Chapter XII

PDAs as Mobile-Based Health Information Deployment Platforms for Ambulatory Care:
Clinician-Centric End-User Considerations

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Abstract

This chapter discusses the broad theme of clinician-centric end-user acceptance toward the adoption of personal digital assistants (PDAs) as mobile-based health information deployment platforms within ambulatory care service settings. Personal digital assistants, ambulatory care, and point of care are defined and the interrelatedness of each discussed. Issues, controversies, and problems such as mapping existing workflows, security, and change management are identified, and solutions are suggested for the process of transforming predominantly paper-based

ambulatory care systems into electronic point-of-care (ePOC) systems. A current research and development project, the ePOC PDA project, is used as a case study to highlight discussion points. The purpose of this chapter is to illustrate end-user implications and considerations when introducing ePOC systems into ambulatory care service settings and highlight ways and means of improving future levels of acceptance and support of ePOC systems for clinician end users.

Introduction

A paradigm shift within community-based healthcare delivery is under way with regard to clinical-information access and diffusion. Personal digital assistants (PDAs) as mobile health information system deployment platforms are set to move beyond traditional wired networks within bricks–and-mortar hospital walls and increasingly find a place in ambulatory care service settings. Driving this shift is the dichotomy of increased demand for community-based healthcare services (from a growing, aging population) and government e-health technology implementation initiatives (such as the Australian federal government's Health Connect) to enable healthcare services to meet future needs. A convergence of features (computing, telecommunications, and multimedia) into a single device (PDA), increasingly ubiquitous wireless access throughout metropolitan and regional communities, and increased familiarity and acceptance of mobile devices in general as a result of the trend toward mobile computing users ("road warriors") point toward PDAs as ideal platforms for ambulatory care information systems.

PDAs for ambulatory care offer benefits such as the ability for the collection, delivery, and exchange of timely information (both text and images) at the point of care (Walsh, Alcock, Burgess, & Cooper, 2004), leading to a more efficient healthcare system (NSW Health, 2001). PDAs deployed in such contexts empower clinicians, improve decision making, and facilitate improved levels of patient care at the point of care. However, effective management of the development and integration of such mobile systems with regard to end-user acceptance is essential if proposed benefits from this paradigm shift are to be realized. A technically sound, elegant system solution does not in its own right constitute a successful system. Failing to handle correctly the people side of the system has turned technically sound systems into implementation failures (McNurlin & Sprague, 2005). Therefore an understanding and appreciation of the myriad implications of electronic point-of-care (ePOC) systems upon clinicians, the intended end users of such systems, is essential.

This chapter discusses the broad theme of clinician-centric end-user acceptance toward the adoption of PDAs as mobile-based health information deployment platforms within ambulatory care service settings. This is achieved through addressing

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