

# Danish out-of-hospital cardiac arrest registry

<b>Submission date</b> 21/12/2016	<b>Recruitment status</b> Recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 28/12/2016	<b>Overall study status</b> Ongoing	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 14/08/2019	<b>Condition category</b> Circulatory System	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

A cardiac arrest is a serious medical condition in which the heart suddenly stops beating and is a major cause of death in people across all age groups. An out-of-hospital cardiac arrest (OHCA) is where this happens when a person is not in hospital, and is the most common type of cardiac arrest. Sufferers usually require rapid resuscitation in order to restart their heart and improve chances of survival. Despite best efforts, survival rates are low. In many cases, time from spotting that a person is having a cardiac arrest to the arrival of emergency medical services (EMS) is long, leaving bystanders in a critical position to potentially save a person's life by starting resuscitation themselves. However, only a minority of cardiac arrests receive this. The Danish Cardiac Arrest Registry is a nationwide initiative to monitor and examine trends in survival and treatment of cardiac arrest in Denmark in order to improve overall prognosis and outcome in cardiac arrest victims. The aim of this study is to examine survival after out-of-hospital cardiac arrest in Denmark on a nationwide scale.

### Who can participate?

All persons in Denmark suffering from an OHCA where a bystander or EMS tries to resuscitate them.

### What does the study involve?

Data on all out-of-hospital cardiac arrest are collected by using pre-specified form filled out by ambulance personnel and paramedics arriving at the scene of cardiac arrest and initiating resuscitation attempts. Data are entered in electronic database and linked to the Danish Death Registry so that patient survival at 30 days can be recorded.

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

There are no benefits or risks to participants

### Where is the study run from?

1. Copenhagen University Hospital Herlev and Gentofte (Denmark)
2. Five Prehospital Emergency Medical Services (Denmark)
3. The Institute of Health, Science and Technology, Aalborg University (Denmark)

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

January 2001 to December 2035

Who is funding the study?  
The Tryg Foundation (Denmark)

Who is the main contact?  
Professor Christian Torp-Pedersen

## Contact information

**Type(s)**  
Scientific

**Contact name**  
Prof Christian Torp-Pedersen

**Contact details**  
Institute of Health Science and Technology  
Aalborg University  
Søndre Skovvej 15  
Aalborg  
Denmark  
9000

## Additional identifiers

**EudraCT/CTIS number**

**IRAS number**

**ClinicalTrials.gov number**

**Secondary identifying numbers**  
N/A

## Study information

**Scientific Title**  
The Danish Cardiac Arrest Registry

**Study objectives**  
The aim of this study is to examine survival after out-of-hospital cardiac arrest in Denmark on a nationwide scale.

**Ethics approval required**  
Old ethics approval format

**Ethics approval(s)**  
Ethics approval is not required for retrospective registry studies in Denmark.

**Study design**

Retrospective epidemiological registry study

**Primary study design**

Observational

**Secondary study design**

Epidemiological study

**Study setting(s)**

Other

**Study type(s)**

Treatment

**Participant information sheet**

No participant information sheet available

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

Out-of-hospital cardiac arrests

**Interventions**

The Danish Cardiac Arrest Registry is a collaboration between the five regional Prehospital Emergency Medical Services in Denmark. Data is collected prospectively by paramedics and ambulance personnel as part of the emergency medical services documentation of effort to improve the quality of cardiac arrest treatment in Denmark.

Data on all out-of-hospital cardiac arrest are collected by using pre-specified form filled out by ambulance personnel and paramedics arriving at the scene of cardiac arrest and initiating resuscitation attempts. Data are entered in electronic database and linked to the Danish Death Registry to monitor 30-day survival.

**Intervention Type**

Other

**Primary outcome measure**

30-day survival after out-of-hospital cardiac arrest is measured by linking data to the Danish National Death Registry, where all deaths are registered within 14 days of occurrence.

**Secondary outcome measures**

1. Initiation of CPR by laypersons, defibrillation by AED's is measured using a pre-specified form filled out by ambulance personnel and paramedics
2. Return of spontaneous circulation (ROSC) on arrival at hospital is measured using a pre-specified form filled out by ambulance personnel and paramedics

**Overall study start date**

01/01/2001

**Completion date**

31/12/2035

# Eligibility

## Key inclusion criteria

All persons in Denmark suffering from out-of-hospital cardiac arrest where resuscitation efforts are initiated either by bystanders (with activation of the EMS system) or by EMS personnel.

## Participant type(s)

All

## Age group

All

## Sex

Both

## Target number of participants

Currently there are approximately 50 thousand individuals in the registry and there are approximately additionally 3.600 new individuals registered each year. There is no upper limit of participants as registration is continuous.

## Key exclusion criteria

Cases with obvious late signs of death (e.g. rigor mortis) for which resuscitative efforts are not initiated

## Date of first enrolment

01/01/2001

## Date of final enrolment

31/12/2035

# Locations

## Countries of recruitment

Denmark

## Study participating centre

**Copenhagen University Hospital Herlev and Gentofte**

Department of Cardiology

Kildegaardsvej 28

Hellerup

Denmark

2900

## Study participating centre

**The Prehospital Emergency Medical Services, The Capital Region of Denmark**

Telegrafvej 5

Ballerup  
Denmark  
2750

**Study participating centre**

**The Institute of Health, Science and Technology, Aalborg University**  
Søndre Skovvej 15  
Aalborg  
Denmark  
9000

## **Sponsor information**

**Organisation**

The Tryg Foundation

**Sponsor details**

Hummeltoftevej 49  
Virum  
Denmark  
2830

**Sponsor type**

Charity

**Website**

trygfonden.dk

**ROR**

<https://ror.org/02rcazp29>

## **Funder(s)**

**Funder type**

Charity

**Funder Name**

The Tryg Foundation

## **Results and Publications**

## Publication and dissemination plan

There are already numerous publications and the registry is a continuous source of data for new studies. There are publications in JAMA, Circulation, Resuscitation, European Heart Journal based on data from the registry. An overall report of the registry is published each year (in Danish) by the Danish Resuscitation Council and can be downloaded at <http://genoplivning.dk/wp-content/uploads/2016/05/Rapport-fra-Dansk-Hjertestopregister-2001-2014.pdf>.

## Intention to publish date

31/12/2035

## Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are/will be available upon request from Professor Christian Torp-Pedersen at Aalborg University, Faculty of Health, Science and Technology, Søndre Skovvej 15, 9000 Aalborg, Denmark. His e-mail is [ctp@heart.dk](mailto:ctp@heart.dk) and telephone +45 99403802

## IPD sharing plan summary

Available on request

## Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	05/05/2015	14/08/2019	Yes	No