

TELEMEDICINE IN CARDIOVASCULAR EMERGENCY CARE

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Cardiology is a very promising field in telemedicine. Cardiovascular disease is one of the leading cause of death around the world with a growing number of hospitalizations and health-care costs every year.

In patients with acute coronary syndrome (ACS), the time interval from symptoms onset to reperfusion is a critical determinant of the clinical outcome of primary percutaneous coronary intervention (PPCI). Early diagnosis and prehospital care of patients with ACS is crucial in survival.

Prehospital electrocardiogram (ECG) decreases time to reperfusion in ACS patients. Being useful in diagnosis of ischemic heart disease and cardiac arrhythmia, the availability of electrocardiographic equipment in primary care is common today. Despite that, obtaining accurate and rapid ECG reports remains a challenge.

Republic of Moldova is a small country and the health system is distributed geographically. Emergency stations and ambulance teams, first and second level hospitals are scattered through the country, while specialized centers, third level hospitals are mostly located in the capital Chisinau. The decision to admit a patient to a coronary care center for ACS has serious medical and financial consequences.

The transmission of ECG from ambulance to a centre for analysis is already a routine in the approach of ACS. Telemedical technologies provide the remote expert support and interpretation of electrocardiographic recordings via telephone transmission, helping to predict ACS in patients with chest pain at home.

Wireless transmission and physician interpretation of prehospital ECG can contribute to lower rates of false-positive and false-negative ACS diagnosis and guide selection of the treatment and transportation details. Prehospital ECG transmission systems are also useful for risk stratification and triage for patients with suspected cardiovascular emergency and presenting atypical symptoms.

Studies have shown that quality of healthcare services delivered via telemedicine are at least equal with the traditional in-person consultation.

In addition to enabling better and more extended health services worldwide, the implementation of telemedical systems were shown to substantially reduce health care costs, travel time, number of hospital admissions and increase of clinical efficiency through better management of ACS.