**Presentation title:**

Assessment of Electrocardiogram Interpretation Competency among Health Professional staff and Students of Ardabil University of Medical Sciences: A Multidisciplinary Study

**Corresponding Author name:** **2. \*Correspondence: Alireza Mirzaei, Master of Emergency nursing. Department of Emergency nursing, School of Nursing and Midwifery, Ardabil University of Medical Sciences, Ardabil, Iran.** [**alirezamirzaei9015@gmail.com**](mailto:alirezamirzaei9015@gmail.com) **WhatsApp No:** +989038374655

**Presenter: Reza Nemati Vakilabad**, Student Research Committee, School of Nursing and Midwifery, Guilan University of Medical Sciences, Rasht, Iran. nematireza1998@gmail.com, Phone Number: **WhatsApp No:** +989193286593

**Other Authors:**

1. Keyvan Amini, Assistant Professor of Emergency Medicine. Department of Internal Medicine, School of Medicine. Fatemi Hospital, Ardabil University of Medical, Ardebil, Iran. [kvnamini@gmail.com](mailto:kvnamini@gmail.com)

3. Islam Azizpour, MS Candidate of Emergency nursing. Department of Emergency nursing, School of Nursing and Midwifery, Ardabil University of Medical Sciences, Ardabil, Iran. [eazizpour01@gmail.com](mailto:eazizpour01@gmail.com)

4. Mirtohid Hosseini, MS Candidate of Critical Care Nursing. Department of Critical Care Nursing, School of Nursing and Midwifery, Guilan University of Medical Sciences, Guilan, Iran. [setare63hayat@gmail.com](mailto:setare63hayat@gmail.com)

**Abstract**

**Background**

Electrocardiogram (ECG) interpretation is a core clinical skill that helps to rapid diagnosis of potentially life-threatening diseases. Misinterpretation of the electrocardiogram can lead to inappropriate clinical decisions with adverse outcomes. The main aim of this survey was to assess the competency of electrocardiogram interpretation and related factors among Health Professional staff and Students of Ardabil University of Medical Sciences.

**Methods**

This descriptive cross-sectional study included 323 staff and students of Ardabil University of Medical Sciences in northwestern Iran. Data were collected randomly from November to January 1400 using the Badell-Coll ECG Interpretation Competency Questionnaire and analyzed using SPSS V.14. Statistical analysis included descriptive statistics, independent t-test, ANOVA, Pearson correlation coefficient and multiple linear regression.

**Results**

The results showed that the mean and standard deviation of electrocardiogram interpretation competency of health professional staff and students was 5.13 ± 2.25 (maximum score = 10). The large number of participants wasn't able to identify normal sinus rhythm (n = 251, 77.3%), acute myocardial infarction (n = 206, 63.8%) and pathological Q (n = 201, 62.2%). The results of multiple linear regression showed that the variables of education level, self-assessment of electrocardiogram interpretation competence, work experience, and type of hospital were able to predict the competence of ECG interpretation in participants.

**Conclusions**

Our findings showed that the participants' level of electrocardiogram interpretation competency was low. Hence, regular, standard training and education are recommended. Also, managers and educators of the health system should consider the role of positive self-assessment and exposure to ECG interpretation in improving the competence of staff and students to interpret ECG.

**Keywords:**

ECG interpretation competency, electrocardiography, health professional staff, health students, multidisciplinary study

**BIOGRAPHY:**

**Alireza Mirzaei:**

A registered nurse professional with a good research background, experience in clinical work in EMS for 14 years and interested in research work since studying for a master's degree in emergency nursing. I am interested in developing a career that combines reviewing and research, while at the same time maintaining my interest in the clinical work of nursing.

**Reza Nemati Vakilabad:**

A registered nurse who is a master's student in medical-surgical nursing in Rasht. and is interested in conducting research on nursing issues. He has already conducted studies in the field of patient safety.

**Research Interests:**

Nursing, occupational stress, turnover intention, spiritual coping, patient safety competency, electrocardiogram interpretation competence, social support, the mental health of nurses ' and nurses' psychological safety.