Halvtidskontroll
Cecilia Andréll, 17 oktober 2018

Titel: Prehospitalt omhändertagande vid hjärtstopp utanför sjukhus

Opponenter:
• Anders Johansson, docent, Lunds Universitet
• Mattias Ringh, dr med vet, Karolinska Institutet

Tid: onsdag 17 oktober kl. 13.00 – 15.00
Plats: Konferensrummet IPV, plan 6 (hisshall B, Blocket)

Handledare: Hans Friberg (IKVL)
Bihandledare: Knut Olanders & Lizbet Todorova

Hjärtligt välkomna!
Abstract

Background
Out-of-hospital cardiac arrest (OHCA) is a time critical condition which demands rapid actions from the society and the emergency medical system. Early emergency call and early dispatcher recognition is essential for improved chances of survival, which today is only ten percent.

Methods
This thesis presents different perspectives in OHCA, 1) recognition of OHCA by the dispatcher in emergency calls, 2) location of arrest among initial survivors of OHCA admitted to intensive care, and 3) a selective dispatch model for first responders used in suspected OHCA emergency calls in Skåne County, Sweden.

Primary results
The medical dispatchers’ sensitivity to recognize cardiac arrest in emergency calls was significantly higher in Skåne County, Sweden (78%) compared to Capital Region, Denmark (41%) in the first-step analysis (merging national registry data with dispatch data). In the second-step analysis (listening to the 112-calls), the sensitivity measure increased in both countries (86% vs. 81%, p=0.06 for the difference between countries).

Among initial survivors admitted to intensive care, patients with cardiac arrest at place of residence (n=500) had a decreased chance of survival compared to those in a public or other places (n=438), 55% vs. 38%. Place of residence was an independent predictor of 180-day mortality (OR: 1.57, 95% CI: 1.13-2.18). The proportion of witnessed cardiac arrests was similar at place of residence and in a public or other place (90% vs. 89%), whereas bystander cardiopulmonary resuscitation differed significantly between groups (70% vs. 77%). All important time intervals were significantly longer in the place of residence group.

Importance
A vast majority of patients do not survive an OHCA and the early interventions play a key role to improve conditions for survival. Recognition of OHCA by medical dispatchers was high in two large neighboring regions, but our results also highlight the importance of standardized and joint scientific reporting when recognition of OHCA is used as a metric for quality. OHCA at place of residence remains an independent risk factor in initial survivors admitted to intensive care. Therefore, further actions are needed in the prehospital setting and particularly at place of residence, in order to improve survival after OHCA.

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