

# Chapter 4

## Application of Quality Management in Promoting Patient Safety and Preventing Medical Errors

**Ali Mohammad Mosadeghrad**  
*Tehran University of Medical Sciences, Iran*

**Abraha Woldemichael**  
*Mekelle University, Ethiopia*

### ABSTRACT

*The combination of healthcare professionals, processes and technologies bring significant benefits for patients. However, it also involves an inevitable risk of adverse events. Patients receiving health care in health institutions have the potential to experience some forms of medical errors. The word medical error commonly encompasses terms such as mistakes, near misses, active and latent errors. This signifies the complexity and multidimensional nature of the error. The consequences can be costly to the patients, the health professionals, the health care institutions, and the entire health care system. The costs may involve human, economic, and social aspects. Thus, ensuring quality health care can contribute to patients' safety by reducing potential medical errors in practice. This chapter aims to introduce a quality management framework for improving the quality and effectiveness of services, reducing medical errors and making the healthcare system safer for patients.*

DOI: 10.4018/978-1-5225-2337-6.ch004

## **INTRODUCTION**

Health care is not as safe and reliable as it might be. Healthcare delivery is a complex process involving multiple independent agents and clinical pathways. One component of the system is interdependent and interacts with other multiple components. The occurrence of errors during the healthcare services delivery is inevitable. Medical errors are frequently occurring, complex and pervasive public health concerns that pose serious challenges to patient safety and could cause death and injury. The prevalence of the issue is gaining immense attention in recent years.

Unfortunately, the deaths due to preventable medical errors exceed the number of death from road accidents, cancer, or AIDS. Evidence from hospitalized patients consistently revealed high rates of adverse events (McLean, 2015). Preventable medical errors and adverse events are commonly observed in patients receiving care in hospitals and healthcare facilities. For example, evidence from US shows the occurrence of an estimated 161,655 medical errors in 2008 and 170,201 medical errors in 2009. The extrapolated estimate showed that there were more than four million unique injury visits containing more than one million unique medical errors each year in the entire US population (David *et al.*, 2013). Although reports from developing countries are limited, medical errors are worldwide concerns.

Insufficient technical skills and motivation of healthcare professionals, poor quality of infrastructure, equipment, and drugs, and shortcomings in infection control and healthcare waste management particularly in developing countries make the probability of adverse events much higher than in industrialized nations.

Improving healthcare processes and enhancing health care quality are critical and enduring steps in promoting patient safety and reducing medical errors. This can be achieved through improving professional knowledge, meticulous health care delivery, adherence to policy and procedures and safe service delivery, improving institutional transparency and patient involvement in decisions, building good institutional culture and functional monitoring and evaluation.

This chapter presents the details of aspects of medical errors in connection with health care quality, and possible approaches to reduce medical errors and improve patient safety. The overall purpose of this chapter is to introduce a quality management framework to assist healthcare practitioners to improve the quality and effectiveness of services and reduce medical errors and their consequences.

20 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/application-of-quality-management-in-promoting-patient-safety-and-preventing-medical-errors/176496](http://www.igi-global.com/chapter/application-of-quality-management-in-promoting-patient-safety-and-preventing-medical-errors/176496)

## Related Content

---

### Impact of Islamic and Conventional Corporate Governance Mechanisms on Financial Performance of Islamic Banks: Evidence from Malaysia

Jamel Eddine Mkadmi and Khamoussi Halioui (2016). *Ethical and Social Perspectives on Global Business Interaction in Emerging Markets* (pp. 186-203).

[www.irma-international.org/chapter/impact-of-islamic-and-conventional-corporate-governance-mechanisms-on-financial-performance-of-islamic-banks/146096](http://www.irma-international.org/chapter/impact-of-islamic-and-conventional-corporate-governance-mechanisms-on-financial-performance-of-islamic-banks/146096)

### Science and Innovative Thinking for Technical and Organizational Development: From E-Health to Patient-Tailored Therapy through Intelligent Specialization

Tomasz Komendziski, Joanna Dreszer-Drogorób, Emilia Mikoajewska, Dariusz Mikoajewski and Bibianna Baaj (2016). *Organizational Culture and Ethics in Modern Medicine* (pp. 1-17).

[www.irma-international.org/chapter/science-and-innovative-thinking-for-technical-and-organizational-development/141256](http://www.irma-international.org/chapter/science-and-innovative-thinking-for-technical-and-organizational-development/141256)

### Public Policy and the Sustainability of Third Sector Social Enterprises

Chi Maher (2019). *International Journal of Sustainable Entrepreneurship and Corporate Social Responsibility* (pp. 42-56).

[www.irma-international.org/article/public-policy-and-the-sustainability-of-third-sector-social-enterprises/228990](http://www.irma-international.org/article/public-policy-and-the-sustainability-of-third-sector-social-enterprises/228990)

### The Role of a Strategic and Sustainable Orientation in Green Supply Chain Management

Kuo Ming Chu (2016). *International Journal of Sustainable Entrepreneurship and Corporate Social Responsibility* (pp. 40-61).

[www.irma-international.org/article/the-role-of-a-strategic-and-sustainable-orientation-in-green-supply-chain-management/188420](http://www.irma-international.org/article/the-role-of-a-strategic-and-sustainable-orientation-in-green-supply-chain-management/188420)

## Social Entrepreneur's Networks and Institutional Environment: Ties That Bind?

Susana Bernardino, José Freitas Santos and José Cadima Ribeiro (2019).

*International Journal of Sustainable Entrepreneurship and Corporate Social Responsibility* (pp. 1-22).

[www.irma-international.org/article/social-entrepreneurs-networks-and-institutional-environment/233632](http://www.irma-international.org/article/social-entrepreneurs-networks-and-institutional-environment/233632)