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

• 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
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
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

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

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

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 position of pacemaker lead     Recementing 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  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 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

- 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
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

**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
Abortion:  Artificially terminating a pregnancy

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

Body Part
Contains three different values for body part
- Products of Conception
- Products of Conception, Retained
- Products of Conception, Ectopic
• 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 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\textsuperscript{st} Character = Section
• 2\textsuperscript{nd} Character = Physiological System
• 3\textsuperscript{rd} Character = Root Operation
• 4\textsuperscript{th} Character = Body System/ Region
• 5\textsuperscript{th} Character = Approach
• 6\textsuperscript{th} Character = Substance
• 7\textsuperscript{th} 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
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 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\textsuperscript{st} Character = Section
• 2\textsuperscript{nd} Character = Physiological System
• 3\textsuperscript{rd} Character = Root Operation
• 4\textsuperscript{th} Character = Body System
• 5\textsuperscript{th} Character = Duration
• 6\textsuperscript{th} Character = Function
• 7\textsuperscript{th} 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

Character Specification

- 1\textsuperscript{st} Character = Section
- 2\textsuperscript{nd} Character = Physiological System
- 3\textsuperscript{rd} Character = Root Operation
- 4\textsuperscript{th} Character = Body System
- 5\textsuperscript{th} Character = Duration
- 6\textsuperscript{th} Character = Qualifier
- 7\textsuperscript{th} 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
  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
- 2\textsuperscript{nd} Character = Body System
- 3\textsuperscript{rd} Character = Root Type
- 4\textsuperscript{th} Character = Body Part
- 5\textsuperscript{th} Character = Contrast
- 6\textsuperscript{th} Character = Qualifier
- 7\textsuperscript{th} 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

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
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

Character Specification

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

(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