Chapter 11

Patient Safety in Community Care:
E–Health Systems and the Care of the Elderly at Home

Ken Eason
The Bayswater Institute, UK

Patrick Waterson
Loughborough University, UK

ABSTRACT

The increasing number of elderly people in need of health and social care is putting pressure on current services to develop better ways of providing integrated care in the community. It is a widely held belief that e-health technologies have great potential in enabling and achieving this goal. This chapter reviews a number of technologies used for this purpose: telecare, telehealth, telemedicine, electronic patient record systems, and technologies to support mobile working. In each case, technocentric-design approaches have led to problematic implementations and failures to achieve adoption into the routine of delivering healthcare. An examination of attempts to implement major changes in the service delivery of integrated care shows that e-health technologies can be successfully implemented when they are seen as an intrinsic part of the creation of a complete system. However, the design process required for successful delivery of these services is challenging; it requires sustained and integrated development work by clinical staff and technologists coordinating their work on process changes, organisational developments, and technology implementations.

1. INTRODUCTION: THE PROMISE AND CHALLENGE OF COMMUNITY CARE FOR THE ELDERLY

As the population of elderly people in developed countries increases, health and social services are making ever more determined efforts to treat frail elderly patients in their own homes rather than in hospitals (Dept. of Health, 2008). At the same time social services are making greater efforts to help elderly people sustain safe, independent living in their own homes for as long as possible. For many involved in these ambitious plans electronic health and social care technologies are seen as a significant means of achieving their objectives. The purpose of this chapter is to review the technologies that are being deployed and to identify the barriers and facilitators that shape the success or failure of these endeavours.

Enabling elderly people to maintain independent living in their own homes, even though they may be suffering from one or more long-term conditions, is an important objective for health and social services in many countries. These agencies are therefore putting more resources into services and equipment to help frail people cope safely in their own homes and to avoid accidents and serious illnesses that might warrant hospital treatment. A growing array of electronic products are being deployed to support this work from products installed in patients' homes to systems to be used by the teams that are delivering care in the community.

However, if a patient has an accident or falls ill it may also be possible to use e-health technologies to 'step up' the care being delivered and treat the patient at home rather than admit them to hospital. The ambition to shift care from hospital to care at home whenever possible is partly being undertaken to save money because hospital care is very expensive, but it is also argued that it is much better for the patient to be treated at home if this can be done. So, if an elderly person has an emergency, such as a fall, community services will now seek to intervene to check whether they could be treated at home rather than being admitted to hospital. Although these developments may provide patients with excellent care and a more comfortable experience, treating patients who may be quite ill in the community raises some particular safety issues. Instead of being in a hospital ward where their condition can be continuously monitored, patients are likely to receive occasional visits from community healthcare staff. It is also likely that they will be in the care of a multi-disciplinary team of specialists from a variety of healthcare agencies and there may be problems of coordinating contributions to ensure a joined-up, safe service is provided. In a recent survey we have undertaken doctors in hospitals showed considerable reluctance to agree a patient could be treated at home or to permit a patient to go home after a stay in hospital because of fears for the patient's safety. They were concerned, in particular, that if the patient's condition worsened, the care system in place may not be sufficiently robust to take prompt and appropriate action. The relatives of patients, whilst wanting them to remain at home, were also concerned that they may be at greater risk and that they might be safer in hospital. Recognising this problem, many community services are looking to e-health systems in a variety of forms to ensure that joined-up, safe care can be provided.

The purpose of this chapter is to examine the contributions that electronic systems and products can make to ensure elderly people can live safely at home and can receive effective treatment for their health concerns. These systems are being delivered in a complex and challenging environment. The services delivered to the elderly in the community are often provided by a number of different organisations: social services, private care companies, community health staff, general practitioners and hospital based medical specialists etc. There are many efforts to integrate and coordinate the care provided by this array of health and social care agencies and the implementation

Related Content

Moving to an Online Framework for Knowledge-Driven Healthcare

Bruce Shadbolt, Rui Wangand Paul S. Craft (2005). *Creating Knowledge-Based Healthcare Organizations (pp. 136-149).*

www.irma-international.org/chapter/moving-online-framework-knowledge-driven/7232

Managing ICT in Healthcare Organization: Culture, Challenges, and Issues of Technology Adoption and Implementation

Nasriah Zakaria, Shafiz Affendiand Norhayati Zakaria (2010). *Health Information Systems: Concepts, Methodologies, Tools, and Applications (pp. 1357-1372).*

www.irma-international.org/chapter/managing-ict-healthcare-organization/49936

An Architectural Solution for Health Information Exchange

Timoteus B. Ziminski, Steven A. Demurjian, Eugene Sanzi, Mohammed Baihanand Thomas Agresta (2016). *International Journal of User-Driven Healthcare (pp. 65-103).*

www.irma-international.org/article/an-architectural-solution-for-health-information-exchange/181318

Populomics, an Emerging E-Health Response to Contemporary Healthcare Realities

Michael Christopher Gibbons (2008). *Encyclopedia of Healthcare Information Systems (pp. 1074-1076).*

www.irma-international.org/chapter/populomics-emerging-health-response-contemporary/13048

Machine Learning for Gastric Cancer Detection: A Logistic Regression Approach

Abraham Pouliakis, Periklis Foukas, Konstantinos Triantafyllou, Niki Margari, Efrossyni Karakitsou, Vasileia Damaskou, Nektarios Koufopoulos, Tsakiraki Zoi, Martha Nifora, Alina-Roxani Gouloumi, Ioannis G. Panayiotidesand Michael Tzivras (2020). *International Journal of Reliable and Quality E-Healthcare (pp. 48-58).*

www.irma-international.org/article/machine-learning-for-gastric-cancer-detection/249711