



European Resuscitation Council (ERC) comments on compression-only CPR study published in The Lancet 17th March 2007

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The authors of an observational study undertaken in Japan have concluded that compression-only cardiopulmonary resuscitation (CPR) by bystanders is preferable to conventional CPR (chest compressions combined with mouth-to-mouth ventilation) for out-of-hospital cardiac arrest (*). Of those treated initially with chest compressions only, 6% made a good recovery – this compared with 4% in those treated initially with conventional CPR. Survival rates for those given no CPR by bystanders were significantly worse than both the other groups at just 2%.

Although compression-only CPR may be adequate or even preferable for the first few minutes after cardiac arrest that is caused by heart disease, mouth-to-mouth ventilation will be required after cardiac arrest of longer duration or if caused by lung disease, drowning or trauma, or in children. This Japan study was undertaken in 2002-3. The 2005 resuscitation guidelines introduced several changes, including an increase in compression:ventilation ratio from 15:2 to 30:2, resulting in a significant increase in chest compressions. We do not know if the results of this new study would have been different if laypeople in Japan had given conventional CPR using the 2005 guidelines.

The existing ERC guidelines indicate that chest compression-only CPR should be used after out-of-hospital cardiac arrest if the rescuer is unable or unwilling to give mouth-to-mouth ventilation, because **any** CPR is better than no CPR. The guidelines also indicate that interruptions to chest compressions should be minimised. Individuals who have been trained in full conventional CPR should, ideally, continue with this technique.

The ERC published its revised guidelines in December 2005 and they have been introduced in the professional and lay communities in all European countries. These guidelines were developed from an International panel of resuscitation experts who reviewed all previously published studies of out-of-hospital cardiac arrest comparing compression-only CPR with conventional CPR. The International consensus was that the evidence in favour of chest compression-only CPR was considered insufficient to replace conventional (compression and ventilation) CPR. The ERC believes that the findings of this Japanese study do not provide the compelling evidence that would warrant an immediate change in the recently revised guidelines. We do not plan to change our guidelines until the planned international review of resuscitation science in 2010 when all newly accumulated published science will be reviewed.

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Reference

SOS-KANTO study group. Cardiopulmonary resuscitation by bystanders with chest compression only (SOS-KANTO): an observational study. *Lancet* 2007; 369: 920–26