

EXTRACORPOREAL CARDIOPULMONARY RESUSCITATION (ECPR) CRITICAL CARE SYSTEM

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Page 1 of 3

I. PURPOSE

To establish standards for participation of an acute care hospital as an Extracorporeal Cardiopulmonary Resuscitation (ECPR) Receiving Center within the critical care system.

II. AUTHORITY: Health and Safety Code, Division 2.5, Sections 1797.67, 1798, and 1798.170; California Code of Regulations, Title 22, Division 9, Chapter 6.2, ST-Elevation Myocardial Infarction Critical Care System.

III. POLICY

For participation as a County of San Diego (CoSD) ECPR Receiving Center, hospitals shall:

- **A.** Maintain licensure as a general acute care hospital currently approved as an Emergency Medical Services (EMS) receiving hospital receiving hospital;
- **B.** Comply with all requirements listed in the California Code of Regulations (CCR), Title 22, Division 9, Chapter 6.2, ST-Elevation Myocardial Infarction Critical Care System;
- **C.** Comply with an established agreement with County of San Diego, Emergency Medical Services (CoSD EMS) to perform as a STEMI Receiving Center;
- **D.** Enter into an agreement with County of San Diego, Emergency Medical Services (CoSD EMS) and have the commitment, personnel and resources to meet ECPR Receiving Center requirements;
- **E.** Maintain licensure as a Cardiac Catheterization Laboratory (Cath Lab) available 24 hours/day 365 days/year;
- **F.** Maintain protocols for assessing and performing ECPR Team activation following field notification of a possible ECPR patient;
- **G.** Maintain a single call activation system to directly activate the ECPR Team;
- **H.** Establish and maintain a process for treatment and triage of simultaneously arriving ECPR patients:
- I. Immediately update CoSD Local Emergency Medical Services Information System (LEMSIS) when there is a change in status regarding the ability to accept ECPR patients.

IV. STAFFING REQUIREMENTS

- **A.** ECPR Receiving Centers shall have the following designated positions filled:
 - 1. **ECPR/ECMO Medical Director:** A qualified, board-certified physician with sufficient experience and expertise as determined by the hospital credentialing committee that is responsible for the ECPR program, performance improvement, and patient safety programs
 - 2. **ECPR/ECMO Program Manager:** A qualified licensed individual designated by the hospital for monitoring and evaluating the care of ECPR patients and coordinating performance improvement and patient safety programs in conjunction with the ECPR Medical Director
- **B. ECPR Team:** The specialty trained health care professionals that perform extracorporeal membrane oxygenation cannulation (ECMO), management, and ECPR-related interventions and shall be immediately available upon notification as per Title 22, Division 9, Chapter 6.2, and California State Health and Safety Code, Sections 1797.103 and 1797.176.

V. DATA MANAGEMENT

ECPR Receiving Centers shall:

- **A.** Participate in the ECPR data collection process by submitting and sharing required data to CoSD EMS within 30 days of hospital discharge, transfer, or death.
- **B.** Participate as an active member of the Extracorporeal Life Support Organization (ELSO); submit relevant data for all ECMO and ECPR patients to include, but not limited to the applicable fields listed within the ECLS Registry Form and the ECPR Addendum Form.
- **C.** Submit Cardiac Arrest Registry to Enhance Survival (CARES) registry elements.
- **D.** Collect additional data as required by CoSD EMS.

VI. CONTINUOUS QUALITY IMPROVEMENT

- **A.** ECPR Receiving Centers shall:
 - 1. Develop an ongoing quality improvement program that monitors all aspects of treatment and management of suspected ECPR patients and identifies areas for improvement, including:
 - a. Participation in the San Diego Resuscitation Consortium (SDRC) meetings
 - b. Review of all ECPR-related deaths, major complications, and transfers
 - c. Participation in the CoSD EMS quality improvement process
 - 2. Establish a multidisciplinary steering committee inclusive of quality and needs assessment, participate in system review, education, and medical audit function.
 - 3. Develop an on-going quality improvement program that monitors all aspects of treatment and management of ECPR patients.

EXTRACORPOREAL CARDIOPULMONARY RESUSCITATION (ECPR) CRITICAL CARE SYSTEM Policy: S-030

San Diego County Emergency Medical Services Office Policy / Procedure / Protocol

- 4. Participate as an ELSO member and comply with standards, targets, and education as it pertains to ECPR; perform in-house quality improvement and evaluation process for individual cases/patients.
- **B.** CoSD EMS may confirm the availability of the services and conduct on-site visits to ensure compliance with established criteria and provide information to the SDRC for continued ECPR Receiving Center designation.

VII. SELECTION PROCESS

- **A.** The CoSD EMS develops and distributes an application for selection as an ECPR Receiving Center.
- **B.** The CoSD EMS evaluates applications, including an independent review process and on-site evaluation.
- **C.** CoSD EMS makes a recommendation based on the application, the independent review process, and/or on-site evaluation to the SDRC for consideration to participate as an ECPR Receiving Center. Final approval of facility participation is at the discretion of the EMS Medical Director, or designee.
- **D.** ECPR Receiving Center selection will be a non-competitive process based on the past performance of the acute care hospital's emergency department, cardiac catheterization laboratory, staff, and on-call interventionalists and on its ability to provide required services and participation in the performance improvement process.
- **E.** Participation as an ECPR Receiving Center is site-specific and is not transferable.

VIII. REMOVAL OF PARTICIPATION

- **A.** CoSD EMS may revoke authority for participation as an ECPR Receiving Center for failure to comply with the policy requirements.
- **B.** An ECPR Receiving Center may submit a written request from the Medical Director or Executive Leadership to be removed from the ECPR critical care system.