



PHILHEALTH CIRCULAR
 No. 2025-0018

**TO : ALL ACCREDITED HEALTH CARE PROVIDERS,
 PHILHEALTH MEMBERS, PHILHEALTH REGIONAL
 OFFICES AND ALL OTHERS CONCERNED**

**SUBJECT : Quality Standards on the Diagnosis and Management of
 Ischemic Heart Disease – Acute Myocardial Infarction
 As Reference of the Corporation**

I. RATIONALE

The Universal Health Care Act (Republic Act No. 11223) mandates PhilHealth to uphold quality standards in health service delivery, aligned with evidence-based clinical practice guidelines endorsed by the Department of Health (DOH) and relevant specialty societies. Consistent with this mandate, the Corporation adopts quality policies that guide clinical care and strengthen mechanisms for performance monitoring, benefit implementation, and claims validation.

Ischemic Heart Disease (IHD), particularly Acute Myocardial Infarction (AMI), remains one of the leading causes of mortality and healthcare utilization in the country. It is a major contributor to hospital admissions and PhilHealth benefit claims, reflecting its significant public health and financial burden. The complexity and urgency of managing AMI necessitates adherence to timely, standardized, and evidence-informed interventions to improve survival and clinical outcomes.

This quality policy aims to align standards of care with current best practices for the diagnosis and management of AMI. It incorporates recommendations from recognized sources, ensuring that quality benchmarks are both locally relevant and globally informed.

Through this initiative, PhilHealth reaffirms its commitment to promoting high-quality, accessible, and patient-centered cardiovascular care, thereby advancing its mission to protect the health and well-being of all Filipinos.

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 DC: JP Date: 10/20/25

II. OBJECTIVES

This PhilHealth Circular aims to establish the standards of care for the diagnosis and management of Ischemic Heart Disease (IHD) – Acute Myocardial Infarction (AMI), aligning with the Corporation’s Quality Assurance Program.



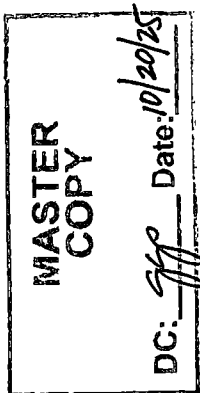
III. SCOPE

This PhilHealth Circular also serves as a foundational document to guide the Corporation in its quality assurance efforts—covering education and capacity-building, provider engagement, claims review, and monitoring of service outcomes including the following but not limited to:

- A. Diagnosis;
- B. Laboratory Tests and Other Diagnostics;
- C. Hospital Admission and Referral;
- D. Treatment and Management;
- E. Hospital Discharge; and
- F. Monitoring and Evaluation.

IV. DEFINITION OF TERMS

- A. Acute Myocardial Infarction (AMI)¹** – a myocardial injury diagnosed by the presence of chest pain, abnormal ECG and biomarkers in the setting of acute myocardial ischemia.
- B. Ischemic Heart Disease (IHD)²** – also called coronary heart disease (CHD) or coronary artery disease (CAD), is the term given to heart problems caused by narrowed heart (coronary) arteries that supply blood to the heart muscle.
- C. Non- ST-Elevation Myocardial Infarction (Non-STEMI)³** – a heart attack without classic ST-segment elevation but with non-specific ECG changes and an elevation of cardiac biomarkers. It involves partial damage (sub-endocardial) to the heart muscle, often arises from an incomplete or intermittent coronary artery blockage.
- D. Percutaneous Coronary Intervention (PCI)⁴** – a catheter-based procedure to re-establish blood flow in narrowed coronary arteries using balloon, stent placement, or other approved devices.



¹Thygesen, K., et al, 2018, "Fourth Universal Definition of Myocardial Infarction (2018)" Volume 138, Number 20, <https://www.ahajournals.org/doi/10.1161/CIR.000000000000617#core-R9-1>

²Institute of Medicine (US) Committee on Social Security Cardiovascular Disability Criteria. (2010). *Ischemic heart disease*. In *Cardiovascular Disability: Updating the Social Security Listings*. National Academies Press (US). Retrieved from NCBI Bookshelf <https://www.ncbi.nlm.nih.gov/books/NBK209964/>

³Sweis, R. N., & Jivan, A. (2024). *Acute myocardial infarction (MI)*. In Merck Manual Professional Edition. <https://www.merckmanuals.com/professional/cardiovascular-disorders/coronary-artery-disease/acute-myocardial-infarction-mi>. AND American Heart Association. (2025, February 21). Diagnosing a Heart Attack. <https://www.heart.org/en/health-topics/heart-attack/diagnosing-a-heart-attack>

⁴Ahmad, M., Mehta, P., Reddivari, A. K. R., & Mungee, S. (2023). *Percutaneous coronary intervention*. In StatPearls [Internet]. Treasure Island, FL: StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK556123/> AND Byrne, R. A., et.al., ESC Scientific Document Group. (2023). 2023 ESC Guidelines for the management of acute coronary syndromes. *European Heart Journal*, 44(38), 3720–3826. <https://doi.org/10.1093/eurheartj/ehad191>

E. Reperfusion Therapy⁵ – interventions such as thrombolysis or percutaneous coronary intervention (PCI) that rapidly restore blood flow to ischemic myocardium.

F. ST-Elevation Myocardial Infarction (STEMI)⁶ – a severe heart attack with ST elevation on ECG, caused by full blockage of a heart artery, leading to full-thickness heart muscle damage.

V. POLICY STATEMENTS

A. Diagnosis

Acute myocardial infarction (AMI) must be diagnosed through a comprehensive evaluation that integrates clinical presentation, medical history, risk factors, electrocardiographic (ECG) findings, and cardiac biomarkers:

1. Clinical Presentation of Chest Pain or Discomfort

Typically presents as new or changing chest discomfort—such as pressure, tightness, heaviness, or burning—often felt behind the breastbone. If caused by ischemia, the pain usually builds over minutes and may be triggered by exertion or stress, though it can also happen at rest.

a. Chest Pain Equivalents: Diaphoresis (cold sweats), epigastric pain, shoulder or arm discomfort, dizziness, syncope (fainting), jaw or neck pain, shortness of breath, inter-scapular pain (mid-back pain), palpitations, and fatigue.

2. Dynamic ECG Changes

a. Immediate ECG is obtained upon first medical contact and interpreted and validated by a qualified physician within 10 minutes.

b. ST elevation at the J-point in at least two neighboring leads, using specific cut-offs, and not due to left ventricular hypertrophy or left bundle branch block:

b.1. V2–V3 leads:

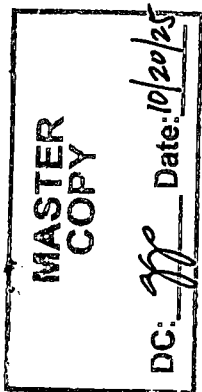
b.1.1. ≥ 2.5 mm in men under 40

b.1.2. ≥ 2.0 mm in men 40 or older

b.1.3. ≥ 1.5 mm in women of any age

b.2. All other leads:

b.2.1. ≥ 1 mm of ST elevation



⁵World Health Organization. (2024, December 13). *Framework for the care of acute coronary syndrome and stroke*. World Health Organization. <https://iris.who.int/bitstream/handle/10665/380065/380065/9789240103665-eng.pdf>

⁶Akbar, H., & Mountfort, S. (2024). Acute ST-Segment Elevation Myocardial Infarction (STEMI). *StatPearls*. StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK532281/>

- c. New or suspected new left bundle branch block (LBBB), right bundle branch block (RBBB), or paced rhythm may suggest STEMI when clinical signs support it.
- d. In Non-STEMI, there are usually ST depression, T-wave inversions, or brief ST changes, with diagnosis confirmed by abnormal cardiac biomarkers.
- e. A non-specific or non-diagnostic ECG should not rule out possible AMI cases, however, it should be supported by abnormal cardiac biomarkers.

3. Abnormal Range of Cardiac Biomarkers

A significant change in high sensitive (HS) troponin levels, (or regular troponin if unavailable), or a markedly elevated CK-MB level, indicates heart muscle injury.

B. Laboratory Tests and Other Diagnostics

1. Electrocardiogram (ECG)

This is the principal diagnostic tool for the evaluation of the heart's electrical activity. It helps identify heart rhythm, conduction issues, and signs of ischemic damage.

2. Cardiac Biomarker

HS Troponin (or Troponin) is the main marker used to diagnose AMI. Serial testing helps confirm the diagnosis and assess risk. A rise or fall of more than 20% is significant—levels usually increase within 2–4 hours, peak at 12–24 hours, and return to normal over 5–10 days.

3. Basic Laboratory Tests

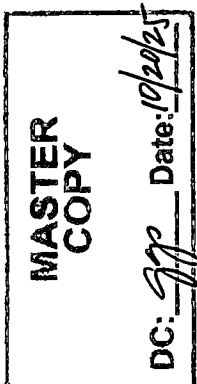
- a. Complete blood count
- b. Serum electrolytes (Na, K, ionized Calcium, Mg)
- c. Renal function tests (BUN, Creatinine)
- d. Fasting or Non-fasting lipid profile (Total Cholesterol, Triglyceride, Low-density lipoprotein, High-density lipoprotein)
- e. Blood glucose level

4. Chest Radiography

This is used to exclude other cardiopulmonary conditions and identify complications.

5. Coronary Angiogram

This is an invasive (percutaneous) diagnostic procedure that uses contrast x-ray to visualize the coronary arteries, define the site and severity of stenoses, and guide revascularization decisions.



6. Non-invasive Imaging

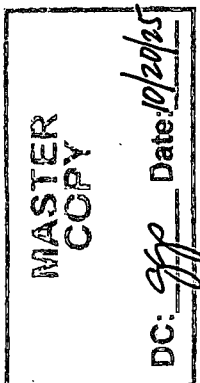
- a. 2D-Echocardiography: Used to assess left ventricular function, wall motion, and help guide treatment decisions.
- b. Coronary Computed Tomography Angiogram (CCTA): A scan to visualize the coronary arteries to detect blockages and assess the severity of coronary disease.

C. Hospital Admission and Referral

- 1. All patients with confirmed or strongly suspected acute myocardial infarction shall be admitted promptly to a Coronary Care Unit (CCU) or Intensive Care Unit (ICU) (or CCU/ICU set-up) equipped with continuous ECG monitoring and immediate access to reperfusion therapy, as warranted to be determined by the attending physician.
- 2. Hospital admission criteria include:
 - a. Chest Pain or Discomfort or Chest Pain Equivalents;
 - b. Confirmation of acute myocardial infarction based on ECG changes; and
 - c. Elevated cardiac biomarkers or dynamic changes in biomarkers.
- 3. Pre-hospital triage and early activation of the catheterization laboratory are recommended to minimize delays to primary PCI.
- 4. In cases where the initial healthcare facility diagnosing AMI lacks the capacity to perform primary PCI or thrombolysis, immediate formal endorsement or referral and expedited transfer to the nearest appropriately equipped PCI- or thrombolysis-capable facility must be undertaken. Such transfers must follow expert-recommended timelines to ensure timely treatment, improve outcomes, and reduce complications.

D. Treatment and Management

- 1. Immediate Measures:
 - a. Supplemental oxygen if O₂ saturation <90%.
 - b. Sublingual nitroglycerin for ongoing chest pain, if no contraindications exist.
 - c. Intravenous opioid analgesics (e.g., morphine) for severe pain.
 - d. Initiation of antiplatelet therapy (chewable aspirin and/or P2Y₁₂ inhibitor) unless contraindicated.
- 2. Reperfusion Therapy:
 - a. Primary PCI is the preferred initial treatment for STEMI, done within 120 minutes of arrival. It's an emergency procedure on the blocked artery, without prior thrombolysis.



Contraindications to Primary PCI

- a.1. Late and symptom-free: Not advised if the artery is still blocked more than 48 hours after STEMI but the patient has no symptoms.
 - a.2. No response after cardiac arrest: PCI is unlikely to help if the patient remains unresponsive despite resuscitation.
 - a.3. Active bleeding: Ongoing major bleeding must be controlled before PCI can be done.
 - a.4. Severe illness: PCI may not help patients with terminal or serious conditions that limit life expectancy.
 - a.5. No consent: PCI cannot proceed without informed consent from the patient or legal representative.
- b. Rescue PCI is performed after unsuccessful thrombolysis therapy.
 - c. Facilitated PCI is planned and conducted following initial pharmacological therapy (partial or full-dose thrombolysis) when timely primary PCI is not available.

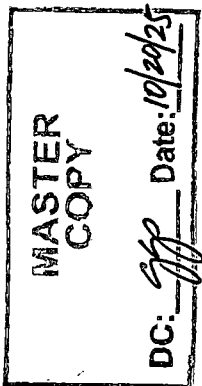
If available, intracoronary imaging is recommended after PCI to help properly place the stent or balloon and ensure the blocked artery is fully treated.

- d. Early Invasive Strategy: For patients with Non-STEMI, the timing of coronary angiography and PCI shall be determined by patients' clinical risks.

Non-STEMI patients classified as very high risk (Annex A) must undergo immediate coronary angiography and, when indicated, PCI, within 24-72 hours.

Patients considered non-high risk can undergo coronary angiography and PCI at any point during the index hospitalization.

- e. Current guidelines recognize that many angiographic narrowings do not limit blood flow. Blockages under 70% diameter stenosis or with Fractional Flow Reserve (FFR) above 0.80 – especially in small vessels or in stable patients with minimal ischemia – should be treated with optimal medical therapy. Doing PCI in these cases adds risk and cost without improving outcomes.
- f. Thrombolysis Therapy is used for STEMI if PCI isn't available in time, ideally within 12 hours of symptom onset. It's considered successful if chest pain improves, ST elevation drops by at least 50%, and the patient remains stable.



f.1. Absolute Contraindications to Thrombolysis

- f.1.1. Any past brain bleed or stroke of unknown cause
- f.1.2. Ischemic stroke in the past 6 months
- f.1.3. Known brain injury, tumor, or blood vessel abnormality
- f.1.4. Major trauma, surgery, or head injury in the past month
- f.1.5. Significant GI bleeding in the last month
- f.1.6. A known bleeding disorder (not including menstruation)
- f.1.7. Aortic dissection
- f.1.8. Recent procedures like liver biopsy or spinal tap within 24 hours

f.2. Use with caution if the patient has:

- f.2.1. Transient Ischemic Attack (mini-stroke) in the past 6 months
- f.2.2. Is currently taking blood thinners
- f.2.3. Is pregnant or recently gave birth (within a week)
- f.2.4. Uncontrolled high blood pressure (>180/110 mmHg)
- f.2.5. Severe liver disease
- f.2.6. Infective endocarditis
- f.2.7. Active peptic ulcer
- f.2.8. Prolonged or traumatic cardiopulmonary resuscitation (CPR)

3. Adjunctive Pharmacotherapy:

For patients without contraindications, the following treatments are recommended:

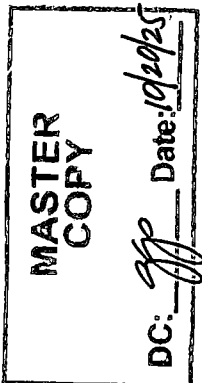
- a. Anticoagulants (heparin or alternatives) during PCI or thrombolysis
- b. Beta-blockers to reduce heart workload
- c. Statins to lower cholesterol and prevent complications
- d. Renin-Angiotensin System (RAS) inhibitors for those with heart failure, low ejection fraction (<40%), diabetes, hypertension, or kidney disease
- e. Dual antiplatelet therapy (DAPT) following guideline duration
- f. Mineralocorticoid receptor antagonists for heart failure with EF <49%

4. Supportive Care:

- a. Continuous ECG monitoring for early arrhythmia detection and management.
- b. Glycemic control and optimization of comorbid conditions.

5. Cardiac rehabilitation:

- a. Starting comprehensive cardiac rehabilitation early is a key sign of quality care. It greatly improves recovery, lowers death rates, and leads to better patient outcomes.



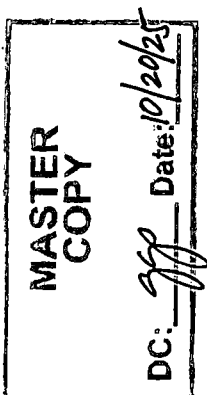
- b. The care should be provided by a cardiac rehabilitation specialist. In the absence of the latter, the care can be provided by a cardiologist in collaboration with a physiatrist.
- c. Cardiac rehabilitation may have but not limited to the following components:
 - c.1. Physician prescribed exercise (e.g. aerobic exercise training, strength training)
 - c.2. Cardiac risk factor modification (ie., smoking cessation, hypertension management, dyslipidemia management, diabetes management)
 - c.3. Psychosocial assessment/management
 - c.4. Weight management and body composition
 - c.5. Counselling (nutritional, physical activity)
 - c.6. Outcome assessment

E. Hospital Discharge

- 1. Once patient has been clinically stabilized and reperfusion therapy has been successfully completed. Transfer to a step-down room may be effected for a continued monitoring and supportive management prior to discharge.
- 2. Discharge is appropriate when:
 - a. The patient is stable and symptoms have resolved.
 - b. Reperfusion is done and complications are managed.
 - c. No serious arrhythmias or instability during observation.
 - d. The patient has received full education on medicines, lifestyle, warning signs, and follow-up.
 - e. The patient is enrolled or referred to cardiac rehab.
- 3. A clear discharge plan with follow-up helps ensure proper care, supports recovery, and allows early action if issues arise.

F. Monitoring and Evaluation

- 1. The health care provider shall be bound by the provisions of the Performance Commitment and subject to the rules on monitoring and evaluation of performance as provided in PhilHealth Circular No. 2018-0019 Health Care Provider Performance Assessment System (HCP-PAS) (Revision 2).
- 2. Standards of care issued by authorized agencies/organizations shall be regularly monitored. As deemed necessary, a revision of the quality policy shall be made. Any updates, as a result of the review, shall be disseminated in another PhilHealth Circular.



VI. PENALTY CLAUSE

Any violation of this PhilHealth Circular shall be dealt with and penalized in accordance with pertinent provisions of R.A. No. 11223 and R.A. No. 10606, and their respective Implementing Rules and Regulations.

VII. SEPARABILITY CLAUSE

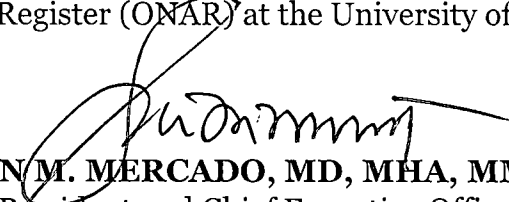
In the event that any part or provision of this PhilHealth Circular is declared unauthorized or invalid by any Court of Law or competent authority, those provisions not affected by such declaration shall remain valid and effective.

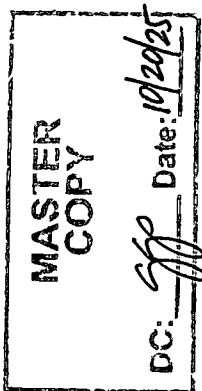
VIII. REPEALING CLAUSE

All other PhilHealth Circulars, issuances, rules, and regulations or parts thereof that are contrary to and inconsistent with this PhilHealth Circular are hereby repealed, amended, or modified accordingly.

IX. DATE OF EFFECTIVITY

This PhilHealth Circular shall take effect fifteen (15) days after its publication in the Official Gazette or in any newspaper of general circulation. Three (3) certified copies shall be deposited to the Office of the National Administrative Register (ONAR) at the University of the Philippines Law Center.


EDWIN M. MERCADO, MD, MHA, MMSc
Acting President and Chief Executive Officer
Date signed: 10/16/25



Annex A

Box 1. Very High Risk Features of AMI (adapted from the 2025 National Acute Myocardial Infarction Pathway by PSCCI, PHA, PCEM, and CARESP).

- Hemodynamic instability or cardiogenic shock
- Recurrent or ongoing chest pain refractory to medical management
- Acute heart failure presumed secondary to ongoing myocardial ischemia
- Life threatening arrhythmias of cardiac arrest after presentation
- Mechanical complications
- Recurrent dynamic ECG changes suggestive of ischemia

