Amsterdam, 13-16 may 2007: 15th World Congress on Disaster and Emergency Medicine

# Epinephrine for in-hospital LUCAS-CPR: a predictor of outcome?

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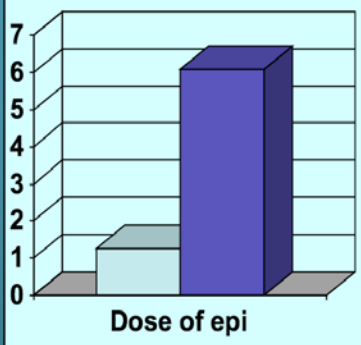
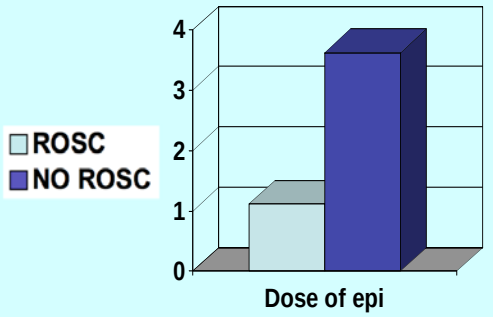
**Introduction:** The role of epinephrine in cardiac arrest remains debated[1]. We compare the doses of epinephrine administered in patients with good versus bad outcome after in-hospital LUCAS-CPR.

**Methods:** From February until June 2006, LUCAS-CPR was used for all cases of adult in-hospital arrest, after arrival of the in-hospital emergency team. Outcome parameters such as ROSC, Cerebral Performance Categories[2] ( CPC ) at 3 months and administered doses of epinephrine were recorded. CPC 1 or 2 at 3 months were considered good outcome. Epinephrine was administered per milligram to all patients during CPR every 3 to 5 minutes according to the guidelines 2005 and at the discretion of the attending physician. Results are presented as means +/- standard deviation.

**Results:** 35 patients received in hospital LUCAS-CPR. In one patient with no ROSC, the dose of epinephrine remains unknown. In the 22 patients with ROSC, 1.25mg +/- 1.25 of epinephrine was used. In the 12 patients with no ROSC, the dose was 6.08mg +/- 3.63. In the 9 patients with CPC 1 or 2 at 3 months, the dose of epi was 1.11mg +/- 0.78. None of these patients received more than 2 mg of epinephrine. In the 25 patients with CPC 3,4 or 5 the dose of epi was 3.62mg +/- 3.61.




**Cerebral Performance Categories (CPC)** [2]

CPC 1 : Good cerebral performance

CPC 2 : Moderate cerebral disability

CPC 3 : Severe cerebral disability

CPC 4 : Coma/vegetative status

CPC 5 : Brain death or death

In the 12 patients with no ROSC, the dose was 6.08mg +/- 3.63.

In the 9 patients with CPC 1 or 2 at 3 months, the dose of epi was 1.11mg. In the 25 patients with CPC 3,4 or 5 the dose of epi was 3.62mg +/- 3.61.

**Conclusion**:
The total dose of epinephrine used is inversely related to outcome. No good outcome was achieved in patients who needed more than 2 mg of epinephrine during in hospital LUCAS-CPR.

**References**:

1. European Resuscitation Council Guidelines for Resuscitation 2005; Resuscitation ( 2005 ) 67S; S47

2.The Brain Resuscitation Clinical Trial II Study Group. A randomized clinical trial of calcium entry blocker administration to comatose survivors of cardiac arrest: design, methods, and patient characteristics. Control Clinical Trials 1991: 12: 525-45