This chapter appears in the book, *Clinical Knowledge Management: Opportunities and Challenges,*
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Chapter X

Clinical Knowledge Management:
The Role of an Integrated Drug Delivery System

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Abstract

*Issues and complexities that arise from the adoption of clinical knowledge management
are explored within the context of delivering drugs to the lungs. The move towards
electronic data capture and information retrieval is documented together with cross-
organisational working and sharing of clinical records. Key drivers for change are
identified and their effects on, for example, the patient-clinician relationship are
investigated. Conclusions drawn indicate the crucial role that all stakeholders play
to bring about effective and efficacious patient care.*

Introduction

Clinical knowledge management is the discipline concerned with the collection, process-
ing, visualisation, storage, preservation, and retrieval of health related data and infor-
mation, whether on an individual patient or a clinical specialty. Its successful adoption
into daily clinical practice requires the use of new technologies such as: electronic health

records; standardised medical terminologies, tools and methods to support speedier retrieval and dissemination of clinical information; and reliable networks to facilitate electronic communication in "real time." Recent advances in Information and Communication Technologies (ICTs) have facilitated the development of mobile communications, offering the opportunity for integration into existing and planned clinical information systems, and offer solutions for data capture and information retrieval at the point of care. Hidden organisational and cultural complexities arise from the anticipated use of ICTs, such as training needs, clinical acceptance, and a shift in empowerment within the patient-clinician relationship towards the patient. Addressing these issues requires commitment, application and tenacity from all stakeholders involved in the healthcare process.

The management of any clinical condition has traditionally been viewed as a clinician's domain. Data collection and information dissemination is still seen in some places as the preserve of an individual clinician with little evidence of sharing clinical knowledge. However, this established model of care in the UK is now being replaced by patient-centred care in which the patient is viewed as an equal partner in the care process. The Department of Health (DH) is committed to bringing together patients, carers and clinicians to create informal and formal relationships that support the self-management of chronic conditions. The DH also recognises this shift in responsibility for healthcare provision in its publication of documents such as "The Expert Patient" (Department of Health, 2001a). The "NHS Plan" (Department of Health, 2001b) developed from consultations with patients, is committed to the development of 'high quality patient-centred care' along with the development of modern ICT systems in primary and secondary care. It acknowledges the effective role that patients can play in the effective management of chronic diseases. Key elements of patient-centred care include, a patient's right to have access to their own medical records, access to identified and appropriate clinicians for treatment, access to information relating to waiting times, information on adverse drug effects and care planning, and the expectation that clinicians will keep accurate and accessible healthcare records. Patient knowledge is recognised as a beneficial asset to the healthcare process and as such is becoming a valuable tool in terms of the management of chronic conditions. In the specific area of management of chronic diseases, the opportunity to capture home-based data offers patients, carers and clinicians the possibility to add value in terms of increasing knowledge to manage the care process more effectively and as a consequence, empower key stakeholders in the healthcare experience.

Clinical Records Management

A medical record relating to an individual patient is a collection of information that relates to distinct episodes of care. In the past, medical records were associated with one particular GP Practice or secondary healthcare organisation. In the early days of the NHS, patient notes were exclusively hand-written. Recipients of the information complained that they could not read handwriting, the information contained in the document was not always appropriate to the clinical need at that moment, and that too many documents did

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