

Myocardial infarction is known as a heart attack. This is caused from plaque in the arteries that feed the heart.

Plaque can rupture and blood clots can form damaging the heart muscle.

Types of Myocardial Infarction:

STEMI:

- elevation (STEMI) myocardial infarction (I21.01)
- ST elevation (STEMI) myocardial infarction involving left anterior descending coronary artery (I21.02)
- ST elevation (STEMI) myocardial infarction involving other coronary artery of anterior wall (I21.09)
- ST elevation (STEMI) myocardial infarction involving right coronary artery (I21.11)
- Acute myocardial infarction, unspecified (I21.19)
- ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall (I21.19)
- ST elevation (STEMI) myocardial infarction involving left circumflex coronary artery (I21.21)
- ST elevation (STEMI) myocardial infarction involving other sites (I21.29)
- ST elevation (STEMI) myocardial infarction of unspecified site (I21.3)

Subsequent STEMI:

- of anterior wall (I22.0)
- of inferior wall (I22.1)
- of other sites (I22.8)
- of unspecified site (I22.9)

NSTEMI:

- Non-ST elevation (NSTEMI) myocardial infarction (I21.4)

- Subsequent non-ST elevation (NSTEMI) myocardial infarction (I22.2)

Acute:

- Acute myocardial infarction, unspecified (I21.9)

Other:

- Myocardial infarction type 2 (I21.A1)
- Other myocardial infarction type (I21.A9)

Old:

- Old myocardial infarction (I25.2)

Signs and Symptoms

Common heart attack signs and symptoms include:

- Pressure, tightness, pain, or a squeezing or aching sensation in your chest or arms that may spread to your neck, jaw or back.
- Nausea, indigestion, heartburn, or abdominal pain.
- Shortness of breath.
- Cold sweat.
- Fatigue.
- Lightheadedness or sudden dizziness.

Risk factors

- Certain factors contribute to the unwanted buildup of fatty deposits (atherosclerosis) that narrows arteries throughout the body. Heart attack risk factors include:
 - Age.
 - Tobacco use.
 - High blood pressure.
 - High blood cholesterol or triglyceride levels
 - Obesity.
 - Diabetes.
 - Metabolic syndrome.

- Family history of heart attacks.
- Lack of physical activity.
- Stress.

Complications

- Complications from myocardial infarctions lead to multiple issues with the heart.
- Abnormal heart rhythms (arrhythmias).
- Heart failure.
- Sudden cardiac arrest.

Diagnostics Tools

- Electrocardiogram (ECG).
- Blood tests.
- Chest X-ray.
- Echocardiogram.
- Coronary catheterization (angiogram).
- Cardiac CT or MRI.

Treatment

A myocardial infarction is a medical emergency. The faster the treatment the less damage is done to the heart. Treatment includes

- Medications:
 - Aspirin.
 - Thrombolytics.
 - Antiplatelet agents.
 - Nitroglycerin.
 - Beta blockers.
 - ACE inhibitors.
 - Statins.

Surgical and other procedures:

- Coronary angioplasty and stenting.
- Coronary artery bypass surgery.

Clinical Documentation and Coding Tips

- Always document it to the highest level of specificity
- SOAP Notes documentation tips:
 - **Subjective** – In the subjective section of the medical record, document any current

complaints that are directly related to current acute myocardial infarction or old/historical myocardial infarction.

- **Objective** – The objective section should document any abnormal cardiovascular exam findings. Document results of diagnostic testing. Include the absence or presence of ST elevation on ECG/EKG tracing.
- **Assessment** – The myocardial infarction diagnosis should be spelled out in full and described to the highest level of specificity (site/location, type, presence or absence of ST elevation, dates/timelines).

Site/location and type:

- Document the site or location within the heart of the myocardial infarction, such as anterolateral wall, infer posterior wall, lateral wall, subendocardial, etc., and the coronary artery(ies) involved.
- Specify the type, for example: ST elevation myocardial infarction (STEMI) or non-ST elevation myocardial infarction (NSTEMI); Type 1, 2, 3, 4a, 4b, 4c or 5; intraoperative, postoperative; subsequent.

Dates/timelines:

- A myocardial infarction that occurred four weeks ago or less is coded as an acute myocardial infarction (ICD-10-CM category I21, Acute myocardial infarction).
- Encounters after the four-week time frame but with the patient still receiving care related to the myocardial infarction are reported with “aftercare” codes (rather than a code from category I21).
- A myocardial infarction that occurred more than four weeks ago with no current symptoms directly associated with that myocardial infarction and requiring no current care is coded as an “old” or historical myocardial infarction (code I25.2, Old myocardial infarction).
- Avoid use of vague descriptions (such as “recent” myocardial infarction), as these descriptions do not specify whether the

myocardial infarction occurred less than or more than four weeks ago. If describing myocardial infarction as "recent," best practice is to include the specific date, as in "recent myocardial infarction on June 1, 20XX."

- **Plan** – Document a clear and concise treatment plan for acute or historical myocardial infarction, including orders for diagnostic testing. Clearly link the MI diagnosis to medications being used to treat the condition. Document to whom/where referrals or consultation requests are made. Include the date of the patient's next appointment.

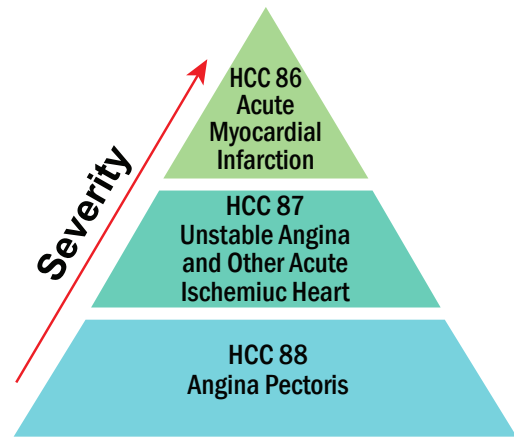
Medicare Hierarchal Condition Categories (HCC)

Hierarchical condition category (HCC) coding is a risk-adjustment model designed to estimate future health care costs for patients. This model filters ICD-10CM codes into diagnosis groups (DxGs), and then into Conditions Categories (CCs). Hierarchies or **families** are placed to gain an HCC numeric code, which translates to a risk adjustment factor (RAF) value. Each diagnosis code found in the model, as a stand-alone diagnosis code or within a family or hierarchy, carries a value through RAF, but this value can change if the patient has other influencing factors such as ESRD, hospice, or are dual-eligible. Families or hierarchies set a value based on severity of illness, with more severe diagnoses carrying the overall risk score for that family. Diagnoses within families or hierarchies are inclusive of one another, while any additional diagnoses from other hierarchies or stand-alone diagnoses are additive and increase each patient's overall risk score.

- Myocardial Infarction is a condition that falls within the category "**Acute Myocardial Infarction**" (HCC 86) with an average RAF Score 0.377

Coding Myocardial Infarction.

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There are Seventeen (17) ICD - 10CM codes applicable for coding Myocardial Infarction.

ICD-10 Code	Code description
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
I21.9	Acute myocardial infarction, unspecified
I21.A1	Myocardial infarction type 2

I21.A9	Other myocardial infarction type
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

Always Remember

- Follow the ICD-10 CM official coding guidelines and conventions.
- Select the correct ICD-10 CM code to the highest specificity.
- A myocardial infarction that occurred more than four weeks ago with no current symptoms directly associated with it and requiring no current care is coded as an “old” or historical myocardial infarction using ICD-10 CM code I25.2, Old myocardial infarction).