

# Pre-Hospital Decision Process and Prognosis in Men and Women with Coronary Heart Disease

Akademisk avhandling

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av

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This thesis is based on the following studies, referred to in the text by their Roman numerals.

- I Nielsen, S., Falk, K., Gyberg, A., Määttä, S., Björck, L. Experiences and Actions During the Decision Making Process Among Men With a First Acute Myocardial Infarction.  
*Journal of Cardiovascular Nursing 2014. [Epub ahead of print]*
- II Gyberg, A., Björck, L., Nielsen, S., Määttä, S., Falk, K. Women's help-seeking behavior during a first acute myocardial infarction.  
*Submitted*
- III Nielsen, S., Björck, L., Berg, J., Giang, KW., Zverkova Sandström, T., Falk, K., Määttä, S., Rosengren, A. Sex-specific trends in 4-year survival in 37 276 men and women with acute myocardial infarction before the age of 55 years in Sweden, 1987–2006: a register-based cohort study.  
*BMJ Open 2014;4(5)*
- IV Nielsen, S., Björck, L., Jeppsson, A., Giang KW., Falk, K., Määttä, S., Zverkova Sandström, T., Rosengren, A. Trends in absolute and relative mortality risk in 94 328 patients surviving 30 days after a first isolated coronary artery bypass graft procedure 1987-2006. A population based study.  
*In manuscript*



UNIVERSITY OF GOTHENBURG

# PRE-HOSPITAL DECISION PROCESS AND PROGNOSIS IN MEN AND WOMEN WITH CORONARY HEART DISEASE

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## Abstract

The overall aim of this thesis was to describe experiences, strategies and actions in the prehospital phase among patients with a first acute myocardial infarction and to examine long-term trends in survival among patients with coronary heart disease.

The thesis consists of two qualitative and two quantitative studies. Interviews were conducted with 21 men and 17 women, experiencing symptoms from a first acute myocardial infarction (AMI) and analyzed with Grounded Theory. Two national prospective cohort studies were performed by using the Swedish Inpatient register (IPR). From this, prognosis for 37,276 adult patients <55 years old with a first AMI and 94,328 patients aged >18 years who underwent a first coronary artery bypass (CABG) 1987-2006 could be estimated.

During the decision process, various spectra of bodily changes were described in both men and women, sometimes over an extended period before submission to hospital. Intermittent, vague and insidious symptoms caused confusion about how to act. Vague symptoms sometimes experienced by the men did not match their preconception of typical symptoms in a myocardial infarction. To come to an understanding they compared with their past experiences which led to an awareness of the abnormality, the severity and the need for contact medical attention. The women usually attributed their symptoms to harmless conditions and struggled to continue with their responsibilities in their daily lives. Intensified symptoms made the women unable to perform their daily task and they could no longer maintain earlier explanations for their discomfort which contributed to an understanding for the need of professional help. Sometimes, when men and women sought medical attention for their discomfort, and had no objective signs of an AMI they were dismissed, with no diagnosis, which caused a hesitation to contact medical care once again. This emphasizes that health care professionals have to pay more attention to the patient's narrative.

In the quantitative part of the thesis younger men with a first AMI had a 2 to 4-fold risk for mortality compared to men in the same age in the general population while women had a 6 to 14-fold risk during the last study period (2002-2006). Survival increased during the study period in men. In women there was a favorable trend in survival until the last period 2002-2006 but survival then reverted to that in the second period (1992-1996) in the last period. Men and women  $\geq 55$  years surviving the first 30 days after CABG (coronary artery bypass grafting) showed a lower mortality risk than those in the general population and showed a decreasing trend in mortality during the study period. Women below the age of 55 showed no significant improvement in survival and had a 4-fold risk for mortality compared to women in the same age in the general population. Men <55 displayed improved survival, which was higher than that for men in the general population.

**Keywords:** acute myocardial infarction, decision-making process, experiences, grounded theory, epidemiology, mortality, survival, coronary artery bypass grafting, temporal trends.