

UC Irvine

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health

Title

Impact Analysis of a Potential ECPR Program in a Medically Underserved Urban Community

Permalink

<https://escholarship.org/uc/item/78f0w1pg>

Journal

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health, 27(3.1)

ISSN

1936-900X

Authors

Bennett, Daniel
Lee, Carmen
Bascombe, Kristen
[et al.](#)

Publication Date

2026-05-26

DOI

10.5811/westjem.65871

Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

a pathway for continuity of care through the ED may mitigate patients' unmet HRSNs and potentially affect their overall health services use.

7 Impact Analysis of a Potential ECPR Program in a Medically Underserved Urban Community

Daniel Bennett, MD, Carmen Lee, MD, Kristen Bascombe, MD, Martha Montgomery, MD, Justin Moore, MD, Zita Konik, MD, Kevin Gardner, MD

Background: EOut-of-hospital cardiac arrest (OHCA) from ventricular arrhythmia is a significant public health challenge. Survival rates are poor if refractory to standard Advanced Cardiac Life Support (ACLS). Extracorporeal cardiopulmonary resuscitation (ECPR) utilizes extracorporeal membrane oxygenation (ECMO) to perfuse vital organs intra-arrest and prevent anoxic brain injury while reversible causes are addressed. When initiated within 60 minutes in select populations, ECPR has shown significant improvement in outcomes compared to standard ACLS, a grade 2a recommendation in 2025 American Heart Association (AHA) guidelines. Implementation has been limited to large tertiary care centers, which may exacerbate existing racial, gender, and insurance status disparities in OHCA care and outcomes. The objective of this study is to perform an impact analysis of a hypothetical single-center ECPR program in a medically underserved area.

Methods: Non-traumatic cardiac arrests with an initial rhythm of ventricular tachycardia (VT) or fibrillation (VF) occurring in Oakland, California and the surrounding cities in Northern Alameda County were retrospectively analyzed. Arrests between January 1, 2020 and December 31, 2024 were identified from the Alameda County Emergency Medical System's electronic medical record. ECPR inclusion criteria for impact analysis were: (1) Initial Rhythm VF/VT, (2) Age 18-75, (3) Witnessed arrest, (4) >2 shocks without ROSC.

Results: A total of 1217 OHCA's with an initial rhythm of VT or VF were identified. Of these, 141 patients met defined ECPR criteria, with a mean (SD) of 28 (8) patients per year. Mean (SD) time from 9-1-1 call to destination arrival was 38 (10) minutes, and EMS on-scene time for ECPR candidates was 19 (9) minutes. Nine (6.4%) patients survived neurologically intact with a cerebral performance category (CPC) of 1 or 2. Applying the current ECPR registry survival rate of 31%, an additional 34 patients may have survived with access to ECPR, a projected number needed to treat of 4.

Conclusion: In a medically underserved urban area, a significant number of patients meet ECPR criteria, and their current outcomes are poor. Current EMS transport

times allow adequate time for ECPR cannulation within 60 minutes, demonstrating that implementation of an ECPR program is potentially feasible and beneficial in this population.

8 Persons Experiencing Homelessness Perceptions and Utilization of Emergency Medical Services in Los Angeles County

Marcos Mendoza, Alison Ly, Michella Mansilla, Citlally Mendoza, Suzanne Wenzel, PhD, Marianne Gausche-Hill, MD, Sanjay Arora, MD, Elizabeth Burner, MD, MPH, PhD, Tiffany M. Abramson, MD, MS

Background: Persons experiencing homelessness (PEH) face high rates of chronic diseases and poor health outcomes. Los Angeles County has one of the largest PEH populations in the United States, with Emergency Medical Service (EMS) clinicians serving as frontline healthcare. This study examines PEH perceptions of EMS care and utilization to identify barriers to healthcare delivery.

Methods: Semi-structured, in-person interviews were conducted with a convenience sample of 30 adults experiencing homelessness in Los Angeles County. The interview guide explored attitudes and perceptions toward EMS, healthcare utilization, challenges to care delivery, and self-perceptions. Subjects were included if age ≥18 years, currently experiencing homelessness in Los Angeles County, English or Spanish speaking, and with at least one EMS interaction within the past 18 months. Interviews were audio-recorded, professionally transcribed and translated, and coded using an inductive, iterative approach. Thematic analysis was performed.

Results: Participants were predominantly male (90%), with a mean age of 52.7 years and an average of 7.2 years of homelessness. 57% reported a history of substance use, 63% frequent alcohol use, and 54% had a history of psychiatric diagnoses. Self-rated health was poor or fair in 63% of participants, good or very good in 37%, and none reported excellent health. PEH reported EMS interactions for conditions related to medical complaints (58%), followed by trauma (17%), mental health (15%), and substance use or alcohol related calls (10%). Reported barriers to EMS care included the need for self-advocacy due to perceived EMS dissuasion of transport (35%); interpersonal conflict related to distrust, intoxication, or mental health crises (35%); and perceptions of differential treatment compared to housed individuals due to unhoused status (36%). Overall, 73% reported positive perceptions of EMS, citing professionalism and caring behavior.

Conclusion: PEH primarily use EMS for acute medical or trauma-related needs and generally report positive experiences. Barriers such as EMS dissuasion of care, interpersonal conflict, and perceived differential treatment limit optimal care. Further research is needed to characterize these barriers and develop