ISRCTN15128211 https://doi.org/10.1186/ISRCTN15128211

Dispatcher resuscitation terminology study

Submission date
07/08/2017

Recruitment status
No longer recruiting

Registration date
08/08/2017

Overall study status
Completed

Last Edited
14/08/2019

Condition category
Other

[_] Prospectively registered
[X] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

Plain English summary of protocol

Background and study aims
Each year, about 30,000 people in the UK suffer an out-of-hospital cardiac arrest. A cardiac arrest occurs when the heart suddenly stops beating properly. Immediate treatment is essential to prevent death. Patients have the best chance of survival when they receive cardiopulmonary resuscitation (CPR) before the ambulance arrives. The ambulance service can coach people to do this over the phone. At the moment, it is not known which way is the best way to instruct people over the phone to ensure they deliver high-quality CPR. Across international CPR guidelines, there is variation in the wording used to describe how best to perform CPR. The aim of this study is to identify the best way to instruct people how to deliver CPR.

Who can participate?
Adults aged over 18 without recent CPR training

What does the study involve?
Participants perform CPR on a manikin based on instructions similar to those given when the ambulance service instruct people over the phone. They are randomly allocated to one of three groups, which each receive a slightly different instruction regarding how hard to press on the chest (push at least 5cm, push approximately 5cm, or push hard and fast). Participants are asked to deliver CPR to a manikin based on these instructions for two minutes and the quality of CPR delivered to the manikin is measured.

What are the possible benefits and risks of participating?
Findings from this study will inform the wording used in international resuscitation guidelines. There are no significant direct benefits or risks associated with taking part in this study. Participants who agree to take part are offered the opportunity to attend a CPR course. Some participants may experience discomfort in the arms or knees, but this discomfort is short-lived.

Where is the study run from?
Warwick Medical School (UK)

When is the study starting and how long is it expected to run for?
December 2016 to April 2018

Who is funding the study?
Resuscitation Council (UK)

Who is the main contact?
Dr Keith Couper

Contact information

Type(s)
Scientific

Contact name
Dr Keith Couper

ORCID ID
http://orcid.org/0000-0003-2123-2022

Contact details
Clinical Trials Unit
Warwick Medical School
University of Warwick
Coventry
United Kingdom
CV4 7AL

Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers
35062

Study information

Scientific Title
In adults delivering CPR, does the use of a specific terminology to instruct cardiopulmonary resuscitation delivery CPR instructions affect CPR quality? A randomised controlled manikin trial

Acronym
DIRECT

Study objectives
Each year, approximately 30,000 people in the UK suffer an out-of-hospital cardiac arrest. A cardiac arrest occurs when the heart suddenly stops beating properly. Immediate treatment is essential to prevent death. Patients have the best chance of survival when they receive cardiopulmonary resuscitation before the ambulance arrives. In people that have not been

trained to do this, the ambulance service can coach people to do this over the phone. At the moment, it is not known which is the best way to instruct people over the phone to ensure they deliver high-quality CPR. Across international CPR guidelines, there is variation in the wording used to describe how best to perform CPR. The aim of this randomised controlled manikin trial is to identify the best way to instruct people how to deliver CPR.

Ethics approval required
Old ethics approval format

Ethics approval(s)
West Midlands - Edgbaston Research Ethics Committee, 04/07/2017, ref: 17/WM/0234

Study design
Randomised; Interventional; Design type: Treatment, Process of Care, Psychological & Behavioural, Physical

Primary study design
Interventional

Secondary study design
Randomised controlled trial

Study setting(s)
Hospital

Study type(s)
Treatment

Participant information sheet
Not available in web format, please use the contact details to request a patient information sheet

Health condition(s) or problem(s) studied
Specialty: Critical care, Primary sub-specialty: Critical Care; UKCRC code/ Disease: Generic Health Relevance/ No specific disease

Interventions
Adults without recent CPR training will be invited to take part. They will perform CPR on a manikin, based on instructions similar to those given when the ambulance service instruct people over the phone. They will be randomised using an internet-based randomisation system (1:1:1 ratio) into three groups, which will each receive a slightly different instruction regarding how hard to press on the chest:

Arm 1: chest compression instruction to push “at least 5cm”
Arm 2: chest compression instruction to push “approximately 5cm”
Arm 3: chest compression instruction to push “hard and fast”

They will be asked to deliver CPR to a manikin based on these instructions for two minutes. There will be no follow-up. The quality of CPR delivered to the manikin will be measured.

Intervention Type

Other

Primary outcome measure
Mean chest compression depth, measured using a CPR quality meter during the CPR quality assessment

Secondary outcome measures
Measured using a CPR quality meter during the CPR quality assessment:
1. Chest compression rate (min-1)
2. Chest compression count
3. % of chest compessions in target rate range (100-120 compressions per minute)
4. % of chest compressions in target depth range (50-60mm)
5. % delivery of good quality CPR

Overall study start date
22/12/2016

Completion date
30/04/2018

Eligibility

Key inclusion criteria
1. Provision of written informed consent
2. Aged over 18 years

Participant type(s)
Healthy volunteer

Age group
Adult

Lower age limit
18 Years

Sex
Both

Target number of participants
Planned Sample Size: 330; UK Sample Size: 330

Total final enrolment
330

Key exclusion criteria
1. Physical disability that prevents delivery of CPR for 2 minutes while kneeling on the floor
2. Previous participation in DIRECT study
3. Received practical CPR training in the last 2 years
4. Non-English speaking (to ensure that the information is standardised between groups)
5. NHS employee working in a clinical role

Date of first enrolment
31/07/2017

Date of final enrolment
31/12/2017

Locations

Countries of recruitment
England

United Kingdom

Study participating centre
Warwick Medical School
United Kingdom
CV4 7AL

Sponsor information

Organisation
Heart of England NHS Foundation Trust

Sponsor details
Birmingham Heartlands Hospital
Bordesley Green East
Birmingham
England
United Kingdom
B9 5ST

Sponsor type
Hospital/treatment centre

Funder(s)

Funder type
Government

Funder Name
Resuscitation Council (UK)

Results and Publications

Publication and dissemination plan
Planned publication in a high-impact peer reviewed journal in October 2018.

Intention to publish date
01/10/2018

Individual participant data (IPD) sharing plan
The data sharing plans for the current study are unknown and will be made available at a later date.

IPD sharing plan summary
Data sharing statement to be made available at a later date

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Protocol file	version V1.0	25/05/2017	02/04/2019	No	No
Results article	results	01/09/2019	14/08/2019	Yes	No
HRA research summary			28/06/2023	No	No