

Chapter 1.16

Knowledge Management in Healthcare

Sushil K. Sharma

Ball State University, USA

Nilmini Wickramasinghe

Cleveland State University, USA

Jatinder N.D. Gupta

University of Alabama in Huntsville, USA

ABSTRACT

Healthcare organizations are facing many challenges in the 21st Century due to changes taking place in global healthcare systems. Spiraling costs, financial constraints, increased emphasis on accountability and transparency, changes in education, growing complexities of biomedical research, new partnerships in healthcare and great advances in IT suggest that a predominant paradigm shift is occurring. This shift is necessitating a focus on interaction, collaboration and increased sharing of information and knowledge which is in turn leading healthcare organizations to embrace the techniques of Knowledge Management (KM) in order to create and sustain optimal healthcare outcomes. This chapter describes the importance of knowledge management systems

for healthcare organizations and provides an overview of knowledge management technologies and tools that may be used by healthcare organizations.

INTRODUCTION

Knowledge Management (KM) is an essential tool in today's emerging healthcare system. Hospitals that seek to deploy KM systems need to understand the human element in the process. Earlier, success factors were only restricted to a few healthcare variables such as patient care and cost, but over the years, technology (both clinical and administrative) has evolved as a differentiating variable, thus redefining the doctrines of competition and the administration of healthcare

treatments. For example, in today's healthcare environment we are now treating patients with an emphasis on prevention and managing the patient through good health throughout their life. Such an approach requires significant investment in knowledge assets. One of the key objectives of a KM system is to insulate a hospital's intellectual knowledge from degeneration (Elliot, 2000).

Most hospitals are unaware of their acquired knowledge base. Further, knowledge capital is often lost from a hospital through employee attrition, high turnover rates, cost-saving measures and improper documentation (Chase, 1998). Specific KM tools and metrics help focus the hospital on acquisition, retrieval and storage of knowledge assets both tangible and/or other for activities such as learning, strategic planning and decision making (Oxbrow, 1998). This goes a long way in crafting a coherent and well-designed growth plan for the hospital (Allee, 1997, 1999). KM treats intellectual capital as a managed asset. Improved patient care is directly proportional to a hospital's intellectual assets. The tactical expertise and experience of individual workers should be fully captured and reflected in strategy, policy and practice at all levels of the hospital management and patient care activity (Conklin, 1998). The intangible asset of knowledge of the employee can nurture radical innovation in advance planning, change management, hospital culture and well balanced approaches. Fostering a knowledge-sharing attitude and competency of patient care processes are vital for any KM program in healthcare (Burca, 2000; Matheson, 1995). Hospitals managing and sharing their knowledge assets effectively will have benefits of cycle time reduction, cost reduction, improved return on investment, higher satisfaction index, and better medical and paramedical education levels (Antrobus, 1997; Atkins et al., 2001).

KNOWLEDGE MANAGEMENT

Knowledge Management (KM) is an emerging, interdisciplinary business model dealing with all aspects of knowledge within the context of the firm, including knowledge creation, codification, sharing and how these activities promote learning and innovation (Choo, 1998). Unfortunately there's no universal definition of KM, just as there's no agreement as to what constitutes knowledge in the first place (Beckman, 1999). For this reason, it's best to think of KM in the broadest context:

KM is a discipline that promotes an integrated approach to identifying, managing, and sharing all of an enterprise's information assets, including database, documents, policies and procedures, as well as unarticulated expertise and experience resident in individual workers (Wickramasinghe, 2003). There are many dimensions around which knowledge can be characterized such as storage media, accessibility, typology and hierarchy. Each of these dimensions is explained in this chapter (Brailer, 1999; Broadbent, 1998; Skyrme, 2001, 1999, 1998; Davenport & Prusak, 1997, 1998).

Knowledge Storage Media

There are several media in which knowledge can reside including: the human mind, an organization, a document and/or a computer. Knowledge in the mind is often difficult to access; organizational knowledge is often dispersed and distributed; document knowledge can range from free text to well-structured charts and tables; while computer knowledge can be formalized, sharable and often well structured and well organized. In order to effectively manage KM it is important to pay careful attention to the most useful storage media.

10 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/knowledge-management-healthcare/26216

Related Content

Tools and Considerations to Develop the Blueprint for the Next Generation of Clinical Care Technology

Chris Daniel Riha (2019). *International Journal of Biomedical and Clinical Engineering* (pp. 1-8).

www.irma-international.org/article/tools-and-considerations-to-develop-the-blueprint-for-the-next-generation-of-clinical-care-technology/219303

Nursing in Integrative Medicine and Nurses' Engagement in Caring-Healing: A Discussion Based on the Practice and Study of Music Therapy and Nursing Care for Patients with Neurodegenerative Disorders

Chiyoko Inomata and Shin'ichi Nitta (2013). *Technological Advancements in Biomedicine for Healthcare Applications* (pp. 235-239).

www.irma-international.org/chapter/nursing-integrative-medicine-nurses-engagement/70866

Arabidopsis Homologues to the LRAT a Possible Substrate for New Plant-Based Anti-Cancer Drug Development

Dimitrios Kaloudas and Robert Penchovsky (2018). *International Journal of Biomedical and Clinical Engineering* (pp. 40-52).

www.irma-international.org/article/arabidopsis-homologues-to-the-lrat-a-possible-substrate-for-new-plant-based-anti-cancer-drug-development/199095

An Online Neonatal Intensive-Care Unit Monitoring System for Hospitals in Nigeria

Peter Adebayo Idowu, Franklin Oladiipo Asahiah, Jeremiah Ademola Balogun and Olayinka Olufunmilayo Olusanya (2017). *International Journal of Biomedical and Clinical Engineering* (pp. 1-22).

www.irma-international.org/article/an-online-neonatal-intensive-care-unit-monitoring-system-for-hospitals-in-nigeria/185620

Cryopreservation of Spermatozoa: Recent Biotechnological Advancement in Gamete Preservation Technology

Chanakya Nath Kundu, Gopal C. Majumder and Ranjan Preet (2011). *Biomedical Engineering and Information Systems: Technologies, Tools and Applications* (pp. 277-302).

www.irma-international.org/chapter/cryopreservation-spermatozoa-recent-biotechnological-advancement/43306