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Cardiology Documentation ICD-10 Analysis

Presenters

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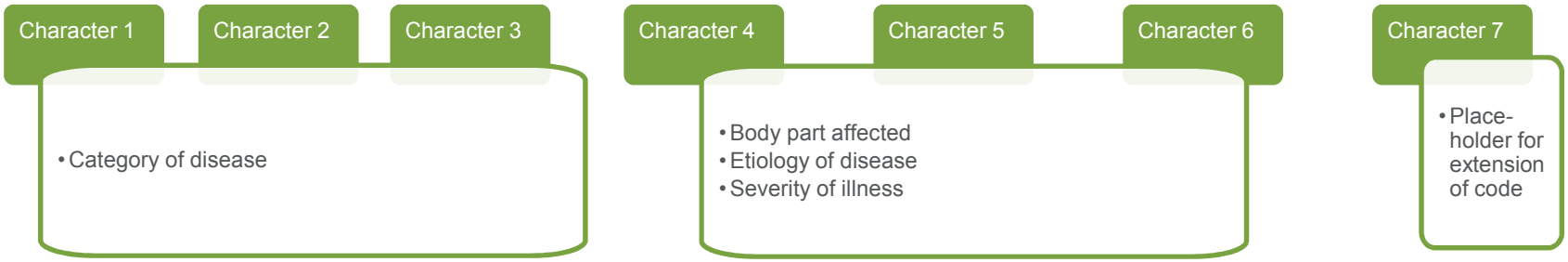
ICD 10- The Hard Way

I21 ST elevation (STEMI) and non-ST elevation (NSTEMI) myocardial infarction **I21.0 ST elevation (STEMI) myocardial infarction of anterior wall** **I12.01 ST elevation (STEMI) myocardial infarction involving left main coronary artery** **I21.02 ST elevation (STEMI) myocardial infarction involving left anterior descending coronary artery** **I21.09 ST elevation (STEMI) myocardial infarction involving other coronary artery of anterior wall**	**I22 Subsequent ST elevation (STEMI) and non-ST (NSTEMI) myocardial infarction** **I22.0 Subsequent ST elevation (STEMI) myocardial infarction of anterior wall** **I22.1Subsequent ST elevation (STEMI) myocardial infarction of inferior wall** **I22.2 Subsequent non-ST elevation (NSTEMI) myocardial infarction** **I22.8 Subsequent ST elevation (STEMI) myocardial infarction of other sites**
I21.1 ST elevation myocardial infarction of inferior wall I21.11 ST elevation (STEMI) myocardial infarction involving right coronary artery I21.19 ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall	I23 Certain current complications following ST elevation (STEMI) and non-STEMI (NSTEMI) myocardial infarction (within the 28 day period) I23.0 Hemopericardium as current complication following acute myocardial infarction
I21.2 ST elevation (STEMI) myocardial infarction of other sites I21.21 ST elevation (STEMI) myocardial infarction involving left circumflex coronary artery I21.29 ST elevation (STEMI) myocardial infarction involving other sites	I23.1 Atrial septal defect as current complication following acute myocardial infarction I23.2 Ventricular septal defect as current complication following acute myocardial infarction
I21.3 ST elevation (STEMI) myocardial infarction of unspecified site I21.4 Non-ST (NSTEMI) myocardial infarction I23.7 Postinfarction angina I23.8 Other current compication following acute myocardial infarction I25 Chronic ischemic heart disease	I23.3 Rupture of cardiac wall without hemopericardium as current complication following acute myocardial infarction I23.4 Rupture of chordae tendinease as current complication following acute myocardial infarction I23.5 Rupture of papillary muscle as current complication following acute myocardial infarction I23.6 Thrombosis of atrium, auricular appendage, and ventricle as current complication following acute myocardial infarction

ICD-10 CM

- Diagnosis classification system developed by the Centers for Disease Control and Prevention for use in all U.S. health care treatment settings
- ICD 10 CM codes can have 3, 4, 5, 6 or 7 characters (alphanumeric)



I25.110	I25- Chronic ischemic heart disease	1- Atherosclerotic heart disease of native coronary artery	1- with angina pectoris	0- unstable angina pectoris

A joint effort between the healthcare provider and the coder is essential to achieve complete and accurate documentation, code assignment, and reporting of diagnoses and procedures. One diagnosis code to be assigned in ICD 10 CM to include both the coronary artery disease and the identified angina.

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ICD-10 Made Simple - DOCUMENT!

Acuity- acute, chronic, intermittent

Severity- mild, moderate, severe

Etiology- trauma, diabetes, renal failure, exercise or infection induced

Location- where is it- be specific about which joint, chest, femur, posterior thorax

Laterality- which side is it? Left, right, both?

Detail: Present on admission status, associated symptoms (hypoxia, loss of consciousness), additional medical diagnoses, initial versus subsequent encounter

If you like mnemonics

Any: Acuity
Small: Severity
Error: Etiology
Loses: Location
Large: Laterality
Dollars: Detail- Present on admission status, associated symptoms, additional medical diagnoses, initial versus subsequent encounter

Key Words for Cardiology

- **Which vessel?** MI, DVT, PE, ruptured vs un-ruptured aneurysm
- **Type of valvular disease-** rheumatic, non-rheumatic
- **Type of heart failure-** systolic, diastolic, combined
- **Atherosclerosis-** native or bypass vessel
- **Atrial Fibrillation:** chronic (permanent); paroxysmal, persistent

SOI *(Severity of Illness)* / ROM *(Risk of Mortality)*

- Documentation should reflect the acuity of the patient…
- If a patient dies because he or she was severely ill, but the documentation translates into codes that do not reflect the severity, the adjusted SOI and ROM poorly reflect the care provided.

Four Severity of Illness Subclasses	Four Risk of Mortality Subclasses
1. Minor	1. Minor
2. Moderate	2. Moderate
3. Major	3. Major
4. Extreme	4. Extreme

Case Study – Acute Myocardial Infarction

A 54-year-old female presents with an acute anterior wall STEMI The pain started suddenly about 5 hours ago. She received TPA at 12:20pm 2 hours after the pain started at an outlying hospital. She has a history of paroxysmal atrial fibrillation, native vessel atherosclerosis and smokes 2 PPD of cigarettes. She denies any family history. She is not currently in A. Fib

MI: Example

ACUITY	acute
SEVERITY	severe
ETIOLOGY	atherosclerosis of native vessel
LOCATION	anterior wall
LATERALITY	N/A
DETAIL	initial encounter, atrial fibrillation POA. TPA at 12:20pm
ALL PUT TOGETHER	1. Acute severe STEMI involving the anterior wall or (left anterior descending artery or left main coronary artery. TPA at outlying hospital 2. Atherosclerosis of native vessel 3. Paroxysmal Atrial Fibrillation 4. Tobacco Dependence

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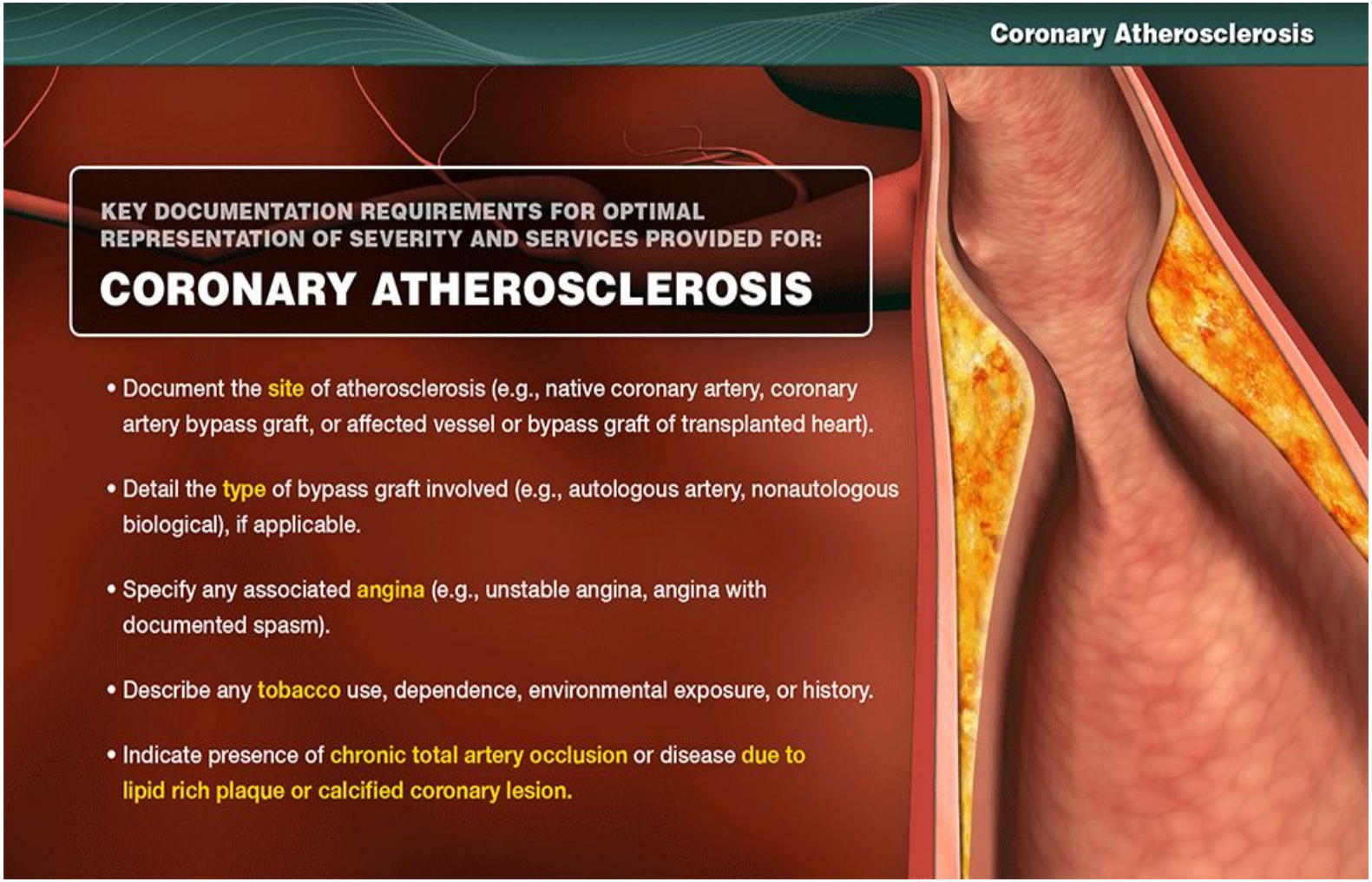
Atherosclerosis Documentation



Congestive Heart Failure

A 75-year-old man is seen today for urgent treatment of his combined diastolic and systolic congestive heart failure. He has not been taking his lasix and presents with moderate shortness of breath. You last saw him 2 months ago.

CHF: Example

ACUITY	acute
SEVERITY	moderate
ETIOLOGY	medication non compliance
LOCATION	N/A
LATERALITY	N/A
DETAIL	subsequent encounter
ALL PUT TOGETHER	1. Acute severe diastolic and systolic CHF exacerbation secondary to medication non-compliance. Subsequent encounter 2. History of chronic CHF 3. Add any associated, acute respiratory failure if present

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Case Presentation: Sepsis

67 year old male presents with altered mental status, fever to 104F, and a blood pressure of 70/30 mm Hg, HR of 110 bpm and RR of 20 breaths/ minute. His oxygen saturation is 90% on RA but increases to 95% with 2 liters of oxygen. His WBC is 20,000 and his urine is positive. His BP does not improve with 2 boluses of normal saline and therefore you start him on pressors. He is admitted to the ICU.

PMH: History of MI

Social history: Smokes 2 packs of cigarettes per day

Sepsis: Example

ACUITY	acute
SEVERITY	severe
ETIOLOGY	urinary tract
LOCATION	N/A
LATERALITY	N/A
DETAIL	Initial encounter. **Associated findings**: Hypoxia, encephalopathy, present on admission, cigarette *(tobacco)* dependence
ALL PUT TOGETHER	1. Acute, severe septic shock due to urinary tract infection – present on admission 2. Acute hypoxia 3. Acute encephalopathy 4. History of Acute MI 5. Cigarette dependence

Sepsis

The ICD-10-CM describes more than 65 categories of sepsis. Include the following:

The circumstances that preceded the sepsis (eg, due to device, implant, etc., during labor, post-procedural)

Causal organism

Presence of shock

Present On Admission or not present on admission

Urosepsis is not considered a classification!

Cardiogenic shock

The 75-year-old patient male with a history of inferior wall MI in 2013 and systolic CHF was rushed back into the ED with pale, cold, and clammy skin. He has a heart rate of 110 beats per minute, his blood pressure is 70/P, respiratory rate of 40 breaths per minute and O2 saturation is 88% on 100% non-rebreather mask. He recently started eating potato chips and this morning ate a salty pretzel. He smokes 5 cigars a day. This is your initial encounter with this patient. He is intubated due to increasing respiratory distress.

Chest xray is indicative of CHF with cardiomegaly but with no effusions
ECG- no acute changes

Cardiogenic Shock: Example

ACUITY	acute
SEVERITY	severe
ETIOLOGY	excessive salt intake
LOCATION	N/A
LATERALITY	N/A
DETAIL	Initial encounter. Present on admission
ALL PUT TOGETHER	Acute, severe cardiogenic shock due to excessive salt intake. Present on admission. Initial encounter Acute, severe, respiratory failure secondary to acute on chronic systolic CHF Cigar dependence History of inferior wall myocardial infarction

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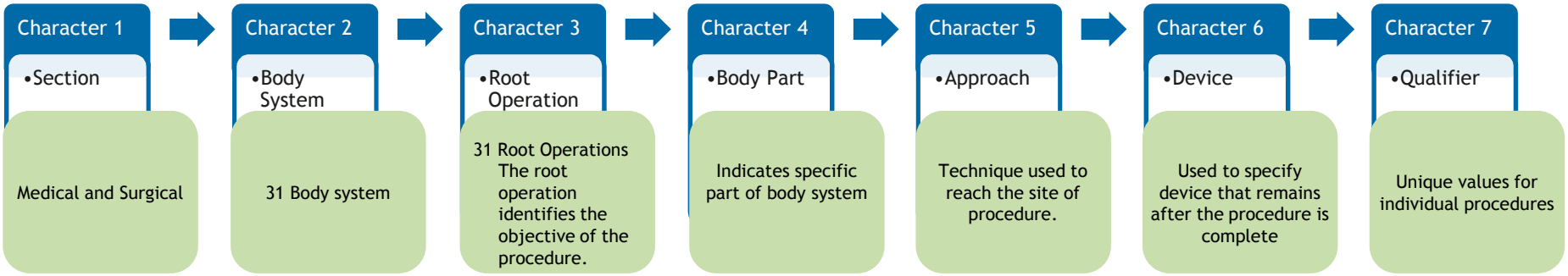
ICD-10 PCS

- ICD-10-PCS codes are composed of seven characters
- Each character is an axis of classification that specifies information about the procedure performed



Name	ICD-10 PCS coding	Medical and surgical	Heart and great vessels	Dilation	Body part (coronary artery one site)	Approach (Percutaneous)	Device (Drug eluting stent)	Qualifier (no qualifier)
PTCA with stent	**027034Z**	**0**	**2**	**7**	**0**	**3**	**4**	**Z**

In ICD-10 PCS, the term *"procedure"* refers to the complete specification of the seven characters.

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Important Documentation for Procedures

Type of Procedure (Root Operation): specifies the primary objective of the procedure

Ex: drainage, excision, resection

Body Part: the specific organ or site on which the procedure is performed

Approach: the technique/method used to access the operative site

Ex: Open, percutaneous, external, endoscopic

Devices: any device or material that remains at the site upon completion of the procedure

Qualifier: unique character for specific procedures

Ex: diagnostic, therapeutic

Angioplasty procedure

Angioplasty procedures require the following documentation:

- Specify whether artery, valve, or vein, which and laterality
- Specify if the approach is open, percutaneous, or percutaneous endoscopic
- Specify the device left in as drug-eluting intraluminal device, simple intraluminal device, radioactive intraluminal device, or no device
- Possible qualifier characters include whether vessel is bifurcated, and if ductus arteriosus

Angioplasty

Code for insertion and dilation of an intraluminal device into two sites of a bifurcated coronary artery, percutaneous endoscopic.

0 2 7 1 4 D 6

Root operation – dilation
Body part – heart and great vessels
Approach – percutaneous endoscopic
Device – intraluminal device
Qualifier – bifurcation

Case Study – Central Line

Type of Procedure (Root Operation): Insertion
Body Part: right atrium, SVC, IVC, innominate vein, subclavian vein
Approach: percutaneous
Device: infusion catheter

Procedure	ICD-10 PCS coding	Medical and surgical	Heart and great vessels	Insertion	Body part	Approach (Percutaneous)	Device (Infusion device)	Qualifier
PICC	**02H*33Z**	**0**	**2**	**H**	**6 Atrium RT V Superior vena cava**	**3**	**3**	**Z**

ICD-10 requires to specify the site where the tip of the catheter is placed for central line

Cardiac Conditions

Myocardial infarction (MI)

1) Document type as:
-STEMI **or** NSTEMI

2) Document location:
-For STEMI, specific artery involved and or site (anterolateral, infero-posterior, transmural, posteroseptal)
-For NSTEMI, no additional documentation needed

3) Document exact date of recent MI (one that occurred no more than 4 weeks ago) and:
-STEMI **versus** NSTEMI
-If STEMI, wall of heart affected
Acute MI is within 4 weeks/28 day period

4) Provide information regarding TPA administration in a different facility within 24 hours of admission to the current facility

Congestive heart failure (CHF)

1) Document severity:
-Acute
-Chronic
or
-Acute on chronic

2) Document type:
-Systolic
-Diastolic
-Combined systolic and diastolic

3) Specify etiology, if known, such as due to:
-Dilated cardiomyopathy

Coronary artery disease (CAD)

1) Document site as:
-Native artery **and/or**
-Bypass graft
-autologous vein
-autologous artery
-nonautologous

2) Document if with:
- Angina pectoris
- Unstable angina pectoris
- Angina pectoris and spasm

3) Tobacco use, abuse, dependence, past history, or exposure

4) BMI and any other corresponding diagnosis

Heart valve disease

1) Document site:
Mitral, aortic, tricuspid, pulmonary

2) Document type
-Rheumatic
-Arteriosclerotic
-Syphilitic

3) Document acuity

4) Document type of disorder as
-Stenosis
-Insufficiency
-Prolapse

Atrial Fibrillation and Atrial Flutter

1) For atrial fibrillation, document type as:
-Paroxysmal
-Persistent
or
-Chronic

2) For atrial flutter, document type as:
-Typical or Type 1
or
-Atypical or Type 2

Cardiac Arrest

1) Document cause as due to:
-Underlying cardiac or non-cardiac condition
-Show cause and effect by using words such as “due to” or “secondary to”

Acute Coronary Syndrome (ACS)

1) The ACS codes to acute ischemic heart disease – unspecified.
The most specific diagnosis needs to be specified in the documentation, as per patient’s condition – Can it be any of the following:
-Intermediate/insufficiency syndrome
-Unstable angina
-Coronary slow flow --syndrome
-Myocardial infarction
-Other diagnosis

Aortic aneurysm

1) Document the body part as
Aorta (thoracic, abdominal, ascending, descending etc.), heart (valve etc.)

2) Document type of complication
-Dissecting, rupture, syphilitic for aorta
-Rheumatic, acute, subacute etc. for heart
- Specify valve involved

Root Operations

ICD-9 Procedure	ICD-10 root operation	Example
Fulguration / ablation	**Destruction**: Physical eradication of all or a portion of a body part by the direct use of energy, force, or a destructive agent	e.g. ablation of atrium, AV node, conduction pathway etc.
Bypass	**Bypass**: Altering the route of passage of the contents of a tubular body part	e.g. coronary artery bypass
Replacement	**Change**: 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	e.g. cardiac pacemaker change
Repair	**Restriction**: Partially closing an orifice or the lumen of a tubular body part	e.g. aortic aneurysm repair
Replacement	**Replacement:** 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	e.g. heart valve replacement
Insertion	**Insertion:** Putting in a non-biological appliance that monitors, assists, performs, or prevents a physiological function but does not physically take the place of a body part	e.g. insertion of central venous catheter
Reposition	**Revision:** Correcting, to the extent possible, a portion of a malfunctioning device or the position of a displaced device	e.g. adjustment of position of pacemaker lead
Angioplasty	**Dilation:** Expanding an orifice or the lumen of a tubular body part	e.g. percutaneous transluminal angioplasty
Repair	**Supplementation:** Putting in or on biological or synthetic material that physically reinforces and/or augments the function of a portion of a body part	e.g. mitral valve ring annuloplasty
Cutting	**Division:** Cutting into a body part, without draining fluids and/or gases from the body part, in order to separate or transect a body part	e.g. division of Cordae tendenae or papillary muscle
Thrombectomy	**Extirpation:** Taking or cutting out solid matter from a body part	e.g. removal of a thrombus
Ligation	**Occlusion:** Completely closing an orifice or the lumen of a tubular body part	e.g. ligation of inferior vena cava
Adhesiolysis	**Release:** Freeing a body part from an abnormal physical constraint by cutting or by the use of force	e.g. adhesiolysis in pericardium
Transplantation	**Transplantation:** 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	e.g. Heart transplant

Documentation - Cardiology Procedures

Procedure	Root operation	Body Part	Approach/ Contrast	Device/ Substance	Qualifier
PTCA with stent placement		Coronary artery site as one, two, three, four or more	Open, Percutaneous , Endoscopic	Drug-eluting or non drug-eluting	Bifurcation or not
Pacemaker insertion		Chest or abdomen for pacemaker and right atrium, right ventricle, left ventricle for lead	Open, percutaneous or endoscopic	Type of pacemaker as dual chamber, single chamber, rate responsive or resynchronization	
Coronary artery bypass graft		Coronary artery site as one, two, three, four or more	Open or endoscopic	Autologous arterial or autologous venous tissue	Use of left internal mammary artery, right mammary artery, thoracic artery, abdominal artery
Ablation		Atrium with laterality, AV node, conduction pathway	Open, percutaneous or endoscopic		
Angiography	Modality as fluoroscopic or plain radiographic	Coronary artery single, multiple or bypass graft	Contrast used as high osmolar, low osmolar, other.		
Aortic valve replacement		Aortic, mitral, pulmonary, or tricuspid valve	Open or endoscopic	Autologous tissue, non-autologous tissue, zooplastic tissue, synthetic substitute	
PICC / central line placement		Tip of line as inferior vena cava, right atrium, superior vena cava,	Open, percutaneous or endoscopic		

Documentation Analysis

- ICD-10 has specificity for STEMI and there are specific codes for the wall of heart affected as anterior, apical-lateral, inferior etc. and the type of artery involved. This specification for the artery involved was not present in ICD-9.
- A subsequent myocardial infarction is to be used when a patient who has suffered an acute myocardial infarction has a new myocardial infarction within the four-week time frame of the initial myocardial infarction.
- ICD-10 has combination code for CAD and angina. ICD 10 requires documentation to specify if the CAD patient also had angina. Also, the type of angina if present needs to be specified e.g. unstable, spasm or other.
- ICD-10 requires to specify the site and approach for pacemaker and lead placement as well as the type of pacemaker inserted.
- ICD-10 requires to specify angiography modality as fluoroscopic or plain radiographic. ICD-10 also requires to specify the osmolarity as high, low, or other contrast.
- ICD-10 requires to specify the site for catheter ablation as atrium with laterality, AV node, conduction pathway etc. this classification was not present in ICD-9.
- ICD-10 requires the exact body part to be specified for saphenous vein graft as greater or lesser along with the laterality e.g. Harvesting of left lesser saphenous vein
- ICD-10 requires the type of aortic valve replaced as zooplastic, autologous, non-autologous or synthetic tissue. Also the approach used should be documented as with or without endoscopic
- ICD-10 requires to specify the association of hypertension with heart disease to be coded as a combination code (hypertensive heart disease). ICD-10-CM eliminates the need to qualify this diagnosis as benign or malignant.
- BMI, Tobacco use, dependence, alcohol etc. and any other corresponding diagnosis needs to be documented, wherever applicable

ICD-10 Made Simple - DOCUMENT!

Acuity- acute, chronic, intermittent

Severity- mild, moderate, severe

Etiology- trauma, diabetes, renal failure, exercise or infection induced

Location- where is it- be specific about which joint, chest, femur, posterior thorax

Laterality- which side is it? Left, right, both?

Detail: Present on admission status, associated symptoms (hypoxia, loss of consciousness), additional medical diagnoses, initial versus subsequent encounter

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For any questions: