

Prehospital Electrocardiography Training: Cross-Industry Standard Process for Data Mining Method or Traditional Method?

© Gökür Yıldız

University of Health Sciences Türkiye, Eskişehir City Hospital, Clinic of Emergency Medicine, Eskişehir, Türkiye

Keywords: ECG, prehospital care, cross-industry standard process for data mining

Dear Editor,

I read the article titled effect of cross-industry standard process for data minin (CRISP) method training on electrocardiography (ECG) diagnosis skills of prehospital medical services personnel by Ekici et al. (1) with great interest, and I would like to address some points that merit more attention. ECG assessment is an important aspect in prehospital care. Unfortunately, many healthcare personnel have limited knowledge of ECG, and they should receive regular training in order to detect fatal and emergency-related ECG changes (2).

In their study, Ekici et al. (1) evaluated the effectiveness of the CRISP method and divided the study population into control and experimental groups. The analysis showed that the CRISP method was more successful in recognizing sinus rhythm, supraventricular tachycardia, atrial fibrillation, second-degree Mobitz type-1, and Mobitz type-2 atrioventricular blocks. However, no statistically significant difference was found between the two groups for sinus bradycardia, second-degree Mobitz type-2 atrioventricular block, atrial flutter, third-degree atrioventricular block, ventricular tachycardia, ventricular fibrillation, and asystole. Studies have shown that third-degree atrioventricular block, pulseless ventricular tachycardia, and ventricular fibrillation are among the leading causes of sudden cardiac death, and that a quick diagnosis and initiation of treatment are crucial (3,4). The fact that

the CRISP method did not show superiority in these conditions can be considered a limitation of the study in terms of evaluating prehospital emergency cases.

Moreover, the ischemic findings such as ST-segment elevation and depression, which should be quickly identified in prehospital ECG, were not evaluated in the study by Ekici et al. (1). As mentioned in the introduction of the study, early detection of acute cardiac ischemic conditions in the prehospital setting is important for ensuring appropriate hospital transfer and facilitating rapid cardiac catheterization (5). If the study had included evaluations of ST-segment changes in the ECG, it could have contributed more meaningfully to the literature and yielded more appropriate results.

Using traditional or contemporary methods, providing ECG training to healthcare personnel working in prehospital medical services at regular intervals will automatically improve their ECG assessment capabilities.

Footnotes

Conflict of Interest: No conflict of interest was declared by the author.

Financial Disclosure: The author declared that this study received no financial support.



Corresponding Author: Gökür Yıldız MD, University of Health Sciences Türkiye, Eskişehir City Hospital, Clinic of Emergency Medicine, Eskişehir, Türkiye

E-mail: goknur_yldz@hotmail.com **ORCID ID:** orcid.org/0000-0002-2097-2531

Cite this article as: Yıldız G. Prehospital electrocardiography training: cross-industry standard process for data minin method or traditional method? Eurasian J Emerg Med. 2025;24(3): 232-3.



©Copyright 2025 The Emergency Physicians Association of Turkey / Eurasian Journal of Emergency Medicine published by Galenos Publishing House. Licenced by Creative Commons Attribution-NonCommercial-NoDerivatives (CC BY-NC-ND) 4.0 International License.

Received: 06.01.2025

Accepted: 07.02.2025

Epub: 20.05.2025

Published: 10.09.2025

References

1. Ekici M, Turan ÖF, Borazan İ, Aksoy FM, Yaman S, Kaplan Z. Effect of CRISP method training on ECG diagnosis skills of prehospital medical services personnel. *Eurasian J Emerg Med.* 2024;23:257-62.
2. Breen CJ, Kelly GP, Kernohan WG. ECG interpretation skill acquisition: a review of learning, teaching and assessment. *J Electrocardiol.* 2022;73:125-8.
3. Rea TD, Pearce RM, Raghunathan TE, Lemaitre RN, Sotoodehnia N, Jouven X, et al. Incidence of out-of-hospital cardiac arrest. *Am J Cardiol.* 2004;93:1455-60.
4. Benjamin EJ, Virani SS, Callaway CW, Chamberlain AM, Chang AR, Cheng S, et al. Heart disease and stroke statistics-2018 update: a report from the american heart association. *Circulation.* 2018;137:e67-e492.
5. Mitsis A, Gagnano F. Myocardial Infarction with and without ST-segment elevation: a contemporary reappraisal of similarities and differences. *Curr Cardiol Rev.* 2021;17:e230421189013.