualifier

7th 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**

- 1st Character = Section
- 2nd Character = Body System
- 3rd Character = Root Type
- 4th Character = Body Part
- 5th Character = Radionuclide
- 6th Character = Qualifier
- 7th 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

- 1st Character = Section
- 2nd Character = Body System
- 3rd Character = Root Type
- 4th Character = Treatment Site
- 5th Character = Modality Qualifier
- 6th Character = Isotope
- 7th 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

- 1st Character = Section
- 2nd Character = Section Qualifier
- 3rd Character = Root Type
- 4th Character = Body System and Region
- 5th Character = Type Qualifier
- 6th Character = Equipment
- 7th 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

- 1st Character = Section
- 2nd Character = Body System
- 3rd Character = Root Type
- 4th Character = Type Qualifier
- 5th Character = Qualifier
- 6th Character = Qualifier
- 7th 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

1st Character = Section

2nd Character = Body System

3rd Character = Root Type

4th Character = Type Qualifier

5th Character = Qualifier

6th Character = Qualifier

7th 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