

# Spanish registry of patients suffering an out-of-hospital cardiac arrest treated by emergency services

<b>Submission date</b> 19/02/2023	<b>Recruitment status</b> Recruiting	<input checked="" type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 22/02/2023	<b>Overall study status</b> Ongoing	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
<b>Last Edited</b> 21/03/2025	<b>Condition category</b> Circulatory System	<input type="checkbox"/> Individual participant data <input checked="" type="checkbox"/> Record updated in last year

## Plain English summary of protocol

### Background and study aims

Out-of-hospital cardiac arrest (OHCA) is a major public health problem. Patient survival depends on a series of precise and coordinated actions that must be established from the moment of patient collapse. Society, the citizens themselves, are a fundamental part of the chain of survival. All EMS are committed to improving care and outcomes in OHCA. Participation in a common registry, with homogeneous definitions, methods and quality controls, will allow to know and adapt best clinical practices, reduce variability and promote lines of research.

The Out-of-Hospital Spanish Cardiac arrest Registry (OHSCAR) started in 2013. Since its creation has collected data in defined periods. From 2023 it changes its recruitment periods and becomes a continuous OHCA registry. (Proyecto OHSCAR - CERCP)

### Who can participate?

Spanish public EMSs caring for patients with cardiac arrest.

The Research group on Bioengineering and Resuscitation (BioRes). Its main research line is the application of Digital Signal Processing and Machine Learning to biomedical signals. BIORES - Escuela de Ingeniería de Bilbao - UPV/EHU

The EASP is a strategic and instrumental company of the SSPA and SNS for the innovation of health systems, the improvement of population's health, and the promotion of scientific and technical collaboration and exchange, at national and international level Escuela Andaluza de Salud Pública (easp.es)

### What does the study involve?

Incidence of resuscitation attempts, general patient and event characteristics, treatment received and survival to discharge of patients treated by Spanish EMS.

### What are the possible benefits and risks of participating?

The registry will allow the implementation of a quality circle in each participating EMS and, as a whole, to know the clinical practice and health outcomes of OHCA care in Spain. It will facilitate comparison and benchmarking between EMSs and integration with different national and international research projects.

Where is the study run from?

Emergency Services in 13 Spanish regions and in two major capitals (Madrid y Zaragoza).  
Population served over 40 million inhabitants.

When is the study starting and how long is it expected to run for?

January 2023 to December 2043

Who is funding the study?

Spanish Resuscitation Council (Spain)

RiojaSalud Foundation (Spain)

Who is the main contact?

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### **Study website**

<https://ohscar.cienciadeldato-frs.es>

## **Contact information**

### **Type(s)**

Scientific

### **Contact name**

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## Additional identifiers

### EudraCT/CTIS number

Nil known

### IRAS number

### ClinicalTrials.gov number

Nil known

### Secondary identifying numbers

Nil known

## Study information

### Scientific Title

Survival of patients suffering an out-of-hospital cardiac arrest treated by emergency services in Spain. Out-of-Hospital Spanish Cardiac arrest Registry

### Acronym

OHSCAR

### Study objectives

To know the epidemiology, treatment, survival and changes in the clinical practice for the out-of-hospital cardiac arrest management in Spain will improve the survival of these patients.

### Ethics approval required

Old ethics approval format

### Ethics approval(s)

Approved 31/01/2023, Ethical Committee of La Rioja (Edificio CIBIR – 3 planta, C/ Piqueras 98, 26006, Logroño – La Rioja, Spain; +34 941 278 855. Ext. 84780; secretaria.ceic@riojasalud.es), ref: CEImLAR PI 647

### Study design

Observational retrospective multicentre study

### Primary study design

Observational

### Secondary study design

Epidemiological study

### Study setting(s)

Medical and other records

**Study type(s)**

Other

**Participant information sheet**

Not applicable (retrospective study)

**Health condition(s) or problem(s) studied**

Survival in Out-of-hospital cardiac arrest (OHCA)

**Interventions**

Continuous registry of OHCA patients attended by Spanish emergency services EMS. The registry follows the Utstein template guidelines to report OHCA variables. The researchers are SEM professionals participating in the OHSCAR registry. They use the pre-hospital medical records and the in-hospital ones, in cases with successful resuscitation, to assess the treatment, evolution and status at discharge.

**Intervention Type**

Other

**Primary outcome measure**

Survival at hospital discharge with good neurological status (Cerebral Performance Category scale  $\leq 2$ ) measured using patient records

**Secondary outcome measures**

The registry incorporates variables of the event (place, witnessed, time), the patient (sex, age), the treatment received (basic life support, advanced life support, times intervals), the outcome after resuscitation (dead, recovery of spontaneous pulse, transfer to hospital), hospital treatment (coronary intervention, active temperature control), neurological status at discharge (cerebral performance categories scale). Follow-up at one month. The sources of data are; the medical records of the emergency services, the call data and schedules from the dispatching centers and the follow-up from the patients' digital health records (hospital data and revisions after discharge)

**Overall study start date**

01/01/2023

**Completion date**

31/12/2048

**Eligibility****Key inclusion criteria**

Cases of OHCA in which an EMS performed resuscitation or post-resuscitation care after cardiopulmonary resuscitation (CPR) attempts by a first responder

**Participant type(s)**

All

**Age group**

All

**Sex**

Both

**Target number of participants**

It is a project based on a continuous registry. There are 17 regions in Spain. Each of them has a public out-of-hospital emergency service. Two large cities, Madrid and Zaragoza, also have their own EMS. At the moment 15 of these EMS are involved (more than 80% of Spanish total population). Based on previous data, the researchers estimate about 10000 cases / year.

**Key exclusion criteria**

Cases in which the EMS suspended resuscitation on the grounds that it was not indicated due to futility criteria confirmed during resuscitation. An attempt at CPR was considered futile when new data during resuscitation showed that it was not indicated (terminal disease, prolonged arrest time prior to EMS arrival, "Do not resuscitate" orders)

**Date of first enrolment**

01/01/2024

**Date of final enrolment**

31/12/2048

**Locations****Countries of recruitment**

Spain

**Study participating centre**

**Servicio de Emergencias Sanitarias 061 La Rioja**

Piqueras 96

Logroño

Spain

26006

**Study participating centre**

**Servicio de Urgencia Médica de la Comunidad de Madrid, SUMMA 112**

Antracita 2 bis

Madrid

Spain

28045

**Study participating centre**

**Subdirección de urgencias y atención a la urgencia vital de Navarra**

Plaza de la paz SN

Pamplona

Spain  
31002

**Study participating centre**  
**Emergentziak Osakidetza**  
Maria Diaz De Haro 53  
Bilbao  
Spain  
48010

**Study participating centre**  
**061 Aragon**  
Avda navarra 78  
Zaragoza  
Spain  
50011

**Study participating centre**  
**Gerencia de Emergencias Sanitarias de Castilla y León**  
Hospital Militar 24 - 2  
Valladolid  
Spain  
47007

**Study participating centre**  
**Servei Emergencies Mediques**  
Pablo Iglesias 101  
L'Hospitalet de Llobregat  
Spain  
08908

**Study participating centre**  
**SAMUR Protección Civil**  
Ronde las Provincias 7  
Madrid  
Spain  
28011

**Study participating centre**

**Urxencias sanitarias 061**

Rua da Cultura SN  
A Estrada (Pontevedra)  
Spain  
36680

**Study participating centre****Gerencia de urgencias y emergencias 061 del Servicio Murciano de Salud**

Jose Sancez lozano 7  
Murcia  
Spain  
30005

**Study participating centre****Servicio de Emergencias 061 Cantabria**

Rosalia de Castro SN  
Santander  
Spain  
39011

**Study participating centre****Servicio de Atención Médica Urgent 061 de las Islas Baleares**

Carrer Illes balears 1B  
Palma de mallorca  
Spain  
07014

**Study participating centre****Emergencias Sanitarias de Extremadura 112**

Av America 2  
Merida  
Spain  
06800

**Study participating centre****Servicio de Emergencias Sanitarias, Comunidad Valenciana**

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# Sponsor information

## Organisation

Spanish Resuscitation Council

## Sponsor details

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## Sponsor type

Research council

## Website

<https://www.cercp.org/>

## Organisation

Riojasud Foundation

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## Sponsor type

Research organisation

## Website

<https://www.fundacionriojasalud.org/>

## Organisation

Fundacion Asisa

## Sponsor details

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**Sponsor type**

Research organisation

**Website**

<http://www.fundacionasisa.org/>

## **Funder(s)**

**Funder type**

Research council

**Funder Name**

Spanish Resuscitation Council

**Funder Name**

Riojasalud Foundation

## **Results and Publications**

**Publication and dissemination plan**

A report every two years

**Intention to publish date**

31/12/2024

**Individual participant data (IPD) sharing plan**

Spanish EMS are public services. Each of them depends on the corresponding health administration. The custody of the data corresponds to these administrations. The monitoring and traceability of the data is the responsibility of each EMS. The database centralized in the RiojaSalud Foundation includes anonymized alphanumeric data. Each EMS can access its own data and reports and its IP can access the general reports of the country. Access is allowed to the Spanish Ministry of Health and, upon request, with the consent of the EMS, raw case data could be accessed. Under these assumptions, access to anonymized data to verify an analysis, a report, or a publication would be feasible after the approval of the EMS that has provided the data for its realization. In this sense, the registry has a steering committee composed of the PI of each participating institution.

**IPD sharing plan summary**

Stored in publicly available repository, Available on request

