ISRCTN96900689 https://doi.org/10.1186/ISRCTN96900689

Back pain and Rescuer fatigue following CardioPulmonary Resuscitation by kneeling, standing on taboret, and standing postures

Submission date	Recruitment status	[_] Prospectively registered
27/11/2007	No longer recruiting	[_] Protocol
Registration date	**Overall study status**	[_] Statistical analysis plan
18/12/2007	Completed	[X] Results
Last Edited	**Condition category**	[_] Individual participant data
08/04/2021	Signs and Symptoms	

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
CLFHR9611

Study information

Scientific Title
Back pain and Rescuer fatigue following CardioPulmonary Resuscitation by different postures

Acronym

BRCPR

Study objectives
Back pain as an occupational disorder in health care providers has been well documented in the literature. But the association between back pain and Cardiopulmonary Resuscitation (CPR) was seldom studied. The objectives of this study were to determine whether different CPR postures including kneeling, standing, and standing on taboret are able to induce back pain in rescuers, and to compare differences in rescuer fatigue in three CPR postures.

Hypothesis:
Back pain and rescuer fatigue are different among three different postures of CPR.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Ethics approval received from the Institutional Review Board of Chi Mei Medical Center from 5th February 2007 to 16th February 2008 (ref: IRB09602-0011).

Study design
Randomised, controlled, cross-over trial

Primary study design
Interventional

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Rescuer fatigue for resuscitation

Interventions
Cardiopulmonary resuscitation for 10 minutes by using kneeling, standing, and standing on taboret postures.

Since this is a prospective and cross-over trial, each of the participants should complete three different CPR posture within 3 weeks in one week apart. Therefore, each of the sequences of CPR should follow up for at least 48 hours, but the total follow-up period for each of them will be 3 weeks and two days.

Intervention Type
Other

Phase
Not Specified

Primary outcome(s)
1. Severity of back pain (by Brief Pain Inventory Short Form), measured 24 hours and 48 hours post CPR
2. Rescuer fatigue (effective compression of cardiac massage) - detected by Laerdal Resusci-Anne® Skillreporter™ mannequin, measured during 10 minutes of cardiac massage

Key secondary outcome(s))
Range of motion of elbow and back with different CPR postures (detected by flexible goniometer), measured during 10 minutes of cardiac massage.

Completion date
31/12/2007

Eligibility

Key inclusion criteria
Health care providers working at the Emergency Deparment that have:
1. Clinical work experience longer than 2 years
2. Experience of performing CPR for more than 20 times

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Sex
All

Total final enrolment
24

Key exclusion criteria
Candidates with:
1. A herniated intervertebral disc
2. Previous spine surgery
3. Underlying anklyosing spondylitis or other autoimmune diseases
4. Current pregnancy

Date of first enrolment
01/03/2007

Date of final enrolment
31/12/2007

Locations

Countries of recruitment
Taiwan

Study participating centre
201, Taikang Village
Tainan
Taiwan
736

Sponsor information

Organisation
Chi Mei Foundation Medical Center (Taiwan) - Liou Ying Campus

ROR
https://ror.org/02y2htg06

Funder(s)

Funder type
Hospital/treatment centre

Funder Name
Chi Mei Foundation Medical Center (Taiwan) - Liou Ying Campus

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		01/05/2010	08/04/2021	Yes	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes