GETTING TO THE ROOT OF THE OPERATION PART II

Presented by Andrea Romero
NMHIMA Spring Conference
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OBJECTIVES

- Review the definition of selected root operations for the Medical and Surgical section and Obstetrics section of ICD-10-PCS
- Identify the objective for selected root operations in the Medical and Surgical section and Obstetrics section of ICD-10-PCS
- Review special explanations for selected root operations in the Medical and Surgical section and Obstetrics section of ICD-10-PCS
- Identify examples of selected root operations in the Medical and Surgical section and Obstetrics section of ICD-10-PCS
MEDICAL AND SURGICAL SECTION

- CHARACTER 1: Section
- CHARACTER 2: Body System
- CHARACTER 3: Root Operation
- CHARACTER 4: Body Part
- CHARACTER 5: Approach
- CHARACTER 6: Device
- CHARACTER 7: Qualifier
## MEDICAL AND SURGICAL SECTION

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PROCEDURES THAT TAKE OUT OR ELIMINATE ALL OR A PORTION OF A BODY PART (REVIEW)

- **Excision (B)**
  - Cutting out or off, without replacement, a portion of a body part

- **Resection (T)**
  - Cutting out or off, without replacement, all of a body part

- **Extraction (D)**
  - Pulling or stripping out or off all or a portion of a body part by the use of force

- **Destruction (5)**
  - Physical eradication of all or a portion of a body part by the direct use of energy, force or a destructive agent

- **Detachment (6)**
  - Cutting off all or part of the upper or lower extremities
PROCEDURES THAT INVOLVE PUTTING IN OR ON, PUTTING BACK, OR MOVING LIVING BODY PARTS (REVIEW)

- Transplantation (Y)
  - 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

- Reattachment (M)
  - Putting back in or on all or a portion of a separated body part to its normal location or other suitable location

- Reposition (S)
  - Moving to its normal location or other suitable location all or a portion of a body part

- Transfer (X)
  - 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
PROCEDURES THAT TAKE OUT OR ELIMINATE SOLID MATTER, FLUIDS OR GASES FROM A BODY PART (REVIEW)

- Drainage (9)
  - Taking or letting out fluids and/or gases from a body part
- Extirpation (C)
  - Taking or cutting out solid matter from a body part
- Fragmentation (F)
  - Breaking solid matter in a body part into pieces
PROCEDURES THAT ONLY INVOLVE EXAMINATION OF BODY PARTS AND REGIONS (REVIEW)

- Inspection (J)
  - Visually and/or manually exploring a body part
- Map (K)
  - Locating the route of passage of electrical impulses and/or locating functional areas in a body part
PROCEDURES THAT CAN BE PERFORMED ONLY ON TUBULAR BODY PARTS

- Bypass
- Dilation
- Occlusion
- Restriction
PROCEDURES THAT ALWAYS INVOLVE DEVICES

- Insertion
- Replacement
- Supplement
- Removal
- Change
- Revision
PROCEDURES INVOLVING CUTTING OR SEPARATION ONLY

- Division
- Release
PROCEDURES INVOLVING OTHER REPAIRS

- Control
- Repair
PROCEDURES WITH OTHER OBJECTIVES

- Alteration
- Creation
- Fusion
PROCEDURES THAT CAN BE PERFORMED ONLY ON TUBULAR BODY PARTS

- Bypass
- Dilation
- Occlusion
- Restriction
BYPASS (1)

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

Example
- Coronary artery bypass
- Colostomy formation
### OD1

**Medical and Surgical**

**Gastrointestinal System**

**Bypass: Altering the route of passage of the contents of a tubular body part**

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Section: Medical and Surgical  
Body System: Heart and Great Vessels  
Operation: Bypass: Altering the route of passage of the contents of a tubular body part
Which of the following would be an example of the root operation bypass?

- Endoscopic radial to median nerve transfer
- Urinary diversion, ureter, using ileal conduit to skin
- Tracheostomy formation with tracheostomy tube placement
- Percutaneous transluminal angioplasty of brachial artery stenosis
- Percutaneous in-situ coronary venous arterialization (PICVA) of single coronary artery
DILATION (7)

● **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

● **Example**
  - Percutaneous transluminal angioplasty
  - Pyloromyotomy
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POP QUIZ

Which of the following would be an example of the root operation dilation?

- Percutaneous transluminal coronary angioplasty (PTCA)
- Transnasal dilation and stent placement lacrimal duct
- Hysteroscopy with dilation and curetage
- Pyloromyotomy
- Routine Foley catheter placement
OCCLUSION (L)

- **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
POP QUIZ

Which of the following would be an example of the root operation occlusion?

- Tumor embolization of meningioma
- Female sterilization using Fallope rings
- Embolization of a cerebral aneurysm
- Suture ligation of failed AV graft of brachial artery
- Ligation of esophageal vein
- Female sterilization by electrocoagulation of fallopian tube
**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

**Example**
- Esophagogastric fundoplication
- Cervical cerclage
Which of the following would be an example of the root operation restriction?

- Cautery of nosebleed
- Complete embolization of internal carotid-cavernous fistula
- Thoracotomy with banding of left pulmonary artery with extraluminal device
- Craniotomy with clipping of cerebral aneurysm
- Non-incisional, transnasal placement of restrictive stent in lacrimal duct
PROCEDURES THAT ALWAYS INVOLVE DEVICES

- Insertion
- Replacement
- Supplement
- Removal
- Change
- Revision
INSERTION (H)

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

Example
- Insertion of radioactive implant
- Insertion of central venous catheter
Which of the following would be an example of the root operation insertion?

- Percutaneous insertion of bone growth stimulator electrode, left femoral shaft
- Cystoscopy with ureteral dilation and placement of ureteral stent
- Percutaneous transluminal coronary angioplasty with insertion of drug-eluting stent
- Percutaneous placement of intrathecal infusion pump for pain management
- Open insertion of multiple channel cochlear implant, right ear
REPLACEMENT (R)

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

Example
- Total hip replacement, bone graft
- Free skin graft
Which of the following would be an example of the root operation replacement?

- Phacoemulsification of cataract of right eye with intraocular lens implantation
- Open aortic valve replacement using porcine valve
- Foley catheter replacement
- Left inguinal herniorrhaphy with Marlex mesh
- Open tenonectomy with graft to left ankle using cadaver graft
- Total left knee arthroplasty with insertion of total knee prosthesis
**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

**Example**
- Herniorrhaphy using mesh
- Free nerve mitral valve ring annuloplasty
- Put a new acetabular liner in a previous hip replacement
Which of the following would be an example of the root operation supplement?

- Open exchange of liner in right femoral component of previous hip replacement
- Open abdominal wall hernia repair using synthetic mesh
- Excision of abdominal aorta with Gore-Tex graft replacement, open
- Percutaneous endoscopic autograft nerve graft to left radial nerve
- Cystoscopy with placement of brachytherapy seeds in prostate gland
REMOVAL (P)

- **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*.

- **Example**
  - Drainage tube removal
  - Cardiac pacemaker removal
POP QUIZ

Which of the following would be an example of the root operation removal?

- Removal of external fixator, left humeral head fracture
- Right wrist joint amputation
- Cystoscopy with removal of right ureteral stent
- Removal of tattered ear drum fragments with tweezers
- Transurethral removal of brachytherapy seeds
- Endotracheal extubation
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*

Example
- Urinary catheter change
- Gastrostomy tube change
POP QUIZ

Which of the following would be an example of the root operation change?

- Repositioning of dislocated total hip replacement components
- Exchange of chest tube for right pneumothorax
- Replacement of malfunctioning pacemaker generator
- Foley catheter replacement
- Percutaneous endoscopic gastrostomy (PEG) tube exchange
- Removal and replacement of drainage tube from left hip joint
REVISION (W)

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

Example
- Adjustment of position of pacemaker lead
- Recementing of hip prosthesis
POP QUIZ

Which of the following would be an example of the root operation revision?

- Repositioning of Swan-Ganz catheter in superior vena cava
- Partial-thickness skin graft to right lower leg, autograft
- Removal of a loose screw and putting a larger screw in a fracture repair plate, left fibula
- Percutaneous adjustment of position of left pacemaker lead in the left atrium
- Incision with removal of K-wire fixation, left second metacarpal
PROCEDURES INVOLVING CUTTING OR SEPARATION ONLY

- Division
- Release
DIVISION (8)

Definition
- Cutting into a body part without draining fluids and/or gases 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.

Example
- Spinal cordotomy
- Osteotomy
Which of the following would be an example of the root operation division?

- Percutaneous tenotomy of left Achilles tendon
- EGD with esophagotomy of esophagogastric junction
- Incision and removal of right lacrimal duct calculus
- Laparoscopy with lysis of peritoneal adhesions
- Left heart catheterization with division of bundle of His
RELEASE (N)

- **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

- **Example**
  - Adhesiolysis
  - Carpal tunnel release
Which of the following would be an example of the root operation release?

- Anal sphincterotomy
- Incision of scar contracture, left elbow
- Manual rupture of left shoulder joint adhesions under general anesthesia
- Frenulotomy for treatment of tongue-tie syndrome
- Mitral valvulotomy for release of fused leaflets, open
- Open osteotomy of capitate, right hand
PROCEDURES INVOLVING OTHER REPAIRS

- Control
- Repair
**CONTROL (3)**

- **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

- **Example**
  - Control of post-prostatectomy hemorrhage
  - Control of post-tonsillectomy hemorrhage
Which of the following would be an example of the root operation control?

- Control of post-operative retroperitoneal bleeding via laparotomy
- Exploration and ligation post-op arterial bleeder, forearm
- D&C for excessive bleeding following endometrial biopsy
- Reopening thoracotomy site with drainage and control of post-operative hemopericardium
- Hysteroscopy with cautery of post-hysterectomy oozing and evacuation of clot
**REPAIR (Q)**

- **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

- **Example**
  - Colostomy takedown
  - Suture of laceration
Which of the following would be an example of the root operation repair?

- Perineoplasty with repair of old obstetric laceration
- Right inguinal herniorrhaphy
- Closure abdominal wall stab wound
- Laparatomy with suture blunt force duodenal laceration
- Left inguinal herniorrhaphy with Marlex mesh
- Suture radial nerve laceration
PROCEDURES WITH OTHER OBJECTIVES

- Alteration
- Creation
- Fusion
**ALTERATION (0)**

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

- **Explanation**
  - Principal purpose is to improve appearance

- **Example**
  - Face lift
  - Breast augmentation
Which of the following would be an example of the root operation alteration?

- Open blepharoplasty of right and left lower eyelids for blepharoptosis
- Cosmetic rhinoplasty with septal reduction and tip elevation, using local tissue graft, open
- Abdominal liposuction for cosmetic reasons
- Open abdominoplasty (tummy tuck)
- Open cosmetic blepharoplasty of right and left lower eyelids
- Functional rhinoplasty for restoration of airway
FUSION (G)

- **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

- **Example**
  - Spinal fusion
  - Ankle arthrodesis
Definition
- Making a new genital structure that does not take over the function of a body part

Explanation
- Used only for sex change operations

Example
- Creation of vagina in a male
- Creation of penis in a female
OBSTETRICS SECTION

- CHARACTER 1: Section
- CHARACTER 2: Body System
- CHARACTER 3: Root Operation
- CHARACTER 4: Body Part
- CHARACTER 5: Approach
- CHARACTER 6: Device
- CHARACTER 7: Qualifier
## Obstetrics Section

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ABORTION (A)

- **Definition**
  - Artificially terminating a pregnancy

- **Explanation**
  - Subdivided according to whether an additional device such as a laminaria or abortifacient is used, or whether the abortion was performed by mechanical means

- **Example**
  - Transvaginal abortion using vacuum aspiration technique
**Definition**
- Assisting the passage of the products of conception from the genital canal

**Explanation**
- Applies only to manually assisted, vaginal delivery

**Example**
- Manually assisted delivery
QUESTIONS?