OPTIMUM DESIGN OF REMOTE PATIENT MONITORING SYSTEMS

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Objectives of the study: To date remote patient monitoring (RPM) has not become integrated into mainstream health care, despite its potential to improve patient care and to optimise health care resources for long term conditions. We have investigated the set-up of all current and recent RPM projects in the UK in order to identify optimum design, including roles and clinical processes, that are necessary to support the successful integration and mainstreaming of an RPM system.
Methods: A qualitative case study approach was adopted. Twenty interviews with clinical, managerial and technical staff from the ten UK projects have been conducted, in addition to an extensive literature review. Interviews were also carried out with a small number of staff from projects based in the US and in Spain. A patient group representative was interviewed to capture the requirements of patients.
Results: Integration was higher for RPM systems that are based where patients receive their usual care, and follow established collaborations between health care professionals. In the majority of cases, this is primary care. In difficult cases, patients discharged from hospital early are ideally monitored by the consultant who managed them during their hospital stay. However, the role of secondary care is to look after patients when they need specialist treatment, and regular long-term management should be carried out by primary care. Depending on its purpose, an RPM system should therefore be based where it best fits existing roles of health care organisations.
Conclusions: Remote patient monitoring is a management tool for patients with long-term conditions. The better use an RPM system makes of existing pathways and collaborations, the greater its integration into the health care system.

Keywords: Remote patient monitoring, integration, design