

Supplementary Appendix

This appendix has been provided by the authors to give readers additional information about their work.

Supplement to: Svensson L, Bohm K, Castrèn M, et al. Compression-only CPR or standard CPR in out-of-hospital cardiac arrest. *N Engl J Med* 2010;363:434-42.

Supplementary Appendix

This appendix has been provided by the authors to give readers additional information about their work.

Patients not receiving treatment according to randomization with respect to primary and secondary endpoints

Other treatment than allocated

30-day survival 4.3)	2/36	5.6	12/113	10.6	0.29	-0.5 (-14.4,
Alive at day one 12.0)	7/36	1.9	25/111	2.3	0.69	-3.1 (-18.2,

Written instructions for dialogue between dispatchers and bystander/witness

The 2:15 method

An ambulance is on its way! Don't hang up!

I'll tell you how to give first aid.

Is anyone there trained in CPR?

Bring the phone as close to the patient as possible.

Listen to check if he/she is breathing normally.

Do it now and come immediately back to the phone.

Accept the situation if nobody at the scene is able or wants to help.

Maintain telephone contact until the ambulance arrives.

Free airways and a new breathing check

Now you must open his/her airways.

- Lay him/her on his/her back if possible.
- Kneel down beside his/her chest.
- Place one hand on his/her forehead and the other under the chin and tip the head back carefully.
- Place your ear and cheek against his/her face.
- Try to feel any breath and listen for breathing. At the same time check if the chest is rising and falling. Do this now and then come straight back to the phone.

If this is not successful, repeat the instructions carefully from the beginning.

Now you are going to blow air into his/her lungs.

- Place one hand on his/her forehead and carefully tip the head a long way back.
- Squeeze his/her nostrils together with two fingers.
- Lift the chin with the other hand.
- Take a deep breath and place your lips over his/her entire mouth.
- Blow two breaths down into his/her lungs. Take a breath between.

Do this now. Then come back to the phone and tell me if the chest rose when you blew in the air.

Good! Now you are going to do chest compressions.

- Try to get the patient on the floor
- Kneel down close to one side of his/her chest.

- Open the clothes over the chest.
- Lay one hand over the other on his/her chest, in between the nipples.
- Press his/her chest down firmly with straight arms and then release quickly.
- Press 15 times using the following rhythm:
- ONE-and-TWO-and-THREE-and-FOUR-and-FIVE etc. Count out loud! Then come back to the phone.

Good! Now blow two breaths and give 15 chest compressions over and over again until the ambulance arrives. Come back to the phone if it does not work or if you get too tired.

You are doing a great job! The ambulance is on its way. I am listening all the time
The chest is not rising. Create free airway and repeat breathing check

Instructions: Adult CPR

CPR – Compressions only

An ambulance is on its way! Don't hang up!

I'll tell you how to give first aid.

Is anyone there trained in CPR?

Bring the phone as close to the patient as possible.

Listen to check if he/she is breathing normally.

Do it now and come immediately back to the phone.

Acceptera om ingen av de närvarande kan eller vill hjälpa till.

Maintain telephone contact until the ambulance arrives.

Free airways and a new breathing check

Now you must open his/her airways.

- Lay him/her on their back if you can.
- Kneel down beside his/her chest.
- Place one hand on his/her forehead and the other under the chin and carefully tip the head back.
- Place your ear and cheek against his/her face.
- Try to feel any breath and listen for breathing. At the same time check if the chest is rising and falling. Do that now and then come straight back to the phone.

If this is not successful, repeat the instructions carefully from the beginning.

Good! Now you are going to do chest compressions.

- If possible try to get the patient on the floor
- Kneel down close to one side of his/her chest.
- Open the clothes over the chest.
- Lay one hand over the other on his/her chest, in between the nipples.
- Press his/her chest down firmly with straight arms and then release quickly.
- Press 15 times using the following rhythm:
- ONE-and-TWO-and-THREE-and-FOUR-and-FIVE etc. Count out loud! Come back to the phone if there is any change or if you become too tired.

You are doing a great job! The ambulance is on its way. I am listening all the time

Chest compressions: be careful if he/she has been involved in an accident.

Still not breathing normally

Not breathing normally

Breathing normally - recovery position

CPR – with mouth-to-mouth and compressions

Primary and per protocol analysis. Comparison between standard CPR and compression-only CPR including patients in whom EMS did not start CPR on their arrival (n=1820) .

Primary analysis

30-day survival	152/919	16.5	152/901	16.9	0.85	-0.3 (-0.8, 3.1)
Survived day one	263/913	28.8	263/890	29.6	0.73	-0.7 (-4.9, 3.5)

Per protocol analysis. Comparison between standard CPR and compression-only CPR including patients in whom EMS did not start CPR on their arrival (n=1344).

Per protocol analysis

30-day survival	87/730	11.9	78/614	12.7	0.66	-0.8 (-4.3, 2.7)
Survived day one	180/725	24.8	163/609	26.8	0.42	-1.9 (-6.6, 2.8)

Contributions by different authors

Study design	LS, KB, LE, MC, JH, HP, MR
Who gathered data	KB, LS, MR
Who analyzed the data	LS, KB, LE, MC, JH, HP, MR
Who vouches for the data and the analysis	LS, KB, LE, MC, JH, HP, MR
Who wrote the paper	LS, KB, HP, MR
Who decided to publish the paper	LS, KB, LE, MC, JH, HP, MR
Who wrote the first draft	LS, KB, HP, MR

We hereby also state that we were in total agreements concerning confidentiality of the data between all of the the authors.

Disclosure statement

Financial Disclosures

No commercial medical companies were involved in this study, and none of the authors therefore have any financial disclosures.