

Self-reported health status amongst out-of-hospital cardiac arrest survivors

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Background: Investigate out-of-hospital cardiac arrest (OHCA) survivors' health status and its associations with pre-arrest factors.

Materials and methods: Participants from the Targeted hypothermia versus targeted normothermia after out-of-hospital cardiac arrest (TTM2) trial were included. Health status was assessed with the EQ-5D-5L at 180 days post-OHCA. Each dimension (mobility, self-care, usual activities, pain/discomfort, and anxiety/depression) has 5 levels, from "no problems" (0) to "extreme problems" (5). EQ-VAS is an overall measure of self-rated health, score range from "the worst imaginable health" (0) to "the best imaginable health" (100).

We used the Mann-Whitney U-test to compare differences in the EQ-5D-5L dimensions between the hypothermia versus normothermia group. We assessed the association between survivors' EQ-VAS and prespecified pre-arrest variables (age, gender, comorbidity, marital status, clinical frailty and education level; theoretically assumed to be associated with health) with linear regression.

Results: 816 of 939 (87%) survivors completed the EQ-5D-5L. There were no significant differences in any of the EQ-5D-5L dimensions between the temperature management groups, hypothermia (n=411) versus normothermia (n=405). Pain/discomfort was the most common reported problem (44%, n=355). The median value of EQ-VAS was 80 (IQR 65–90).

We found that female gender, clinical frailty, and not having a spouse were significantly associated with worse EQ-VAS, but not the other pre-arrest variables when controlling for temperature management (Figure 1).

Conclusion: Survivors generally reported good self-rated health, but there was a large variation. Therefore, it is important to identify those with risk of low self-reported health; women, frail patients and those who live alone.

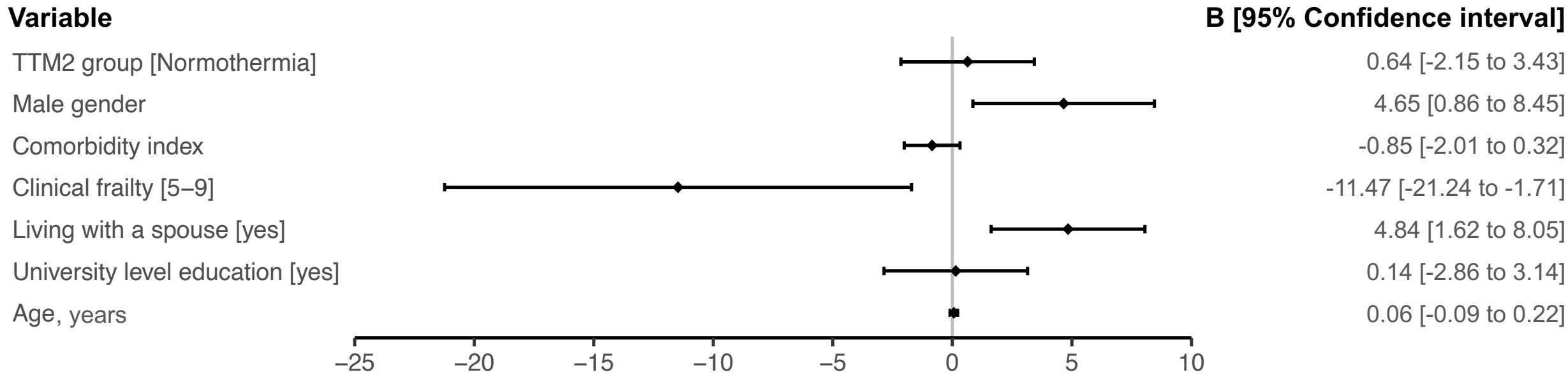


Figure 1. Association with overall measure of self-rated health (EQ-VAS, 0–100) amongst out-of-hospital cardiac arrest survivors at 180 days post cardiac arrest. Forest plot illustrating the associations with pre-arrest variables based on linear regression model with participants from the Targeted hypothermia versus targeted normothermia after out-of-hospital cardiac arrest (TTM2) trial (n = 806). Pre-arrest variables were prespecified based on a theoretically assumed association with survivors’ health status. Point estimates are presented as unstandardized Beta coefficients (B) with 95% Confidence interval. A positive Beta coefficient indicate better self-rated health. The reference category for TTM2 group is the Hypothermia group. Comorbidity index was assessed with Charlson Comorbidity Index, where a higher score indicate more comorbidity. Clinical frailty is assessed with Clinical Frailty Scale, dichotomized as low (1 – 4) [reference category] or high (5 – 9).