Effective QMS Standards for Hospital Services
Comparative Standards of ISO and JCAHO (Hospital Accreditation Standards- HAS)

A thesis in Quality Management   By Sandar Lin (5207C018-0)

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1. Introduction

1.1 Background [1]

Quality Management Systems (QMS) have become the most important improvements means by which businesses improve themselves. Such systems have become an important component of organizational strategies. Many healthcare systems have significantly underinvested in QMS, although it is necessary to implement QMS in order to achieve world-class quality standards.

Quality standards primarily involve discussions and decisions, relating to quality improvements in micro processes. The government's participation in healthcare systems results in the internal acceptance of globally used standards, economic benefits, social benefits, liberalization, high quality standards, safety, and security with respect to Hospital Management Systems (HMS).

The Joint Commission on the Accreditation of Healthcare Organization (JCAHO) and the International Standards Organization (ISO) are the oldest organizations to deal with quality issues, and their standards are the most widely used worldwide. Moreover, their standards are used as the benchmarks in most quality related awards, and they focus on the development of QMS.

A number of researchers have emphasized the fact that comparative standards are used in quality awards. However, no study has directly compared the ISO standards with JCAHO standards as published in the JCAHO's HAS, which can help us understand the distinctions between the two and determine the most effective method for use in HMS. The purpose of the present study is to ascertain the most effective quality standard for HMS by conducting comparisons between ISO's and JCAHO's quality recommendations.

1.2 Aim and Objective of this Study

This study aims to determine the most effective and efficient use of the QMS for HMS on the basis of comparison between the ISO and JCAHO standards, and discuss the advantages and disadvantages of each by developing and establishing a new QMS model. The development of quality standards and the elimination of redundant systems have been shown to decrease errors, encourage sentinel events and improve focal outcomes.

2. Methods of this Study

2.1 Examination prior to study

First, this study examines Total Quality Management (TQM) and discusses in detail activities recommended by the ISO and JCAHO for healthcare organizations. Reforms in the basic standards of quality management, namely, improvement in technological and scientific know-how to developing better healthcare, practices and better safety and environmental legislation are the most effective ways in which hospital QMS can be improved. Finally, this study clearly explains the difference between the ISO and JCAHO standards with respect to hospital QMS.

2.2 Characteristics of the study

The study introduces serviceable standards for hospitals on the basis of the differences between the ISO and JCAHO standards, which can help hospitals achieve their target quality levels with respect to the structure, process and outcome of healthcare. The standards are used to develop an effective model for quality healthcare systems in hospitals in terms of quality assurance.

The ISO and JCAHO follow completely different practices for QMS standardization. To deliver the best possible healthcare services at minimum cost, all steps of the process depending on human effort should be based on reliable data and standards. The comparative standard will thus serve to fill in the gap between the effective methods of the two standards.

3. TQM for Healthcare Systems

3.1 TQM Movement [2]

The term "TQM" has become synonymous with incessant improvement and quality assurance in organizational functions or activities including existing system designs and resources, performance monitoring and readjustment, and so on, in order to continually enhance the organization's products and services.

Table 1 Differences in TQM among Various Sectors

Sector	Prime output	TQM factor
Manufacturing	Physical product	Fitness of purpose; customer satisfaction
Services	Service delivery and transaction	Meeting and exceeding customer expectations
Hospital	Holistic perspective- to deliver health gain, equity, and clinical objectives	Improvements in patients conditions; meeting and exceeding patient and expectation domestic inspection standards

Thus, QMS is a user-driven system, and its fundamentals and focus involves the application of quality principles to design a system that helps the organization achieve its goals, manage exposure to risk, and deliver

value to customers.

3.2 Healthcare Reform Utilizing TQM

Improving the quality of healthcare has become a priority for many developed counties. However, the effectiveness of medical treatment is very difficult to measure and cannot always be guaranteed because it depends on the degree of progression of the disease and hospitals to provide state-of-the-art medical care; that is hospitals should be able to offer the most recently developed devices, techniques, or scientific know-how available at the time.

The characteristics of service delivery systems may be itemized according to the following four categories: intangibility, perishability, simultaneity, and heterogeneity. Further, a services design can be classified as a service factory, service shop, mass service, professional service, or personal service. Organizations such as medical clinics, hospitals, dental clinics, and nurseries are classified as service shops and are very complex both tangible and intangible. This is because in addition to healthcare, hospitals are required to deliver a broad range of services such as housekeeping, food delivery for inpatients, financial support and planning for patients, teaching facilities for medical students, and so on.

4. Standardization

4.1 International Organization for Standardization (ISO)

The ISO is originally the ''European Standard'' and will soon become mandatory for all organizations that wish to conduct business Europe. The ISO standards are based on a process model that is applicable to any firm irrespective of size and industry, including the services industry. In particular, the ISO 9000 series has various standards for all nations, such as JIS Z 9900 and JIS Q 9000 for Japan, BS5750 for United Kingdom, and ANSI/ASQ Q900 for the United States.

The ISO enjoys strong brand recognition among the general population. Thus, most people are keenly aware that a hospital or medical practice with the ISO 9000 series certification will deliver safe and secure healthcare because it indicates that the organization adheres to regulations and practice standards.

4.2 JCAHO

The JCAHO is a non-profit organization based in the United States. It is well known in the healthcare industry for its work in accrediting hospitals. Its aim of improving the quality of care has been actualized through an accreditation process that is centered on on-site, standards- based evaluations.

The JCAHO's purpose is to maintain and evaluate the standards of healthcare delivery through the evaluation and accreditation of the healthcare organizations. To better measure the performance of organizations and meet the needs, expectations, and concerns of clients, the JCAHO has evolved its standards from the previous level of satisfaction with care, treatment, and services to more inclusive standards that consider the perception of care, treatments, and services. Thus the organization is prompt in assessing not only patients' and/or families' satisfaction with the level of care, treatments, or services but also whether the organization meets its needs and expectations.

4.3 Assessment of ISO and JCAHO

In hospitals, QMS is concerned with what should be done to accomplish what is needed. It is the science and art of getting things done effectively through human effort. For science, statistical methods and other scientific techniques and data are employed. This also acts as an art because in QMS, the judgment derived from education, training, and experience is applied with intelligence, compassion, and sympathy.

The apparent result of comparative standards are slightly different, and some standards are very difficult to compare. While the JCAHO's standards are complicated and appropriate only for the healthcare industry, the ISO standards are very simple and flexible and can be applied to any business. Nevertheless, both of these standards aim to develop management such that it is vigorous and progressive, able to work in a dynamic environment by remaining receptive to ideas and geared toward continually improving patient care effectiveness and efficient resource use.

Table 2 HQM according to ISO and JCAHO

Dimension	ISO	JCAHO
Origins	European standard	United States-based
Objectives	QMS requirement	Hospital accreditation policies and standards
Reasons for Implementation	Business goodwill, customer and supplier satisfaction	Business ethics and patient safety
Approach	Process Approach	Evidence-based process approach
Performance measurement	Plan-Do-Check-Act (PDCA)	ORYX
Risk management	Every process	Defined process

Unlike the JCAHO, the ISO considers risk management to be a very important process. In fact, the ISO's risk management system is applied to each and every process within an organization. Thus, the ISO standards are

mainly used in the production industry, and the performance measurement carried out through the PDCA methodology can be deconstructed for use in the services industry.

The JCAHO has established excellent accreditation policies and standards for healthcare, with each standard representing a different business process that enables organizations to achieve their goals and ensure patient safety. Moreover, the JCAHO periodically reviews the following at each accredited organization: assessment care/services, credentialed practitioners, equipment use, infection control, information management, medication management, organization structure, and patient safety. Thus, the JCAHO is particular about each hospital service but does not have a well-established plan for risk management.

5. Effective Standards for Hospital Services

5.1 Improvement in the Quality of Healthcare Standards

Most businesses consider attracting new customers as a major success, but in a hospital a trial not a triumph. Many people believe that it is the doctors who assume full responsibility and can guarantee the effectiveness of the suggested treatments. In reality, not only the doctors, but also all hospital employees must assume responsibility for the well-being of patients. It perhaps looks complicated to those on the outside of the system.

At the very least, doctor, nurses, ward clerks, porters, and pharmacists are involved in the process of deter-mineing a patient's medication regime and delivering the medication. Moreover, the handling medicines is just one of the many tasks that the various staff members in a hospital must deal with in a given time period.
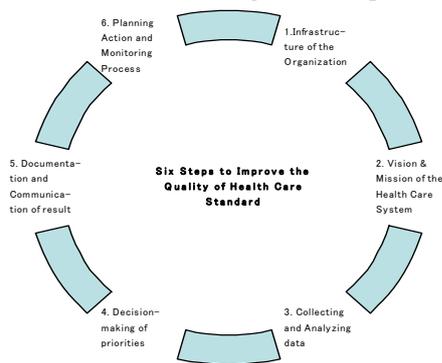
Figure 1 Improvements in the Quality Healthcare Standards

Figure (1) depicts six steps, which have been formu-lated on the basis of this study, to bring about improve-ments in the quality of healthcare. Traditionally, quality assurance standards in healthcare are predominantly, or even exclusively, intended for application to healthcare as provided directly to patients by legitimate healthcare

practitioners. However, we have included other services –which are one level removed from direct healthcare services–that directly affect the ability of practitioners to perform well, such as radiological, pharmaceutical, and laboratory services.

5.2 Proposal of the Management System Model

Comparing the ISO and JCAHO standards, it is possible to conceive quality as a product of healthcare related science and technology and their practical applications. In Table 3, which contains comparison between the types of organizations that follow the ISO and JCAHO standards, we point out the differences between the standards work process recommended by each organization for HMS.

The study indicates the ability to achieve a goal rather than in the outcome itself. Thus, in this capacity, a goal may have been inherent in the medical care given, but for various reasons has to become a qualified methodology.

Table 3 Differences between the Types of Organizations that follow ISO and JCAHO Standards

	ISO	JCAHO
Organization base	Implement the organization framework–based on which all policies and procedures are built –that provides a general set of management principles to dictate how it will perform QC. A heavy emphasis on leadership and accountability, to focus on and write their own plans of action. Hospitals that establish QMS are better equi-pped to reduce cost, manage work-flow and improve health outcome according to ISO.	Monitor the quality of National Patient Safety Goals to promote specific improvements in patient safety. The Joint commission is very costly to certify and annual fees are based on the size and service complexity of individual hospital. In JCAHO which focuses on segments within a hospital's operations in a more holistic approach to implement-ting quality into a facility's entire infrastructure.
Systems	Experience of quality control (QC) with possibly several elements of quality assurance (QA). Performance indicators (PIs) geared towards outputs, though mainly financial. Strongly cost-oriented even in specialist departments like personnel, marketing, and sales. Not necessarily good Information System /Informa-tion Technology (IS/IT), but at least some experience of management on the basis of mainly quantitative information.	Little experience of QC and QA except in few areas such as X-ray, doctors' performance, pathology, and medical engineering. PIs based on administration of inputs and quantity of outputs. Perverse incentives operate whereby improvements in productivity (e.g., treating a greater number of patients at lower cost per patient) are penalized by lack of commensurate increase in overall funding. No systems for manage-rial or financial accountability in medical specialists.
Staff	People are recruited, trained, motivated, and rewarded on the basis of output-oriented, profit-driven culture. They have management and financial skills and experience to draw on.	Most people in organization still from era when welfare and ser-vice aspects dominated. Not pri-marily motivated by profit or effi-ciency. Apart from specially recu-rited managers, higher level staff habituated to administrative or professional lines of control, with little or no performance manage-ment training or experience.

Structure & culture	Strongly top-down, management driven, often with tradition of corporate planning and proactive management. Companies are profit-oriented and used to being in a highly competitive internal and external environment.	Decision making process through issue specific, multi-disciplinary groups of administrators and auto-nomous professional's negotia-ting consensus. Process of change often diffuse rather than transmit-ted top-down or bottom-up.
Customer base	Customers can use purchasing power to switch to alternative suppliers who are readily avail-able in most areas of business. Quite well informed about desi-rable aspects of goods and services but not so likely to have knowledge about less desirable aspects.	Customers use the service because they have to, not because they want to (illness not being a sought-after condition). Although this may be less relevant in the case of proactive healthcare. Little or no freedom of choice for most people. Poorly informed about services as consumers.

Outline of the HMS are divided into types of Service and Organization. The type of service represents the time taken to integrate the standards of healthcare and business. From the organization point of view, healthcare considers the concepts of healthcare from a strategic and holistic perspective.

5.3 Distinction of the Management System Model

Another distinction between the JCAHO and ISO standards pertain to their human resource management (HRM) system, which comprises six functions and three processes. The first three functions–which relate to management readiness–include planning, organizing and staffing. The remaining three functions–which pertain to the execution of management functions– are directing, controlling, and reviewing. All the functions are linked in a cyclical system by the processes of communication, coordination, and decision-making.

Table 4 Differences between JCAHO and ISO in term of HRM

JCAHO (HRM)	ISO
Planning	
HR.1.10	5.5.2 (a)
HR.1.20	5.5.1
Disaster Responsibilities	
HR.1.25	5.5.1, 5.5.2
HR.1.30	X
Orientation, Training, and Education	
HR.2.10	6.1, 6.2.1
HR.2.20	6.2.1, 6.2.2
HR.2.30	6.2.2
Assessments of Competence	
HR.3.10	6.2.1, 6.2.2
HR.3.20	6.2.2

According to the JCAHO, the goal of HRM is to ensure that the hospital maintains a staff with the necessary qualifications and competences. Medical progress is based on what ultimately must rest in part on experimentation involving human subjects. The HR

research protocol should always contain a statement of the ethical considerations involved and should affirm that the principles enunciated in the present declaration are in compliance.

The JCAHO standard contains more than one element pertaining to performance, many of which can represent more than one of the ISO standards. The simplest example to illustrate the distinction relates to their respective HRM practices (Table (4)). The simple (X) in Table (4) means that JCAHO standard does not have an ISO counterpart. The corresponding HR processes are shown in Figure (2).
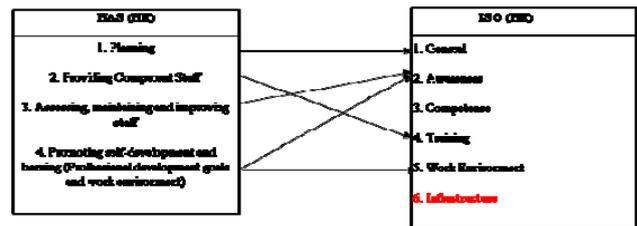

Figure 2 Correspondence between the JCAHO's and ISO's HR Processes

Figure (2) denotes the correspondence between the HR processes recommended by the JCAHO and ISO. Note that the provision for infrastructure provided in ISO is not included in the HAS's HR manual. In the HAS, the element "Infrastructure" is represented in IC.4.15, LD.2.50, LD.3.80, IM.5.10, MS.4.00, and EC.7.20.

6. Discussion

To some extent, the outline of this study are consistent with the suggestions found in the basic literature on QMSs, Environment Management Systems (EMSs), and Information Security Management System (ISMSs) and goals commonly expressed by decision-makers about the results of the information systems.

However, the study goes beyond the general considera-tions and provides a comprehensive understanding of the similarities and differences between ISO and JCAHO standards. In that aspect, our study may contribute to the development of clinical indicators that are relevant to decision-makers and can be presented in ways that ensure their effective use. The results of this study are essentially based on the work of Kaoru Ishikawa, (1985), who was the founding father of the Japanese quality revolution. We conclude by stating that total quality brings out the best in everyone.

7. References
[1] Masaaki KANEKO and Masahiko MUNECHIKA (ANQ 2008), A Study on the QMS model and Introducing and Promoting Method in a Hospital
[2] Michelle Heerey, An Overview of Accreditation and Certification for Improving Heath Service Quality