**External validation of the GO-FAR Score in a Middle Eastern Country**

David O Alao1, Yaman Hukan2, Nada Mohammed2, Kinza Moin2, Resshme k. Sudha2, Arif Alper Cevik1, Fikri M. Abu-Zidan3

1. Department of Internal Medicine, College of Medicine and Health Sciences, UAE University, Al-Ain, United Arab Emirates.
2. Emergency Department, Tawam Hospital, Al Ain, United Arab Emirates
3. The Research Office, College of Medicine and Health Sciences, UAE University, Al-Ain, United Arab Emirates

**Introduction**: The Good Outcome Following Attempted Resuscitation (GO-FAR) score has been externally validated in the USA, Europe and East Asia. However, external validations excluded patients on the Do-Not-Attempt-Resuscitate (DNAR) code. How the GO-FAR score will predict neurological outcomes in populations where DNAR is not practiced remains unknown.

**Objectives**: To externally validate the GO-FAR score in a population that does not have DNAR order.

**Methods**: We studied patients ≥18 years old who had an In-hospital cardiac arrest (IHCA) at Al Ain Hospital from January 2017 to December 2019 excluding those who died in the emergency department. Studied variables included demography, location, response time, code duration, initial rhythm, primary diagnosis, admission vital signs, GO FAR, discharge status, and functional outcomes as determined by the cerebral performance category (CPC) score ranging from 1 (good cerebral performance) to 5 (brain death).

**Results:** 366 patients were studied, 66.7% were males. The median (IQR) age was 70 (55-81) years. Cardiac and respiratory causes were the primary diagnoses in 89 (24.6%) and 67 (18.5%). IHCA occurred in critical areas such as the intensive care unit, high dependency unit and coronary care unit in 206 (80.8%) patients. The majority, 336 (91.8%), had non-shockable rhythm, and return of spontaneous circulation was achieved in 159 (43.4%) of the patients. Thirty-one (8.5%) patients survived hospital discharge, and 20 (5.5%) patients had CPC scores of 1 and 2. The area under the curve of the ROC for survival to hospital discharge was 0.74. The best cut-off point for predicting survival with a good neurological outcome was a GO-FAR score of 3.5, having a sensitivity of 0.81, a specificity of 0.7, a positive predictive value of 2.7 and a negative predictive value of 0.271.

**Conclusions:** A GO-FAR score of less than 4 predicts survival with a good neurological outcome in a healthcare system with all-inclusive patient population with no DNR practice.

**Key words:** Cardiac arrest, prediction, outcome