# Chapter 7.1 "Do No Harm": Can Healthcare Live Up to It?

# Nat Natarajan

Tennessee Technological University, USA

#### Amanda H. Hoffmeister

Cookeville Regional Medical Center, USA

# **ABSTRACT**

The healthcare sector is a very important one in many countries and faces numerous quality and performance problems of great significance to all citizens who live there. Although there are many performance parallels between healthcare and other sectors, there are also numerous special issues and terminology, as well. Recent publications on medical errors have put the spotlight on the issue of safety in healthcare. There are opportunities for the healthcare sector to learn from other industries where many techniques and practices for preventing errors have already proved their worth. It is important and beneficial to encourage healthcare specialists to learn from other sectors the concepts, best practices, and tools for preventing errors and improving safety. This chapter addresses the key issues and challenges relating to the management and transfer of such knowledge and places them in the context of quality and knowledge management.

#### INTRODUCTION

Public spending on healthcare in Germany, France, Canada, UK, US, Australia, and Japan is at least 5% of their respective Gross Domestic Products (GDPs). In the US, UK, Australia, and Canada major health reforms have been proposed (*The Economist*, 2003). The total spending (public and private) in the healthcare sector in the US accounts for roughly 14% of its national income. In the US, the federal and state governments are the largest payers for healthcare services. The

last decade has witnessed increasing attention to the healthcare-related issues such as widening coverage for access to healthcare, cost containment, quality of care, and regulation. These issues have been debated in legislative, academic, and professional forums. Issues concerning safety and quality have recently been in the public limelight. Recent publications have increased public awareness of safety or lack thereof in healthcare systems. They are the Institute of Medicine's (IOM) study titled To Err is Human: Building A Safer Health System (Institute of Medicine, 2000) and the follow-up report that was triggered by it, Report of the Quality Interagency Coordination (QuIC) Task Force to the President (Quality Interagency Coordination Task Force, 2000). The second report of the IOM, Crossing the Quality Chasm: A New Health System for the 21st Century (Institute of Medicine, 2001) goes beyond safety and identifies other areas where the need for improvement is urgent. Safety is viewed as one of the dimensions of healthcare performance. Effectiveness, patient-centeredness, timeliness, efficiency, and equity are the other dimensions. One of the ten recommended principles to guide the design of health systems is that safety should be system property (Institute of Medicine, 2001). The patient safety issue is not confined to the US. In the UK, a report published in June 2000 estimated 840,000 incidents and errors occur in the National Health Service (NHS) every year (BBC News, 2001).

# QUALITY MANAGEMENT IN HEALTHCARE

The traditional approach to quality management in healthcare has relied on licensure, certification and accreditation, and the use of chart review methods. Over the years, a number of organizations have been involved in the development and deployment of these structural quality assurance mechanisms. Most notable are the Joint Commis-

sion on Accreditation of Healthcare Organizations (JCAHO), Commission on Professional and Hospital Activities (CPHA), Regional Medical Programs (RMPs), Experimental Medical Care Review Organizations (EMCROs), Professional Standards Review Organizations (PSROs), and Peer Review Organizations (PROs). In one sense, these organizations form the backbone of the regulatory structure of the healthcare industry. Thus, the traditional quality management was externally driven. The positive aspect of this system is that it provides safeguards to the public in terms of standards of healthcare and minimal competence of the healthcare professionals and ensures at least minimal participation of those professionals in quality management activities (Williamson, 1991). Its shortcomings are that it uses the negative incentive of punishment in the cases of non-compliance, and the underlying premise seems to be that sanctions are needed to ensure quality. It does not promote learning. It also involves a lot of paperwork, absorbing time and effort while achieving only modest improvements.

In the last 15 years or so, there have been many instances where the healthcare organizations have used the principles that underlie the industrial quality control model (Chesanow, 1997). These are the principles of total quality management (TQM) and continuous quality improvements (CQI) that have been successfully implemented in the manufacturing sector.

Briefly, these principles can be summarized as follows (Berwick, Godfrey & Roessner, 1990a): (1) productive work is accomplished through processes; (2) sound customer-supplier relationships are absolutely necessary for sound quality management; (3) the main source of quality defects is problems in the process; (4) poor quality is costly; (5) understanding the variability of processes is a key to improving quality; (6) the modern approach to quality is thoroughly grounded in scientific and statistical thinking; (7) total employee involvement is critical; (8) qual-

13 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: <a href="www.igi-global.com/chapter/harm-can-healthcare-live/26343">www.igi-global.com/chapter/harm-can-healthcare-live/26343</a>

# **Related Content**

# Biomedical Application of Multimodal Ultrasound Microscope

Yoshifumi Saijo (2013). *Technological Advancements in Biomedicine for Healthcare Applications (pp. 27-35).* www.irma-international.org/chapter/biomedical-application-multimodal-ultrasound-microscope/70845

### Clinical Safety and Quality Management in Health IT

Benedict Stanberry (2008). *Ethical, Legal and Social Issues in Medical Informatics (pp. 156-185).* www.irma-international.org/chapter/clinical-safety-quality-management-health/18615

# Comparison of Stresses in Four Modular Total Knee Arthroplasty Prosthesis Designs

Ahilan Anantha Krishnan, Rupesh Ghyarand Bhallamudi Ravi (2016). *International Journal of Biomedical and Clinical Engineering (pp. 1-16).* 

www.irma-international.org/article/comparison-of-stresses-in-four-modular-total-knee-arthroplasty-prosthesis-designs/170458

# Biomedical Robotics for Healthcare

Kenoki Ohuchidaand Makoto Hashizume (2013). *Technological Advancements in Biomedicine for Healthcare Applications (pp. 200-205).* 

www.irma-international.org/chapter/biomedical-robotics-healthcare/70862

# Elimination of Power Line Interference in ECG Signal Using Adaptive Filter, Notch Filter and Discrete Wavelet Transform Techniques

Srinivasa M.G.and Pandian P.S. (2019). *International Journal of Biomedical and Clinical Engineering (pp. 32-56).* 

www.irma-international.org/article/elimination-of-power-line-interference-in-ecg-signal-using-adaptive-filter-notch-filter-and-discrete-wavelet-transform-techniques/219305