American Heart Association
Cardiac Center of Excellence

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G. FONAROW/M.DRISKILL
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Proposed Requirements

The American Heart Association (AHA) has developed this Cardiac Center of Excellence hospital accreditation program. Accreditation is available only to cardiac programs that meet rigorous standards. Accreditation as a Cardiac Center of Excellence recognizes centers that make exceptional efforts to foster better quality and outcomes for cardiac care. Programs applying for accreditation must meet the requirements for cardiac disease-specific certification/accreditation plus additional clinically specific requirements and expectations.

A designated AHA Cardiac Center of Excellence will:

• Provide comprehensive cardiac patient care with well organized systems, services, and facilities, highly trained and experienced physicians and cardiac team members, with emphasis on quality and outcomes.

• Use evidence-based, guideline driven, standardized methods of delivering care.

• Support systems of care and highly qualified multidisciplinary cardiac teams.

• Support patient safety, research, education, and prevention.

• Provide patient-centered and coordinated care with treatment and intervention tailored to individual needs.

• Promote the flow of patient information across settings and providers, while protecting patient rights, security, and privacy.

• Collect and analyze performance measures, risk-adjusted outcome data, and patient satisfaction data to continually improve care.

• Demonstrate application of and compliance with the clinical practice guidelines published by the ACC/AHA or equivalent evidence-based guidelines.

Accreditation Process

Centers seeking accreditation complete a comprehensive application. On-site accreditation reviews are conducted by reviewers with expertise in cardiac care. The accreditation decision is based on the evaluation of standards, clinical practice guidelines, performance measurement activities, levels of quality and outcomes. Cardiac Centers of Excellence that successfully demonstrate conformity to the rigorous standards together with objective evidence of exceptional cardiac care are awarded certification for a two-year period. At the end of the first year, the organization is required to attest to its continued compliance with standards and evidence of performance measurement, outcome measurement, and improvement activities. To maintain certification, the cycle repeats with an on-site review conducted every two years and a bi-annual submission of an acceptable assessment of compliance by the organization.

Standards

The standards, developed by AHA Hospital Accreditation Science Committee, underwent extensive peer review and public comments and are published in the AHA Cardiac Center of Excellence Accreditation Manual. Comprehensive literature searches were performed using Medline and Pub Med. Articles with information about original research, clinical guidelines, performance measures, outcome measures, existing certification and accreditation programs, and other relevant clinical and research reports were examined and graded using established evidence-based medicine approaches. Input was also obtained from key opinion leaders in cardiovascular disease, quality of care, and outcomes. Members of the Hospital Accreditation Science Committee reviewed literature related to these standards. The Hospital Accreditation Science Committee reviewed each specific criteria and measure and reached a consensus about its importance.

Key domains for evaluation include:

• Facilities, infrastructure, and systems to provide superior cardiac care.

• Highly trained and experienced physicians, nurses, and cardiac team members.

• Cardiac program leadership and management.

• Delivering high quality, safe, effective, efficient, timely, equitable cardiac care.

• Supporting patient centered care, systems of care, and patient self-management.

• Clinical information management.

• Performance and outcome measurement and improvement.

Performance, Outcomes, and Patient Satisfaction Measurement
Accredited Cardiac Centers of Excellence must collect and report on a comprehensive set of process of care, outcomes, and patient satisfaction measures for cardiac care.

Proposed Requirements for AHA Cardiac Center of Excellence

PR.1 The cardiac program defines its leadership and oversight roles.
Elements of Performance for PR.1

1. The cardiac program leaders are qualified to meet the program's mission, goals, and objectives.
   Specific Requirements:
   a. Cardiac medical director(s) are appointed and the physician director is board certified in cardiology.
2. The program defines the accountability of its leaders.
   Specific Requirements:
   a. Written documentation shows support of the cardiac program by hospital/health system administration.
3. The leaders participate in designing, implementing, and evaluating care, treatment, and services.
4. The leaders provide for the uniform performance of patient care, treatment, and services.
5. The leaders confirm that practitioners practice within the scope of their licensure, training, and current competency.
6. The leaders develop a performance improvement plan for leadership quality.
7. The leaders set expectations for development of plans to manage and improve quality at the program level.

PR.2 The cardiac program is designed, implemented, and evaluated collaboratively.
Elements of Performance for PR.2

1. All relevant individuals and/or disciplines participate in designing the program.
2. All relevant individuals and/or disciplines participate in implementing the program.
3. All relevant individuals and/or disciplines participate in evaluating the program.

PR.3 The program meets the needs of the target population and/or health care service area.
Elements of Performance for PR.3

1. The leaders approve the program's mission and scope of service.
2. The program's mission and scope of service are defined in writing.
3. The program identifies its target population.
4. The program's available services are relevant to the target population.

PR.4 The program follows a code of ethics.

Elements of Performance for PR.4

1. The program protects the integrity of clinical decision making.
2. The program respects the patient's right to decline participation in the program.
3. The program has a process for receiving and resolving complaints and grievances in a timely manner.

PR.5 The program has current reference and resource materials readily available.

Elements of Performance for PR.5

1. Reference materials (hard copy or electronic) are easily accessible to practitioners.
   Specific Requirements:
   a. Protocols/care pathways and guidelines for the acute workup, management, and transitions of care for cardiac patients are available in the emergency department, catheterization laboratories, acute care areas, cardiac units, and medicine units (preprinted documents or electronic).
   b. A description of the Emergency Medical System (EMS) is complete with available treatment guidelines for pre-hospital personnel, including EMS patient routing plans that direct transport of acute cardiac (STEMI) patients to a STEMI (Heart Attack) Receiving Center.

   c. Hospital cardiac educational initiatives for all cardiac personnel including those involved in pre-hospital care.
2. Reference materials and resources are authoritative and current (published within 3 years).

PR.6 The program has the capabilities to provide comprehensive cardiac care and communicates to patients the scope and level of care, treatment, and services it provides.

Elements of Performance for PR.6

1. The program provides care, treatment, and services to patients in a planned and timely manner.
   Specific Requirements:
   a. Physicians on the cardiac care team have knowledge and expertise in the diagnosis and treatment of cardiovascular disease.
   b. Written documentation shows evidence of cardiovascular coverage.
   c. The program is a Mission: Lifeline Accredited STEMI (Heart Attack) Receiving Center.
   d. Documentation indicates the ability to complete and report initial lab tests on-site 24/7.
   e. Documentation indicates the ability to complete and report cardiac enzymes within 60 minutes of ordering.
   f. Documentation indicates the ability to perform an ECG within 10 minutes of arrival in at least 80% of patients.
   g. Documentation indicates the reason eligible acute STEMI patients did not receive timely reperfusion therapy.
   h. Documentation that advanced cardiac life support and rapid defibrillation can be provided on a 24/7 basis.
   i. The program performs advanced imaging with multi-model imaging capabilities including transesophageal echocardiography, cardiac CT, and cardiac MRI.

j. The program is a Mission: Lifeline Accredited STEMI (Heart Attack) Receiving Center.
k. The program has the capacity to perform cardiac catheterization on-site on a 24/7 basis.
l. The program has the capacity to perform coronary interventions on-site when indicated on a 24/7 basis.
m. Documentation indicates that on a 24/7 basis, at least 80% of ST segment elevation acute myocardial infarction (STEMI) patients have a diagnostic cardiac catheterization and a door to balloon time within 90 minutes, when clinically indicated.
n. The program has the capacity to provide temporary cardiac mechanical support when indicated on a 24/7 basis.
o. The program has the capacity to provide cardiothoracic surgery on site within one hour on a 24/7 basis.
p. The program has a cardiac intensive care unit (CCU) for cardiovascular patients that include staff and licensed independent practitioners with the expertise and experience to provide cardiovascular critical care.
q. The program has a certified cardiac rehabilitation program or demonstrates that 80% or more of patients with AMI are referred to cardiac rehabilitation in the absence of contraindications.
r. Protocols for care demonstrate that the program:
   -Addresses evidence-based cardiovascular procedures including exclusion criteria.
   -Addresses the circumstances in which the hospital would not accept patients for cardiovascular emergencies/surgery.

2. The program informs the community how to access care, treatment, and services, including after hours (if applicable).
3. Adequate numbers and types of practitioners are available to deliver or facilitate the delivery of care, treatment and services.
   Specific Requirements:

a. The program has a written and adhered to call schedule for physicians with expertise in cardiac critical care, coronary interventions, advanced heart failure care, cardiac imaging, arrhythmia management, and cardiothoracic surgery providing coverage 24 hours a day, 7 days a week.
b. The program demonstrates coverage of the emergency department, CCU, catheterization laboratories, and operating rooms 24 hours a day, 7 days a week by physicians with expertise in critical cardiovascular care, coronary interventions, and cardiothoracic surgery.
c. The program director or cardiologist designee is available 24 hours a day, 7 days a week.
d. The program director or cardiologist designee is available by phone in 20 minutes and available in-house in 45 minutes.
e. The cardiac rehabilitation services are directed by a physician with expertise and experience in cardiac rehabilitation.
f. The program is required to have the following practitioners and staff members providing the care indicated:
    1. Physicians:

        -At least one cardiac interventionist is available by phone in 10 minutes and available in house within 30 minutes, 24 hours a day, 7 days a week.
        -Other cardiac catherization personnel are to be available within 30 minutes, 24 hours a day, 7 days a week, to perform emergency cardiac catherization procedures.
        -At least one cardiologist with cardiac imaging experience.
        -At least one board certified electrophysiologist is available 24 hours a day, 7 days a week.
        -At least one diagnostic radiologist is available 24 hours a day, 7 days a week.
        -Physicians with critical care and cardiovascular experience staff the cardiac intensive care unit (CCU).

-In addition to the cardiac-interventionalist, one or more additional cardiologists are to be available by phone in 20 minutes and available in house in 45 minutes, 24 hours a day, 7 days a week.
- One or more cardiothoracic surgeons are available within 30 minutes, 24 hours a day, 7 days a week.
-Surgeons with expertise in vascular surgery are available.
-Participate in cardiac research.

2. Imaging Staff:
   -One or more certified radiology technologists are required to be available 24 hours a day, 7 days a week.
   -One or more certified radiology technologists are required to be available to assist with cardiac procedures.
   -One or more qualified CT and Magnetic Resonance Imaging (MRI) technologists are required to be available 24 hours a day, 7 days a week (not necessarily in-house).
3. Cardiac Rehabilitation:
   -Physical therapy, nutritionists, and cardiac rehabilitation staff are available to perform patient assessment during the acute cardiac phase.
4. Advanced Practice Nurses (APNs):
   -Support delivery of evidence-based acute cardiac care, assessment and management.
   -Provide expert nursing consultation and practice oversight.
   -Develop and deliver cardiovascular care education programs.
   -Participate in performance improvement processes.
   -Participate in cardiac research.

4. The program evaluates services provided through contractual arrangement to ensure that the scope and level of care, treatment, and services are provided consistently.

5. The program defines in writing the scope of care, treatment, and services it provides.
Specific Requirements:

a. Written documentation exists for a cardiac team notification system and expected response times.
b. The program can provide evidence that program clinicians have reviewed the institution's cardiac protocols. The institution may choose how it will represent this evidence to the American Heart Association.

6. The program is involved in cardiac research.

a. The institution may choose how it will represent this evidence to the American Heart Association.

7. The program is involved in cardiovascular prevention efforts including community education and cardiovascular wellness programs.

a. The institution may choose how it will represent this evidence to the American Heart Association.

PR.7 The scope and level of care, treatment, and services provided are comparable for individuals with the same acuity and type of disease being managed.
Elements of Performance for PR.7

1. Individuals have access to an adequate level of resources required to meet the health care needs for the disease(s) being managed.
Specific Requirements:

a. Emergency department and all hospital practitioners have 24 hour access to a timely, informed consultation about cardiac emergencies, obtained from a board certified cardiologist privileged in the diagnosis and treatment of cardiovascular patients.
b. Written documentation shows evidence of cardiac coverage at all times.
c. Documentation indicates that on a 24/7 basis, 80% of STEMI patients have a diagnostic cardiac catherizations within 45 minutes of it being ordered, when clinically indicated.

d. Documentation of access to translators.

DF.1 Practitioners are qualified and competent.
Elements of Performance for DF.1

1. Practitioners have education, experience, training, and board certification consistent with the cardiac program's mission, goals, and objectives.
Specific Requirements:

a. Practitioners are knowledgeable about the following:
-Pathophysiology, presentation, assessment, diagnostics, and treatment of patients with acute coronary syndromes, heart failure, cardiogenic shock, arrhythmias, structural heart disease, and other cardiac disease states.
-Cardiovascular imaging.
-Surgical treatment of coronary artery disease, heart failure, structural heart disease, and other cardiac disease states.
-Communication with inbound Emergency Medical System (EMS) for cardiac emergencies, activation of the STEMI team, and location and application of STEMI protocols.
-Indications and contraindication for use of IV thrombolytic therapy and direct percutaneous coronary intervention (PCI).
-Indications and contraindications to advanced cardiac life support and mechanical circulatory support.
-Signs and symptoms of cardiovascular deterioration; recognition, assessment and management of cardiac complications.
b. Education to be provided to patients and families regarding the risk and benefits of cardiac therapies and interventions.

c. RNs working in the ED, Cardiac ICU, and catheterization laboratory (cath lab) are formally educated and experienced in the provision of evidence-based acute cardiac nursing care.
d. RNs working in the CCU are knowledgeable about cardiac assessment.
e. Advanced practice nurses (clinical nurse specialists or nurse practitioners) have focused expertise in cardiac advanced nursing management.
f. The program has the following practitioners and staff members providing care as indicated:
   -Pharmacist with expertise in cardiology
   -Data collection personnel
   -Nurse case managers and social workers with expertise in cardiac care, care coordination, referrals to inpatient rehabilitation, and expertise in community resources
g. The program demonstrates acceptable capabilities, training, proficiencies, and certification for cardiovascular imaging.

2. Practitioners hired in the program meet minimum requirements for licensure, education, training, experience, and current competence.

Specific Requirements:

a. Written documentation regarding cardiac care program operations delineates specific requirements and assignment of cardiac care team duties.

3. The program evaluates practitioners for current licensure and current competence.
4. The program uses primary source verification to authenticate current licensure of all practitioners.
5. Orientation provides information and necessary training appropriate to program responsibilities.

Specific Requirements:

a. The program provides specific training and education, including a formal orientation on evidenced-based acute cardiac assessment and nursing management for all nurses providing care in the emergency department, cardiac ICU, and cardiac catheterization laboratory.

b. Practitioners show familiarity with the following:
   -Pathophysiology, presentation, assessment, diagnostics and treatment of cardiac patients, including acute coronary syndromes, cardiac arrhythmias, acute heart failure, cardiogenic shock, cardiac arrest, syncope, tamponade, structural heart disease, and other acute cardiovascular disease presentations.
   -Location and application of STEMI, advanced cardiac life support (ACLS), and arrhythmia-related protocols, activation of the cardiac catherization team, and communications with inbound Emergency Medical System (EMS).
   -Recognition, assessment, and management of acute cardiovascular disease complications.
c. Practitioners working in the cardiac care unit demonstrate evidence of initial and ongoing training in the care of acute cardiac emergencies, including STEMI patients.
d. Members of the cardiac team receive at least eight hours annually of continuing education or other equivalent educational activity, as determined appropriate by the program director and as appropriate to the care practitioners' level of responsibility.

Note: Cardiac care units can be defined and implemented in a variety of ways. The cardiac unit must be a specific enclosed area with beds designated for acute cardiac patients and will be a specified unit to which most cardiac intensive care unit patients are admitted.

6. The program assesses practitioner competence within program defined time frames.

Specific Requirements:

a. Cardiac care practitioners can provide evidence of review of the institution's acute cardiac protocols. The institution may choose how it will represent this evidence to the AHA.
b. Cardiac care ICUs demonstrate expertise in:
   -Cardiovascular assessment
   -Nursing assessment and management of cardiac care and support devices
   -Treatment of cardiogenic shock
   -Nursing care of patients post cardiac procedures

-Nursing care of patients on IABP
-Management of cardiac arrhythmias
-Use of therapeutic hypothermia protocols
-Use of intravenous vasopressor, antihypertensive and positive inotropic agents
-Methods for hemodynamic monitoring
-Methods for invasive and non-invasive ventilator management

7. Ongoing in-service and other education and training activities are relevant to the program's needs.

Specific Requirements:

a. Practitioners working in the cardiac unit demonstrate evidence of initial and ongoing training in the care of acute cardiac patients.
b. Members of the core cardiac team receive at least eight hours annually of continuing education or other equivalent educational activity, as determined appropriate by the program director and as appropriate to the practitioners' level of responsibility.
   Note: Cardiac care units can be defined and implemented in a variety of ways. The cardiac must be a specific enclosed area with beds designated for acute cardiac patients.
c. The program requires the following specific training and education for physicians and staff members, including cardiac care unit staff and emergency department staff:
   -Nurses providing acute cardiac care are required to attend three or more training sessions per year including ten or more hours (Continuing Education Units) of education on cardiovascular disease.
   -Nurses providing acute cardiac care are required to attend one regional or national meeting every other year related to cardiovascular care.
   -Emergency department staff members attend at least one educational program in cardiovascular disease.
   -Emergency department staff members attend two or more hours of education per year on acute cardiac care.

-The cardiac care unit director attends eight or more hours of education per year on cardiovascular disease and/or acute cardiac care.

d. RNs working in the ED complete at least two annual contact hours of continuing education focused on acute cardiac nursing assessment and management.
e. Nurses working on a cardiac care unit or cardiac ICU complete at least 10 annual contact hours of continuing education focused on acute cardiac nursing assessment and management.
f. The program staff prepares and presents two or more educational courses per year for the staff or for those staff outside the cardiac program.

8. The program identifies and responds to their program-specific learning needs.

DF.2 The program develops a standardized process originating in ACC/AHA clinical practice guidelines and evidence based practice to deliver or facilitate the delivery of clinical care.
Elements of Performance for DF.2

1. The clinical practice guidelines used are based on evidence that has been evaluated as current by the clinical leaders.

Specific Requirements:

a. Protocols demonstrate that the program can provide STEMI care, NSTEMI care, cardiogenic shock care, PCI, CABG, structural heart disease/valve surgery, heart failure, cardiac rehabilitation care, and other cardiac diseases. Protocols are de novo or adapted from extant resources and published guidelines.
b. Nursing care delivery must be supported by evidence-based practice policies and protocols.

2. The clinical practice guidelines used should be from the ACC/AHA or if such guidelines are not available for the specific cardiac disease state or procedure, they have been evaluated as appropriate for the target population.

Specific Requirements:

a. Protocols demonstrate that the program can provide comprehensive cardiac and cardiac surgical care. Protocols are de novo or adapted from extant resources and published guidelines.
b. Protocols for emergency care demonstrate that the program:
   -Addresses emergency management care including rapid assessment, rapid communication between emergency department and Emergency Medical Services (EMS) staff, and medical stabilization of patient en route to emergency department.
   -Addresses procedures for the emergency department initiating the cardiac care team.
   -Reviews emergency department/EMS protocols at least annually.
c. Protocols for care, treatment, and services demonstrate that the program:
   -Has a process to administer fibrinolytics according to current evidence-based practices and research.
   -Has a process to provide PCI, ablations, CABG, and valve surgery according to current evidence-based practices and research.
   -Has interdisciplinary interventions addressing the reduction of recurrent cardiovascular events.
   -Addresses the initiation of cardiac procedures.
-Has multidisciplinary team members who are to evaluate the patient before and after cardiac surgery.

3. The program's assessment activities are consistent with ACC/AHA clinical practice guidelines or, if applicable ACC/AHA clinical practice guidelines are not available, are consistent with other applicable guidelines.

Specific Requirements:

a. The patient is assessed to identify cognitive decline, depression, and other social issues prior to discharge. *Note*: This requirement is not applicable to comatose patients.
b. The patient is assessed to identify post hospitalization care requirements such as:
   -Acute cardiac rehabilitation
   -Long term acute care
   -Skilled nursing/sub-acute care
   -Outpatient services and physician appointments

-Home care required services
-Palliative care services
-Patient education

4. The program's intervention activities are consistent with clinical practice guidelines.

Specific Requirements:

a. Use of protocols when indicated by the treating licensed independent practitioner is reflected in the order sets or pathways and is documented in the patient's medical record according to organizational procedure.

5. The program reviews clinical practice guidelines for appropriateness on an ongoing basis.

Specific Requirements:

a. Acute cardiac care protocols or order sets and pathways are included in the institution's routine process for review and updating.

6. Clinical leaders and practitioners review and approve clinical practice guidelines for implementation.

7. Practitioners are educated about ACC/AHA clinical practice guidelines and their use.

Specific Requirements:

a. Practitioners can provide evidence of review of the institution's acute cardiac care protocol. The institution may choose how it will represent this evidence to the AHA.

DF.3 The program is designed to meet the cardiac patients' needs.

Elements of Performance for DF.3

1. The program defines the elements of assessment for the targeted cardiac patient population.

2. The program specifies time parameters for assessment of the cardiac patient.

Specific Requirements:

a. Time parameters for cardiac workup are included in the protocol or the emergency department workup protocol.

3. The plan of care is developed based on the cardiac patients' assessed needs.
4. The program uses a specified method for prioritizing the needs of cardiac patients.
5. The program implements interventions based on priority and risk.
6. The program individualizes delivery of care.
7. The program continually evaluates, revises, and implements the plan of care to meet the cardiac patients' ongoing needs.
8. The program has available translators.
9. The program provides culturally sensitive care.

DF.4 The program manages co-morbidities and concurrently occurring conditions and/or communicates the necessary information to manage these conditions to appropriate practitioners.
Elements of Performance for DF.4

1. The program coordinates care for cardiac patients with multiple health needs.
Specific Requirements:
   a. Protocols for care related to patient referrals demonstrate that the program:
      -Addresses processes for receiving transfers.
      -Addresses processes for transferring patients to another hospital/facility.
      -Evaluates the receiving organization's ability to meet the individual patient's needs.
2. The program communicates important information regarding co-occurring conditions and co-morbidities to the appropriate practitioner(s) to treat or manage the conditions.
3. Co-morbidities and co-occurring conditions needing medical intervention are treated by the program practitioners or referred to appropriate practitioners for care.
Specific Requirements:
   a. Protocols for care related to transitions of care demonstrate that the program:

-Addresses procedures for transitions of care for patients internally and post-hospitalization.
-Addresses procedures for referral when the program does not provide post-acute inpatient rehabilitation services.

b. Based on their prognosis, patients are referred to community resources to facilitate integration into the community such as:

-Out-patient therapy including cardiac rehabilitation
-Support groups
-Social Services

c. Based on their prognosis, patients are referred to palliative care when indicated.
d. Based on their prognosis, patients are referred to hospice/end of life care when indicated.

4. The program has a process to provide emergency/urgent care.

SE.1 The program involves patients in making decisions about managing their disease or condition.
Elements of Performance for SE.1

1. The program involves patients in decisions about their clinical care.

Specific Requirements:

a. The patient and family participate in planning post-hospital care.

2. Patients and practitioners mutually agree upon goals.

Specific Requirements:

a. Goals are established for post-hospital care.

3. The program informs participants of their responsibility to provide information to facilitate treatment and cooperate with practitioners.
4. The program informs patients of all potential consequences for noncompliance with recommended treatment(s).

5. The program assesses the patients' readiness, willingness, and ability to engage in self-management activities.
6. The program assesses the family's readiness, willingness, and ability to provide or support self-management activities when needed.

Specific Requirements:

a. For patients returning to home, problem solving strategies are provided to the family for post-hospital care.

SE.2 The program addresses lifestyle changes and supports self-management regimens.
Elements of Performance for SE.2

1. As indicated, the program promotes lifestyle changes and supports prevention, self-management regimens, and medication adherence.
2. As necessary, the program involves family and community support structures in the patients' care regimens.
3. As necessary, the program evaluates barriers to lifestyle changes and medication adherence.
4. The program assesses and documents the patients' response to recommended life style changes and medication adherence.

Specific Requirements:

a. Post-hospital care is coordinated based on the assessment of the patient's and family's identified needs.
b. For patients returning home, the family members receive a comprehensive assessment to determine their skills, capacities, and resources to provide post-hospital care.

5. The program assesses the effectiveness of efforts to help the participant make lifestyle changes and adhere to medication regimens.

SE.3 The program addresses participants' education needs.
Elements of Performance for SE.3

1. The program's materials comply with recommended elements of intervention supported by the literature and promoted through the clinical practice guidelines.
2. The program presents content in a manner that is culturally sensitive.
3. The program presents content in an understandable manner relevant to the patients' level of literacy.
4. The program makes initial and ongoing assessments of participant's comprehension of program specific information.
5. The program addresses the participant's education needs related to lifestyle changes, self-management regimens, and medication adherence.

Specific Requirements:

a. For patients returning home:
   - -Education is provided on post-hospital care.
   - -Education and resources are provided about durable medical equipment (DME) when indicated.
   - -Education is provided to the family about respite care.
   - -Resource information is provided to the family about respite care.

6. The program addresses the education needs of the participant regarding health promotion.

Specific Requirements:

a. Documentation shows at least one cardiovascular public education activity per year.
b. The program sponsors at least two public educational activities that focus on cardiac disease prevention and care.

7. The program addresses the education needs of the patient regarding disease prevention.
8. The program addresses the education needs of the patient regarding his/her illness and treatment(s).
9. The program communicates to the patient the results of his/her family risk assessment.

CT.1 Patient information is confidential and secured.
Elements of Performance for CT.1

1. The program preserves patient confidentially and adheres to HIPPA requirements.
2. Records and information are safeguarded against loss, destruction, tampering and unauthorized access or use.
3. Patients are made aware of how data and information related to them will be used by the organization.
4. The program defines methods for adding comments in the form of statements or addenda into the formal records.
5. The program defines access limitations to information for individuals and/or positions.
6. The program defines access limitations to information connected to compliance measures for individuals and/or positions.
7. The program defines criteria requiring the release of information by consent.
8. The program defines a process that is followed when confidentiality and security are violated.
9. Information management processes meet the program's internal and external information needs.

CT .2 Information management processes meet the program's internal and external information needs.
Elements of Performance for CT.2

1. Data are easily retrieved in a timely manner without compromising security and confidentiality.
2. The program determines how long health records and other data and information are retained in accordance with applicable law and patient need.
3. The program uses aggregate data and information to support managerial decisions.

Specific Requirements:

a. Evidence of cardiac care team log that captures cardiac team response to acute cardiac patients, treatments used and patient disposition. The log can be captured by written or electronic means and/or may be done retrospectively through chart audits.

4. The program uses aggregate data and information to support operations.

Specific Requirements:

a. Evidence of cardiac care team log that captures cardiac team response to acute cardiac patients, treatments used, and patient disposition. The log can be captured by written or electronic means and/or may be done retrospectively through chart audits.

5. The program uses aggregate data and information to support performance improvement activities.

Specific Requirements:

a. Evidence of cardiac care team log that captures cardiac team response to acute cardiac patients, treatments used, and patient disposition. The log can be captured by written or electronic means and/or may be done retrospectively through chart audits.

6. The program uses aggregate data and information to support participant care.

Specific Requirements:

a. Evidence of cardiac care team log that captures cardiac team response to acute cardiac patients, treatments used, and patient disposition. The log can be captured by written or electronic means and/or may be done retrospectively through chart audits.

7. The program shares information with any relevant practitioner or setting about the participant's disease or condition across the continuum of care.

8. The program shares information directly with the patient and/or family.

9. The health or medical record contains sufficient information to document the course and results of care, treatment, and services.

10. The health or medical record contains sufficient information to track the patient's movement through the care system.

11. The health or medical record contains sufficient information to facilitate continuity of care both internally and externally to the program.
12. Health or medical records are periodically reviewed for complete, accurate, and timely maintenance.

PM.1 The program has an organized, comprehensive approach to performance improvement.
Elements of Performance for PM.1

1. Demonstration by STEMI Receiving Facility that they have a process of regular monitoring and feedback to referring sites regarding performance.
2. The performance improvement program is well-designed and planned.

Specific Requirements:

a. Evidence exists of specific cardiac care performance measurements and review by quality improvement department and cardiac care team.
b. The center has a peer review process to review all patients who have received cardiac care, treatment and services.
c. The center participates in the following national performance improvement programs or can provide evidence to support an equivalent organized and comprehensive approach to performance improvement:
    -NCDR/AHA ACTION Registry-GWTG for acute myocardial infarction http://www.ncdr.com/webncdr/action/default.aspx
    -AHA GWTG-Heart Failure for heart failure www.heart.org/quality
    -NCDR Cath-PCI Registry for catheterization and interventional procedures https://www.ncdr.com/webncdr/DefaultCathPCI.aspx
    -NCDR ICD Registry for ICD and CRT procedures https://www.ncdr.com/webncdr/ICD/Default.aspx
    -STS Registry for cardiac surgery http://www.sts.org/national-database

3. The performance improvement program collects relevant data.

Specific Requirements:

a. Documentation exists to reflect tracking of performance measures and indicators, risk-standardized outcome measures, and patient satisfaction.
b. The following performance and outcome measures are required to be collected and submitted for AHA review:

Acute Myocardial Infarction

Specific Requirements:

-Aspirin at arrival--Acute Myocardial Infarction (AMI) patients who received aspirin within 24 hours before or after hospital arrival.

-Aspirin prescribed at discharge--Acute Myocardial Infarction (AMI) patients who are prescribed aspirin at hospital discharge.

-Beta blocker prescribed at discharge--Acute Myocardial Infarction (AMI) patients are prescribed a beta-blocker at discharge.

-Statin at discharge--Acute Myocardial Infarction (AMI) patients who are prescribed a statin at hospital discharge.

-Evaluation of LV systolic function--Acute Myocardial Infarction (AMI) patients with documentation in the hospital record that left ventricular (LV) systolic function was evaluated during hospitalization or is planned for after discharge.

-ACEI or ARB for LVSD--Acute Myocardial Infarction (AMI) patients with left ventricular systolic dysfunctions who are prescribed an ACEI or ARB at hospital discharge. (For purpose of this measure, LVSD is defined as chart documentation of a left ventricular ejection fraction (LVEF) less than 40% or a narrative description of left ventricular systolic (LVS), function consistent with moderate or severe systolic dysfunction.)

Time to Fibrinolytic Therapy

Specific Requirements:

-Median time from hospital arrival to administration of fibrinolytics therapy in Acute Myocardial Infarction (AMI) patients with ST segment elevation or left bundle branch block (LBBB) on the electrocardiogram (ECG) performed closest to hospital arrival time.

-Acute Myocardial Infarction (AMI) patients with ST segment elevation of LBBB on the ECG performed closest to hospital arrival time receiving fibrinolytics therapy during the hospital stay with a time from hospital arrival to fibrinolysis of 30 minutes or less.

Adult Smoking Cessation Advice/Counseling

Specific Requirements:

-Acute Myocardial Infarction (AMI) patients with a history of smoking cigarettes who are given smoking cessation advice or counseling during hospital stay.

Cardiac Rehabilitation Patient Referral from an Impatient Setting

Specific Requirements:

-All patients hospitalized with a primary diagnosis of an AMI or chronic stable angina (CSA), or who during hospitalization have undergone coronary artery bypass graft (CABG) surgery, a percutaneous coronary intervention (PCI), cardiac valve surgery, or cardiac transplantation are to be referred to an early outpatient cardiac rehabilitation/secondary prevention (CR) program.

Time to PCI

Specific Requirements:

-Median time from hospital arrival to primary percutaneous coronary intervention (PCI) in acute myocardial infarction (AMI) patients with ST-segment elevation or left bundle branch block (LBB) on the electrocardiogram (ECG) performed closest to arrival time.

Reperfusion Therapy

Specific Requirements:

-Acute Myocardial Infarction (AMI) patients with ST segment elevation or left bundle branch block (LBBB) on the electrocardiogram (ECG) performed closest to arrival time receiving either fibrinolysis or primary percutaneous coronary intervention (PCI) or who are transferred to another facility for primary PCI.

Time from Emergency Department (ED) Arrival at STEMI Referring Facility to ED Discharge from STEMI Referring Facility in Patients Transferred for Primary Percutaneous Intervention (PCI)

Specific Requirements:

-Median time from emergency department (ED) arrival at STEMI referring facility to ED discharge from STEMI referring facility for acute myocardial infarction (AMI) patients with ST-segment elevation of left bundle branch block (LBBB) on the electrocardiogram (ECG) performed closest to hospital arrival time who are transferred to a STEMI receiving facility for primary percutaneous coronary intervention (PCI).

Time from Emergency Department (ED) Arrival at STEMI Referring Facility to Primary Percutaneous Intervention (PCI) at STEMI Receiving Facility among Transferred Patients

Specific Requirements:

-Median time from patient arrival at a STEMI facility's emergency department (ED) to time of primary percutaneous intervention (PCI) at a STEMI receiving facility for acute myocardial infarction (AMI) patients presenting with ST segment elevation or left bundle branch block (LBBB) on the electrocardiogram (ECG) performed closest to first hospital arrival time who are transferred to a STEMI receiving facility for primary PCI.

Acute Myocardial Infarction 30 day Mortality (CMS-Risk Standardized Mortality Measure)

Specific Requirements:

-Percentage of patients with AMI age 65 years and older with hospital-specific, risk standardized all cause 30 day mortality (defined as death from any cause within 30 days after the index admission date) for patients discharged from the hospital with a principal diagnosis of AMI.

Heart Failure

Left Ventricular Ejection Fraction (LVEF) Assessment

Specific Requirements:

-Percentage of patients aged 18 years and older with a principal discharge diagnosis of heart failure with documentation in the hospital record of the results of an LVEF assessment that was performed either before arrival or during hospitalization, OR documentation in the hospital record that LVEF is planned for after discharge.

Beta Blocker Therapy for Left Ventricular Systolic Dysfunction (Inpatient and Outpatient Setting)

Specific Requirements:

-Percentage of patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF of 40% who were prescribed beta blocker therapy either within a 12 month period when seen in the outpatient setting or at hospital discharge.

Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (Inpatient and Outpatient Setting)

Specific Requirements:

-Percentage of patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF <40 who were prescribed ACE inhibitor or ARB therapy either within a 12 month period when seen in the outpatient setting or at hospital discharge.

Post-Discharge Appointment for Heart Failure Patients

Specific Requirements:

-Percentage of patients, regardless of age, discharged from an inpatient facility to ambulatory care or home health care with a principal discharge diagnosis of heart failure for whom a follow-up appointment was scheduled and documented including location, date, and time for a follow-up office visit or home health visit (as specified).

Heart Failure 30 day Mortality (CMS Risk Standardized Mortality Measure)

Specific Requirements:

-Percentage of patients with AMI age 65 years and older with hospital specific, risk-standardized, all cause 30 day mortality (defined as death from any cause within 30 days after the index admission date) for patients discharged from the hospital with a principal diagnosis of HF.

Patient Satisfaction:

Specific Requirements:

-HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) survey derived core measures for patient satisfaction (six summary measures, two individual items and two global items).

4. The Cardiac Care team monitors periprocedure complication and mortality rates for key cardiac interventions and surgical procedures.

Specific Requirements:

The program demonstrates sufficient quality and/or maintenance of experience through:

a. **Coronary Artery Bypass Grafting** of 125 patients/annual volume requirement (alone or in combination with other procedures). Hospitals with less than annual volume of 125 patients must participate in STS and demonstrate risk adjusted outcomes that meet or exceed the national average.
b. **Valve replacement/repair** of 50 patients/annual volume requirement. Hospitals with less than annual volume of 50 patients (undergoing valve replacement/repair) must participate in STS and demonstrate outcomes that meet or exceed the national average for risk-adjusted outcomes.
c. **Percutaneous Coronary Intervention** of 200 patients/annual volume requirement.
d. **Primary PCI for STEMI** of 36 patients/annual volume requirement.

5. The performance improvement efforts targeted to specific measures are sufficiently documented.

Specific Requirements:

a. Documentation exists to reflect specific interventions to improve the selected measure.
b. Documentation exists to reflect specific outcomes to determine success.

c. Documentation exists to reflect implementation period and reevaluation point.

6. The performance improvement program improves and sustains performance.

7. The program plans performance improvement activities for practitioners across disciplines and/or settings.

Specific Requirements:

a. Evidence exists of specific cardiac care performance measurement and review by quality improvement department and cardiac care (STEMI) team.

8. The program utilizes patient satisfaction data for performance improvement activities.

Specific Requirements:

a. There is evidence of specific cardiac care performance measurement and review through the quality improvement process and by the cardiac care team.
b. There is evidence that specific cardiac care performance measurement data, focused on the use of IV thrombolytic therapy are evaluated through the quality improvement process and by the cardiac care team.

PM.2 The program uses measurement data to evaluate processes and outcomes.
Elements of Performance for PM.2

Note: Measurement data must be internally trended over time and may be compared to an external data source for comparative purpose.

1. The program selects valid, reliable performance measures based on official ACC/AHA performance measures or other performance measures relevant to the management of the cardiac disease or procedure.

2. The program collects data related to processes and/or outcomes of care at the level of the individual patient.

Specific Requirements:

a. The cardiac center participates in national registries and/or maintains a cardiac registry or uses a similar data collection tool to monitor this information.

3. The program aggregates data at the program level.
4. The program reports aggregated data results to the AHA at defined intervals.
5. The program analyzes its measurement data

Specific Requirements:

a. The program monitors complication rates and mortality of cardiac catheterizations and cardiac surgical procedures and compares these rates with published outcomes and aggregate complication rates.
b. The program demonstrates risk-standardized mortality rates that meet or exceed national rates.

6. The program uses measurement data to improve processes and outcomes.

PM.3 The program maintains data quality and integrity.

Elements of Performance for PM.3

1. The program uses data sets, definitions, codes, classifications, and terminology throughout the organization.
2. Data collection is timely, accurate, complete, and relevant to the program.
3. The program minimizes data bias.
4. The program monitors data reliability and validity.
5. The program defines sampling methodology based on measurement principles.
6. The program uses data analysis tools.
7. The program evaluates variables that affect program outcomes.

PM.4 The process for identifying, reporting, managing, and tracking sentinel events is defined and implemented.

Elements of Performance for PM.4

1. A process exists for identifying these events if and when they occur.
2. A process exists for internally tracking these events if and when they occur.
3. The program implements changes based on its analysis of sentinel events.

PM.5 The program collects and analyzes data regarding variance from the ACC/AHA clinical practice guidelines to improve the standardized process.

Elements of Performance for PM.5

1. The program tracks data variances at the individual participant level.
2. The program uses outcomes analysis to determine modification to the clinical practice guidelines and their use.

Specific Requirements:

a. Acute cardiac care and cardiac procedure protocols or order sets and pathways are included in the institution's routine process for review and updating.

PM.6 The program evaluates patient perception of the quality of care.

Elements of Performance for PM.6

1. The program evaluates patient satisfaction and perception of the quality of care.
2. The program uses patient satisfaction results to analyze quality of care and make improvements.