



Activities of the Emergency and Critical Care Committee of the Japanese Circulation Society in Disseminating Evidence of Prehospital Care for Acute Coronary Syndrome

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On behalf of the Emergency and Critical Care Committee of the Japanese Circulation Society (JCS), the Acute Coronary Syndrome (ACS) Task Force of the Japan Resuscitation Council (JRC; established to develop the 2020 JRC guidelines and organized by the JCS), the Japanese Association of Acute Medicine (JAAM), and the Japanese Society of Internal Medicine (JSIM), the author notes with appreciation the publication of 7 systematic review (SR) articles in *Circulation Reports* (Table).¹⁻⁷ This series of SRs provided new insights that underpin the ACS chapter in the JRC Guidelines for Resuscitation 2020 (published in Japanese)⁸ and the English version, which is planned for published in the official journal of the JCS, namely *Circulation Journal*.

The JRC was established in 2002 by academic societies

**Articles p 109, p 187, p 241,
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and organizations related to cardiopulmonary resuscitation, specifically the JCS, the JAAM, and the Japanese Society of Intensive Care Medicine. The JRC joined with organizations in Asia, especially those in Singapore, Taiwan, and South Korea, to establish the Resuscitation Council of Asia (RCA) in 2005 and, in 2006, was able to officially affiliate with the International Liaison Committee On Resuscitation (ILCOR), which was established in 1992 and organized by associations from the US (i.e., American Heart Association), Canada, Europe, Australia, New Zealand, South Africa, and Latin America (Figure).

Table. Insights From the 7 Systematic Review Articles Published in <i>Circulation Reports</i>	
Reference	Insights
1	Acquisition of prehospital 12-lead ECG and notification of the destination hospital are associated with lower short-term mortality and shorter DTB time than no ECG acquisition or no hospital notification among patients with suspected STEMI outside a hospital
2	Prehospital activation of the catheterization laboratory is associated with lower mortality and shorter DTB time for patients with suspected STEMI outside a hospital
3	For prehospital patients with suspected STEMI, the diagnostic accuracy of paramedic prehospital ECG interpretations is favorable, with high pooled sensitivity and specificity, and an acceptable estimated number of false positives and false negatives Computer-assisted ECG interpretation shows high pooled specificity with an acceptable estimated number of false positives, whereas pooled sensitivity is relatively low
4	A door-in to door-out time (defined as the time from arrival at a non-PCI-capable hospital to leaving for a PCI-capable hospital) ≤30 min is associated with a lower short-term (30-day and in-hospital) mortality rate for STEMI patients
5	The 0-h/1-h algorithm using high-sensitivity cardiac troponin, as recommended in the 2015 European Society of Cardiology guideline, can effectively rule-in and rule-out patients with non-STEMI
6	Routine supplemental oxygen administration may not be beneficial or harmful, and high-flow oxygen may be unnecessary in normoxic patients in the acute phase of MI
7	Prehospital administration of aspirin and nitroglycerin by non-physician healthcare professionals is associated with lower 30-day and 1-year mortality for patients with AMI compared with administration after arrival at hospital

AMI, acute myocardial infarction; DTB, door-to-balloon; ECG, electrocardiogram; MI, myocardial infarction; PCI, percutaneous coronary intervention; STEMI, ST-elevation myocardial infarction.

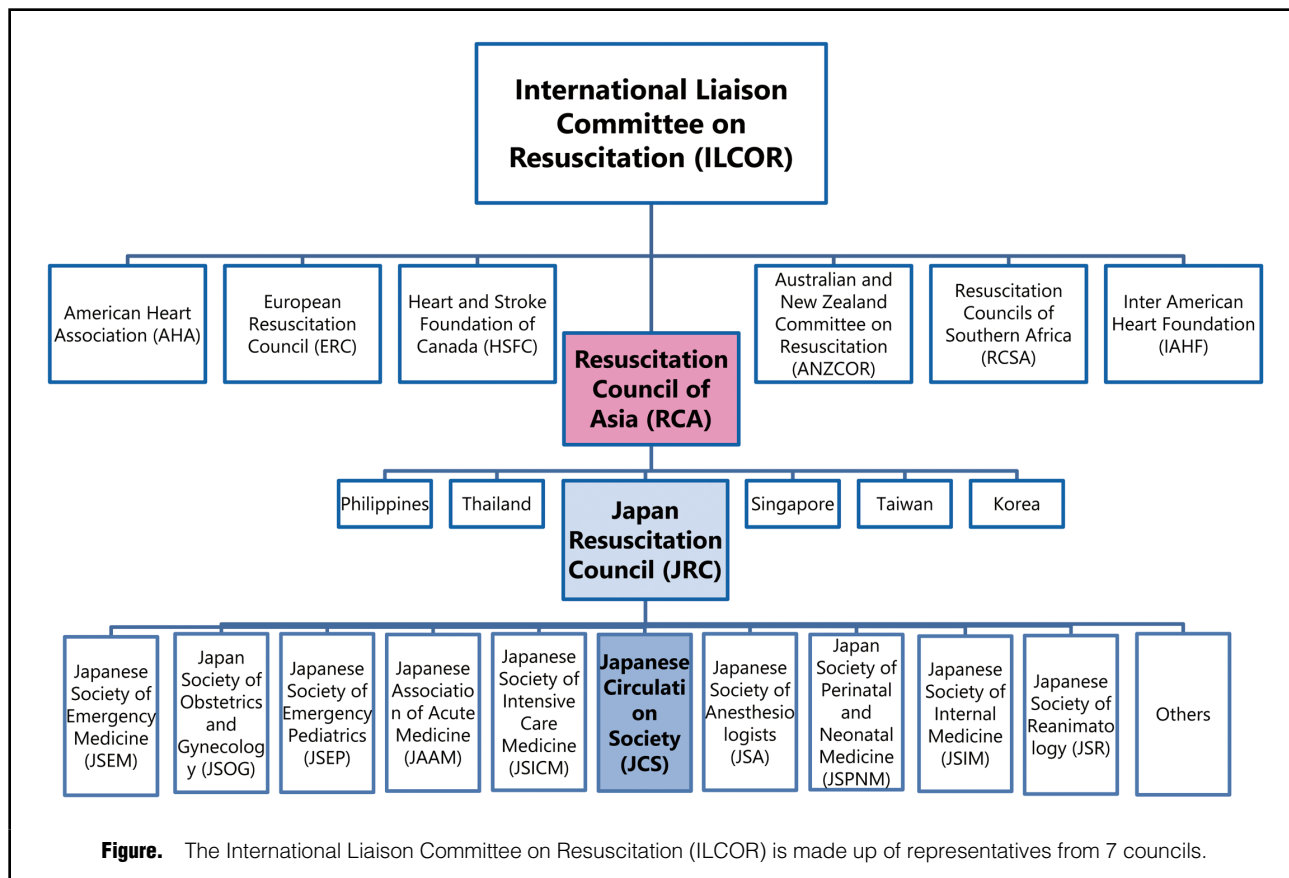
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Resuscitation guidelines around the world, including the JRC guidelines, are based on the International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations (CoSTR) created by ILCOR. After accession to ILCOR, the guidelines have been revised and published every 5 years since 2010. The guideline contents focus on adult resuscitation, basic and advanced life support, pediatric resuscitation, neonate resuscitation, neuroresuscitation, education, implementation and team (EIT), and ACS. Since 2015, the CoSTR have implemented the Grading of Recommendation Assessment, Development and Evaluation (GRADE) method.

However, after 2015, the CoSTR no longer provided guidelines for ACS. In response, after discussions between the JRC and RCA, a decision was made to continue developing recommendations for the treatment of ACS as part of the 2020 JRC guidelines together with the JCS, JAAM, and JSIM because prehospital emergency care of ACS in Asia remains insufficient. This has been done according to the GRADE method by creating our own clinical questions and conducting SRs (**Table**). The content of the JRC guideline focuses on ACS from the prehospital to emergency department, whereas the ACS guideline developed by the JCS⁹ focuses on acute phases in the emergency department and in-hospital management. Many of the JCS cardiologists recognize the importance of the management of ACS, which is the greatest cause of out-of-hospital cardiac arrest and cardiogenic shock.¹⁰

The method by which the JRC guidelines were created

is based on the GRADE method, which has become a global standard of clinical guideline development. In light of this, our goal is to further strengthen cooperation with Asian countries with a view to creating common algorithms for the emergency management of ACS in Asia through the RCA. Currently, the Resuscitation Guideline Study Group in the JCS has started to develop the 2025 JRC guidelines for resuscitation. We believe that this guideline development method will be the forerunner for all guideline production by our society.

Disclosures

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