

Oral presentation

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## Incidence of unexpected out-of-hospital death in Norway

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### Introduction

In Norway, there is a lack of reliable epidemiological data on emergency situations. Approximately 5 000 unexpected out-of-hospital cardiac arrests has been the figure used by The Norwegian Resuscitation Council and other organisations when promoting the importance of knowledge in cardiopulmonary resuscitation (CPR). As part of a multicenter study on how out-of-hospital emergency patients are administrated, we also collected epidemiological data. The aim of this substudy was to describe the incidence of unexpected death/resuscitated patients outside hospitals in Norway, per year.

### Methods

During three months from October to December 2007 three dispatch centrals, covering 840 000 inhabitants, recorded every emergency patient (red response, highest priority) where the doctor on call and/or the ambulance responded. We also collected ambulance records, air ambulance records and records from the GPs when they had been involved.

### Results

A total of 5 105 cases were included in the study and in 191 (3.7%) of the cases patients where either pronounced dead at scene or CPR was started. In 12 trauma patients there were no resuscitation attempts. In three (42.9%) of the seven suicide cases CPR was started. In other medical emergencies, CPR was started in 54.6% of 172 cases.

National estimate for out-of-hospital cardiac arrest (of any cause) are approximately 4 300. 360 patients will be dead at scene after trauma or suicide. Of approximately 3 900 other cardiac arrest, resuscitation will be started in 2 100 cases. Nearly 700 will be transported to hospitals with pulse or under ongoing CPR.

### Conclusion

National estimates indicate that ambulance personnel and doctors will find it beneficial to try CPR on approximately 2100 patients, the rest are pronounced dead at scene. The estimate of 5 000 unexpected out-of-hospital cardiac arrest is probably too high when promoting benefit of CPR.