

A Cloud-based Mobile System for Improving Vital Signs Monitoring During Hospital Transfers

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Abstract

As the number of patients in hospitals constantly grows, the need for hospital transfers is directly affected. Hospital transfers can be required for several reasons but they are most commonly made when the diagnostic and therapeutic facilities required for a patient are not available locally. Transferring a critical patient between hospitals is commonly associated with risk of death and complications. At the same time, advances in wearable technologies and health applications offer new possibilities to support healthcare. This raises the question: How can we improve the monitoring of vital signs of transported patients through use of information technology and communication services? This paper presents a cloud-based mobile system to support decision-making in the transportation of patients in critical condition. The Rapid Emergency Medicine Score (REMS) scale was used as an outcome variable, being a useful scale to assess the risk profile of critical patients requiring transfers between hospitals. The platform is the result of research and development work performed during the last two years.