

## Challenges for Joint Commission International accreditation: performance of orthopedic surgeons based on International Patient Safety Goals

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### ABSTRACT

The Joint Commission International (JCI) is a US-based organization that accredits and certifies hospitals worldwide. Among the requirements for accreditation, the JCI emphasizes continuous quality improvement (CQI) with regard to international patient safety goals (IPSGs). Our university hospital treats about 26,000 hospitalized patients and 600,000 outpatients annually, and our goal is patient safety in compliance with IPSGs. The purpose of this study is to examine the activities of orthopedic surgeons in preparation for JCI accreditation, including clear identification of patients, preoperative timeout and marking to ensure correct surgery, timely approval of CT/MRI reports, care with pain management, prevention of infection, setting of quality indicators and daily monitoring, and teamwork. Examiners from the JCI visited our hospital to review medical records and documents, and to interview patients, nurses and doctors. There were 1270 evaluation items covering 16 fields, including reviews of IPSGs, patient evaluation and care, infection prevention and control, and governance and leadership. Most importantly, the efforts of all the medical staff in our hospital in obtaining the first JCI accreditation among national university hospitals in Japan have promoted the safety and quality of medical care from the perspective of the patient.

Keywords: Joint Commission International (JCI), International Patient Safety Goals (IPSGs), Medical safety, Medical care quality, International standard, National University Hospital

#### Abbreviations:

JCI: Joint Commission International

CQI: Continuous quality improvement

IPSGs: International patient safety goals

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### INTRODUCTION

The origin of medical work is safety management, and the origin of medical care is risk management. There must be a balance of morality and objectivity underlying treatment, but

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safety forms the basis of medical quality. In this regard, with rapid globalization, evaluation using international indicators has been developed in various fields. For maintenance of patient safety, the Joint Commission International (JCI) was established in 1998, as a US-based non-profit tax-exempt organization that accredits healthcare organizations and programs, and certifies hospitals worldwide. The JCI requires continuous quality improvement (CQI) for international patient safety goals (IPSGs), which are important issues concerning patient safety. The goal of JCI accreditation is to evaluate care, standardize hospital processes, provide education and promote CQI for an organization. The JCI accredits medical services worldwide, and advocates CQI of practice and compliance with standards.<sup>1</sup> Thus, JCI accreditation is likely to improve patient safety associated with surgery.<sup>2,3</sup>

Internationalization of the medical field in Japan has been relatively slow. Our university hospital was founded in 1871, and is one of the oldest national university hospitals in Japan. The hospital has about 1000 beds, 26,000 patients hospitalized annually, and 600,000 outpatient visits annually. For medical safety, we established a medical safety management team in 2005. With the recent focus on healthcare errors and safety, our goal is patient safety in compliance with IPSGs. Our hospital aimed to obtain JCI certification based on “quality and safety of medical care in our hospital meeting both Japanese and international standards”. Few previous studies have examined approaches and responses to JCI certification and their effects. Therefore, the purpose of this study is to examine the activities of orthopedic surgeons based on international standard medical care required for JCI accreditation.

## MATERIALS AND METHODS

To prepare for JCI accreditation, a “JCI countermeasures team” of professors, doctors, nurses, pharmacists, lawyers, information management technicians, and administrative staff was formed in our hospital in January 2017. The JCI requires CQI for IPSGs, which are important patient safety issues that include 6 items [Table 1].<sup>4</sup> For this purpose, our hospital created a poster that was displayed for all staff [Figure 1].

The following initiatives related to orthopedic surgeons have been implemented since January 2017 for JCI accreditation:

- 1) Compliance with personal identification using full name and date of birth to ensure the accuracy of patient identification at every consultation.
- 2) Clear timeout (pause before surgery) and unification of preoperative marking by surgeons before a surgical procedure to guarantee the correct operation site, procedure, and patient, with confirmation by multiple staff

**Table 1** Details of international patient safety goals (IPSGs)

Goals	Standards
IPSG.1	Identify patients correctly
IPSG.2	Improve communication between patients and medical staff
IPSG.3	Improve the safety of emergency treatment
IPSG.4	Ensure correct site, correct procedure, and correct patient
IPSG.5	Reduce the risk of healthcare-associated infections
IPSG.6	Reduce the risk of patient harm resulting from falls



Fig. 1 A poster for publicizing international patient safety goals (IPSGs)

- 3) Approval of CT/MRI reports within 2 weeks by the attending physician for improving the quality of medical care.
- 4) Placement of emphasis on pain evaluation and management during a consultation, and recording of results in medical records.
- 5) Prohibition of moving out of the surgical zone while wearing a surgical dressing gown to prevent infection
- 6) Setting of quality indicators and daily monitoring as standard medical procedures

- 7) Participation in a training program entitled Team Strategies and Tools to Enhance Performance and Patient Safety (Team STEPS) to discuss strategies and methods in teamwork to improve medical performance and patient safety.

We reviewed the work of the orthopedic surgeons for about two years, and then examined the background and achievements. In this review, we investigated changes in the timeout procedure and marking rates in all surgeries performed by all departments before and after JCI accreditation.

## RESULTS

To determine whether our hospital met the compliance standards set forth by the JCI, all members identified problems in a mock survey in December 2018, and a final examination was conducted in February 2019. Examiners from the JCI visited to observe hospital operations, conduct interviews, and review medical documentation. These examiners consisted of two doctors, two nurses and five foreign nationals with expertise in hospital management. The examination was conducted in English using an interpreter, through reviews of medical records and documents, and interviews of patients, nurses and doctors. There were 1270 evaluation items covering 16 fields, including strict reviews of IPSPGs, patient evaluation and care, infection prevention and control, and governance and leadership. Finally, on February 23, 2019, our national university hospital acquired the first JCI certification among such hospitals in Japan.

After certification, inspectors visit hospitals every three years to observe hospital operations, conducts interviews, review medical documentation, and ensure that hospitals continue to be compliant with the standards required for JCI accreditation. These visits evaluate care, standardize hospital processes, provide education and promote CQI for the organization. In Figure 2, changes in the timeout procedure and marking rates in all surgeries performed by all departments before and after JCI accreditation are shown. As we worked toward JCI accreditation, the rate gradually increased for each item [Figure 2].

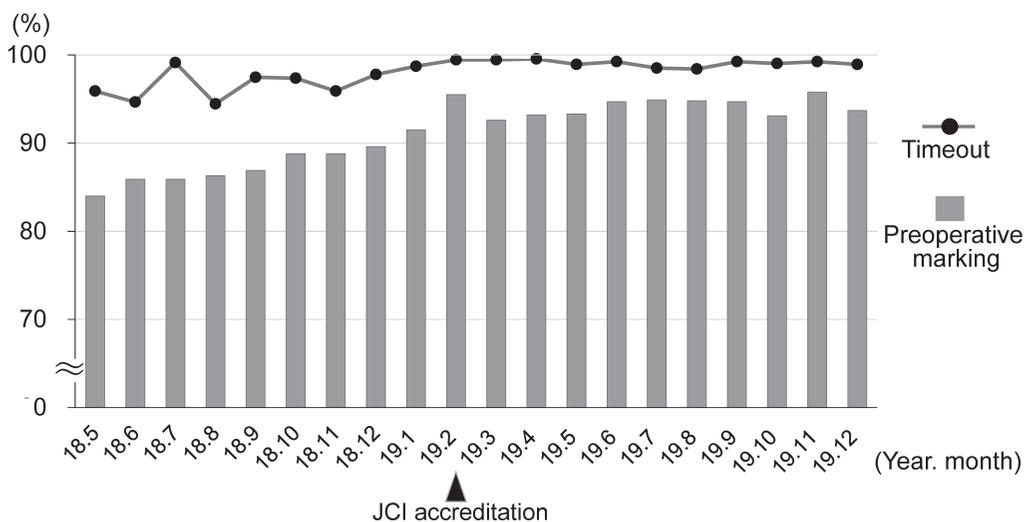


Fig. 2 Trends in rates of timeout and preoperative marking by surgeons

## DISCUSSION

Globalization has led to a world in which national borders have become increasingly irrelevant; therefore, international standards in medicine must be adopted by hospitals worldwide. Toward this goal, the JCI requires rigorous enforcement of IPGs to uphold quality medical care and promote CQI of provided services. Hospital accreditation has become important to guarantee the quality of medical care and patient safety.<sup>5,6</sup> There has been an increasing recent trend of gaining external accreditation in hospitals, with growth of the number of JCI-accredited medical centers worldwide. The characteristics of JCI accreditation are shown in Table 2. The process includes an extensive review of 1270 items in 16 fields. Five overseas examiners toured the hospital to assess each item, and conducted detailed inspections of the environment and medical records, as well as interviews with hospital staff and patients.

The doctors in our hospital worked toward IPGs related to surgeries, and our hospital improved safety in invasive surgical procedures, patient identification, risk of medically related infections, and communication. Standardization of operating room procedures was especially helpful for promoting a clear understanding of individual responsibilities and enhancing communication among team members.<sup>7</sup> Such actions have resulted in improved patient safety.<sup>8,9</sup> After completion of the JCI examination, we had raised awareness of patient safety and quality of medical care, and fully established the JCI measures. It is now important to continue this process without being satisfied with the results. Furthermore, examinations at 3-year intervals will be performed to determine whether our hospital continues to meet international standards. Therefore, we will continue to improve patient safety and quality of medical care.

There are several limitations in this study. First, data from a single university hospital may be difficult to generalize given inherent differences in hospital size, services provided, and patient population. Second, we did not assess the influence of the level and clinical experience of the surgeons. Third, we did not include details of the specific efforts of medical staff other than surgeons. However, regardless of the influence of the level and job experience of individual surgeons, all the orthopedic surgeons in our hospital made every effort to achieve JCI certification in terms of quality medical care and CQI of provided services. This led to our national university hospital obtaining the first JCI accreditation among such hospitals in Japan.

The merits of JCI certification include ensuring patient safety and quality of care that is beneficial for patients. Second, hospital recognition in Japan and abroad, and international competitiveness, can greatly contribute to the branding of hospitals, which in turn contributes to the internationalization of medical care in Japan. Through JCI certification, we believe that all staff members have improved safety and are providing better medical care from the perspective of the patient.

**Table 2** Characteristics of Joint Commission International (JCI) accreditation

Characteristics	
1.	Includes 1270 evaluation items in 16 fields
2.	Five overseas examiners inspect the hospital, with interviews in English <ol style="list-style-type: none"> <li>1) Detailed environmental checks</li> <li>2) Check the contents of charts of each doctor and nurse</li> </ol>
3.	Look at the hospital from the perspective of the patient (from entrance to exit)
4.	Focus on ensuring patient safety and quality of care
5.	Required continuous quality improvement (updated every three years)

## CONCLUSION

In this article, we reported our efforts toward JCI accreditation for IPGs. To obtain this accreditation, all medical staff, including surgeons, worked with a high sense of patient safety to fully respond to the JCI examiners. These efforts led to our hospital obtaining the first JCI accreditation among national university hospitals in Japan, and this has promoted further improvement of patient safety and quality of medical care.

## CONFLICTS OF INTEREST AND SOURCE OF FUNDING

None of the authors have a conflict of interest. Funding was from institutional sources only.

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