

LERN Cardiogenic Shock CENTER REQUIREMENTS

Must obtain Comprehensive Heart Attack Center Certification by the Joint Commission, or Chest Pain PCI with Shock or Chest Pain Resuscitation with Shock from the American College of Cardiology.

Cardiogenic Shock Centers will provide specialized cardiac care designed to rapidly diagnose and treat people experiencing cardiogenic shock – a serious condition in which the heart suddenly cannot pump enough blood to meet the body's needs, often due to severe heart damage like a large heart attack. Cardiogenic Shock Centers will support all Louisiana hospitals as a referral source for high level cardiac care. EMS should not bypass a STEMI Receiving Center where care can be delivered faster to reach such a Cardiogenic Shock Center. These centers provide all services as a STEMI Receiving Center, but are also required to have cardiogenic shock protocols, an interdisciplinary shock team, cardiac surgery and advanced circulatory support (Impella 5.5 or VA-ECMO), not provided 24/7/365 at STEMI Receiving Centers.

Cardiogenic Shock Center	
Designation Characteristic	24/7/365 STEMI receiving center: cardiac surgery on site, cardiogenic shock, advanced hemodynamic support. This designation is for hospitals performing both cardiac surgical services and primary PCI 24 hours a day, seven days a week, every day of the year. Excel at providing care to patients with cardiogenic shock and provide care along the continuum including cardiac rehab.
Program Requirements	Access to cardiovascular expertise and provides the following services 24/7/365: 1. Emergency Services 2. Cardiology 3. Interventional cardiology (Primary PCI 24/7) 4. 24/7 Cardiac Catheterization Lab (CCL) availability within 30 minutes of notification, including interventional cardiologist present at start of the case. 5. Cardiac surgery 6. Critical Care 7. Accept all STEMI patients regardless of bed availability (from EMS and STEMI or STEMI Receiving Centers).
External Certification	TJC = Comprehensive Heart Attack Center Certification ACC = Chest Pain PCI with Shock ACC = Chest Pain Resuscitation with Shock
Cardiac Champion	Have recognized hospital champion for Cardiogenic Shock care.
Pre-Hospital Activation	Have single call pre-hospital activation of CCL by paramedic or ED Physician for those patients transported by emergency medical services.
Cardiogenic Shock Protocol	A cardiogenic shock protocol is crucial in a cardiogenic shock center because it ensures that patients receive prompt, standardized, and coordinated care—key factors that improve survival and outcomes in this life-threatening condition. Such protocols should include: early recognition criteria, initial stabilization steps, hemodynamic monitoring, mechanical circulatory support criteria, revascularization strategy, multidisciplinary team activation and continuous reassessment.
Interdisciplinary Shock Team	A coordinated group of specialists who rapidly evaluate and treat patients in cardiogenic shock. These teams are designed to improve survival by making fast, collaborative decisions about advanced therapies. Team members may include: cardiologists, interventional cardiologists, critical care physicians, cardiothoracic surgeons, ECMO specialists, nursing, emergency medicine physicians and pharmacists.
Annual PCI volume (institutional and provider)	Meet hospital procedural volume standards as delineated by the American Heart Association and ensure annual interventional cardiologist volume as delineated by the American Heart Association. May choose an alternate pathway for procedural volumes to include:

	a. Evaluation of low volume operators Risk Adjusted Mortality Index (RAMI) by participating in the NCDR registry or GWTG-CAD registry with local quality over-sight, or Develop internal quality program to evaluate low volume operators and indicate quality program specifics in attestation.
Circulatory Support	IABP and Impella CP required
Advanced circulatory support	Impella 5.5 or VA ECMO required
Cardiac surgery	Available 24/7/365
Comprehensive post-arrest care, including TTM	Comprehensive post-arrest care focuses on rapid revascularization, hemodynamic optimization, and targeted temperature management (TTM) to optimize neurological outcomes.
Intensive care unit	Cardiac intensive care unit or designated intensive care beds available 24 hours a day, 7 days a week for the management of critical cardiac patients.
Cardiac rehabilitation services	Locally available
Fibrinolytic administration capability	If revascularization time is prolonged due to simultaneous STEMI arrival or a prolonged ongoing procedure in the (CCL), fibrinolytic therapy should be considered/available.
Participation in LERN Data Registry	Participate in state-wide data collection, quality improvement efforts, and feedback to ensure optimal STEMI care is delivered in Louisiana and per external certification requirements from TJC or ACC.
Transfer agreement	Agreements in place or procedures to accept patients from STEMI Referral and STEMI Receiving facilities requiring advanced care.
Regional system of care engagement	Participation in LERN regional or state meetings and LERN Regional Commissions.
Data Sharing with EMS and Referral Centers	Provide concurrent feedback to EMS and STEMI Referral Centers (including data sharing with EMS or referral Center at the end of case, quarterly meetings to review cases, and data exchange with the EMS/STEMI Referral Center).
Quality Assurance/Performance Improvement	Hospital should have cardiogenic QAPI plan, which includes Cardiogenic Shock. Have on-going multidisciplinary team meetings to evaluate outcomes and quality improvement data for the cardiogenic shock patient. Operational issues should be reviewed, problems identified, and solutions implemented.
Education	Nursing staff that works with focus on care of Cardiogenic Shock (CS) patients must have annual training on CS. In addition, the LERN cardiogenic shock center should offer annual CS training to local EMS.

**This is a high level overview and not intended to be inclusive of all TJC or ACC certification requirements.*

STEMI-RECEIVING CENTER REQUIREMENTS

Does not require external certification. CEO must attest to meeting these requirements 24/7/365.

A STEMI Receiving Center is a hospital recognized for its ability to rapidly evaluate and treat patients experiencing a ST-segment elevation myocardial infarction (STEMI), which is a severe type of heart attack caused by complete blockage of a coronary artery. Within a state cardiac system of care, the STEMI Receiving Center serves as a regional hub for advanced cardiac treatment.

Designation Characteristic	24/7/365 PCI Capable Hospitals performing primary PCI and receiving referrals from other facilities. Hospitals with this certification will refer patients for cardiac surgery or more complex services as needed.
Program Requirements	Access to cardiovascular expertise and provides the following services 24/7/365: 1. Emergency Services 2. Cardiology 3. 24/7 Cardiac Catheterization Lab (CCL) availability within 30 minutes of notification, including interventional cardiologist present at start of the case. 4. On-call cardiac surgery back up or pre-designated surgical surgery back up site 5. Accept all STEMI patients regardless of bed availability (from EMS and STEMI Referral Centers).
External Certification	Not Required
Cardiac Champion	Have recognized hospital champion for STEMI care.
Pre-Hospital Activation	Have single call pre-hospital activation of CCL by paramedic or ED Physician for those patients transported by emergency medical services.
Cardiogenic Shock Protocol	Required
Interdisciplinary Shock Team	Recommended
Annual PCI volume (institutional and provider)	Meet hospital procedural volume standards as delineated by the American Heart Association and ensure annual interventional cardiologist volume as delineated by the American Heart Association. May choose an alternate pathway for procedural volumes to include: b. Evaluation of low volume operators Risk Adjusted Mortality Index (RAMI) by participating in the NCDR registry or GWTG-CAD registry with local quality over-sight, or Develop internal quality program to evaluate low volume operators and indicate quality program specifics in attestation.
Circulatory Support	IABP or Impella CP required
Cardiac surgery	Have on- call cardiac surgery back up or a pre-designated surgical back up site.
Comprehensive post-arrest care, including TTM	Required - Comprehensive post-arrest care focuses on rapid revascularization, hemodynamic optimization, and targeted temperature management (TTM) to optimize neurological outcomes.
Intensive care unit	Cardiac intensive care unit or designated intensive care beds available 24 hours a day, 7 days a week for the management of critical cardiac patients.
Cardiac rehabilitation services	Locally available
Fibrinolytic administration capability	If revascularization time is prolonged due to simultaneous STEMI arrival or a prolonged ongoing procedure in the (CCL), fibrinolytic therapy should be considered/available.
Participation in LERN Data Registry	Participate in state-wide data collection, quality improvement efforts, and feedback to ensure optimal STEMI care is delivered in Louisiana.
Transfer agreement/plan	Required transfer agreement in place with Cardiogenic Shock Center when advanced levels of critical care needed.
Regional system of care engagement	Participation in LERN regional or state meetings and LERN Regional Commissions.

Data Sharing with EMS and Referral Centers	Provide concurrent feedback to EMS and STEMI Referral Centers (including data sharing with EMS or referral Center at the end of case, quarterly meetings to review cases, and data exchange with the EMS/STEMI Referral Center).
Quality Assurance/Performance Improvement	Have on-going multidisciplinary team meetings to evaluate outcomes and quality improvement data for all STEMI patients. Operational issues should be reviewed, problems identified, and solutions implemented.
Staffing	Demonstrate commitment to the Emergency Department (ED) and Cardiac Catheterization Lab having adequate staff, equipment, and training to perform rapid evaluation, triage, and treatment for STEMI patients.
STEMI Transfer Plan	Develop a plan with local prehospital providers to ensure inter-hospital transfers and fibrinolytic-ineligible patients receive highest priority response and are communicated en-route to bypass STEMI Referral Centers (where appropriate).

STEMI REFERRAL CENTER REQUIREMENTS

Does not require external certification. CEO must attest to meeting these requirements 24/7/365.

If your facility does not meet the requirements of a STEMI-Receiving Center, then by default the facility is classified as a STEMI Referral Center. All STEMI Referral Centers should be proficient in rapid identification of a STEMI patient. In the event a STEMI patient cannot be transferred to a STEMI Receiving Center within 90 minutes, a STEMI Referral Center must be proficient in administration of fibrinolytic to appropriate patients.

Designation Characteristic	These hospitals are able to provide thrombolytics or arrange timely transfer for primary PCI for patients presenting with STEMI.
Program Requirements	1. Emergency Services 24/7/365 2. Thrombolysis Guideline 3. QI DIDO for STEMI patients (review quarterly DIDO report with ED team)
Cardiac Champion	<u>Recommend:</u> Have recognized hospital champion for STEMI care.
Comprehensive post-arrest care, including TTM	<u>Recommend:</u> Comprehensive post-arrest care focuses on rapid revascularization, hemodynamic optimization, and targeted temperature management (TTM) to optimize neurological outcomes.
Fibrinolytic administration capability	Required
Participation in LERN Data Registry	Data submission is not required, but expectation for these centers will work collaboratively with STEMI Receiving Centers and Cardiogenic Shock Centers to provide transfer times for appropriate patients.
Transfer agreement/plan	Required transfer agreement or plan in place with STEMI Receiving Center of Cardiogenic Shock Center when advanced levels of critical care needed.
Regional system of care engagement	Participation in LERN regional STEMI system, state meetings or LERN Regional Commissions meetings as appropriate.
Data Sharing with EMS and Referral Centers	Provide concurrent feedback to EMS and STEMI Receiving Centers and Cardiogenic Shock Centers as requested.
STEMI Transfer Plan	Develop a plan with local prehospital providers to ensure priority for inter-hospital transfers from STEMI Referral Center to higher level of care.

References:

Jacobs AK, Ali MJ, Best PJ, et al. Systems of care for ST-segment–elevation myocardial infarction: a policy statement from the American Heart Association. *Circulation*. 2021;144(20):e310–e327. doi:10.1161/CIR.0000000000001025

Shashank S. Sinha, MD, et al. "2025 Concise Clinical Guidance: An ACC Expert Consensus Statement of the Evaluation and Management of Cardiogenic Shock". *JACC* Vol. 85, Issue 16 (2025):1618-1641.

Alice K. Jacobs, MD, et al. "Systems of Care for ST-Segment-Elevation Myocardial Infarction". *AHA Circulation* Vol. 144, Issue 20, 16 November 2021; Pages e310–e327.