

TITLE

SURGICAL SITE VERIFICATION AND MARKING FOR SURGICAL INTERVENTIONS

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Provincial

DOCUMENT

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NOTE: The first appearance of terms in bold in the body of this document (except titles) are defined terms – please refer to the Definitions section.

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OBJECTIVES

- To require surgical site verification for all **surgical interventions**.
- To clearly identify mandatory steps for surgical site marking in surgical interventions involving right/left distinction or multiple structures (e.g., fingers, toes, limbs, eyes).

PRINCIPLES

This procedure is a necessary strategy that complements the Alberta Health Services (AHS) *Safe Surgery Checklist* Policy and Procedure, including the Briefing and Time Out steps.

Active involvement and effective communication among all members of the **surgical team** is critical to prevent wrong patient, wrong procedure, or wrong site surgeries.

To the fullest extent possible, the **patient** should be involved in this process.

APPLICABILITY

Compliance with this document is required by all Alberta Health Services employees, members of the medical and midwifery staffs, students, volunteers, and other persons acting on behalf of Alberta Health Services (including contracted service providers as necessary).

ELEMENTS**1. Surgical Site Verification**

- 1.1 Surgical site verification shall be completed and documented for every patient undergoing a surgical intervention in all **AHS settings**.

- 1.2 The **most responsible health practitioner (MRHP)** performing the surgical intervention is responsible for surgical site verification and shall verbally confirm with the patient:
- a) the patient identity;
 - b) the procedure to be performed;
 - c) the location on the body where the patient understands the procedure will take place; and
 - d) consent for the procedure.

2. Surgical Site Marking

- 2.1 Surgical site marking shall be completed and documented for every patient undergoing a surgical intervention involving right/left distinction or multiple structures, not including the exceptions in Section 3 below.
- 2.2 Surgical site marking shall be completed:
- a) by the MRHP who is performing the surgical intervention; or
 - b) in facilities or programs where the surgical site is pre-marked by another **health care professional** member of the surgical team or the patient using a standardized process prior to the surgical intervention, the MRHP shall ultimately verify the correct surgical site; and
 - c) in collaboration with the patient:
 - (i) as close to the time of the procedure as possible;
 - (ii) when possible before the patient enters the operating theatre or procedure area where the surgical intervention is to be performed;
 - (iii) before sedative pre-medication on a patient who is awake and conscious; and
 - (iv) before general, spinal, or local anesthetic, regardless of where it is provided.
- 2.3 When a patient marks their own surgical site, the marking shall be reviewed and verified by member(s) of the surgical team to support marking as per Section 2.4 below.
- 2.4 The correct surgical site/side/level shall be marked in proximity to the incision site with the MRHP's initials, or the word "yes", or another mark (e.g., lines or an arrow, small dot above the operative eye) representing the surgical site with an indelible single-use pen that is visible on the patient and withstands prepping agents.

- a) Non-operative surgical site(s) shall not be marked.
 - b) An “X” or cross shall not be used to mark the surgical site as these marks are ambiguous and could be misinterpreted as “do not operate here”. (Refer to *Guide to Surgical Site Marking. HIGH 5s “Performance of Correct Procedure at Correct Body Site: Correct Site Surgery.* [HAS, CEPPrAL])
 - c) Reusable markers containing alcohol may be used and shall be disinfected between each patient use
- 2.5 The surgical team shall be responsible for ensuring the surgical site marking is visible on the patient when the incision occurs.
- 2.6 For surgical interventions on lateralized internal organs for which the incision(s) are remote from the organ (e.g., laparoscopic left nephrectomy, left thyroidectomy), the mark shall be a definitive indicator of the **laterality** (e.g., an arrow pointing towards the correct side, the words right/left) near one of the incision sites indicating the side to be operated upon.
- 2.7 If a patient refuses to have their surgical site marked, the MRHP shall discuss the importance of surgical site marking with the patient. Alternative means of identifying the surgical site shall be discussed with the patient. The patient’s refusal to have the surgical site marked shall be documented in the patient **health record** and the surgical intervention may proceed.

3. Exceptions to Surgical Site Marking

- 3.1 A surgical intervention not involving right/left laterality distinction (e.g., caesarean section, cardiac surgery, gastrectomy, cystectomy).
- 3.2 Patient care during an unscheduled visit to an Emergency Department or Urgent Care Centre.
- 3.3 A surgical intervention involving obvious wounds or lesions (e.g., suturing, debridement of laceration).
- 3.4 A surgical intervention where marking may cause permanent tattooing (e.g., premature infants and laser skin procedures).
- 3.5 A surgical intervention where it is anatomically or technically difficult to mark the site (e.g., acute burns, endoscopic and other procedures performed through the mouth, perineum/urethra, or anus).
- 3.6 Dental procedures:
 - a) While dental procedures are excluded from mandatory site marking, the operative tooth (teeth) name(s) or number(s), when known in advance,

shall be indicated on documentation, or the operative tooth (teeth) should be marked on the dental odontogram.

- 3.7 Emergency situations which require health care that is necessary to preserve life, prevent serious physical or mental harm, or alleviate severe pain.
- 3.8 Surgical interventions where:
- a) the site is not pre-determined (e.g., cases where the laterality must be examined or confirmed under anesthesia);
 - b) several site options are available (e.g., ostomy creation);
 - c) intra-procedure imaging for site localization will be used (e.g., radiological, MRI); or
 - d) sites are marked by means of ultrasound or guide wire.
- 3.9 Cases of bilateral simultaneous organ surgery (e.g., bilateral tonsillectomy).

4. Alternative Methods of Surgical Site Marking

- 4.1 For patients with skin conditions or pigmentation that make surgical site marking difficult, alternate forms of marking should be considered and the method documented in the patient health record (e.g., arm bands, silver marker).

5. Multiple Interventions

- 5.1 If a patient is undergoing multiple distinct procedures in the operating room, or multiple surgical teams are involved, or procedures require repositioning of the patient, surgical intervention site(s) shall be marked appropriately and a Time Out step prior to each distinct procedure shall be completed as per the *AHS Safe Surgery Checklist Policy and Procedure*.

DEFINITIONS

Alternate decision-maker means a person who is authorized to make decisions with or on behalf of the patient. These may include, specific decision-maker, a minor's legal representative, a guardian, a 'nearest relative' in accordance with the *Mental Health Act* (Alberta) or an agent in accordance with a Personal Directive or a person designated in accordance with the *Human Tissue and Organ Donation Act* (Alberta). This also includes what was previously known as the substitute decision-maker.

AHS settings means any environment where treatment/procedures and other health services are delivered by, on behalf of or in conjunction with, Alberta Health Services.

Co-decision-maker means a person selected by the patient and appointed by the Court to make decisions in partnership with the patient, when the patient has significantly impaired capacity but can still participate in decision-making.

Health care professional means an individual who is a member of a regulated health discipline, as defined by the *Health Disciplines Act* (Alberta) or the *Health Professions Act* (Alberta), and who practices within scope and role.

Health record means the collection of all records documenting individually identifying health information in relation to a single person.

Laterality pertains to a side of the body. While laterality is the usual site designation, site designations are also necessary for multiple structures (such as fingers and toes), or levels (as in spinal procedures).

Most responsible health practitioner (MRHP) means the health practitioner who has responsibility and accountability for the specific treatment/procedure(s) provided to a patient and who is authorized by Alberta Health Services to perform the duties required to fulfill the delivery of such a treatment/procedure(s) within the scope of their practice.

Patient means all persons, inclusive of residents and clients, who receive or have requested health care or services from Alberta Health Services and its health care providers. Patient also means, where applicable:

- a) a **co-decision-maker** with the person; or
- b) an **alternate decision-maker** on behalf of the person

Surgical intervention means an intervention that involves at least one of the following:

- a) general, spinal or local anesthetic, regardless of where it is provided;
- b) an incision below the skin or eye, into the underlying body structure or cavity; or
- c) an operating room, due to the condition or age of the patient.

Surgical team(s) means Alberta Health Services employees, and other persons working on behalf of or in conjunction with Alberta Health Services, including surgeons, anesthesiologists, nurses, technicians, and other support staff, involved in surgical interventions.

REFERENCES

- Alberta Health Services Governance Documents:
 - *Safe Surgery Checklist: Developing Alternate Versions* Procedure (#PS-04-01)
 - *Safe Surgery Checklist* Policy (#PS-04)
- Alberta Health Services Forms:
 - *Consent to Surgery or Invasive Procedure* Form (#18628)
 - *Consent to Treatment Plan or Procedure* Form (#21522)

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- Non-Alberta Health Services Documents:
 - *Guide to Surgical Site Marking. HIGH 5s “Performance of Correct Procedure at Correct Body Site: Correct Site Surgery”* (HAS & CEPPrAL, 2012).
 - *Standards, Guidelines and Position Statements for Perioperative Registered Nursing Practice* (Operating Room Nurses Association of Canada)

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