

# Survival of patients suffering an out-of-hospital cardiac arrest treated by emergency services in Spain during the COVID-19 pandemic and 1 year later

<b>Submission date</b> 11/05/2020	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 21/05/2020	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 29/01/2024	<b>Condition category</b> Circulatory System	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Out-of-hospital cardiac arrest (OHCA) (heart attack) 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.

The current COVID-19 pandemic has caused a series of changes in patient care that have a very important influence in the case of OHCA. The possibility of contagion has forced two major changes: emergency teams must take precautions and there are more restrictions for recommending an initial citizen intervention. Delays and reduced witnessed resuscitation may affect survival after OHCA. Researchers do not know their real influence, whether they will be maintained even when the pandemic ends, or if they will affect future CPR recommendations.

### Who can participate?

OHCA patients treated with resuscitation by the emergency services or who received post-resuscitation care after cardiopulmonary resuscitation (CPR) attempts by a first responder

### What does the study involve?

The incidence of resuscitation attempts, general characteristics, and survival at discharge of patients are all measured from medical records during the COVID-19 pandemic and the same 3 months 2 years later, in 2022.

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

The study will show the impact of the pandemic on the different links of the chain of survival and if these changes keep over time.

### Where is the study run from?

Emergency services in 15 Spanish regions

When is the study starting and how long is it expected to run for?  
January 2020 to July 2023

Who is funding the study?  
Spanish Resuscitation Council

Who is the main contact?  
Fernando Rosell Ortiz, MD, PhD  
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## Contact information

**Type(s)**  
Scientific

**Contact name**  
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## Additional identifiers

**Clinical Trials Information System (CTIS)**  
Nil known

**ClinicalTrials.gov (NCT)**  
Nil known

**Protocol serial number**  
OHSCAR 3

## Study information

**Scientific Title**  
Survival of patients suffering an out-of-hospital cardiac arrest treated by emergency services in Spain

**Acronym**  
OHSCAR

## **Study objectives**

A pandemic situation changes the real practice for out-of-hospital cardiac arrest management.

## **Ethics approval required**

Old ethics approval format

## **Ethics approval(s)**

Approved 03/07/2020, Research Ethics Committee, Department of Health of the Government of Navarra (Pabellón de Docencia (Teaching Pavilion). Irunlarrea 3, Pamplona 31 008, Spain; +34 (0) 848822495; no email address provided), ref: PI\_2020/60

Approved 29/07/2020, Drug Research Ethics Committee of La Rioja (Edificio CIBIR. Piqueras 98, 3ª planta. 26006 Logroño. La Rioja, Spain; +34 (0)941 278855; secretaria.ceic@riojasalud.es), ref: CEImLAR P.I. 427

## **Study design**

Observational retrospective multicentre study

## **Primary study design**

Observational

## **Study type(s)**

Treatment

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

Out-of-hospital cardiac arrest (OHCA)

## **Interventions**

Continuous registry of OHCA patients according to Utstein style guidelines to determine the incidence, general characteristics, and survival at discharge of patients attended by Spanish emergency services. The researchers use pre-hospital medical records provided by emergency services and in-hospital medical records, only in cases with successful resuscitation, to assess in-hospital evolution and status at discharge.

First phase: 01/02/2020 to 31/03/2020. Three months during the rise, stabilisation and decline of the COVID-19 pandemic in Spain.

Second phase: 01/02/2021 to 31/03/2021. The same 3 months 1 year later.

Updated 30/12/2021:

Second phase: Inclusion period, 1 year from 01/01/2022 to 31/12/2022.

## **Intervention Type**

Other

## **Primary outcome(s)**

Survival at hospital discharge with good neurological status, expressed as percentage of patients with Cerebral Performance Category scale  $\leq 2$ , during the COVID-19 pandemic and 1 year later

## **Key secondary outcome(s))**

Measured using medical records during the COVID-19 pandemic and 1 year later:

1. Incidence of resuscitation attempts expressed as the number of resuscitations attempts per 105 inhabitants
2. Bystander reanimation expressed as percentage of cases with bystander reanimation excluding those cases witnessed by emergency teams
3. Airway management expressed as percentage of cases with airway isolation

**Completion date**

31/07/2023

## 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)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Mixed

**Sex**

All

**Total final enrolment**

8629

**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**

01/02/2020

**Date of final enrolment**

31/12/2022

## Locations

**Countries of recruitment**

Spain

**Study participating centre**

**Servicio de Urgencias y emergencias Médicas 061 de La Rioja**

Hospital San Pedro

C/ Piqueras 92

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 s/n

Pamplona

Spain

31002

**Study participating centre**

**Emergentziak Osakidetza**

María Díaz de Haro 53

Bilbao

Spain

48010

**Study participating centre**

**061 Aragón**

Avenida Navarra 78, 2ª planta

Zaragoza

Spain

50011

**Study participating centre**

**Gerencia de Emergencias Sanitarias de Castilla y León**

Paseo Hospital Militar 24-2

Valladolid  
Spain  
47007

**Study participating centre**  
**Emergencies Mediques. Departament de Salut.**  
Pablo Iglesias, 101-115  
L'Hospitalet de Llobregat  
Spain  
08908

**Study participating centre**  
**SAMUR - Protección Civil**  
Ronda de las Provincias, 7  
Madrid  
Spain  
28011

**Study participating centre**  
**Urxencias sanitarias 061**  
Rúa da Cultura, s / n  
A Estrada (Pontevedra)  
Spain  
36680

**Study participating centre**  
**Gerencia de urgencias y emergencias 061 del Servicio Murciano de Salud**  
Calle escultor José Sánchez Lozano 7 segunda planta  
Murcia  
Spain  
30005

**Study participating centre**  
**Servicio de Emergencias 061 Cantabria**  
Rosalía de Castro s/n  
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**

Subdirección de Atención Primaria.

AVD de la Américas nº 2.

Mérida

Badajoz

Spain

06800

**Study participating centre**

**Servicio de Emergencias Sanitarias, Comunidad Valenciana**

Avenida Campanar

21 - 5 A Planta Escola Enf la Fe

(Servici D'Emergencies Sanitaries - Valencia)

Valencia

Spain

46009

## **Sponsor information**

**Organisation**

Fundación Pública Urxencias Sanitarias de Galicia-061

**Organisation**

SEM - Sistema d'Emergències Mèdiques

**Organisation**

Andalusian School of Public Health

**ROR**

<https://ror.org/05wrpbp17>

# Funder(s)

## Funder type

Other

## Funder Name

Spanish Resuscitation Council

# Results and Publications

## Individual participant data (IPD) sharing plan

The data provided by the participating emergency services are anonymous. In Spain, every health service has the duty to safeguard its medical records, as well as to control their quality. The variables of each case are transcribed into a standardized database, homogeneous for the study, and which follows the definitions of the Utstein 2014 style.

The project uses exclusively coded tables, exported by the EMS involved in Excel or SPSS for subsequent statistical analysis. It is not possible to identify and correlate the data in the database with specific patients. Each service requests the appropriate consents from the reference ethics committees. In general, Spanish legislation allows the use of anonymized data from patients' medical records to evaluate health outcomes.

## IPD sharing plan summary

Other

## Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	Participant information sheet	01/12/2020	16/10/2020	Yes	No
<a href="#">Results article</a>		02/01/2024	29/01/2024	Yes	No
<a href="#">Participant information sheet</a>		11/11/2025	11/11/2025	No	Yes