



Out-of-hospital care of cardiopulmonary resuscitation-induced consciousness (CPR-IC): a scoping review



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Background

Cardiopulmonary resuscitation-induced consciousness (CPR-IC) occurs when patients getting CPR for cardiac arrest receive enough brain perfusion to display signs of awareness during resuscitation¹. These signs can include:

- Groaning and gasping
- Eyes opening and pupils responding to light
- Purposeful movement of limbs
- Localising to stimuli
- Interfering with CPR and airway devices

CPR-IC can **impede rescue efforts and may lead to psychological trauma** in both patients² and clinicians³. It is witnessed in the out-of-hospital environment, so it is significant for practitioners working in this setting, such as paramedics.

Currently, there are **no universally agreed-upon guidelines** regarding the management of CPR-IC.



Methods

This paper employed JBI scoping review methodology⁴. A **comprehensive electronic search strategy**, described in a published protocol⁵, was used to identify relevant published and grey literature on out-of-hospital CPR-IC. The extracted data was then presented in accordance with the PRISMA-ScR reporting guideline⁶.

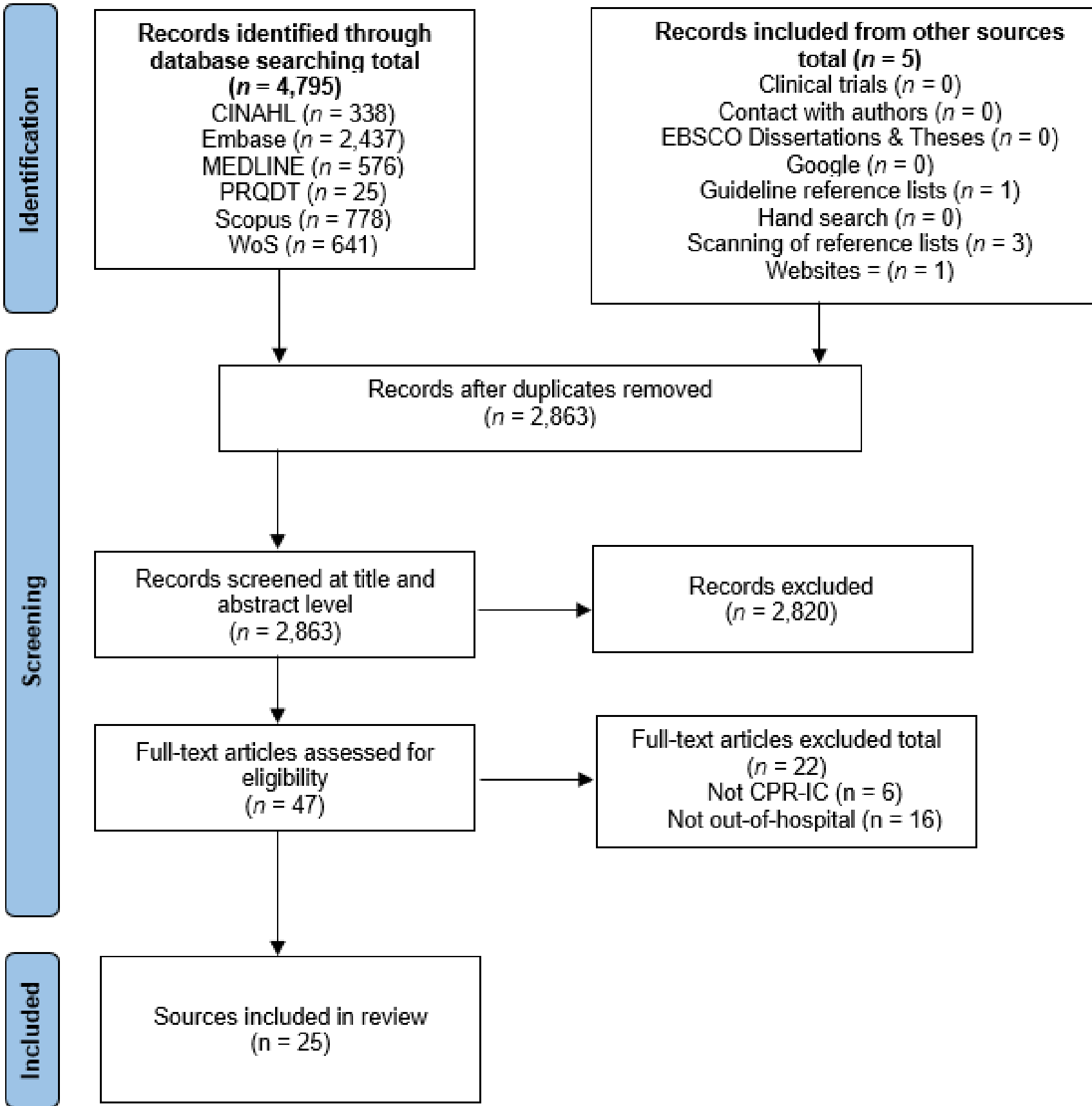


Figure 1: PRISMA-ScR flow diagram

Preliminary Results

Characteristic	Details	No. (%) of sources
Type of source	'Black' literature (journal article)	23 (92%)
	'Grey' literature	2 (8%)
Year of publication	2010-2015	6 (24%)
	2016-2020	11 (44%)
	2021-2023	8 (32%)
Author country of origin	Australia	5 (20%)
	Denmark	1 (4%)
	France	3 (12%)
	Israel	1 (4%)
	Taiwan	1 (4%)
	UK & Ireland	8 (32%)
	USA & Canada	6 (24%)

The search yielded 2,863 unique results, of which 25 were included in the synthesis. **Identification and management of CPR-IC varied significantly**, with interventions including physical restraint, and administration of drugs such as benzodiazepines, opioids, paralytics, and analgesics.

While local guidelines are emerging, there is no consensus on the best management approach in the out-of-hospital setting. **CPR-IC is becoming more prevalent, and more research is essential.**



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