

# **Tilmelding af Foredrag**

# Foredragets titel

Prehospital cricothyroidotomy during out-of-hospital cardiac arrest in Denmark: A project description and preliminary cases

# Forfatter(e)

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Det er endnu ikke besluttet om MGH eller TWJ skal være 1. forfatter på dette værk. Dog er lavet ansøgning om tilladelser til data og midler til projektet med MGH som 1. forfatter.

# Afdeling/praksis

Præhospital Center Region Sjælland og Øre-næse-hals afdeling Nordsjællandshospital Hillerød

## Uddannelsesniveau

Theo W. Jensen som præsenterer er vikar på Hillerød Hospital Øre-Næse-hals afd. Theo er PhD., og har udover vikariet introduktionstilling i anæstesi.

## Introduktion

Emergency cricothyroidotomy (EC) is a rare, but critical intervention in out-of-hospital cardiac arrest (OHCA) when conventional airway management fails (1, 2). Given the infrequency of EC use in OHCA, systematic knowledge on EC remains limited.

#### Objectives

We aim to conduct a thorough epidemiological analysis of EC in OHCA, focusing on incidence rates, success rate, indications, and survival outcomes.

## Materiale/metode

This registry-based follow-up study will identify EC cases from electronic prehospital medical records within the Danish Cardiac Arrest Registry (3). Building on a previous investigation of foreign-body airway obstruction in OHCA, we identified three cases in which EC was performed. These initial cases provide insights for identifying and analyzing additional cases in the registry and will guide the development of an effective search-string. Using a stepwise approach, this small set of verified EC cases are analyzed to identify descriptive keywords used to search electronic prehospital medical records within the registry. Potential cases are manually verified, and additional keywords are identified in an iterative process until no additional EC cases are identified. The final, optimized search string is then applied across all Danish prehospital medical records to ensure a thorough case identification.

## Resultater

The three identified cases involved individuals over 65 years, all of which were witnessed by bystanders who provided CPR. In each case, forceps removal of the obstruction was unsuccessful. Intubation succeeded in one case in which EC was subsequently performed due complications from airway bleeding. However, despite the uncomplicated



performance of EC in all cases, none of the cases survived to hospital admission.

## Diskussion

These preliminary findings from our pilot cases indicate the feasibility of EC in a prehospital setting. We anticipate that the full study will yield essential epidemiological data, including survival rates, associated factors, incidence, patient profiles, and temporal patterns of EC in OHCA.

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