Technical Innovation in Communication Systems Can Be Life-Saving in Cardiac Emergencies

İletişim Sistemlerindeki Teknik Yenilikler Kardiyak Acillerde Hayat Kurtarıcı Olabilir

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Cardiac complaints, such as angina, dyspnea, palpitation are common findings in patients who are admitted to emergency department. In Turkey, not all secondary care hospitals have intensive care unit, necessitating referral of acute cases to tertiary care hospitals. The emergency medicine practitioners frequently need cardiology consultation for evaluation of electrocardiography (ECG) and cardiac symptoms. The correct and rapid interpretation of ECGs carries high significance for prompt diagnosis and treatment of cardiac diseases, especially acute coronary syndromes (ACS), who may result in death when the diagnosis is delayed[1].

Cardiologists must be available at all times to manage unstable patients but the number of cardiologists in Turkey is limited and the consultation shift may be up to 24 hour/7 day in most centers with single cardiologists. The doctors are "tired and stressed" because of this mandatory shift patterns; nevertheless they must communicate with the emergency department practitioner for life-saving interventions.

Research on medical emergency teams has revealed that ineffective communication methods can lead to treatment delays and failed escalation of care[2-3]. The method by which physicians communicate with each other was rather challenging before the technical innovations in communication systems. Many hospitals worldwide still use outdated pager systems as the foundation for clinical communication between physicians, nurses and other healthcare professionals. This is despite problems including long waiting-times for the return of a page, high costs, frequent interruptions and the inability to identify the location or identity of the caller[4-5]. Patient care has been revolutionized by the information age; the last two decades have seen diagnostics and treatments transformed by widespread technological progress, including smartphone and social media applications[6]. For instance, WhatsApp (Inc. California) is an increasingly popular mobile messaging application available over all smartphone platforms. It is used by over 500 million people worldwide, that allows smartphone users to send text messages videos, voice messages and photographs to their contacts. It also provides the creation of groups, this allows multiple users to participate in and monitor the conversation. WhatsApp avoids charging for each message by utilising cellular data plans and wireless Internet networks; an annual subscription is currently $0.99.

In Turkey, many cardiologists in secondary care hospital use WhatsApp technology during initial communication with emergency medicine practitioners. It permits early diagnosis of ACS, early treatment with antiaggregant and anticoagulant therapy. The patient can be rapidly referred for tertiary care hospital even before the cardiologist arrive emergency department. This rapid communication definitely decreases the time for percutaneous intervention. Although there is no study published yet, such communication platforms can decrease morbidity and mortality in cardiac emergiencies.

With widespread use, we believe that communication platforms such as WhatsApp offer numerous and great benefits to emergency department practitioners and specialists including cardiologists who work at secondary care hospital, and definitely emergency room patients who require prompt diagnosis and treatment.

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