

Advantages and Disadvantages of Health Care Accreditation Models

*Jafar S. Tabrizi¹, Farid Gharibi², Andrew J. Wilson³

¹ Public Health and Management Department, Faculty of Health and Nutrition, b) National Public health Management Centre, Tabriz University of Medical Sciences, Tabriz, Iran

²Dept. of Health Services Management, Faculty of Health and Nutrition, Tabriz University of Medical Sciences, Tabriz- Iran

³Faculty of Health, Queensland University of Technology, Brisbane-Australia

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ABSTRACT

Background: This systematic review seeks to define the general advantages and disadvantages of accreditation programs to assist in choosing the most appropriate approach.

Method: Systematic search of SID, Ovid Medline & PubMed databases was conducted by the keywords of accreditation, hospital, medical practice, clinic, accreditation models, health care and Persian meanings. From 2379 initial articles, 83 articles met the full inclusion criteria. From initial analysis, 23 attributes were identified which appeared to define advantages and disadvantages of different accreditation approaches and the available systems were compared on these.

Results: Six systems were identified in the international literature including the JCAHO from USA, the Canadian program of CCHSA, and the accreditation programs of UK, Australia, New Zealand and France. The main distinguishing attributes among them were: quality improvement, patient and staff safety, improving health services integration, public's confidence, effectiveness and efficiency of health services, innovation, influence global standards, information management, breadth of activity, history, effective relationship with stakeholders, agreement with AGIL attributes and independence from government.

Conclusion: Based on 23 attributes of comprehensive accreditation systems we have defined from a systematic review, the JCAHO accreditation program of USA and then CCHSA of Canada offered the most comprehensive systems with the least disadvantages. Other programs such as the ACHS of Australia, ANAES of France, QHZN of New Zealand and UK accreditation programs were fairly comparable according to these criteria. However the decision for any country or health system should be based on an assessment weighing up their specific objectives and needs.

Keywords: Quality, Accreditation, Hospital, Health care

Introduction

A feature of good governance of health systems is the demonstration of its effectiveness, efficiency and quality to users, the community and funders. Countries

have taken different approaches to ensuring quality and improving standards in health care services. In some countries, quality assurance in health care has been

left to professional organizations and provider associations with little specific regulation. Participation in quality assurance programs is largely voluntary or driven by funder requirements. In other countries, particularly where the state is the main funder and provider of health care, rigid controls are imposed over the health sector, leaving little scope for professional autonomy and consumer engagement. Unfortunately, this is frequently accompanied by acceptance of minimum standards and little openness in disclosing relative performance [1].

Accreditation of health care systems is increasingly seen as an approach to ensuring health standards in both private and public system for financing and provision of health care. In countries where health care is largely non government funded, it is seen as a light touch approach to ensuring quality and safety and by providers as a marketing advantage. In publicly funded systems, it is seen as a way of providing independent assurance of quality.

In recent decades, the quality movement that has been embraced by the service and manufacturing sectors has spilled into the health care sector. The fundamental quality assurance and improvement theories from Joseph Juran and Edwards Deming, as well as the comprehensive quality management approaches of Total Quality Management (TQM) and Continuous Quality Improvement (CQI), are finding their way into the daily operations of health care organizations around the world. The collection of these factors has created a climate in which decision makers at all levels are seeking objective quality evaluation data on health care organizations. Licensure, accreditation, and certification are systems available to meet the need for quality and performance information. These systems have different purposes and different capabilities [2].

It is proposed as an objective method to verify the status of health service providers and their compliance with accepted stan-

dards [1]. In a various industries, accreditation is recognized as a symbol of quality, indicating that the organization meets certain performance standards, and provides an opportunity for that organization to evaluate their operation against national or international standards [3]. Accreditation is widespread in industry and education and there are many lessons for the health sector air safety, food safety, and childcare [4].

In broad terms accreditation usually involves a voluntary program, frequently sponsored by a non-governmental agency (NGOs), in which trained external peer reviewers evaluate a health care organization's compliance with pre-established performance standards. To develop an accreditation decision regarding a health care organization's capacity to meet available performance standards, a group of qualified peer reviewers carries out an assessment of the organization at designated intervals, normally every 2 or 3 years [1]. Assessment is made by review of documentation of policies, standards, and procedures, interviews with managers, staff, and patients, and sometimes-direct observation of practice [2]. Other benefits reported from engaging in accreditation include increases in team work and internal cohesion, motivation to standardize clinical and administrative procedures, integration and revision of quality agenda, development of internal self-assessment, learning from experiences of reviewers, improvements in hospitals image, and in consumer, purchaser and staff satisfaction [1].

The processes and underlying standards for accreditation must be designed with regard to the needs and expectation of each country. These will be impacted by the types of health system, the level of care it aspires to provide, national rules and cultural, social, political and religious requirements. However, given that the core business of health systems is very similar across countries and health systems, there are likely to be learning from existing system especially

those, which are relatively well-established [2]. Moreover, currently a number of countries are adopting and modifying accreditation systems developed in other countries. Examples include the use in Ireland of the Canadian Council on Health Services Accreditation (CCHSA) system, the use of the JACHO system by many private hospitals in India, and the Australian Council of Healthcare Standards system in Hong Kong [5].

This study aims to identify the key attributes of major established health care accreditation system and examine their relative advantages and disadvantages from the perspective of an emerging economy country such as Iran.

Materials and Methods

The present study is a systematic review. SID, Ovid MEDLINE and PUBMED databases were searched with key words of accreditation, hospital, medical practice, clinic, accreditation models and health care for the period of January 1985 to December 2010. This strategy resulted in 2369 articles. Inclusion and exclusion criteria were articles in English and Farsi, assessing accreditation models, and considering advantages and disadvantages of various accreditation models.

First, titles of all articles were reviewed and 826 articles were excluded due to inconsistency with the study aims and 42 articles were duplicates in both MEDLINE

and PUBMED databases. Second, abstracts of the remaining 1501 articles were assessed and a further 747 articles were excluded because the focus was on methodology and stakeholders perception about accreditation in general. Third, the remaining 754 articles were assessed for reference to attributes and advantages and disadvantages of any accreditation models which was not found in 681 of these papers. This left 73 articles of most relevance to the topic and study aims (Fig. 1).

Further searches for possible literature published in places other than indexed journals was undertaken using internet search engines, potentially relevant websites and library searches. This identified 3 reports and 7 books related to the study aims. In total 73 articles and 10 other sources were included in the reviewed material.

All papers were reviewed by two of the authors and attributes or themes identified in any paper were listed. This produced a list with many common aspects and this was consolidated into the list of items, henceforth referred to as attributes as shown in Table 2. Each program was then considered against those attributes drawing on the information from all the reviewed papers. A star rating system is used to indicate the extent to which each program was qualitatively assessed as having positive aspects of each attribute.

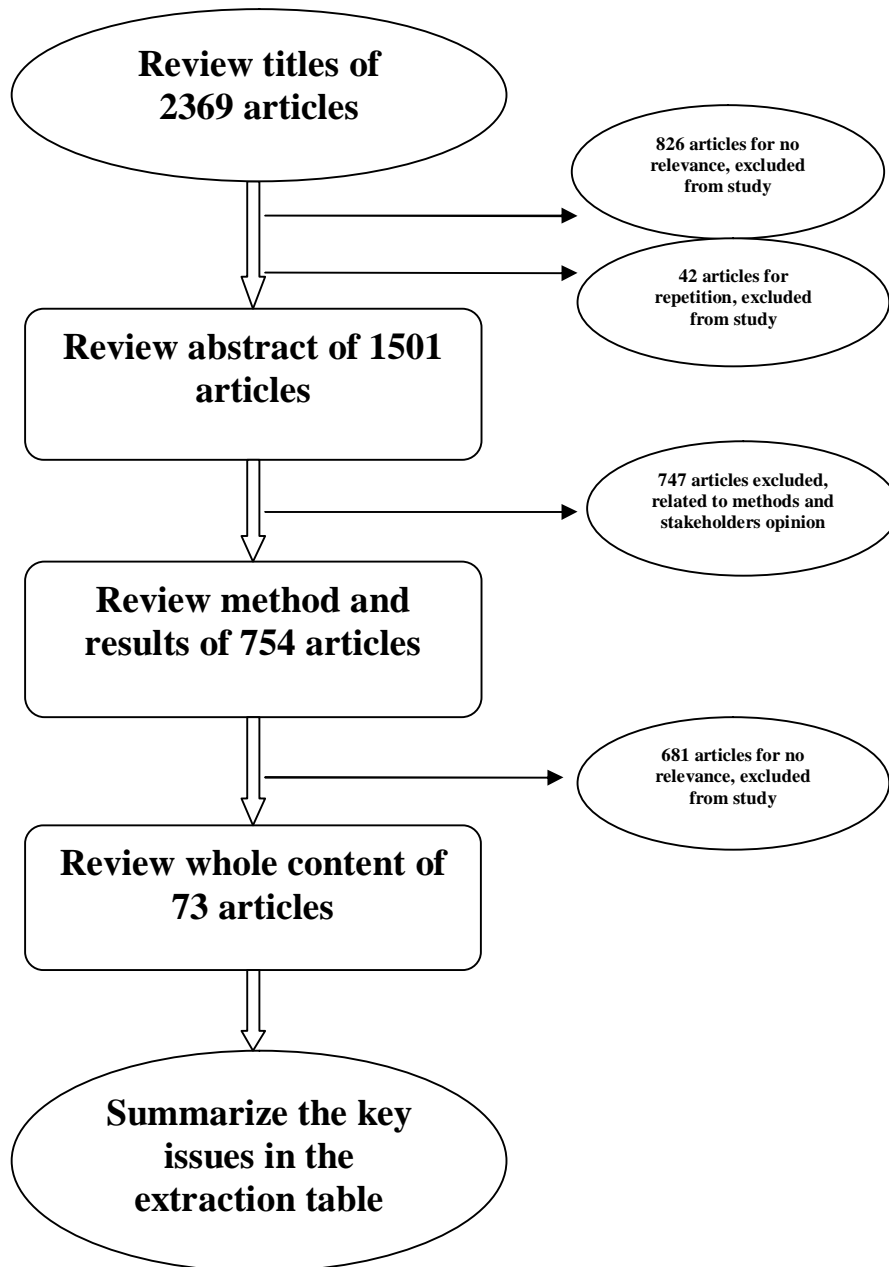


Fig. 1: Systematic Review approach for searched articles

Results and Discussion

The main results of this study were summarized in the extraction tables in Appendix 1. Table 1 shows the frequency of citation of different accreditation programs in the identified literature. The most cited program is the US based JCAHO/JCI which was referred to in 91% of the papers reviewed here. This was well in front of the nearest rival, the Canadian, UK and

Australian based programs which were referred to in about 1 in 5 papers.

Table 2 lists the attributes of program attributes against the identified accreditation programs. In keeping with the level of citation of the JACHO program, it met all the attributes at a high level. This program has the strongest focus on quality, design of standards to identify and prevention of injury in health care, use of wide and suitable quality indicators, emphasis on "best practice"[6-26]. Among the other pro-

grams, the Australian ACHS program, has a special focus on the improvement of clinical care, and involves specialists in the formal quality activities using quality programs such as CEP [11]. The Canadian CCHSA program has a stronger emphasis on continuous quality improvement [27].

Processes for ensuring patient and staff safety are one of the main purposes of accreditation programs. This is reflected strongest in the JCAHO model. This program requires the health care organizations to have safety team or leader. It highlights critical process issues such as performance assessment for hazardous medicine management, safety tests for point-of-care technology (including accuracy), universal protocols for preventing wrong site, wrong procedure and wrong person in surgery or invasive procedures, the compulsory reporting of adverse drug or other events and root cause analysis of all adverse events [7-9,11,17,18,28-45]. The CCHSA is the other program with a particular strong focus on safety. The CCHSA Environment standards include provisions regarding the safety of equipment, supplies, medical devices and space, and focus on the appropriateness of furniture and equipment for customers' age [46].

The third attribute, improving integration and management of health services, was also strongly reflected in comments about the JACHO program [10,12,19,22,27,47-49]. The JCAHO accreditation program is noted for its performance indicators such as the QIO (The Quality Improvement Organization) indicator of Medicare and Medicaid or ORYX (performance measurement systems). The intent of these attributes is the extent of standardization of procedures, such as deliver of rapid results to patients outside the laboratory [8]. This is also a strong feature of the CCHSA [22,27,50].

Providing a database to publish accreditation information and comparisons among health care organizations is another purpose of accreditation. JCAHO and its inter-

national version (JCI) are the only programs reported to have established a database for comparison between accredited organizations [22,51].

A key purpose of accreditation is to strengthen the public's confidence in the quality of health care. Public reporting is one aspect of this but so is stakeholder engagement. The JCAHO and CCHSA programs seemed to be stronger than other programs in on this indicator [4,6,7,11,17-19,22,28,46,52-54].

The effectiveness and efficiency of health care services is of increasing interest to government, funders, and consumers. None of the programs was strong on this attribute [55].

Internationalization is one attribute of broader acceptance of programs, although clearly it also reflects active marketing. JCAHO has established a specific international branch, the JCI, which appears to be unique to this program. It is also evident that JCAHO is actively collaborating with the WHO as a consultant body to reduce medical errors [1,9,56], and with the USAID and other international organizations [57]. Other programs such as the ACHS also have international activity, but this appears to be at a lower level.

Innovation and currency are two important attributes for quality assurance organizations so evidence of regular updating of standards and development of standards for new fields is important. JCAHO regularly updates their standards [10,13-15,42,47,51,58-66], was the first program to introduce QI (Quality Improvement) programs to the health care industry [10], introduced special standards for pain management [60,62,67,68], hospital libraries [51,63,66], tobacco smoking control in the health care centers [58] and pastoral care [59]. Other programs have also responded to new areas or local needs, for example CCHSA introduced standards for Telehealth [50,69] and ANAES of France established accreditation of colleges [70].

An important attribute of the standing of different programs is the extent to which they influence global standards and other accreditation programs (the role of reference program). According to the WHO reports, the JCAHO, CCHSA, ANAES, and ACHS programs have had the most influence on the global accreditation standards [56]. According to the peak international quality standards organization, ISQua the programs from USA, UK, Canada, Australia and France were the most influential on the European accreditation standards. Attention to patients' rights and creating an ethical environment in the health care centers are important issues in health care quality. The JCAHO program pays excellent attention to the effective communication with patient, providing required information to them, patients' essential rights in health care centers, and the importance of effective informed consent. It also has a strong focus on other patient centered standards for example in palliative care and pain management, and overall patient satisfaction [11,16,20,27,60-62,67,68,71-76]. For health care organizations, information management is a key determinant of business efficiency, effectiveness, and quality. JCAHO and CCHSA have the most emphasis on the evidence-based decision-making through efficient information management. The New Zealand QHZN program is also notable in this domain. [3]. JCAHO has a special focus on patient centered information and medical documentation [3]. The CCHSA has more emphasis on staff education in the health care centers but the JCAHO has the most comprehensive standards in medical documentation, data security, and confidentiality [3]. Moreover, JCAHO and JCI programs encourage health care organizations to use computer technology for exploring adverse events, accelerating laboratory and pathology results and providing accurate information to health care managers [3,45,52,77].

The length of time (history) that a program has continued is a marker of its sustainability. JCAHO is the oldest accreditation program in the world with lineage back to a program established by the American Surgery Association in the 1917. The CCHSA was established in 1957 and the ACHS in 1975.

Creating effective relationship with all stakeholders is important because customer centeredness is a philosophic and significant principle of quality improvement. In the majority of accreditation programs, the patient survey (assessing the quality of care from the patient perspective) is mandatory, but only in the NCQA of USA and EQUAM of Switzerland programs are the results of patient survey related to the accreditation process [6]. JACHO has a specific process to receive input from stakeholders. In the recent years, JACHO has added six seats to its governing board and designated them as public member seats.

All of accreditation programs incorporate some aspects of public disclosure and public awareness programs, but JCAHO has more emphasis on public information and informing the public about all required information in detail [4,22,52-54].

The AGIL attribute is based on the concept of balancing the four dimensions of performance, Adaptation (the ability to survive and grow in a changing environment), Goal focus (the extent to which it pursues efficiency, effectiveness and customer satisfaction), Integration (the extent to which productive activity is well aligned with core business) and Latency (the values and culture of the organization). As assessed in the reviewed literature, the JACHO and CCHSA programs were seen as best achieving this balance [56].

The breadth of activity is an attribute of the informational, equipmental and logistical scope of the accreditation program. The JCAHO program has the widest accreditation scope accrediting all health centers including hospitals, home care centers;

acute care, heart acute care, ICU, long-term care, managed care and health care networks. [2,4,5,13-15,21,78,79]. The CCHSA, ACHS and QHNZ have similar coverage to each other [2,4,79].

The International Society of Quality in Healthcare (ISQua) is the peak international body on health care quality activity and provides an accreditation of accreditation programs. ISQua certification means that accreditation organization has achieved the highest level of quality in the accreditation field. Only the JCAHO (JCI), CCHSA, and ACHS programs have achieved ISQua certification [9].

To take a comprehensive picture of health care organizations' performance accreditation standards need to cover the three domains of structure (resources and inputs), process, and outcomes. The JCAHO, CCHSA and UK accreditation programs explicitly consider all three types of standards [2,54].

The intent statements are critical elements of accreditation programs as they guide the surveyor's assessment. They need to be comprehensive with detailed guidance explanations The JCAHO, CCHSA, and ACHS have appropriate intent statements [2].

Voluntary participation is seen as a positive attribute of accreditation processes because participation in and of itself is then seen as a priority for the organization. Most accreditation programs are voluntary although governments and funders can prescribe participation as a requirement for full or partial reimbursement or funding. While several health systems actively promote participation, only the French I AN-AES program is compulsory [2,4,79].

The independence of accreditation programs from government and funders is seen to be a critical aspect of good programs. Only the French and New Zealand programs were established, funded, and managed by their governments [4].

The intensity and workload of an accreditation program is an important

consideration in selecting a reference accreditation program, as is the level of qualifications and training required of surveyors. The JCAHO program is the most intensive with multiple surveys per year and consequently the highest cost. JCAHO requires the highest educational level (MSc or PhD) and this organization spends the most amount of money for staff training programs [1,4,23,53,78,80].

The purpose of this study was to assess the advantages and disadvantages of established accreditation programs in order to select the best reference program for developing a nation specific health care quality improvement and accreditation program. The researchers reviewed published papers and other sources to identify the most important attributes for accreditation programs to enable comparison between the many of the programs currently available in the world.

Based on this analysis the accreditation program of the JCAHO provides the most comprehensive coverage and was ranked high on most but not all attributes. As the longest running program it has influenced most other existing programs and continues to be a major international trend setter in accreditation. However, it is also likely to be one of the most expensive because of the intensity of surveys, the qualification and training levels expected of staff, and the level of standards required achieving accreditation.

JCAHO ranked highly on its focus on quality and safety, management integration, public reporting and public confidence building, and breadth of activity. It had the highest national and international profile and influence. It was clearly responsive to innovation and to maintaining currency in this standing. It has a strong focus on patient rights and creating an ethical environment. Communication and information management were also a key feature.

It is important to note that while several of the programs could be appropriate refer-

ence programs, any new program will have differences to the reference model reflecting specific national characteristics of the health system, culture and standards. There

is a strong view that accreditation programs need to be independent of government and funders.

Table 1: Frequency of citation of different accreditation programs

The program name	Frequency	Percent
JCAHO and JCI (USA)	76	91.56
CCHSA (Canada)	17	20.48
UK accreditation programs	16	19.27
ACHS (Australia)	15	18.7
QHNZ (New Zealand)	9	10.87
ANAES (France)	8	9.63
COHSASA (South Africa)	5	6.02
Other programs	11	13.25
Total	83	100

Table 2: The comparison between accreditation programs based on 23 defined attributes

Organization name	JCAHO	CCHSA	ACHS	ANAES	QHNZ	UK programs
Attributes						
Effect on quality improvement	****	**	**	*	*	*
Effect on safety improvement	****	**	*	*	*	*
Improving health care management integration	***	**	*	*	*	*
Provides health care organizations database	*					
Designing an international branch	*	-	-	-	-	-
Influenced other accreditation programs	***	*	*	*	*	*
Evidence of public confidence in process	****	**	*	*	*	*
Emphasis on efficiency and effectiveness	***	**	*	*	*	*
Evidence of ongoing innovation	****	**	*	*	*	*
Influence on global accreditation standards	****	**	*	*	*	*
Emphasis on patients' rights and providing an ethical atmosphere	***	*	*	*	*	*
Focus on information management	***	*	*	*	*	*
History of organization	****	***	**	*	*	*
Effective relationship with stakeholders	***	**	**	**	**	**
Outcomes suitable for public reporting)	***	**	**	**	**	**
Agreement with AGIL indicator	***	***	*	**		
Breadth of activity scope	***	**	**	*	**	*
Accredited with ISQua	*	*	*	-	-	*
Considers all 3 types of performance indicators	*	*	-	-	-	*
Clear Statement of Intent	*	*	*	-	-	-
Voluntary Participation	*	*	*	-	*	*
Government/non Government Organizations	*	*	*	-	-	*
Span of coverage and scientific level	****	**	*	*	*	*

Conclusion

This review has identified a list of attributes that can assist in choosing a potential reference program or model for the development of nation specific health care accreditation programs. Based on the largely published literature, the JCAHO program appears to be the most comprehensive for reference purposes. However, there are likely to be biases in that assessment because it is the most widely used and longest running, therefore the most written about.

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Appendix:

The Summery of Systematic Review Results Based on Advantages and Disadvantages of Accreditation Models and Programs

Author/ Year	Country	Study Purpose	Study Design	Results:	
				Advantages	Disadvantages
Auras & Geraeots 2010	Germany	To describing content, method and scope as well as differences, commonalities and unique features regarding the integration of patients experience data into international practice accreditation programs (The comparison of 9 accreditation programs from Germany (QEP, STPS & KTQ), Switzerland (EQUAM), UK (QPA), Netherland (NPA), USA (JCAHO & NCQA) and Australia (AGPAL)	Systematic comparative analysis	<ul style="list-style-type: none"> - In QEP, STPS, EQUAM, QPA, NPA, JCAHO & NCQA the patient survey (service quality and satisfaction) is mandatory. - EQUAM, QPA, NPA & NCQA are use of structured patient survey - In the NCQA & EQUAM patient survey results relevant to accreditation 	<ul style="list-style-type: none"> - In the KTQ & AGPAL the patient survey is not mandatory. - In the QEP, KTQ, AGPAL, JCAHO don't use of structured patient survey - In the STPS, KTQ, QPA, NPA, JCAHO & AGPAL patient survey results don't relevant to accreditation
T. Smith 2010	UK	To emphasis on culture relationship within organizations between managers and professional, and patients and incentive ways of rewarding behavior to enhance quality	Review study	<ul style="list-style-type: none"> - In 2008 JCAHO emphasis on organizational responsibility for patient safety. - JCAHO standards require leaders of organizations to create a culture of safety, implement patient safety programs, ensure adequate and timely responses to adverse events when they occur. - Most of these recommended policies and practices are based on well-established researches evidence or expert consensus. - This organization emphasis on "best practice" in all situations. 	---
R. Saitz 2010	USA	To describe the performance measures of JCAHO to addressing unhealthy substance use in hospitalized patients	Descriptive study	<ul style="list-style-type: none"> - The JCAHO recently propose performance measures addressing unhealthy substance use in hospitalized patients. - for this order JCAHO introduced SBI (screening and brief intervention). 	---
S. Miller 2009	Australia	To provide an overview of existing practices in surveyor management and identify elements of best practice in the management of surveyors (compares between JCAHO, CCHSA, ACHS, KFOA, HAP & NZC)	Report	<ul style="list-style-type: none"> - In the six accreditation bodies, JCAHO had the most stringent requirement in terms of surveyor education qualification and training. - Surveyors employed by JCAHO generally have an advanced degree (i.e. master's or doctor's degree), undergo more intensive orientation, initial training, assessment and certification process, and undertake a higher volume of surveys per years. 	---
Felix & colleagues 2009	USA	To describe the development and passage of Arkansas Act 134 of 2005, the first state life to prohibit the use of tobacco product on the grounds of all nonfederal community hospital facility in the state	Descriptive study	<ul style="list-style-type: none"> - In 1992, the JCAHO created the first health industry-wide workplace smoking ban with passage of standards requiring acute-care hospitals to prohibit indoor smoking to receive JCAHO accreditation. - The indoor smoking ban in hospital significantly reduced tobacco consumption among employees, reducing exposure to EST, and positioned hospitals to serve as a role models in encouraging other businesses and organization to adopt similar policies. 	---

Author/ Year	Country	Study Purpose	Study Design	Results:	
				Advantages	Disadvantages
F. EL-Jardali & colleagues 2009	Lebanon	To assess the perception of HR managers about the challenges they face and current strategies being adopted	Cross-Sectional study	<ul style="list-style-type: none"> - In Lebanon accreditation standards, development of HR strategic plans is one part of requirements. - The upcoming accreditation survey of Lebanese hospitals presents an opportunity to strengthen HR management and enhance competencies of existing HR managers. 	---
D. P. Pasternak 2008	Dubai (UAE)	To enumerates the risks addressed and the standards and international patient safety goals that address them	Descriptive study	<ul style="list-style-type: none"> - The main emphasis of JCI standards is always on quality of patient care and reduction of safety risk to patients. - The JCI standards for patient care entities have a paucity of references to POC testing. - JCI standards address the risks involved by dealing with issues of patients' assessment, care planning, quality management, governance and leadership, medical equipment management, human resource management and the international patient safety goals. 	---
F. EL-Jardali & colleagues 2008	Lebanon	To assess the perceived impact of accreditation on quality of care through the lens of health care professionals, specially nurses	Cross-Sectional study	<ul style="list-style-type: none"> - The high score for the variable "quality results indicates that nurses perceived an improvement in quality during and after the accreditation process. - Predictors of better quality results, leadership, commitment and support, use of data, quality management, had the greatest impact in medium-sized hospitals while the subscale measuring involvement had the greatest impact in small-sized hospitals. 	<ul style="list-style-type: none"> - In order to make accreditation an effective regulatory instrument, there is a need to assess quality based on patient outcome indicators. In Lebanon's' accreditation program, this issue was neglected from this fact. - The impact of Lebanon's' accreditation program on hospitals with different size is note same.
Cadge & colleagues 2008	USA	To examines the presence and absence of chaplaincy or pastoral care services in hospital using the American Hospital Association Annual Survey of Hospital in 1980-1985, 1992-1993 and 2002-2003	Descriptive study	<ul style="list-style-type: none"> - Over the past 25 years, JCAHO has changed its guidelines regarding religious/spiritual care of hospitalized patients to increase attention concerning this aspect of hospital based care by provision of hospital chaplaincy. 	---
G. A. Tuttle 2008	USA	To reporting about consultation in medical services	Report	<ul style="list-style-type: none"> - The JCI accreditation program are based on an international set of standards comparable to us domestic standards, which have been characterized by international consensus, quality management and patient safety, but don't reflect US laws and regulations. - JCI accreditation standards also address the care of patients after discharge to ensure the continuity of care that patient received. - In August 2007, JCI received accreditation by the International Society for Quality in Healthcare (ISQua). - In 2005, WHO partnered with JCAHO and JCI to eliminates medical errors world wide and improve patient safety as part of the WHO alliance for patient safety. 	---
Maslow & Mezey 2008	USA	To describe the try to recognition of dementia in hospitalized older adults	Descriptive study	<ul style="list-style-type: none"> - Joint Commission patient safety goals specifically address falls and pressure ulcers and also require a face-to-face assessment and documentation for all patients in physical restraint, a1nd inappropriate use of restraint can results in loss of accreditation. 	---

Author/ Year	Country	Study Purpose	Study Design	Results:	
				Advantages	Disadvantages
Bever & colleagues 2008	USA	To provide a general background on the quality improvement movement in health care along with an introduction to some of the major issues that are currently important	Descriptive study	- Formal QI did not enter health care until the 1980s, when the JCAHO mandated QI and performance measures (outcome and process) for hospital accreditation.	---
R. K. Crone 2008	USA	To introducing of trends in globalization in health care	Descriptive study	- JCI has become a significant tool to help hospitals to attract patients and staff and competitive globally. - The number of hospitals and health centers that accredited by JCI is rising.	---
L. Murphy-Knoll 2007	USA	To provide an update for readers on how low health literacy puts patients at risk	Descriptive study	- The JCAHO's standards underscore the fundamental right and need for patients to receive information about their care in a way in which they can understand.	---
Smits & colleagues 2007	Canada	To compare the conceptualization of performance underlying different accreditation manuals (compare of main accreditation models from USA, Canada, France and Australia)	Comparative study	- From the WHO view, USA, Canada, France and Australia are the countries that have the most impact on accreditation standards in the world. - The USA and Canada accreditation models are the best represented the dimensions of performance (AGIL indicator).	---
Greenfield & Braithwaite 2007	Australia	To provide a review of health sector accreditation research literature	Book	- Hospitals that not surveyed by JCAHO had, on average, lower quality and higher thirty-day mortality rates than did surveyed hospitals (in hospitalized patient with acute myocardial infraction). - The ACHS (Australia) established the Care Evaluation Program (CEP) of clinical performance measures in its accreditation program to increase the clinical components of that program and to increase medical practitioner involvement in formal quality activity in their health care organizations there is documented evidence of improved management and numerous examples of improved patient outcome. - Studied indicated that in accreditation programs of JAPAN (ICQHC) there are a positive relationship between accreditation scores and patients' satisfaction. - The patients that received all discharged instructions that determined by JCAHO, were significantly less readmission. - Descriptive studies revealed a significant improvement in the performance of US hospitals that accredited by JCAHO.	- The JCAHO accreditation levels have limited usefulness in distinguishing individual performance among accredited hospitals. - The NCQA (USA) accreditation is positively associated with some measures of quality but doesn't assure a minimal level of performance. - A study concluded that Joint Commission measures are generally not correlated with outcome measures. It saw that a potentially serious disjuncture exists between the outcome measures and Joint Commission evaluation. - While a majority of the hospitals had either JCAHO accreditation, HCFA (Health Care Financing Administration), or both, analysis revealed a weak relationship between accreditation or certification status and indicators of quality of care.

Author/ Year	Country	Study Purpose	Study Design	Results:	
				Advantages	Disadvantages
May & colleagues 2007	USA	To contrast the model of informed consent oversight employed by most IRBs with that most commonly employed by hospital ethics committee at academic medical centers	Comparative-descriptive study	- informed consent emphasis mechanisms for enhancing conversation between patients and health care providers, how is a requirement for hospital accreditation by JCAHO for addressing ethical issues.	---
Harrison & Coppola 2007	USA	To identify the relationship between hospital quality and the level of efficiency	Descriptive study	- The JCAHO use of wide quality indicators in its model. - The JCAHO evaluates the following quality measures: initial assessment, medication use, anesthesia care, operative procedures, competence assessment, patient specific data and infection control.	---
Brennan & colleagues 2007	Australia	To survey worldwide medical, ethical, and legal trends and initiatives related to the concept of pain management as a human right	Descriptive study	- The JCAHO accreditation model has pain management standards in its model. - Existing evidence shows that JCAHO was success in this issue and its standards are effective.	---
Baker & colleagues 2007	USA	To determine attitudes towards HCPs collecting race/ethnicity and language	Qualitative and quantitative study	- The JCAHO set new accreditation standards in 2006 requiring hospital to record patients' predominant language' in its documents. - The JCAHO obliged the hospitals to relationship with patients by their language.	---
Adams & colleagues 2007	USA	To provides an overview of the evidence about components of the evaluation and treatment of adults with acute ischemic stroke	Qualitative study	- The JCAHO began a formal process for the certification of PSCs (primary stroke center) in February 2004. - The JCAHO accreditation process includes a detailed evaluation of hospital staffing, education, disease management programs, outcome and infrastructures. - The purpose of this work was that ensure that these centers have the expertise and resources to provide modern stroke care.	---
M. T. Siddiqui 2007	USA	To give background perspective on the development of universal protocols and elaborates the JCAHO National Patient Safety Goals regarding the performance of fine needle aspiration	Descriptive study	- The adherence of the universal protocol for preventing 'wrong site', 'wrong procedures' and 'wrong person' surgical or invasive procedures is a requirements for all Joint Commission accredited organizations. - This standards also notice to fine needle aspiration.	---
M. Salisbury 2007	USA	To examine the impact of certification in the safe operation on outpatient surgical facilities	Descriptive study	- The JCAHO (HFAP and AAAASF are the largest entities for accreditation of out patient surgical facilities. - All of these accreditation bodies provide standards of operation that maintain a level of care and improve patient safety.	---

Author/ Year	Country	Study Purpose	Study Design	Results:	
				Advantages	Disadvantages
Anderson & colleagues 2007	USA	To examine the developmental trend in information reported by hospital participating in a regional reporting system for medication errors	Descriptive study	- One of the main causes that lead to increase in medication errors reporting significantly is the accreditation standards of JCAHO.	---
Safdari & Meidani 2006	Iran	To compare the strengths and weaknesses of information management (IM) standards of three well-established national accreditation agencies in Canada, USA and New Zealand	Comparative-descriptive study	<ul style="list-style-type: none"> - All of these accrediting agencies have acceptable reliability, accuracy and validity as data quality. - JCAHO and CCHSA have adopted maximum standards related to evidence-based decision making. - Achieving positive outcomes was adopted by CCHSA and QHZN, and is among the strongest point of their standards. - The CCHSA and QHZN had adopted the same standards with emphasis on information management planning, achieving positive outcomes and making improvement. - The strong point of JCAHO's standards are patient specific information and evidence-based decision-making. - The JCAHO has considered the most complete standards related to patient specific information standards that enclose medical record content. - All of these accrediting organizations have developed some similar standards in confidentiality. - Supporting evidence based decision-making, comprise organization process to effectively manage information, included the capturing, reporting, processing, retrieving, disseminating, and displaying of clinical service and non clinical data information, JCAHO has adopted maximum standards in this area. - Being a learning organization covers those standards that IM processes support managerial and operational decision, performance improvement activity, patient care, treatments and services decisions, that in this section, all of the accreditation agencies have regarded same standards. - CCHSA have regarded most complete and suitable standards related to educational and staff development standards. - JCAHO has made the most complete standards related to medical record content and some similar standards in order to preserving its confidentiality and security. 	---
Vitale & O'Connor 2006	USA	To compare reports of pain and levels of state anxiety in 2 group of women after abdominal hysterectomy	Pilot study	- The JCAHO by using of its standards had a suitable effect on pain management in American hospitals. This organization emphasis on pain management for response to patient needs in surgical patients.	---
Leonhardt & Botticelli 2006	USA	To introduce the collaboration of seven independent health care organizations to improve patient safety	Descriptive study	<ul style="list-style-type: none"> - The members of this collaboration reviewed the JCAHO requirement and literature on medication errors to select a standardized list of high-risk abbreviations to the targeted for elimination. - Significant results achieved in these hospitals and were recognized with a 2004 Institute for Safe Medication Practice Cheer Award. 	---

Author/ Year	Country	Study Purpose	Study Design	Results:	
				Advantages	Disadvantages
J. E. Nelson 2006	USA	To review the barriers and relevant empirical evidence to high-quality palliative care in the end-of-life care	Review study	- The organizations and workgroups the work related to palliative care, use from JCAHO and its standards widely.	---
Curtis & colleagues 2006	USA	To summarize key concepts and outline a practical approach to develop, implement, evaluate and sustain a quality improvement program in the intensive care unit (ICU)	Descriptive study	- The JCAHO have promoted awareness of the importance of improving quality of care in the ICU. - The JCAHO in one of the organizations that develop its own list of potential ICU quality measures. - The organizations such as JCAHO and IHI are defining, operationalizing and evaluating quality measures that can be used by the quality improvement team.	---
Vansuch & colleagues 2006	USA	To determine whether documentation of compliance with any or all of the six required discharge instructions is correlated with readmission to hospital or mortality	Retrospective study	- The discharged instructions are one of the components of JCAHO's standards related to heart failure care. - These instructions designed based on expert opinions. - Evidence shows that patients who received all instructions were significantly less likely to be readmitted for any cause (P=0/003) and for heart failure (P=0/035) than those who missed at least one type of instruction. - Documentation of discharge instructions is correlated with readmission rate.	- There was no association between documentation of discharge instructions and mortality
Wolosin & colleagues 2006	USA	To analyze safety ratings data of more than 600,000 patients	Cross-sectional study	- The JCAHO implemented a set of "National Safety Goals", and Leapfrog Group has put pressure on hospitals to disclose the extent to which they are following the safety guidelines.	---
M. Skiba 2006	USA	To examines the definition and assessment of medication errors and some of the emerging technology used to alleviate them	Descriptive study	- The JCAHO expanded its performance improvement standards to include specific requirement to ensure patient safety. - The JCAHO standards have specific emphasis on medication errors and prevention of them - In new accreditation standards of JCAHO, the term of "medication use" has been renamed "medication management" to better reflect of process, and tow new steps have been added to the medication use process: medication selection and procurement and storage. - This new definition does include anesthetic agents that are purchased in liquid from before becoming a gas.	---
Telehealth Working Group 2005	Canada	To introduce of New Brunswicks Strategic Plan for Telehealth	Report	- The CCHSA of Canada is the one of the largest accreditation model in the world that executes the Telehealth technology. - This model could improve continuity of care and patients' education by using of this technology.	---

Author/ Year	Country	Study Purpose	Study Design	Results:	
				Advantages	Disadvantages
Woods & colleagues 2005	USA	To obtain information about patient safety issues	Qualitative study	- The increased public awareness about patient safety following the establishment of JCAHO's safety goals, led many institutions to seek a better understanding of their patient safety risks and to design improvement plans.	---
H. C. Polk 2005	USA	To examine our knowledge and public attitude regarding quality, safety, and minimization of medical errors	Qualitative & quantitative study	- Quality, safety and minimization of errors are seemingly the sides of an equilateral triangle that JCAHO focus on them. - The JCAHO has recently weighed in with a white paper that directly links improved patient safety to a significant alteration in professional and liability matters and particularly recommended demonstration project to that end.	---
K. G. Menghini 2005	USA	To present pragmatic suggestions for evaluating current written materials and developing new NICU parent-education materials with lower readability levels	Descriptive study	- The JCAHO recognized the need for education of patient as one of their rights and emphasis on it in its standards. - This organization seek for making a condition that the education of patient and their coadjutors done effectively.	---
B. M. Goldsmith 2005	USA	To introduce of POC testing	Descriptive study	- provide and use of POC (point of care testing) is one of the requirements of JCAHO accreditation.	---
M. M. Shabot 2005	USA	To describe the JCAHO's ICU core measures	Descriptive study	- The JCAHO recently established six core measures as indicators of quality in the delivery of care to adult intensive care unit (ICU) patients. - These measures provide a robust picture of service delivery in this department.	---
Fan & colleagues 2005	USA	To introduce the hospital incident reporting ontology (HIRO)	Descriptive study	- The HIRO is being developed in Protégé-OWL to demonstrate feasibility and clinical value of using an ontology to combine, compare, and analyze data from across many public and private reporting systems collecting adverse events and near misses for patient safety. The HIRO is based on the JCAHO Patient Safety Event Taxonomy (PEST) and de-identified hospital incident reports.	---
Pomy & colleagues 2005	Canada	To analysis the particular characteristics of the "French style" accreditation process and how their implementation could result in paradoxes related to quality improvement, professional winners, and objectives	Descriptive study	---	- There are the number of paradoxes in French accreditation: (1) the fact that accreditation is mandatory lends itself to ambiguity and links the process to inspection; (2) the fact that decision makers can use the information contained in the accreditation report for resource allocation can incite establishment to adopt strategic behaviors aimed merely at complying with the accreditation ; and (3) there is a tendency for establishment to reduce quality processes to nothing more than the completion of accreditation and focus effort on standardizing practices and resolving safety Issue to the determinant of organizational development.

Author/ Year	Country	Study Purpose	Study Design	Results:	
				Advantages	Disadvantages
Cole & colleagues 2005	Canada	To investigate the understanding, collection, diffusion and use of QWL indicators in Canadian health care organizations	Review and qualitative study	- In Canada, CCHSA has developed QWL (Quality of Work Life) dimensions, descriptors and indicators as a part of the achieving improved measurement (AIM) program.	---
Arah & Klazinga 2004	Netherland	To review the safety initiatives in the health systems of UK, Canada, Australia and US	Review study	- In these countries, only JCAHO is an accreditation organization that identify as national agency in patient safety. - The JCAHO bringing the patient safety standards in accreditation and design the reporting and analysis system for adverse incident. - The JCAHO have the longer history than more of the organizations that exclusively designed for patient safety.	---
A. Paradise 2004	USA	To introducing of JCAHO regulations regarding to medical library	Descriptive study	- The JCAHO has released its 2004 standards for hospitals. The complexity of modern management point to the increased important of the medical library and the need for leadership by the medical librarian. Most hospitals strive to meet the standards set forth by JCAHO, and library services are covered in the information management (IM) section in the comprehensive accreditation manual for hospitals.	---
L. Warda 2004	USA	To review the risk of injury to children in the hospital setting and to provide an overview of the factors which influence the approach of hospital safety	Review study	- The CCHSA Environment standards regarding the safety of equipment, supplies, medical devices and space. The CCHSA Environment module notes that the physical environment should have furniture and equipment suitable for the client's age and developmental level.	- The CCHSA provides no specific guidance about hazards of concern for pediatric patients.
Edworthy & Hellier 2004	UK	To provide outlines the problems and possible solutions to the problems associated with auditory alarms	Descriptive study	- The new international safety standards affected from the JCAHO safety standards. - These standards emphasis on improve the auditory warning devices in health care environment.	---
Ch. D. Shaw 2004	Australia	To give information about accreditation, review of global experiences and help to countries that want to design an accreditation model	Book	- The JCAHO is the oldest accreditation model and is the mother of accreditation and then the CCHSA of Canada and ACHS of Australia in turns are oldest accreditation models. - Between the all of accreditation models, the JCAHO spend the most time and money for initiative and continuous education of its surveyors. - Between the all of countries that have accreditation program, in turns, the USA (27%), UK (23%), Canada (19%), Australia (12%) and France (7%) have the most effect on European accreditation standards.	---

Author/ Year	Country	Study Purpose	Study Design	Results:	
				Advantages	Disadvantages
Th. R. Clancy 2004	USA	To provide a literature review of studies reporting on incidence and factors that contribute to medication errors	Review study	<ul style="list-style-type: none"> - JCAHO's sentinel event policy requires health care facilities to perform a root cause analysis on any unexpected occurrence that causes death, serious physical or psychological injury. - In 2001, the JCAHO established a new set of patient safety standards which include reducing the frequency and intensity of medication errors. -Recently, the JCAHO revised its requirement for national patient safety goals to prohibit the use of certain abbreviations in hand written medical records. 	---
M. Pegg 2003	Australia	To review and analyze literature in relation to standards setting and accreditation systems both overseas and in Australia { comparison between 5 countries and their main accreditation models: USA (JCAHO), UK (HAP, HQS), Canada (CCHSA), New Zealand (HQNZ) and France (ANAES) }	Book	<ul style="list-style-type: none"> - The JCAHO is the oldest accreditation model in the world that established in 1917 by American College of Surgery and in the 1952 renamed to JCAHO. - In the 1958, CCHSA separated from the JCAHO. - The all of these organizations, except ANAES, are independent, Non-governmental and Non-profit organizations. - The JCAHO have the most accredited organizations (17000 organization in USA), and then CCHSA by 1000 accredited organizations is in second rank. - All of these organizations update their organizations after consultation with stakeholders and get their comments. - The JCAHO, HAP and HQS review and update their standards every 3 years. - The JCAHO and CCHSA designed different standards for different health care services, HAP and QHS categorized their standards in 4 parts, and QHNZ categorized their standards in 8 parts. - In the all of organizations, except ANAES, there is no legislated requirement for accreditation and it is voluntary. - All of these programs have mechanisms for ensure and continuity of organizational compliance. - All of this organizations have methods for public reporting 	<ul style="list-style-type: none"> - The ANAES is a governmental organization. - The standards of ANAES are general. - ANAES accreditation is compulsory under legislation.
D. Montagu 2003	UK	To describe where External Quality Assessment (EQA) fits in the broader set of lever that exist for engaging with health care providers and organizations in developing countries in order to improve quality and affordability of care	Book	<ul style="list-style-type: none"> - Receiving of JCAHO accreditation In the united state is very important because it is pre-requisite for government reimbursement under Medicare and Medicaid. - JCI is the international branch of JCAHO that designed to international accreditation especially. - JCI has developed international accreditation standards and consulted to USAID and other organizations on international accreditation efforts. 	<ul style="list-style-type: none"> - Accreditation programs in both Brazil and Zambia have had significant problems due to overdependence on government involvement. In both instances accreditation programs were developed at the request of government bodies, with international assistance, but had not achieved independent status before changes in government decreased the support provided to the organizations. The continuation of those programs is in some doubt as a result.

Author/ Year	Country	Study Purpose	Study Design	Results:	
				Advantages	Disadvantages
G. R. Goodman 2003	USA	To addresses issues in the assessment and measurement of outcomes in pain management	Descriptive study	- In 1996, the American Pain Society coined the phrase "pain as the fifth vital sign". In response, JCAHO developed pain management processes and outcome measures intended to address the question of "How do we assess pain management effectiveness in the hospital based clinical environment.	---
G. L. Wilder 2003	USA	To describe why medication safety should be linked with a non-punitive reporting system	Descriptive study	- Drug safety issues specific to home infusion care are identified, with practical recommendations for enhancing safety and reducing medication errors. Included in this discussion is the sentinel event alert for infusion equipment free flow and the JCAHO patient safety goals for 2003. - The JCAHO has compiled a list of high risk medications based on 130 drug-related sentinel event reports (events of death or major permanent loss of a body function) since 1995.	---
Arah & colleagues 2003	Netherland	To explores the conceptual bases, effectiveness and indicators, as well as the quality improvement dynamics of the performance framework of UK, Canada, Australia, US, WHO an Organization for Economic Co-operation and Development	Review study	- Accreditation is a tool employed by the CCHSA to stimulate the integration of the performance indicators framework and quality improvement in Canada. - The CCHSA has developed a philosophy and a framework by introducing its Achieving Improved Measurement (AIM) accreditation program. This will allow for benchmarking between organizations to boost quality improvement in four dimensions: responsiveness, system competence, work life, and client/community focus. - At the national level, the US has a number of mostly still developing health system performance framework initiatives by different names, for example, the QIO program of the centers for Medicare & Medicaid services, and the ORYX initiatives of the JCAHO.	---
G. A. Van Noman 2003	USA	To present legal and ethical NHBCDs(non-heart-bating cardiac donors) and to discuss important aspects of its protocols	Descriptive study	- The JCAHO has also published standards for the palliative care of dying patients and withdrawal of life-supporting therapies.	---
R. M. Gallagher 2003	USA	"top on down" regulation of all physicians or "bottom on up" education of physicians- are these strategies effectives for improving physicians in pain management	Descriptive study	- The publication in 1999 of JCAHO standards for pain assessment and management indicated to the pain field that higher benchmarks for physician performance would be expected within the first decade of the 21 century. - The JCAHO standards were proposed a "top on down" approach that would improve physician performance by mandating the routine use of pain assessment and management systems in Hospitals and other health care facilities.	---
Griffith & colleagues 2002	USA	To compare seven non-federal general hospital performance measures derived from Medicare against Joint Commission scores	Comparative study	- The Joint Commission has process criteria and experimented with outcome measures, and its surveys provide an important vehicle for reducing risk and fostering improvement. - Joint commission has been public information for many years.	- The Joint Commission has traditionally ignored financial performance, worker satisfaction and cost.

Author/ Year	Country	Study Purpose	Study Design	Results:	
				Advantages	Disadvantages
Trowbridge & Wachter 2002	USA	To considers the potential advantages and disadvantages of legislative, regulatory, professional society, and market-oriented approaches to implementing patient safety efforts, and review the evidence regarding their effectiveness	Book	<ul style="list-style-type: none"> - The establishment of a patient safety officer or committee is one of the JCAHO safety standards. - Although JCAHO had previously included some element relating to the field of patient safety (including infection control and prevention of medication errors), they tended to focus on organization topics including information management, institutional leadership and strategic planning. 	---
Sieck & Foster 2002	USA	To introducing models on acute coronary syndrome (ACS) best practice	Descriptive study	<ul style="list-style-type: none"> - Much of the information incorporate incorporate into protocols has evolved from clinical guideline and regulatory agencies, such as JCAHO, whose mission to improve the safety and quality of care. - JCAHO has lunched ORYX to integrate the use of outcomes and performance measures to assist hospital that now are expected to report data on care measures. 	---
L. D. Urden 2002	USA	To present an overview of consumer/patient satisfaction instruments, satisfaction measurement issues, research instrument, and commonly used vendor patient satisfaction survey programs	Descriptive study	<ul style="list-style-type: none"> - The JCAHO and NCQA have developed quality indicators that include satisfaction. 	---
Burnett & colleagues 2002	UK	To describe a new set of revised standards for medical laboratory, which have been produced by Clinical Pathology Accreditation (UK) Ltd (CPA)	Descriptive study	<ul style="list-style-type: none"> - Since its incorporation January 1992, Clinical Pathology Accreditation (UK) Ltd (CPA) has used standards based on the laboratory sections of the Canadian, Australian, and UK standards for health care. - The new CPA standards draw upon the best and most up to date materials from their reference sources. - The emphasis in the new standards is on the operation of a quality management system in laboratories and the authors believe that compliance with these standards will also ensure compliance with ISO standards. This will enable departments in the UK and other who choose to use these standards, to have an accreditation that is recognized throughout the European community. 	---
Kuhn & Youngberg 2002	USA	To describe the importance and need to organization wide risk management	Descriptive study	<ul style="list-style-type: none"> - The JCAHO has recently promulgated patient safety standards that took effect. critical areas of focus of these standards related to providing leadership, improving organizational performance and information management and patient rights, training and education. - They provide a good template for beginning to create a culture of safety. 	---
E. B. Larson 2002	USA	To describes five critical elements for reducing and, ultimately, presenting harm to patient from a systems perspectives	Descriptive study	<ul style="list-style-type: none"> - The JCAHO has, widely, established an institutional requirement for formal assessment of risk for certain dental events discovered through the JCAHO Sentinel Events Policy and Reporting system. - The JCAHO use of process of external surveillance systematically. 	---
B. Pike 2002	USA	To introduce the role of clinical engineering	Descriptive study	<ul style="list-style-type: none"> - The JCAHO notice to clinical engineering and cut across disciplinary boundaries to enhance safety. - This organization identify patient safety improve as fundamentals of patients care. 	---

Author/ Year	Country	Study Purpose	Study Design	Results:	
				Advantages	Disadvantages
M. Hanchett 2001	USA	To compares and contracts the three major home care accreditation organization- JCAHO, CHAP, ACHS	Comparative study	<ul style="list-style-type: none"> - The JCAHO is an active organization in accreditation of the home care centers. - The JCAHO (1988) have more activity history than ACHE (1994) but have less than CMAP (1965). - The number of home care accredited organizations by JCAHO (5811) are more than CMAP (1000) and ACHS (160). - All of these organizations have 3 years survey cycle but the variety of JCAHO activities are more than others. - All of these organizations recognized by NCQA and accepted for managed care contracting. 	---
A. Giraud 2001	France	To present the accreditation in France	Descriptive study	<ul style="list-style-type: none"> - The mission of ANAES is to help develop quality of medical practice. - A notable feature of ANAES is the importance of professional representation that intended to guarantee the agency's independence and credibility. - A key feature is the accreditation college which is responsible for examining the survey reports, attributing accreditation, defining recommendations for improvement for every hospital, and publishing an annual report. - In this organization, the foreign manuals were also examined, including JCAHO, CCHSA, ACHS, KF and CASPE Research. 	- The members of ANAES are appointed by the minister of health.
Schipper 2001	USA	To describe that informed consent is a essential part of patients' rights	Descriptive study	<ul style="list-style-type: none"> - Agencies such as the Health Care Financing Administration (HCFA) and JCAHO mandate informed consent. - The JCAHO standards under "patients' rights" include that patient be involved in all aspect of their care and informed consent be obtained. 	---
M. Drain 2001	USA	To evaluate the psychometric properties of a new instruments designed to survey patients' experiences with the delivery of primary care and assessed the factors that contribute to patient retention and likelihood to return	Cross-Sectional survey	<ul style="list-style-type: none"> - The JCAHO (1999) has replaced the term "satisfaction" with "perception of care and services" in an effort to "better measure the performance of organizations on how well they meet the needs, expectations and concerns of individuals. 	---
Donahue & Vanostenberg 2000	USA	To describe the component of The JCI for hospitals and compare this program with the four quality evaluation models described under the ExPeRt project	Analytical and Comparison study	<ul style="list-style-type: none"> - The JCI assess all part of health care organization system. - The JCI designed to international activity and has been considered the social, religious, economical, legal and cultural requirements of countries. - One important element of the JCI standards development and testing process was the eventual use of the result of accreditation to compare the performance of JCI accredited health care organization. - The organizational accreditation approach of JCI also provides the framework for effective quality leadership and quality management systems as in the EFQM model, and in addition provides the framework for quality control as in the ISO model. - The development of the JCI standards followed the principles for standards as developed by ISQua. 	---

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				Advantages	Disadvantages
Rooney & Ostenberg 1999	USA	To provide assistance to decision makers in analyzing various approaches to health service quality evaluation and management	Book	<ul style="list-style-type: none"> - The three American accreditation programs, that mentioned in this study (JCAHO, CARF & AOA), have structure, process and outcome standards. - The standards format of JCAHO and CARF is functional and AOA is departmental. - The JCAHO has intent statement. - The JCAHO accredited most hospital and health centers in US. - The JCAHO has developed indicators. - These three programs are voluntary. - The JCAHO doesn't have limited scope to accreditation. - The features of the CCHSA of Canada is same the JCAHO of America completely. - In this study, mentioned to three accreditation programs of UK (HAS, KFOA & SHAP). The standards format of HAS is functional and KFOA is departmental, and no mentioned to SHAP standards format. - The HAS model have structure, process and outcome standards. - The HAS & KFOA have intent statement. - The HAS have developed indicators. - These three organizations are voluntary. - This study mentioned to two accreditation models of Netherland (NOQAH & IAZ). The standards format of IAZ is departmental and NOQAH isn't determined. - This two models are voluntary. - This study mentioned to one accreditation models of Australia (ACHS). - This model has intent statement for most standards. - This model has developed indicators. - This model is voluntary and doesn't have any limitation in its activity scope. - This study mentioned to one model of New Zealand that is a functional model. - This model has intent statement. - This model is voluntary and doesn't have any limitation in its activity scope. - The Japan has an accreditation model (CQHC) that is voluntary. - The Taiwan has an functional and departmental accreditation mode that have structure, process and outcome standards. - This model is voluntary and has intent statement and developed indicators. 	<ul style="list-style-type: none"> - The CARF and AOA don't have intent statement. - The CARF and AOA don't have developed indicators. - The CARF and AOA have limited scope to accreditation, so that CARF accredits rehabilitation centers and AOA accredits hospitals only. - The KFOA and SHAP only have structure and process standards. - The SHAP model doesn't have intent statement. - The KFOA and SHAP don't have developed indicators. - The activity scope of all if these models is limited, so that they accredit hospitals only. - These two models have structure and process standards only. - NOQAH doesn't have intent statement and intent statement of IAZ is unknown. - These two models don't have developed indicators. - The activity scope of NOQAH, limited to medical specialist and IAZ limited to hospitals. - The ACHA have structure and process standards and doesn't have outcome standards. - The New Zealand model, affiliates to ministry of health. - This model have structure and process standards and doesn't have outcome standards. - This model doesn't have developed indicators. - In the CQHC model, no mentioned to standards format, intent statement and developed indicators. The scope of activity in this model limited to community hospitals. - The activity scope of Taiwan accreditation model limited to hospitals.

Author/ Year	Country	Study Purpose	Study Design	Results:	
				Advantages	Disadvantages
Continue ...				<ul style="list-style-type: none"> - The Korea has two accreditation organizations, the JCAH is a departmental model and the standards format of HPEP is not determined. - The JCAH is voluntary and has intent statement and developed indicator. - The China has one accreditation model (HGAC). - The South Africa has an accreditation model (COHSASA) that is departmental and functional and covers structure, process and outcome standards. - This model has intent statement. - This model is voluntary and hasn't limited scope to activity. - The Czech republic has an accreditation model (JCA) that has structure, process and outcome standards. - This model is voluntary and has intent statement and developed indicators. - The Kyrgyzstan has a departmental accreditation model. - This model is voluntary and has structure, process and outcome standards. - The Lithuania has an accreditation model (SASMH). - This model has intent statement. Emerging models: - The countries of Spain, France, Philippines, Malaysia, Zambia, Brazil, Poland, Romania, Hungary, Ukraine, Saudi Arabia and Egypt are designing national accreditation models. 	<ul style="list-style-type: none"> - These two models have structure and process standard and don't have outcome standards. - The HPEP model doesn't mention to intent statement, developed indicators and voluntary. - These two models have limited scope, so that JCAH accredits teaching hospital and HPEP accredits hospitals only. - In the HGAC model, doesn't mention to standards format, intent statement, developed indicators and voluntary. - The activity scope of this model is limited and accredits hospital and teaching hospitals only. - The COHSASA model hasn't developed indicators. - The activity scope of this model is limited and only accredits hospitals. - This model, affiliates to ministry of health. - This model doesn't have intent statement and developed indicators and its activity scope is limited to hospitals. - This model has structure and process standards and hasn't developed indicators. - This model is compulsory and has limited scope to accreditation, so that accredits nursing rehabilitation and medical care hospitals. - These models was not completed.
Cain & Fuller 1999	USA	- To identify five developmental periods in hospital accreditation library	Descriptive study	<ul style="list-style-type: none"> - The existence of health library in hospital and health care centers is one of the requirements of JCAHO for receiving accreditation. - The health librarian is a member of the patient and family education through committee that oversees compliance with The JCAHO standards regarding patient and family education and it seemed logical that the library would create a data base to meet JCAHO standards. 	---

Author/ Year	Country	Study Purpose	Study Design	Results:	
				Advantages	Disadvantages
E. Scrivens 1998	UK	To address the issues raised in developing quality in different organization and examines the progress being made	Descriptive study	<ul style="list-style-type: none"> - In the USA and Canada, JCAHO and CCHSA have both developed standards and assessment processes for a wide range of services outside hospital. - The JCAHO developed an approach for accrediting 'networks' of provider organizations. - The CCHSA and JCAHO have both attempted to extend the concept of service outside the hospital boundaries, using the patient experience before admission and on discharge. 	---
Scanlon & Hendrix 1998	USA	To present the results from two surveys that were administered to a group of large public and private purchasers and representatives from the American Association of health plans and the Centers for Disease Control, who attended the Lovelace Health System (LHS) "accreditation experience" program.	Comparative – Descriptive study	<ul style="list-style-type: none"> - The LHS program was designed to inform purchasers about NCQA and Joint Commission accreditation processes. - Currently the National Committee for quality assurance (NCQA) and JCAHO accredit managed care organizations. - Based on assessed items for comparing these two organizations, The NCQA are 6 advantages vs. JCAHO , such as, NCQA has better performance measures and Produces standardized comparative outcomes - The JCAHO has 9 advantages vs. NCQA, such as, its Process is adaptable to different organizations and Individualizes on-site surveys - In the 6 comparative items that NCQA is better, the JCAHO has medium or minimum scores but in 9 items that JCAHO is better, NCQA don't has medium or minimum scores. 	---
Dalrymple & Scherrer 1998	USA	To suggest ways in which the health information professionals can use the accreditation process to improve health information practice	Descriptive study	<ul style="list-style-type: none"> - The JCAHO standards focus on effective, efficient patient care, not organizational structure. - JCAHO's survey process is tailored to each particular organization's characteristics and performance. - To facilitate assessment, the JCAHO is now developing indicators based on qualitative data contribute by various groups (a "bottom-up" process). - The JCAHO stipulate indicators of quality for information management: timeliness and accessibility, accuracy, security and ease to access, use of aggregate and competitive information for improvement, efficiency, collaborative and sharing. - All of the standards continually emphasize the planning and design of services that are based on a need assessment. - This is a direct result of JCAHO's commitment to evaluation in the context of the institution's own mission or as stated earlier, "doing the right thing". - The JCAHO has identified expert knowledge-based information as vital to a health care organization's ability to provide patient care. 	---
Azaz-Liveshits & colleagues 1998	Germany	To develop and assess the use of computerized laboratory data as a detection support tool of adverse drug reaction (ADRs) in hospital	Retrospective observational study	<ul style="list-style-type: none"> - In 1989, the JCAHO recommended that hospitals should monitor ADR more carefully, and consequently the number of attempt to reduce the rate and morbidity of ADRs have carried out. 	---

Author/ Year	Country	Study Purpose	Study Design	Results:	
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E. Scrivens 1997	UK	To describe the early models of accreditation, and how these have been modified during the 1990s by accreditation systems to incorporate the principles of continuous quality improvement {the comparison between older accreditation systems(JCAHO, CCHSA & ACHS)}	Review study	<ul style="list-style-type: none"> - The JCAHO, CCHSA and ACHS are the older accreditation models. - In the 1986, JCAHO moved from quality assurance to quality management and continues quality improvement. The JCAHO and CCHSA, used from continuous quality improvement completely. - The JCAHO to accommodate the demands associated with continuous quality improvement defined the concept as the removal of structural barriers and the creation of an environment in which team work could be emphasized. It recommended an organizational structure designed to maximize cooperation and ensure a single purpose. - CCHSA involves the application of statistical methods and group process tools to reduce waste, duplication and unnecessary complexity in its work. Its goal is to meet or exceed the needs and expectations of patients, professionals, supplies and community. - The JCAHO and CCHSA council both identified leadership in planning as a major aspect of a continuous quality improvement approach. The standards of JCAHO have therefore been reconfigured to represent three main types of functions: patient focused; organizational; and structures with functions. - The Canadian approach is very similar to that of the JCAHO. - The JCAHO tried to develop what is termed the indicator measurement system which would provide a comparative database to allow hospital to compare their performance with others. - The Canadian and Australian council have decided on an incremental approach to the development of comparative indicators. - The ACHS has selected a few hospital wide indicators for comparative use. CCHSA also has a few, although they have chosen to allow hospitals to choose their own indicators. - Unlike most other accreditation systems, the JCAHO has made it part of its approach to make the information about its visits public. 	---
Burgess & colleagues 1997	USA	To determine the level of preparedness for hazardous materials incidents in the state of Washington	Cross-Sectional study	<ul style="list-style-type: none"> - The JCAHO requires accredited institutions to have "emergency procedures that describe the specific precautions, procedures, and protective equipment used during hazardous materials and waste spills or exposures". The JCAHO standards also include "a management plan that addresses emergency preparedness and treatment of contaminated patients. 	---
Decker & colleagues 1997	USA	To review the concept of competency assessment and implication of meeting and exceeding the JCAHO standards	Review study	<ul style="list-style-type: none"> - In 1996, JCAHO required hospitals to assess, track, and improve the competence of all employees. 	---
Bohigas & colleagues 1996	Australia	To analysis and compares the activity and founding of Six health care accreditation bodies which operate in five different countries(NZCHS in New Zealand, HAP & KFOA in UK, ACHS in Australia, CCHSA in Canada and JCAHO in USA)	Comparative-descriptive study	<ul style="list-style-type: none"> - All of these organizations are private and non-governmental. - The US, Canadian, Australian and New Zealand accreditors have governing bodies formed by representatives of professional organizations representing health professionals and health institutions. 	---

Author/ Year	Country	Study Purpose	Study Design	Results:	
				Advantages	Disadvantages
Continue ...				<ul style="list-style-type: none"> - In recent years, the Joint Commission has added six seats to its governing board and designated them public member seats. - Between these organizations, JCAHO is the largest organization in number of accredited organizations. - The estimated revenue of JCAHO is very more than other accreditation organizations. - In all of these organizations except JCAHO, the surveyors are voluntary and have low income but in JCAHO the surveyors are full time or part time staff of this organization and this issue cause of increase in ability and commitment of surveyors. - The JCAHO has most full time staff in these organizations. - The JCAHO pays most money and time to surveyor training than other organization. 	<p>---</p> <ul style="list-style-type: none"> - The cost of this full time and part time surveyors and the more cost of training them lead to the more cost of each survey in JCAHO versus other accreditation organizations.
Shaw & Collins 1995	UK	To introduce the accreditation history in UK	Descriptive study	<ul style="list-style-type: none"> - The accreditation system in UK is voluntary. - An independent survey of participating hospital showed perceiving benefits include: team building, review of operational policies, improvement of data systems, and the generation of local prestige. 	---
Decker & colleagues 1994	USA	To discuss the functional standards for 1994-1995 and their implications	Descriptive study	<ul style="list-style-type: none"> - In 1994, JCAHO presents a transition from accreditation standards organized by discipline to standards organized around function critical to patient care. - The 1994 functions are assessments of patient, treatments of patients, education of patients and families, operative and their invasive procedures, leadership, management of information and improving organizational performance. 	---
A.M. Siders 1992	USA	To describing the advantages of automated nursing discharge summary	Descriptive study	<ul style="list-style-type: none"> - Automated nursing discharge summary is one of JCAHO accreditation requirements. - JCAHO nursing care standards support the desirability of proving nurses with computer technology for meeting patient care needs and providing efficient utilization of nursing resources. - The 1991 JCAHO nursing care standards also encourage comprehensive, specifically targeted, and integrated nursing documentation. Further, both regulatory and competitive imperatives for quality monitoring necessitate computer support for peer review activities and evaluation of care. 	---
Evans & colleagues 1992	USA	To describe the development and early use of the computerized ADE Surveillance System	Descriptive study	<ul style="list-style-type: none"> - The identification of ADEs (Adverse Drugs Events) by U.S hospitals is now required by the JCAHO, and developed a series of computer programs and data files on the HELP system to help identify ADEs. - The HELP System monitor laboratory test results, drug orders, and data entered through a computerized ADE reporting program. - The JCAHO now requires hospitals to develop a written policy for recording and reporting ADEs. 	---

Author/ Year	Country	Study Purpose	Study Design	Results:	
				Advantages	Disadvantages
Williams & colleagues 1990	UK	To assess the feasibility, desirability, and cost of establishing a national scheme for laboratory accreditation in the UK	Pilot study	<ul style="list-style-type: none"> - British pathology standards were incapable to improvement and had many deficiencies. For solving this problem, decided to follow the example of Canada, United State and Australia to introduction of a national Scheme for laboratory accreditation in the UK. - The study showed that the format used could form the basis of cost effective national wide strategy. 	---
P. A. Wolfgram 1985	USA	To identified five developmental periods in hospital library growth	Descriptive study	<ul style="list-style-type: none"> - In the 1953, the JCAHO published its first set of standards, which included the medical library as desirable, but not an essential requirement for accreditation. - Three years later, JCAHO published a revision of its standards in which the medical library became an essential service. 	---