

ICD-10

Clinical Concepts for Cardiology

ICD-10 Clinical Concepts Series



Common Codes



Clinical Documentation Tips



Clinical Scenarios

ICD-10 Clinical Concepts for Cardiology is a feature of Road to 10, a CMS online tool built with physician input.

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ICD-10 Compliance Date: **October 1, 2015**



Table Of Contents

Common Codes

- Abnormalities of Heart Rhythm
- Atrial Fibrillation and Flutter
- Cardiac Arrhythmias (Other)
- Chest Pain
- Heart Failure
- Hypertension
- Nonrheumatic Valve Disorders
- Selected Atherosclerosis, Ischemia, and Infarction
- Syncope and Collapse

Clinical Documentation Tips

- Acute Myocardial Infarction (AMI)
- Hypertension
- Congestive Heart Failure
- Underdosing
- Atherosclerotic Heart Disease with Angina Pectoris
- Cardiomyopathy
- Heart Valve Disease
- Arrhythmias/Dysrhythmia

Clinical Scenarios

- Scenario 1: Hypertension/Cardiac Clearance
- Scenario 2: Syncope
- Scenario 3: Chest Pain
- Scenario 4: Subsequent AMI
- Scenario: CHF and Pulmonary Embolism Example

Common Codes

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Abnormalities of Heart Rhythm (ICD-9-CM 427.81, 427.89, 785.0, 785.1, 785.3)

R00.0	Tachycardia, unspecified
R00.1	Bradycardia, unspecified
R00.2	Palpitations
R00.8	Other abnormalities of heart beat
R00.9*	Unspecified abnormalities of heart beat

*Codes with a greater degree of specificity should be considered first.

Atrial Fibrillation and Flutter (ICD-9-CM 427.31, 427.32)

I48.0	Paroxysmal atrial fibrillation
I48.1	Persistent atrial fibrillation
I48.2	Chronic atrial fibrillation
I48.3	Typical atrial flutter
I48.4	Atypical atrial flutter
I48.91*	Unspecified atrial fibrillation
I48.92*	Unspecified atrial flutter

*Codes with a greater degree of specificity should be considered first.

Cardiac Arrhythmias (Other) (ICD-9-CM 427.41, 427.42, 427.60, 427.61, 427.69, 427.81, 427.89, 427.9)

I49.01	Ventricular fibrillation
I49.02	Ventricular flutter
I49.1	Atrial premature depolarization
I49.2	Junctional premature depolarization
I49.3	Ventricular premature depolarization
I49.40	Unspecified premature depolarization
I49.49	Other premature depolarization
I49.5	Sick sinus syndrome
I49.8	Other specified cardiac arrhythmias
I49.9*	Cardiac arrhythmia, unspecified

*Codes with a greater degree of specificity should be considered first.

Chest Pain (ICD-9-CM 411.1, 413.1, 413.9, 786.50 to 786.59 Range)

I20.0	Unstable angina
I20.1	Angina pectoris with documented spasm
I20.8	Other forms of angina pectoris
I20.9	Angina pectoris, unspecified
R07.1	Chest pain on breathing
R07.2	Precordial pain
R07.81	Pleurodynia
R07.82	Intercostal pain
R07.89	Other chest pain
R07.9*	Chest pain, unspecified

*Codes with a greater degree of specificity should be considered first.

Heart Failure (ICD-9-CM 428.0, 428.1, 428.20 to 428.23 Range, 428.30 TO 428.33 Range, 428.40 TO 428.43 Range, 428.9)

I50.1	Left ventricular failure
I50.20*	Unspecified systolic (congestive) heart failure
I50.21	Acute systolic (congestive) heart failure
I50.22	Chronic systolic (congestive) heart failure
I50.23	Acute on chronic systolic (congestive) heart failure
I50.30*	Unspecified diastolic (congestive) heart failure
I50.31	Acute diastolic (congestive) heart failure
I50.32	Chronic diastolic (congestive) heart failure
I50.33	Acute on chronic diastolic (congestive) heart failure
I50.40*	Unspecified combined systolic (congestive) and diastolic (congestive) heart failure
I50.41	Acute combined systolic (congestive) and diastolic (congestive) heart failure
I50.42	Chronic combined systolic (congestive) and diastolic (congestive) heart failure
I50.43	Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure
I50.9*	Heart failure, unspecified

*Codes with a greater degree of specificity should be considered first.

Hypertension (ICD-9-CM 401.9)

I10	Essential (primary) hypertension
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Nonrheumatic Valve Disorders

Aortic Valve Disorders (ICD-9-CM 424.1)

I35.0	Nonrheumatic aortic (valve) stenosis
I35.1	Nonrheumatic aortic (valve) insufficiency
I35.2	Nonrheumatic aortic (valve) stenosis with insufficiency
I35.8	Other nonrheumatic aortic valve disorders
I35.9*	Nonrheumatic aortic valve disorder, unspecified

Mitral Valve Disorders (ICD-9-CM 424.0)

I34.0	Nonrheumatic mitral (valve) insufficiency
I34.1	Nonrheumatic mitral (valve) prolapse
I34.2	Nonrheumatic mitral (valve) stenosis
I34.8	Other nonrheumatic mitral valve disorders
I34.9*	Nonrheumatic mitral valve disorder, unspecified

*Codes with a greater degree of specificity should be considered first.

Selected Atherosclerosis, Ischemia, and Infarction (ICD-9-CM 410.00 to 410.92 Range, 411.1, 412, 413.0, 413.1, 413.9, 414.00 to 414.07 Range, 414.10, 414.11, 414.12, 414.19, 414.2, 414.3, 414.4, 414.8, 414.9, 429.2, 429.5, 429.6, 429.71, 429.79)

I21.01	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
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
I21.21	ST elevation (STEMI) myocardial infarction involving left circumflex coronary artery
I21.29	ST elevation (STEMI) myocardial infarction involving other sites
I21.3	ST elevation (STEMI) myocardial infarction of unspecified site
I21.4	Non-ST elevation (NSTEMI) myocardial infarction
I22.0	Subsequent ST elevation (STEMI) myocardial infarction of anterior wall
I22.1	Subsequent 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
I22.9	Subsequent ST elevation (STEMI) myocardial infarction of unspecified site
I23.0	Hemopericardium as current complication following acute myocardial infarction
I23.1	Atrial septal defect as current complication following acute myocardial infarction
I23.2	Ventricular septal defect as current complication following acute myocardial infarction
I23.3	Rupture of cardiac wall without hemopericardium as current complication following acute myocardial infarction
I23.4	Rupture of chordae tendineae 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 complications following acute myocardial infarction

*Codes with a greater degree of specificity should be considered first.

Selected Atherosclerosis, Ischemia, and Infarction (ICD-9-CM 410.00 to 410.92 Range, 411.1, 412, 413.0, 413.1, 413.9, 414.00 to 414.07 Range, 414.10, 414.11, 414.12, 414.19, 414.2, 414.3, 414.4, 414.8, 414.9, 429.2, 429.5, 429.6, 429.71, 429.79) (continued)

I23.7	Postinfarction angina
I23.8	Other current complications following acute myocardial infarction
I25.10	Atherosclerotic heart disease of native coronary artery without angina pectoris
I25.110	Atherosclerotic heart disease of native coronary artery with unstable angina pectoris
I25.111	Atherosclerotic heart disease of native coronary artery with angina pectoris with documented spasm
I25.118	Atherosclerotic heart disease of native coronary artery with other forms of angina pectoris
I25.119*	Atherosclerotic heart disease of native coronary artery with unspecified angina pectoris
I25.2	Old myocardial infarction
I25.3	Aneurysm of heart
I25.41	Coronary artery aneurysm
I25.42	Coronary artery dissection
I25.5	Ischemic cardiomyopathy
I25.6	Silent myocardial ischemia
I25.700*	Atherosclerosis of coronary artery bypass graft(s), unspecified, with unstable angina pectoris
I25.701*	Atherosclerosis of coronary artery bypass graft(s), unspecified, with angina pectoris with documented spasm
I25.708*	Atherosclerosis of coronary artery bypass graft(s), unspecified, with other forms of angina pectoris
I25.709*	Atherosclerosis of coronary artery bypass graft(s), unspecified, with unspecified angina pectoris
I25.710	Atherosclerosis of autologous vein coronary artery bypass graft(s) with unstable angina pectoris
I25.711	Atherosclerosis of autologous vein coronary artery bypass graft(s) with angina pectoris with documented spasm
I25.718	Atherosclerosis of autologous vein coronary artery bypass graft(s) with other forms of angina pectoris

*Codes with a greater degree of specificity should be considered first.

Selected Atherosclerosis, Ischemia, and Infarction (ICD-9-CM 410.00 to 410.92 Range, 411.1, 412, 413.0, 413.1, 413.9, 414.00 To 414.07 Range, 414.10, 414.11, 414.12, 414.19, 414.2, 414.3, 414.4, 414.8, 414.9, 429.2, 429.5, 429.6, 429.71, 429.79) (continued)

I25.719*	Atherosclerosis of autologous vein coronary artery bypass graft(s) with unspecified angina pectoris
I25.720	Atherosclerosis of autologous artery coronary artery bypass graft(s) with unstable angina pectoris
I25.721	Atherosclerosis of autologous artery coronary artery bypass graft(s) with angina pectoris with documented spasm
I25.728	Atherosclerosis of autologous artery coronary artery bypass graft(s) with other forms of angina pectoris
I25.729*	Atherosclerosis of autologous artery coronary artery bypass graft(s) with unspecified angina pectoris
I25.730	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unstable angina pectoris
I25.731	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with angina pectoris with documented spasm
I25.738	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with other forms of angina pectoris
I25.739*	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unspecified angina pectoris
I25.750	Atherosclerosis of native coronary artery of transplanted heart with unstable angina
I25.751	Atherosclerosis of native coronary artery of transplanted heart with angina pectoris with documented spasm
I25.758	Atherosclerosis of native coronary artery of transplanted heart with other forms of angina pectoris
I25.759*	Atherosclerosis of native coronary artery of transplanted heart with unspecified angina pectoris
I25.760	Atherosclerosis of bypass graft of coronary artery of transplanted heart with unstable angina
I25.761	Atherosclerosis of bypass graft of coronary artery of transplanted heart with angina pectoris with documented spasm
I25.768	Atherosclerosis of bypass graft of coronary artery of transplanted heart with other forms of angina pectoris

*Codes with a greater degree of specificity should be considered first.

Selected Atherosclerosis, Ischemia, and Infarction (ICD-9-CM 410.00 to 410.92 Range, 411.1, 412, 413.0, 413.1, 413.9, 414.00 To 414.07 Range, 414.10, 414.11, 414.12, 414.19, 414.2, 414.3, 414.4, 414.8, 414.9, 429.2, 429.5, 429.6, 429.71, 429.79) (continued)

I25.769*	Atherosclerosis of bypass graft of coronary artery of transplanted heart with unspecified angina pectoris
I25.790	Atherosclerosis of other coronary artery bypass graft(s) with unstable angina pectoris
I25.791	Atherosclerosis of other coronary artery bypass graft(s) with angina pectoris with documented spasm
I25.798	Atherosclerosis of other coronary artery bypass graft(s) with other forms of angina pectoris
I25.799*	Atherosclerosis of other coronary artery bypass graft(s) with unspecified angina pectoris
I25.810	Atherosclerosis of coronary artery bypass graft(s) without angina pectoris
I25.811	Atherosclerosis of native coronary artery of transplanted heart without angina pectoris
I25.812	Atherosclerosis of bypass graft of coronary artery of transplanted heart without angina pectoris
I25.82	Chronic total occlusion of coronary artery
I25.83	Coronary atherosclerosis due to lipid rich plaque
I25.84	Coronary atherosclerosis due to calcified coronary lesion
I25.89	Other forms of chronic ischemic heart disease
I25.9*	Chronic ischemic heart disease, unspecified

*Codes with a greater degree of specificity should be considered first.

Syncope and Collapse (ICD-9-CM 780.2)

R55	Syncope and collapse
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Clinical Documentation Tips

ICD-10 Compliance Date: **October 1, 2015**

Specifying anatomical location and laterality required by ICD-10 is easier than you think. This detail reflects how physicians and clinicians communicate and to what they pay attention - it is a matter of ensuring the information is captured in your documentation.

In ICD-10-CM, there are three main categories of changes:

- Definition Changes**
- Terminology Differences**
- Increased Specificity**

For cardiology, the focus is increased specificity and documenting the downstream effects of the patient's condition.

ACUTE MYOCARDIAL INFARCTION (AMI)

Definition Change

When documenting hypertension, include the following:

- | | |
|---------------------------|---|
| 1. Timeframe | An AMI is now considered "acute" for 4 weeks from the time of the incident, a revised timeframe from the current ICD-9 period of 8 weeks. |
| 2. Episode of care | ICD-10 does not capture episode of care (e.g. initial, subsequent, sequelae). |
| 3. Subsequent AMI | ICD-10 allows coding of a new MI that occurs during the 4 week "acute period" of the original AMI. |

ICD-10 Code Examples

I21.02	ST elevation (STEMI) myocardial infarction involving left anterior descending coronary artery
I21.4	Non-ST elevation (NSTEMI) myocardial infarction
I22.1	Subsequent ST elevation (STEMI) myocardial infarction of inferior wall

HYPERTENSION

Definition Change

In ICD-10, hypertension is defined as essential (primary). The concept of “benign or malignant” as it relates to hypertension no longer exists.

When documenting hypertension, include the following:

- 1. Type** e.g. essential, secondary, etc.
- 2. Causal relationship** e.g. Renal, pulmonary, etc.

ICD-10 Code Examples

I10	Essential (primary) hypertension
I11.9	Hypertensive heart disease without heart failure
I15.0	Renovascular hypertension

CONGESTIVE HEART FAILURE

Terminology Differences & Increased Specificity

The terminology used in ICD-10 exactly matches the types of CHF. If you document “decompensation” or “exacerbation,” the CHF type will be coded as “acute on chronic.”

When documenting CHF, include the following:

- 1. Cause** e.g. Acute, chronic
- 2. Severity** e.g. Systolic, diastolic

ICD-10 Code Examples

I50.23	Acute on chronic systolic (congestive) heart failure
I50.33	Acute on chronic diastolic (congestive) heart failure
I50.43	Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure

UNDERDOSING

Terminology Difference

Underdosing is an important new concept and term in ICD-10. It allows you to identify when a patient is taking less of a medication than is prescribed.

When documenting underdosing, include the following:

1. Intentional, Unintentional, Non-compliance

Is the underdosing deliberate? (e.g., patient refusal)

2. Reason

Why is the patient not taking the medication?
(e.g. financial hardship, age-related debility)

ICD-10 Code Examples

Z91.120	Patient's intentional underdosing of medication regimen due to financial hardship
T36.4x6A	Underdosing of tetracyclines, initial encounter
T45.526D	Underdosing of antithrombotic drugs, subsequent encounter

ATHEROSCLEROTIC HEART DISEASE WITH ANGINA PECTORIS

Terminology Difference

When documenting atherosclerotic heart disease with angina pectoris, include the following:

- 1. Cause** Assumed to be atherosclerosis; notate if there is another cause
- 2. Stability** e.g. Stable angina pectoris, unstable angina pectoris
- 3. Vessel** Note which artery (if known) is involved and whether the artery is native or autologous
- 4. Graft involvement** If appropriate, whether a bypass graft was involved in the angina pectoris diagnosis; also note the original location of the graft and whether it is autologous or biologic

ICD-10 Code Examples

I25.110	Atherosclerotic heart disease of a native coronary artery with unstable angina pectoris
I25.710	Atherosclerosis of autologous vein coronary artery bypass graft(s) with unstable angina pectoris

CARDIOMYOPATHY

Increased Specificity

When documenting cardiomyopathy, include the following, where appropriate:

- 1. Type** e.g. Dilated/congestive, obstructive or nonobstructive hypertrophic, etc.
- 2. Location** e.g. Endocarditis, right ventricle, etc.
- 3. Cause** e.g. Congenital, alcohol, etc.

List cardiomyopathy seen in other diseases such as gout, amyloidosis, etc.

ICD-10 Code Examples

I42.0	Dilated cardiomyopathy
I42.1	Obstructive hypertrophic cardiomyopathy
I42.3	Endomyocardial (eosinophilic) disease

HEART VALVE DISEASE

Increased Specificity

ICD-10 assumes heart valve diseases are rheumatic; if this is not the case, notate otherwise.

When documenting heart valve disease, include the following:

- 1. Cause** e.g. Rheumatic or non-rheumatic
- 2. Type** e.g. Prolapse, insufficiency, regurgitation, incompetence, stenosis, etc.
- 3. Location** e.g. Mitral valve, aortic valve, etc.

ICD-10 Code Examples

I06.2	Rheumatic aortic stenosis with insufficiency
I34.1	Nonrheumatic mitral (valve) prolapse

ARRYTHMIAS/DYSRHYTHMIA

Increased Specificity

When documenting arrhythmias, include the following:

- 1. Location** e.g. Atrial, ventricular, supraventricular, etc.
- 2. Rhythm name** e.g. Flutter, fibrillation, type 1 atrial flutter, long QT syndrome, sick sinus syndrome, etc.
- 3. Acuity** e.g. Acute, chronic, etc.
- 4. Cause** e.g., Hyperkalemia, hypertension, alcohol consumption, digoxin, amiodarone, verapamil HCl

ICD-10 Code Examples

I48.2	Chronic atrial fibrillation
I49.01	Ventricular fibrillation

Clinical Scenarios

ICD-10 Compliance Date: **October 1, 2015**

Quality clinical documentation is essential for communicating the intent of an encounter, confirming medical necessity, and providing detail to support ICD-10 code selection. In support of this objective, we have provided outpatient focused scenarios to illustrate specific ICD-10 documentation and coding nuances related to your specialty.

The following scenarios were natively coded in ICD-10-CM and ICD-9-CM. As patient history and circumstances will vary, these brief scenarios are illustrative in nature and should not be strictly interpreted or used as documentation and coding guidelines. Each scenario is selectively coded to highlight specific topics; therefore, only a subset of the relevant codes are presented.

Scenario 1: Hypertension/Cardiac Clearance

Scenario Details

Chief Complaint

- “Dr. Smith asked that you check my hypertension prior to my surgery.”

History

- 81 year old male scheduled for a TURP in 5 days. Dr. Smith requested evaluation for hypertension and cardiac clearance assessment for surgery¹.
- Inferior wall MI one year ago, received thrombolytic therapy and experienced complete resolution of his symptoms. Last EF (last month) was 50%.
- Regular physical activity includes walking, swimming, and golfing. He denies SOB with exertion.
- No history of cerebrovascular disease. No DM, CHF, renal failure, or angina.
- Has history of essential hypertension and was prescribed metoprolol succinate once daily by PCP, but patient is not taking as he cannot afford it².

Exam

- Patient is an 81 year old male in no acute distress. Height and weight are appropriate for age.
- Vitals taken; BP is elevated at 157/92.
- Chest is clear. Physical exam is normal. No pedal edema.
- EKG shows nonspecific T-wave changes.
- Labs show creatinine at 1.5, a slight increase from his baseline and possibly indicating early renal insufficiency³.

Scenario 1: Hypertension/Cardiac Clearance (continued)

Assessment and Plan

- Will have PCP monitor BUN & Creatinine for renal function and nephrology referral if necessary.
- HTN⁴ is likely due to patient's noncompliance with metoprolol succinate. Will coordinate with Dr. Smith as unclear if he was aware of financial situation. Change to propranolol 20 mg, 2 tab PO daily, first dose administered in office. Provided 30 day supply of free propranolol samples.
- Reevaluate HTN⁴ in 3 days; if improving then clear for surgery.

Summary of ICD-10-CM Impacts

Clinical Documentation

1. Documenting why the encounter is taking place is important, as the coder will assign a different code for a routine visit vs. a surgery clearance vs. an initial visit.
2. If known, it is important to document whether or not patients are compliant with their medications. "Underdosing" is a new concept in ICD-10-CM and can be captured along with the diagnoses, such as this case for metoprolol succinate. When an issue with underdosing is noted, document if the matter is new or has been recurrent. The ICD-10-CM terms provide new detail as compared to the ICD-9-CM code V15.81, history of past noncompliance. In this case there was no noted history of noncompliance.
3. Documentation indicates that lab results reveal "a slight increase his baseline and possibly indicating early renal insufficiency. Guidelines allow the reporting of additional diagnosis to support the abnormal test result.
4. In ICD-10 CM coders are provided the "Use Additional Code" note under the Hypertensive diseases (I10-I15) block. If known, document whether or not the patients have the following: exposure to environmental tobacco smoke, history of tobacco use, occupational exposure to environmental tobacco smoke, tobacco dependence, and or tobacco use. In this case there was no noted history of the above.

Scenario 1: Hypertension/Cardiac Clearance (continued)

Coding

ICD-9-CM Diagnosis Codes		ICD-10-CM Diagnosis Codes	
401.9	Unspecified essential hypertension	I10	Essential (primary) hypertension
794.31	Nonspecific abnormal electrocardiogram [ECG] [EKG]	R94.31	Abnormal electrocardiogram [ECG] [EKG]
794.4	Nonspecific abnormal results of function study of kidney	R94.4	Abnormal results of kidney function studies
412	Old myocardial infarctions	I25.2	Old myocardial infarction
N/A		T46.5X6A	Underdosing of other antihypertensive drugs, [initial encounter]
N/A		Z91.120	Patient's intentional underdosing of medication regimen due to financial hardship
V72.81	Pre-operative cardiovascular examination	Z01.810	Encounter for pre-procedural cardiovascular examination

Other Impacts

For hierarchical condition categories (HCC) used in Medicare Advantage Risk Adjustment plans, certain diagnosis codes are used as to determine severity of illness, risk, and resource utilization. HCC impacts are often overlooked in the ICD-9-CM to ICD-10-CM conversion. The physician should examine the patient each year and compliantly document the status of all chronic and acute conditions. HCC codes are payment multipliers.

Scenario 2: Syncope

Scenario Details

Chief Complaint

- Dizziness, weakness, and feeling tired last few days. He reports passing out at school.

History

- 20 year old male college athlete with no prior medical history. On wrestling and cross country running team. Feeling dizzy, lightheaded, weak, and tired for the past two days. Had three several second witnessed syncopal episodes at school yesterday. Went to university clinic and was referred by nurse. Patient states no palpitations, no tachycardia, and no blurred vision noticed prior to each episode¹.
- Upon questioning, patient admitted he had to lose 11 lbs. to meet wrestling weight requirement. He accomplished this by ingesting carbohydrates, minimal fluids, heavy exercise, and purging².
- No medication or allergies. Denies alcohol, drugs, supplements, or diuretics use.

Exam

- Looks exhausted. No apparent distress. Afebrile.
- Orthostatic VS:
 - Lying BP 116/78 with HR 56,
 - Sitting BP 107/60 with HR 74,
 - Standing BP 92/49 with HR 112³
- Mucus membranes pale, skin is dry, with turgor and tenting. Capillary refill is 2-3 seconds.
- Chest is clear. Heart sounds normal.
- Labs significant for creatinine (2.13), BUN (43), glucose (60).
- EKG shows sinus tachycardia⁴.

Assessment and Plan

- Orthostatic intolerance. Dizziness, fatigue, and syncope likely secondary to hypotension, dehydration and hypovolemia.
- Provided fluid challenge of 2L IV NS in office today with improved condition post infusion including resolution of orthostasis and tachycardia.
- Ordered nutritional consult for dietary intake requirements, physical activity, and potential bulimia².
- Recommended patient have a psychological consult for potential bulimia; stated he would think about it.
- Scheduled a follow-up in 2 weeks to ensure no further symptoms. Return earlier if symptoms persist. No driving until follow up appointment.

Scenario 2: Syncope (continued)

Summary of ICD-10-CM Impacts

Clinical Documentation

1. Since the etiologies for syncope and collapse scenarios are multifactorial, clear documentation is required to support your clinical thinking and judgment. Quantify the number of syncope or pre-syncope episodes.
2. Note if the purging behavior is recurring or if it is a one-time occurrence (e.g., in this case due to the need for the significant weight loss of 11 pounds).
3. Orthostatic hypotension should be supported in the record with specific vital signs or measurements, and clinical manifestations whenever possible. This note provided clear documentation to support the orthostatic hypotension and the link with the patient's initial dehydration and hypovolemia. Given the patient's presentation, and the resolution of the orthostatic intolerance with IV fluids, addressing the coding for autonomic dysfunction syndrome is not relevant.
4. Ideally, if the note is to stand alone, then more detail needs to be provided to document sinus tachycardia.

Coding

ICD-9-CM Diagnosis Codes

780.2	Syncope and collapse
785.0	Tachycardia, unspecified
458.0	Orthostatic hypotension
276.51	Dehydration
276.52	Hypovolemia

ICD-10-CM Diagnosis Codes

R55	Syncope and collapse
R00.0	Tachycardia, unspecified
I95.1	Orthostatic hypotension
E86.0	Dehydration
E86.1	Hypovolemia

Other Impacts

Documenting the vital signs and lab results supports the medical necessity for administering intravenous normal saline and an EKG.

Scenario 3: Chest Pain

Scenario Details

Chief Complaint

- Chest pain.

History

- 70 year old female patient presents with complaints of chest pain that awoke her from sleep last night. Patient describes the pain as midsternal “tight, squeezing” and pressure in the epigastric region. Patient reports that the pain was accompanied by diaphoresis and lasted approximately 5-10 minutes before spontaneously resolving. Patient states she tried sitting up, walking, and taking some liquid antacid but experienced no relief with these measures. Denies change in diet, or any unusual foods yesterday.
- She also reported experiencing some intermittent attacks of chest pain and tightness approximately 2-3 times over the last six months, that previous episodes were shorter in duration with less severe pain, and usually occurred when she was “emotional” or “tired”. Pain with prior episodes was relieved by rest.
- Recent widowed status – husband died seven months ago; states increasing anxiety and difficulty sleeping.
- Medical history significant for hypertension and hyperlipidemia. Negative for stroke, myocardial infarction, bleeding disorders, GERD, anxiety, and depression.
- Social history: Nonsmoker, occasional social drinking, denies illicit drug use. She only engages in sedentary activities at this time.
- Family history: Father died of heart attack at age 50, mother is 95 years old and in good health, two siblings both in good health, otherwise negative family history.
- Influenza and pneumococcal immunizations up to date. No known allergies.
- Current medications: Hydrochlorothiazide and atorvastatin; Denies OTC medications.
- Comprehensive review of systems negative for significant symptoms.

Exam

- T: afebrile, P 90, R 16, BP 160/94 (sitting) 128/78 (lying), 132/82 (standing) Ht: 68in. Wt: 201 lbs BMI: 30.6 (obese)
- HEENT & NECK: normal to exam.
- CHEST: Clear to exam
- CV: RRR without murmur, gallop, or rub, No JVD. Carotids clear bilaterally.
- PERIPHERAL VASCULAR: Skin warm and dry with good pulses to all extremities. No edema bilaterally.
- ABDOMEN: normal to exam.
- NEURO: Patient A&Ox3. Moves all extremities well.

Scenario 3: Chest Pain (continued)

Assessment and Plan

- Worsening neuropathy with foot ulcer and slow healing shin wound.
- Will debride and treat wounds here and refer to Wound Care Center for ongoing care and management.
- Discussed importance of foot care, and the need to routinely inspect lower legs and bottoms of feet because of the bilateral peripheral neuropathy.
- Counseled patient about the importance of tight, stable glycemic control to slow the progression of neuropathy and nephropathy; advised to keep a log of his blood sugars for two weeks for our review.

Summary of ICD-10-CM Impacts

Clinical Documentation

1. Angina, acute coronary syndrome and post-infarction angina are classified under Ischemic Heart Disease. The subsection for angina disorders is now titled “angina pectoris,” the subsection for acute coronary syndrome is now classified as “other acute ischemic heart disease,” and the subsection for post-infarctional angina is now categorized as “certain current complications following myocardial infarction”. This last selection would be used in conjunction with a code from the category of acute myocardial infarction or the category of subsequent myocardial infarction, if applicable.
2. Angina without coronary atherosclerosis requires documentation regarding specific characteristics such as stable, unstable, or the presence of spasm. In this example, angina pectoris, unspecified is coded as the information in the medical record is insufficient to assign a more specific code. “Other” [forms] is used when the information in the medical record provides detail for which a specific code does not exist. For example, there is no specific code for angina decubitus in ICD-10-CM, as is the case in ICD-9-CM. Angina decubitus is reported with the code for other forms of angina pectoris.
3. Additional differences to note when documenting cases of angina alone in ICD-10-CM include:
 - Unstable angina encompasses the older terms intermediate coronary syndrome and pre-infarction syndrome.
 - Prinzmetal angina and variant angina are coded as angina pectoris with documented spasm.
4. In ICD-10, hypertension has undergone a definitional change. It is defined as essential (primary) and the concept of “benign or malignant” as it relates to hypertension no longer exists.

Scenario 3: Chest Pain (continued)

Coding

ICD-9-CM Diagnosis Codes		ICD-10-CM Diagnosis Codes	
413.9	Other and unspecified angina pectoris	I20.9	Angina pectoris, unspecified
401.9	Essential hypertension, unspecified	I10	Essential (primary) hypertension
272.4	Other and unspecified hyperlipidemia	E78.5	Hyperlipidemia, unspecified
278.00	Obesity, unspecified	E66.09	Other obesity due to excess calories
V85.30	Body mass index (BMI) 30.0 – 30.9, adult	Z68.30	Body mass index (BMI) 30.0-30.9, adult

Other Impacts

No specific impact noted.

Scenario 4: Subsequent AMI

Scenario Details

Chief Complaint

- Follow up after my second heart attack.

History

- 81 year old male retired professor presents for follow up visit after hospital admission for NSTEMI; he was discharged five days ago. Currently denies chest pain, shortness of breath. Able to walk without symptoms.
- Medical history remarkable for CAD requiring CABG times four, PVD, bilateral carotid stenosis, hypertension, dyslipidemia, COPD, emphysema, renal artery stenosis, CHF with diastolic dysfunction, and NSTEMI.
- NSTEMI #1 while patient was on a cruise about three weeks ago. Limited data indicates ECG findings included ST depression, rise in troponin.
- NSTEMI #2: myocardial infarction with rise in cardiac biomarkers with no ST changes on EKG, seven days ago. Partially reversible inferoposterior wall defect by perfusion study. Probably represents disease of vein graft to RCA.
- Prior evaluation: Extensive vascular disease. Multiple revascularization procedures done in staged manner due to chronic renal failure. Catheterization: patent grafts. Peripheral angiogram: stenosis of renal arteries and lower extremity circulation. Duplex of renal arteries: bilateral renal artery stenosis.
- Social History: cigarette smoker for 64 years, ½ pack per day. No alcohol or drug use.
- Family History: cancer, diabetes, kidney disease.
- Current medications: hydrochlorothiazide – telmisartan, simvastatin, clopidogrel, amlodipine, metoprolol succinate, aspirin.
- Review of Systems: Denies fever, chills, cough, nausea, vomiting, TIA, syncope, rash, or melena.

Exam

- Pleasant elderly male in no acute distress.
- Vital signs: BP 150/80. HR: 74. Respirations: 18/min. Afebrile.
- HEENT: EOMI, PERRLA.
- NECK: Supple. No JVD. Positive right carotid bruit.
- CHEST: Clear to auscultation. Bilateral equal breath sounds. Has cough.
- CV: RRR, S1 and S2 present. No S3. Positive S4. Crescendo-decrescendo systolic murmur 3/6 heard in aortic valve/apex area.
- PERIPHERAL VASCULAR: Skin pink, warm and dry and well perfused. No clubbing or cyanosis. Plus 2 pitting ankle edema.
- ABDOMEN: Soft, non-tender without masses, or organomegaly. Active bowel sounds.
- NEURO: Patient A&Ox3, appropriate. No focal deficits noted.

Scenario 4: Subsequent AMI (continued)

Assessment and Plan

- Hemodynamically and clinically stable today.
- Continue medical therapy.
- Schedule doppler echocardiogram to evaluate of new murmur.
- Discussed with patient the need for optimal compliance including pharmacologic regimen and lifestyle modifications.
- Patient continues to smoke, albeit less, and is not interested in quitting at this time.

Summary of ICD-10-CM Impacts

Clinical Documentation

1. In ICD-10, there are numerous changes for cardiac related medical conditions. The changes include but are not limited to:
 - Inclusion terms of ST elevation (STEMI) and non-ST elevation (NSTEMI) myocardial infarction are made to reflect the national standard guidelines of The American College of Cardiology and the American Heart Association for classifying patients with acute coronary syndrome. For example, the non-ST elevation MI term replaces the older terminology of non-Q wave MI.
 - The time frame for acute myocardial infarction codes has changed from 8 weeks or less in ICD-9-CM to 4 weeks or less in ICD-10-CM.
 - When the patient has a new AMI within the 4 week time frame of the initial AMI, this information should be documented.
 - Delineate in your documentation whether an MI no longer requires further care. That information allows a clinical coder to determine whether the patient has an old or a healed MI. If after 4 weeks they still need care use “aftercare” in ICD-10-CM.
2. If applicable, note items such as presence or absence of an increase in cardiac enzymes or troponin, or ECG findings (e.g., ST elevation, ST depression, T inversion, new pathological Q waves) in your documentation.
3. In coding this scenario we assumed that the carotid stenosis is resolved as well as the renal artery stenosis, since this encounter is post revascularization procedure. While it may be controversial, we do not think that a code for the CABG is sufficiently supported in the documentation, although we recognize that the stress test findings may be interpreted as supporting atherosclerosis of the grafts as well as of the native arteries.
4. In ICD-9, the clinician needs to document that the patient smokes tobacco or uses tobacco. In ICD-10-CM the amount of detail increases as there are 20 choices for nicotine dependence. In ICD-10, the required documentation includes the type of tobacco product used and whether or not there are nicotine-induced disorders such as remission or withdrawal present. Classifications for nicotine dependence include: uncomplicated, in remission, with withdrawal, or present with other nicotine induced disorders. In this note, even though the patient’s health condition is complicated and he has multiple comorbid conditions, his nicotine dependence is classified as uncomplicated as it does not meet the other classifications since as he is not attempting to quit.

Scenario 4: Subsequent AMI (continued)

Coding

ICD-9-CM Diagnosis Codes		ICD-10-CM Diagnosis Codes	
410.72	Subendocardial infarction, subsequent episode of care	I22.2	Subsequent non-ST elevation (NSTEMI) myocardial infarction
414.01	Coronary atherosclerosis of native coronary artery	I21.4	NSTEMI myocardial infarction
403.91	Hypertensive heart and chronic kidney disease, unspecified, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified	I25.1Ø	Atherosclerotic heart disease of native coronary artery without angina pectoris
585.9	Chronic kidney disease, unspecified	I12.9	Hypertensive chronic kidney disease stage 1 thru stage 4 chronic kidney disease, or unspecified chronic kidney disease
443.9	Peripheral vascular disease, unspecified	N18.9	Chronic kidney disease, unspecified
428.30	Diastolic heart failure, unspecified	I5Ø.32	Chronic diastolic (congestive) heart failure
401.9	Hypertension, unspecified	I1Ø	Essential (primary) hypertension
785.2	Undiagnosed cardiac murmurs	RØ1.1	Cardiac murmur, unspecified
785.9	Carotid bruit	RØ9.89	Carotid bruit
496	Chronic airway obstruction, not elsewhere classified	I73.9	Peripheral vascular disease, unspecified
405.91	Unspecified renovascular hypertension	I15.Ø	Renovascular hypertension
440.1	Renal artery stenosis	I70.1	Renal artery stenosis
		J44.9	Chronic obstructive pulmonary disease, unspecified
272.4	Other and unspecified hyperlipidemia	E78.5	Hyperlipidemia, unspecified
305.1	Tobacco use disorder	F17.21Ø	Nicotine dependence, cigarettes, uncomplicated

Other Impacts

The I12 category can be assumed when the documentation includes hypertension and chronic renal disease. The I11 category cannot be assumed between hypertension and heart disease unless the documentation supports a “cause and effect” relationship between the two such as a statement of “hypertensive heart disease” or “heart disease due to hypertension”.

Scenario: CHF and Pulmonary Embolism Example

Scenario Details

Chief Complaint

- “I was in the hospital last week with a blood clot in my lung, and was told at discharge that I need to have my blood checked to see if it is thin enough. My right chest still hurts, though it is better, and I am still more short of breath than usual.”

History

- 72-year-old female seen 1 week earlier in ED with history of sudden onset right sided chest pain and shortness of breath which had started 3 hours prior to arrival. Pain was made worse with deep inspiration. Exam at that time showed vital signs of P 110 and regular, BP 140/102, T. 98.6, RR 26, SAO₂ 83% on oximetry, breathing room air. Physical exam showed swollen R lower extremity which was painful and warm to the touch. A pleural friction rub was heard over the right lower chest, posteriorly. Doppler ultrasound of right lower extremity shows deep vein thrombosis. Pulmonary CT Angiography showed total occlusion of RLL artery, as well as signs of chronic pulmonary artery hypertension.
- Patient diagnosed with hypertensive heart disease with mild chronic left ventricular diastolic failure and mild pulmonary artery hypertension 2 years previously. Has been well managed on ARB therapy without complications.

Review of Systems, Physical Exam, Laboratory Tests

- P 84, regular, BP 132/96, T 98.4, RR 22, SAO₂ 89% by oximetry on room air
- Chest: dullness to percussion over RLL posteriorly with decreased breath sounds in same area
- Right lower calf mildly swollen but not warm or tender
- CXR: moderate sized pleural effusion on R
- Lab: INR 3.2 on Coumadin 10 mg/day (preferred range 2.0-3.0)

Assessment and Plan

- Acute RLL Pulmonary Embolism: continue Coumadin but reduce dose to 5 mg/day
- Acute Right Side Pleural Effusion, presumed secondary to P.E.: follow in 2 weeks with repeat chest x-ray
- Acute Deep Vein Thrombophlebitis of right leg: continue Coumadin at 5 mg/day
- Acute Respiratory Failure with Mild Hypoxemia: arrange home oxygen at 2L/min by nasal cannula
- Hypertensive heart disease with Chronic mild left ventricular diastolic failure: continue ARB therapy
- Chronic mild pulmonary artery hypertension
- Over anti-coagulation: reduce Coumadin to 5 mg/day, check INR in 4 days

Scenario: CHF and Pulmonary Embolism Example

Summary of ICD-10-CM Impacts

Clinical Documentation

- ICD-10-CM has a combination code for heart disease due to hypertension.
- Document the acuity (i.e., chronic, acute, acute on chronic) and type (i.e. systolic, diastolic or both) of heart failure, as there are discrete ICD-10-CM codes for each type.
- ICD-10-CM separates the etiology and acuity of respiratory failure so it is important to document if respiratory failure is with hypoxia or hypercapnia, if present.
- DVT has laterality of processes for left versus right.
- Management of chronic conditions such as hypertension or heart failure should be described in the record. When heart disease is documented “as due to” hypertension it is coded to a combination category in ICD-10-CM.
- Pleural effusion has no laterality codes.
- Deep Vein Thrombosis (DVT) includes laterality codes to specify left vs. right.

Coding

ICD-9-CM Diagnosis Codes		ICD-10-CM Diagnosis Codes	
995.29	Unspecified adverse effect of other drug, medicinal and biological substance	T45.515A	adverse effect of anticoagulants, initial encounter
E934.2	Therapeutic use of medication	N/A	
415.19	Acute PE	I26.99	Other pulmonary embolism without acute cor pulmonale
453.40	DVT	I82.401	Acute embolism and thrombosis of unspecified deep veins of right lower extremity
511.9	Pleural Effusion	J91.8	Pleural effusion in other conditions classified elsewhere
518.81	Respiratory failure, acute	J96.01	Acute respiratory failure with hypoxia
402.91	Hypertensive heart disease	I11.0	Hypertensive heart disease with heart failure
428.32	LV failure, chronic, diastolic	I50.31	Acute diastolic (congestive) heart failure
416.8	Hypertension, pulmonary artery	I27.2	Other secondary pulmonary hypertension

Other Impacts

Note: There is nothing in the documentation that says that there was an error in the prescription for Coumadin or that the patient took it incorrectly. If the prescription was correctly prescribed and correctly administered/taken then it would be an adverse effect.