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# Installation of CCTVs in Operating Rooms, How Should We Prepare?

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## Introduction

On September 24, 2021, the Medical Service Act in Korea was amended to include provisions for the installation of closed-circuit televisions (CCTV) in operating rooms (ORs). CCTV installation in the OR has been raised as a necessity for several reasons, including ghost surgery, inappropriate behavior of medical personnel, and improper management of medical accidents.<sup>1</sup> However, various reasons for objecting to CCTV installation also exist. These include the risk of leaking sensitive patient information, human rights violations of medical personnel in their professional practice, decreased quality of medical care due to defensive treatment and passive clinical practice, increased possibility of medical disputes, distrust in the patient-doctor relationship, a decrease in the number of doctors majoring in surgery, and the restriction of education for residents.<sup>2</sup>

Especially considering the patient-doctor relationship, the installation of CCTVs in ORs is very worrisome. Because the purpose of CCTVs is to surveil medical personnel, which shows distrust of them. Medical personnel should examine their behaviors and the medical culture that can cause distrust and anxiety among patients. Further, they must discuss how to restore trust, build good patient-doctor relationships, and then immediately correct any emerging problems.

## Informed Consent

The medical practice aims for patients' welfare,<sup>3</sup> and for this purpose, medical personnel are permitted to intervene with the patient's body while respecting the patient's determination and privacy through consent.<sup>4</sup> In the OR, anesthetized patients can no longer claim the right to autonomy and privacy. Therefore, medical personnel should protect patients' rights by performing procedures within the range agreed upon through the patient's written informed consent.<sup>4</sup>

In surgical informed consent, the doctor explains the patient's diagnosis and prognosis and all aspects of surgery, like the nature of the proposed operation, including the estimated risks, common complications, alternative forms of treatment (including non-operative care), and the clinicians involved in the operation.<sup>3,5</sup> Even if CCTV is installed in the OR, informed

consent's content will not change, as the type and method of surgery are irrelevant to CCTV. However, if the patient's expectations for privacy respect differ from the medical personnel's privacy protection, the doctor should discuss the expected operative situation with the patient in advance to reduce the difference. This would mainly concern the people involved in surgery, including who is participating, their roles in the surgery, what they can do under the supervision of attending surgeon, and the observers participating in surgery such as students.<sup>6</sup> CCTV installations have been implemented to reduce illegal actions in ORs that patients are not aware of. In this situation, doctors should be able to convince patients that unapproved people will not participate in surgery and that an attending surgeon will supervise the entire operation.

In addition to surgery consent, there must be consent for CCTV footage.<sup>7,8</sup> Here, the patient should be provided with information regarding the content of the captured image, the difference between a CCTV recording request and viewing behavior, conditions that can be viewed, the video use restrictions, the cost for viewing, video retention period, and the storage method for preventing leakage.

## Patient Safety

The CEO and hospital boards should understand the meaning of CCTV installation and its impact on medical personnel. Many cases have been reported in which video recording (VR) is used for education, research, and quality control in medical fields, including ORs.<sup>7</sup> Recently, the OR black box, as multiport synchronized data capture and analytic platform, is being used in some medical institutions.<sup>9,10</sup> Regarding patient safety, VR is evaluated to be beneficial for medical personnel's technical skills, as well as the improvement of soft skills, teamwork, and system improvement.<sup>7</sup>

Unlike VR, which aims to evaluate and improve the quality of care, CCTV is aimed at surveilling the behaviors of medical personnel and punishing them when problematic behaviors occur. This imposes new tensions and stresses on the medical personnel, causing situations in which one's skills are not fully exercised.<sup>11</sup> Additionally, there is a possibility that excessive work may be imposed on attending surgeons due to the responsibility issues in surgical event, which will have a negative effect on patient safety.

Therefore, hospital authorities should improve patient safety through a systemic approach for protecting the medical personnel. Reviewing the patient safety system is especially important since many cases of medical accidents are caused by systemic problems; if the system is well-organized, harm to patients due to human errors or lack of teamwork may be prevented.<sup>12</sup> However, since correcting a systemic problem is costly and time-consuming, there is often a tendency to hold the individuals involved in the accident responsible for the problems, rather than correcting the system. One reason why medical personnel are burdened by CCTV surveillance systems is maybe that when an accident beyond their control occurs, CCTV footage might be reviewed to seek their fault and hold them liable for it.

Regarding resident education, the hospital authorities should develop and improve the training programs, so that residents can perform their roles skillfully without being overly conscious of their actions despite CCTV surveillance. To adjust to the surveillance, enough experience must be guaranteed. Hospital authorities should not restrict training because of

CCTV. Rather, a program should be developed and policy should be set so that it becomes an opportunity to improve proficiency and information provided to the patient or other people.

## Health Literacy Education

The medical community and surgical societies should provide health literacy education for patients, their families, and citizens to enhance their understanding of OR culture and the meaning of invasive treatments such as surgery. Health literacy refers to the ability to understand and use medical information in various contexts and has different purposes and intentions depending on the situation.<sup>13</sup> The reason that health literacy is emphasized is poor literacy causes low patient compliance, which negatively affects the treatment outcome, and causes an economic burden on the health care system.<sup>14</sup> Health literacy education about surgery will help people understand the medical context and procedures in the OR and avoid leading to misinterpretation of surgical event.<sup>15</sup>

Specific educational content may include surgery is performed as a team, team members have roles within their expertise and roles can change within a certain range depending on the surgical situation, and apprenticeship education is provided during operations. Additionally, as the content of literacy education, it may be considered that there is uncertainty in medical care. Although the patient does their best choice after discussion with the doctor, and the medical personnel has done their best in accordance with the patient's decisions, medical care cannot always guarantee the expected results.

## Conclusion

David Barbe, the past president of the World Medical Association, expressed his concern about the installation of CCTVs in ORs in Korea, saying that “clear quality assurance protocols, peer review, and collegial cooperation,” rather than surveillance through CCTVs, can improve the outcome and safety of medical procedures.<sup>16</sup> The installation of CCTVs in ORs will secure the transparency of the operation process, thereby lowering patients' anxiety that illegal events may occur in their operation.<sup>17</sup> However, it may impede the development of the surgical field, due to the occurrence of the problems presented earlier in this article. Therefore, medical professionals must participate in making subordinate statutes on the installation of CCTVs in ORs to minimize legal problems. In addition, it is necessary to review the incidents that led to the necessity of installing CCTVs and the situations wherein quality assurance protocols, peer review, and collegial cooperation, as proposed by Barbe, have failed.

With the current law, CCTV recording in the OR is done only when requested by the patients or their families, and doctors can refuse this for justifiable reasons. However, requests for CCTV recording may become more routine over time, and some hospitals are likely to utilize CCTV installation for hospital profit. If unsavory incidents due to errors by medical personnel continue to occur in the hospital, the demand for CCTV installation may further expand to more private spaces such as intensive care units and intervention rooms. Efforts towards improved informed consent and patient safety, as well as health literacy education for patients and the public should be conducted regardless of CCTV installation. This may seem “too late” since CCTV installation policies have already been ruled upon, however,

individual doctors, hospital authorities, and academic societies still need to reflect and find a way to build trust in the patient-doctor relationship.

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