

Method This study was conducted using the national cardiac arrest registry of OHCA patients with presumed cardiac aetiology who survived to hospital admission from 2009 to 2016. The primary exposure was TTM. The histories of HTN were obtained from patients' medical records. The endpoint was cerebral performance category (CPC) 1 and 2 at discharge and survival to discharge. We compared outcomes between TTM and non-TTM groups using multivariable logistic regression with an interaction term between TTM and HTN for calculating adjusted odd ratios (AORs) and 95% confidence intervals (CIs) after adjusting for confounding factors.

Results Among 25 985 patients following OHCA survived hospital admission with presumed cardiac aetiology. TTM was performed in 12.2%. TTM group showed better outcomes than non-TTM group: 28.1% vs 15.5% for good neurologic recovery ($p < 0.0001$). AOR (95% CI) of TTM for good neurological recovery for all study groups was 1.65 (1.47–1.85). In interaction model (generalised linear mixed model), AOR (95% CI) of TTM for good neurological recovery was 1.87 (1.26–2.76) in patients without HTN vs 0.87 (0.75–1.02) in patients with HTN.

Conclusion TTM is associated with good neurological recovery in non-hypertension group, but not significant effect in hypertension group in Korea.

Conflict of interest None

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34 IMPLEMENTATION OF A BUNDLE OF UTSTEIN TEN STEP RECOMMENDATIONS FROM THE GLOBAL RESUSCITATION ALLIANCE TO IMPROVE SURVIVAL OUTCOMES AFTER OUT-OF-HOSPITAL CARDIAC ARREST IN A METROPOLIS: A BEFORE AND AFTER STUDY

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Aim We aimed to evaluate whether implementation of a bundle of three programs of Utstein ten-step implementation strategy (UTIS) proposed by the Global Resuscitation Alliance improved outcomes after OHCAs.

Method This study was a before-and-after study. All emergency medical services (EMS)-treated adults OHCAs with cardiac aetiology were included. Seoul implemented a bundle of three CPR programs among UTIS programs in 2015;

1. Telephone-CPR (T-CPR) program: a monthly-based and individual dispatcher-targeted quality assurance protocol on telephone-CPR for every OHCA,
2. Rapid CPR program: a multi-tier response, and
3. Feedback CPR program: professional recording of EMS-CPR and feedback to individual team by medical director using high technology defibrillator devices.

The EMS process and outcomes of OHCAs in the study period (2015–2016) were compared with control period (2013–2014). The primary outcome was a good neurological recovery (cerebral performance category 1 or 2). A mixed-effects logistic regression model including random intercepts for district EMS agency level

was used to estimate the association between study period with outcomes, adjusted for potential confounders.

Results Total 5968 and 6232 patients were included in the control and study period. T-CPR rate, Rapid CPR, and Feedback CPR in control versus study period were 48.1% versus 54.2%, 1.0% versus 35.8%, and 27.8% versus 63.8%, respectively (all p -values < 0.001). Good neurological recovery rate was increased from 5.6% to 6.5%. In multivariable analyses, the adjusted OR of study period for good neurological recovery was 1.31 (95% CI: 1.11 to 1.55).

Conclusion The citywide implementation of a bundle of UTIS programs was significantly associated with better OHCA outcomes.

Conflict of interest None

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35 NO GENDER DIFFERENCES FOUND IN BYSTANDER CPR IN PRAGUE

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Aim The aim of our study is to compare bystander resuscitation ratios between male and female cardiac arrest patients.

Method This is a retrospective analysis of Prague pre-hospital cardiac arrest Utstein-style registry from 2012 to 2016. All patients resuscitated by EMS crew with exception of EMS-witnessed cardiac arrests were included.

Results Total 2302 patients were included. There were 1715 men (M group) and 587 in women (W group) in the study. Bystander CPR was provided in 1368 (79%) cases in M group and in 477 (81%) cases in W group. The difference between M and G groups is non-significant ($p = 0.31$).

Conclusion We found no gender differences in the chance of cardiac arrest victim to receive bystander CPR. This finding is in contradiction with the results published by A. Blewer at the American Heart Association's Scientific Sessions in November 2017, where men are more likely to receive CPR in public than women. One possible explanation is the systematic approach of the EMS Prague dispatchers to provide the dispatcher-assisted resuscitation (D-CPR), which can break potential barriers between bystander and cardiac arrest victim.

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36 PRE-HOSPITAL RESUSCITATION OF CHILDREN IN THE CITY OF PRAGUE

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Aim While there is a lot of studies dealing with out-of-hospital cardiac arrest (OHCA) in adults, data about OHCA in children age (CH-OHCA) are rarely published. The aim of this study is to describe epidemiology and results of CH-OHCA in City of Prague.

Method This is a retrospective analysis of epidemiology and survival rates of CH-OHCA during period from 2003 to 2015. The data are taken from Prague OHCA Utstein-style database.