

SHORT EDITORIAL

Challenges in Worldwide Cardiovascular Urgencies and Emergencies

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The Sustainable Health Agenda for the Americas 2018-2030 represents the highest level of strategic planning and policy framework in the Americas. Approved by the Pan American Sanitary Conference — the top authority of the Pan American Health Organization (PAHO) — one of its main objectives is to achieve the highest attainable standard of health care. In this context, timely, affordable, and high-quality access to urgent and emergency health care is an essential requirement. The original research by Uchimura et al. aimed to identify the various challenges that hinder the effectiveness of urgent and emergency care networks. These challenges include inadequate regulatory mechanisms, difficulties in financial management across different levels of government, a lack of evaluation and monitoring culture, and weaknesses in information systems.¹

Over the past decade, the mortality profile in the Americas was dominated by noncommunicable diseases, which accounted for 78% of all deaths. The leading causes of death in the region were ischemic heart diseases (I20-I25), which accounted for 14.1% of total deaths, and cerebrovascular diseases (I60-I69), which accounted for 7.2% of total deaths.²

There is a significant lack of real-world, registry-level data on the quality of care for acute myocardial infarction in low- and middle-income countries. In Latin America, data on critical aspects of patient care and prognosis—such as average time to first medical contact and electrocardiogram (ECG), transport time, facility delays, and time to catheterization lab—are scarce. This

gap underscores the region's unmet need to evaluate and subsequently improve how public and private healthcare facilities deliver evidence-based urgent and emergency care.³

A hub-and-spoke system of care for ST-elevation myocardial infarction (STEMI) has been established in Bangalore, India, covering a 10-kilometer radius. This system includes a dedicated emergency response and transport network with a central operations center that uses geo-tracking strategies to optimize response times. First responders on scooters equipped with ECG machines transmit ECGs for immediate interpretation and triage. Dedicated ambulances are used to transport appropriate STEMI patients to a hub hospital. In addition, school children are being trained to recognize the signs and symptoms of chest pain, while hub hospitals are refining their emergency department and cardiac catheterization lab protocols using continuous quality improvement techniques to minimize delays in care. This system, designed to measure and improve processes such as symptom recognition, emergency response and hospital care, has the potential to reduce mortality and improve quality of life for STEMI patients.⁴

Uchimura et al. concluded that the evidence gathered provides important contributions to guide future policy development and improve decision-making in clinical management for urgent and emergency care. However, these findings do not necessarily reflect the effectiveness of interventions. Areas for improvement include reorganization of care networks, regionalization of services, implementation of lines of care, availability of ambulances, strategies for training and engaging health professionals, and initiatives focused on evaluating support indicators.¹

Keywords

ST Elevation Myocardial Infarction; Guideline Adherence; Reperfusion.

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Launched in 2019, the American College of Cardiology's Global Heart Attack Treatment Initiative (GHATI) uses data collection and localized education on guideline-directed medical therapy to improve heart attack outcomes in low- and middle-income countries. The two-year outcomes report, which includes data from more than 4,000 patients, showed significant improvements in key clinical endpoints and continued increases in adherence to guideline-directed medical therapy, with up to 92% of cases receiving this level

of care. Other important findings from the program include a sustained high rate of reperfusion therapy, reported in 95% of STEMI cases as well as a 75% success rate for patients undergoing PCI within 90 minutes of first medical contact.⁵

In summary, the original research by Uchimura et al. provides an important opportunity to identify the challenges in cardiovascular emergency care and to propose solutions.¹

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