

Telecardiology – connection between rural areas and the city of Zagreb

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Introduction: Telemedicine represents the use of information and communication technology to exchange medical information from one place to another in order to improve the clinical health of patients¹. Since the prevalence and mortality of cardiovascular disease is high worldwide, the use of telemedicine in cardiology helps in the early diagnosis and treatment of cardiovascular diseases. It also has great potential in reducing health care costs and increasing quality of life and patients' satisfaction^{2,3}. The aim of this paper is to show the importance of remote Holter electrocardiogram analysis with regard to the frequency of patients for whom the need for further cardiac monitoring is indicated.

Patients and Methods: A retrospective study was conducted at the Institute for Cardiovascular Prevention and Rehabilitation, Zagreb from 1 March until 26 May 2022. Patients from rural areas of Croatia from 9 telemedicine centers (Petrinja, Topusko, Glina, Slatina, Orahovica, Voćin, Novalja, Korenica, Otočac, Senj, Pitomača) participated in the research by using Holter electrocardiogram in the local health center, while the remote analysis was carried in Zagreb. Demographic data and the proportion of patients who need further treatment based on the classification burden of ventricular premature contractions (VES) were analyzed according to gender and age.

Results: 130 patients participated in the study, 72 of which were women (55%) and 58 men. (45%) between the ages of 21 and 89. The largest group were patients between 50-70 years of age (51%). Analysis of the VES classification revealed that 77% of patients belong to the group of low VES load, while 23% of them belong to the medium VES load group, 53% of which are men and 47% women older than 70 (40%).

Conclusion: The use of remote Holter electrocardiogram analysis in rural areas allows patients prompt provision of medical care and financial savings. Since more than half of the patients belong to elderly population, the use of such diagnostics contributes to more accessible and faster medical care, but also facilitates a multidisciplinary approach among healthcare professionals, as well as more efficient and faster treatment.

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LITERATURE

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