JONA
Perioperative Safety Checklist
Guide 2024

Japan perioperative Nursing Association – Safety Management Committee |
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Introduction

The Japan periOperative Nursing Association (JONA) is committed to activities that ensure the safety and peace of mind of perioperative patients. As part of these efforts, we have developed the Japanese version of the “JONA Perioperative Safety Checklist 2024.” For patients undergoing surgery, the procedure not only poses physical risks but also brings psychological anxiety. Ensuring the safety of patients in such high-risk situations is one of the most critical challenges in surgical healthcare settings.

In the operating room, where procedures inherently carry risks, multidisciplinary medical staff must collaborate and communicate effectively to provide safe surgical care. To support communication for surgical safety, the World Health Organization (WHO) created the “Surgical Safety Checklist,” which has been widely promoted and adopted globally. Additionally, various organizations such as WHO, AORN (Association of Operating Room Nurses), and JCI (Joint Commission International) have issued guidelines and checklists related to surgical safety.

The WHO Surgical Safety Checklist is a program aimed at reducing adverse events associated with surgery worldwide, under the slogan “Safe surgery saves lives.” It was developed with input from surgeons, anesthesiologists, nurses, patient safety professionals, and patients around the world, and is based on ten essential goals for patient safety. The use of this checklist has been linked to significant reductions in complications and mortality rates across various hospitals and facilities, as well as improvements in adherence to basic standards of care.

According to a 2022 survey conducted by the JONA, 358 out of 459 member facilities (approximately 78.2%) had adopted the WHO Surgical Safety Checklist. This represents an increase of about 10% compared to the 2019 survey (67.2%). Many medical institutions customize the WHO checklist to suit their needs, and its use as a tool for safe surgery is accelerating in Japan. However, data from the Japan Council for Quality Health Care shows that 5,578 medical incidents were reported in operating rooms between 2018 and 2023, indicating that such incidents continue to occur.

To help reduce medical incidents in operating rooms, our association has developed the “JONA Perioperative Safety Checklist 2024,” based on the WHO checklist. This version expands the scope beyond the operating room to include perspectives from outpatient clinics and hospital wards. The checklist is divided into five phases (0–4), each corresponding to specific time points in the standard surgical process, similar to the WHO model. However, our checklist incorporates perioperative management perspectives to ensure patient safety throughout the surgical journey.

Patient safety during surgery begins in the outpatient clinic or hospital ward before the procedure and continues through the intraoperative phase and into postoperative care. The checklist starts with [Phase 0: Preoperative confirmation in the outpatient clinic or ward and handover to the operating room], followed by [Phase 1: Confirmation before anesthesia induction], [Phase 2: Confirmation before incision], [Phase 3: Confirmation during surgery and before leaving the operating room], and concludes with [Phase 4: Handover to the outpatient clinic or ward upon leaving the operating room and postoperative confirmation]. Our association has incorporated Phases 0 and 4 to emphasize continuity of care. The checklist items in each phase are focused on the minimum necessary elements based on actual cases of medical incidents in Japanese operating rooms.

The “JONA Perioperative Safety Checklist” (hereafter referred to as “the checklist”) serves as an effective communication tool for patient safety. Accurate and clear communication at appropriate times reduces errors and ultimately enhances the safety of surgical patients. We encourage facilities that have not yet adopted a checklist to utilize ours and implement measures that ensure the safety of perioperative patients.

JONA Perioperative Safety Checklist 2024

step	Phase0	Phase1	Phase2	Phase3	Phase4
timing	The day before surgery or Before entering the operating room	Before induction of anesthesia	Before surgery	During surgery and before leaving the room	When leaving and after leaving the room
Person to check	Outpatient or Wards, surgeons and ORNs	ORNs and Anesthesiologists	The entire surgical team	The entire surgical team	ORNs and outpatient or ward
Check items	【Patient Identification】 ☐Name Date of birth ☐consent form ☐surgical site/method ☐marking ☐allergy ☐Wear ☐Contraindications ☐Discontinued medication ☐Patches	【Patient Identification】 ☐Patient Authentication ☐Name Date of birth ☐consent form ☐surgical site/method ☐marking ☐allergy ☐Discontinued medication ☐Patches ☐Contraindications ☐blood products ☐Difficult intubation or risk of aspiration ☐Bleeding risk ☐Deep vein thrombosis prevention instructions ☐Activation of vital signs monitor	☐Team introductions 【Patient Identification】 ☐Name Date of birth ☐surgical site/method ☐marking **From the surgeon** ☐Unusual procedures ☐surgery time ☐Estimated blood loss **From an anesthesiologist** ☐Patient-specific problems ☐Antibiotics **From the equipment nurse** ☐Equipment damage ☐Inadequate sterilization	**Before closure** ☐Surgical method confirmation ☐Equipment counting ☐Equipment damage ☐Catheters and drains ☐Problems with postoperative management **Before the end** 【Specimen confirmation 】 ☐Inspection order/slip ☐Patient name ☐Specimen name ☐number ☐Specimen fixation method	☐Problems with postoperative management **From the surgeon** **From an anesthesiologist** **From ORNs**

We recommend that you add to or modify this checklist according to the actual circumstances of your facility.
Modified the WHO (World Health Organization) Surgical Safety Checklist　　**＊ORNs：operating room nurse**

日本手術看護学会 Japan periOperative Nursing Academy

How to Use the Checklist

[Phase 0: Preoperative Confirmation in the Outpatient Clinic or Ward and Handover to the Operating Room]

Safety confirmation in Phase 0 is conducted either on the day prior to surgery or, in cases where surgery is performed on the day of admission, before the patient enters the operating room. The primary personnel responsible for this confirmation are surgeons and nurses in the outpatient clinic or ward. The location for confirmation is either the outpatient clinic or the ward, and the method of confirmation is left to the operational procedures of each facility. In recent practice, preoperative outpatient visits and ward visits by operating room nurses are also utilized for this confirmation.

Items to be confirmed include:

- Patient’s name and date of birth
- Consent form
- Surgical site and procedure

- Site marking
- Allergies
- Wearable items (e.g., hearing aids, wigs, rings)
- Contraindications
- Medications currently taken and those that should be discontinued (including discontinuation status)
- Transdermal patches (e.g., narcotics)

Regarding site marking, it is essential to confirm whether the surgical site has been marked in cases involving laterality (left/right), multiple anatomical components, or specific levels (e.g., particular fingers, toes, skin lesions, vertebrae). Confirmation of the surgical site, procedure, and marking is critical to prevent surgery on the wrong patient, wrong site, or incorrect procedure—all of which can result in serious harm to the patient. Confirmation and marking are complementary processes and should be intentionally repeated within the system to enhance safety. Consistent site marking for all cases serves as a backup check to verify the correct site and procedure. Upon entering the operating room, the above confirmation items are handed over to the operating room nurse by the outpatient or ward staff.

Thorough preparation is essential before surgery. Preoperative checks should be conducted in the outpatient clinic, ward, or operating room anteroom to ensure that surgery can be performed safely and appropriately. Collaboration and information sharing among surgeons, anesthesiologists, operating room nurses, ward nurses, and outpatient nurses are indispensable. Sharing information helps fill gaps in knowledge, enables consistent nursing interventions, facilitates smooth surgical progress, and contributes to risk mitigation during the perioperative period.

Additionally, it is important that patients receive necessary explanations about their health condition and the surgical procedures they may undergo, and that they fully understand and consent to the treatment. Providing patients with the necessary information helps alleviate anxiety and allows them to mentally prepare for surgery. Supplying such information is also crucial for patients and their families to make

informed decisions, and it promotes active participation in treatment and nursing care.

[Phase 1: Confirmation Before Anesthesia Induction]

Safety confirmation in Phase 1 is conducted prior to the induction of anesthesia. After the handover from outpatient or ward nurses to operating room nurses, the confirmation takes place within the operating room. The primary personnel responsible for this phase are operating room nurses and anesthesiologists. Confirmation is performed using both verbal communication and patient identification via paper or electronic media.

Items to be confirmed include:

- Patient's name and date of birth
- Consent form
- Surgical site and procedure
- Site marking
- Allergies
- Discontinued medications
- Transdermal patches (e.g., narcotics)
- Contraindications
- Blood products
- Risk of difficult intubation or aspiration
- Risk of bleeding
- Instructions for deep vein thrombosis prevention
- Functionality of vital sign monitors

The handover at the time of entry into the operating room involves the operating room nurse receiving information and assessments obtained by the outpatient or ward nurse. This process helps grasp the patient's condition immediately before surgery and informs intraoperative nursing care.

Regarding difficult intubation or aspiration risk, securing the airway for patients undergoing general anesthesia is one of the most critical tasks during induction. Relaxation of the upper airway can lead to airway collapse, and reduced protective reflexes increase the risk of aspiration. It is essential to verbally confirm whether the anesthesiologist has objectively assessed the difficulty of airway management. Accurate airway evaluation is crucial, as deaths due to airway management failure during anesthesia continue to occur globally and are preventable with proper planning. Aspiration risk should also be evaluated as part of the airway assessment.

For bleeding risk, massive hemorrhage is always associated with hemodynamic instability and is linked to poor postoperative outcomes. It poses a life-threatening condition for surgical patients. Surgeons do not always communicate bleeding risks to anesthesiologists or nurses. Therefore, if the anesthesiologist is unaware of the potential for massive bleeding in a case, it is important to discuss this risk with the surgeon before surgery begins.

Confirmation of vital sign monitor functionality is carried out by anesthesiologists, operating room nurses, and clinical engineers. The theoretical value of pulse oximeters lies in their ability to detect hypoxemia earlier and more clearly than clinical signs alone. Pulse oximeters are strongly recommended by the WHO as essential for safe anesthesia care.

[Phase 2: Confirmation Before Incision]

Safety confirmation in Phase 2 is conducted immediately before the surgical incision. All members of the surgical team participate in this confirmation. The process begins with verbal introductions of the team members, followed by a collective review of the patient's information using a medium such as paper or

electronic records. The team confirms the patient's name, date of birth, surgical site, procedure, and site marking.

Subsequently, individual confirmations are made:

- The surgeon confirms any non-standard procedures, expected duration of surgery, and anticipated blood loss.
- The anesthesiologist confirms any patient-specific concerns.
- It is verified whether prophylactic antibiotics have been administered within 60 minutes prior to incision.
- The scrub nurse checks for any equipment damage (e.g., implants, borrowed instruments, surgical tools) and ensures proper sterilization before the incision.

Regarding antibiotic administration, the optimal timing for preoperative prophylaxis is within 60 minutes before incision. Surgical site infections are serious, costly, and associated with increased complications, mortality, and extended hospital stays. Strong evidence supports that prophylactic antibiotics are most effective when serum and tissue concentrations reach therapeutic levels at the time of incision.

Efficient management of high-risk situations requires that all team members have a shared understanding of each other's identities, roles, and capabilities. This can be achieved through brief introductions. To prevent surgery on the wrong patient or site, all activities in the operating room are temporarily paused before the procedure begins. The team verbally confirms the patient's name, the planned procedure, the correct surgical site, and the patient's positioning.

Effective team communication is a key component of safe surgery, strong teamwork, and the prevention of serious complications. To ensure that critical patient issues are communicated, the checklist coordinator (such as the circulating nurse) facilitates rapid discussions among the surgeon, anesthesiologist, and operating room nurse regarding major risks and the surgical plan.

In emergency surgeries, the confirmation process is limited to verifying the patient's identity and the essential details of the procedure.

[Phase 3: Confirmation During Surgery and Before Leaving the Operating Room]

Safety confirmation in Phase 3 is conducted during surgery, particularly before wound closure and prior to the patient leaving the operating room. All surgical team members participate in this confirmation.

Before wound closure, the team verbally confirms:

- The surgical procedure performed
- Instrument counts (e.g., gauze, sponges, needles)
- Equipment damage
- Presence and placement of catheters and drains
- Postoperative management concerns

Before the end of the procedure, specimens are confirmed using test orders or specimen labels. The team verifies:

- Patient name
- Specimen name
- Quantity
- Fixation method

Regarding procedure confirmation, the surgical method may have changed or expanded during the operation. Therefore, the surgical team must confirm with the lead surgeon what procedure was actually performed.

Instrument counts are critical, as incidents involving retained gauze or needles continue to occur. The scrub nurse and circulating nurse must verbally confirm the final count of gauze and needles. In cases involving open cavities, confirmation of complete instrument counts is mandatory. If the counts do not match, the operating room nurse must issue a warning and follow appropriate procedures—such as checking drapes, waste, and the surgical site, or taking an X-ray if necessary.

Equipment verification is essential to prevent reuse of malfunctioning instruments. Any equipment issues that arise during surgery must be clearly recognized by the surgical team.

After surgery, patients may have multiple devices such as epidural tubes and various drains. It is necessary to confirm and hand over details including the number, type, and placement of these devices. Measures to prevent confusion—such as clear labeling—are also important.

Postoperative management concerns focus on surgical or anesthetic issues that may affect the patient. The surgeon, anesthesiologist, and operating room nurse should review the recovery and management plan. This includes identifying special risks or issues that may not be clearly recognized by all team members. The goal of this step is to ensure efficient and appropriate communication of critical information to the entire team.

Organs, tissues, and specimens removed during surgery are essential for diagnosis and treatment. Therefore, at the end of the procedure, utmost care must be taken to avoid mix-ups, damage, or loss, and to ensure proper submission to the pathology department.

[Phase 4: Handover to Outpatient Clinic or Ward Upon Leaving the Operating Room and Postoperative Confirmation]

Safety confirmation and handover in Phase 4 are conducted either at the time of the patient’s departure from the operating room or immediately afterward, typically in the operating room anteroom or similar location. The primary personnel involved are operating room nurses and outpatient or ward nurses. The handover and confirmation are carried out using either electronic or paper-based documentation.

Items to be confirmed and handed over include intraoperative issues and responses, as well as concerns regarding postoperative management, from the perspectives of the surgeon, anesthesiologist, and operating room nurse.

Before the patient leaves the operating room, the surgical team — including the surgeon, anesthesiologist, and nurses — conducts a debriefing to review any intraoperative issues and anticipated postoperative concerns. Prior to transferring the patient to the outpatient clinic or ward, the team must share information about any problems that may affect postoperative care. This ensures that the outpatient or ward staff responsible for postoperative management and observation are fully informed of necessary precautions and care plans.

Additionally, it is recommended that the team reflect on any intraoperative issues to identify measures that can prevent recurrence and contribute to continuous improvement.

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