Lothian NHS Board

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Date 25/03/2026
Your Ref
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Dear

FREEDOM OF INFORMATION – SURGICAL SKIN MARKERS

I write in response to your request for information in relation to surgical skin markers.

Question:
1. A list of all surgical skin markers currently used in your organisation for:
    a. Pre-operative site marking in theatres.
    b. Marking the skin for bedside or ward-based procedures (e.g., central venous access, chest drains, skin demarcation, or similar).

Answer:

a.	*2710NS CareFusion Surgical Skin Marker with Ruler* *SM0372 Skintact Easi-Mark Surgical Skin Marker Fine/Regular Tip With Flexible Ruler* *SM0572 Skintact Easi-Mark SURGICAL SKIN MARKER REGULAR BROAD TIP*
b.	*Above skin markers only skin markers used in NHS Lothian*

Question:
2. For each marker, please include:
    a. Brand and product name.
    b. Ink colour(s).
    c. Typical clinical area(s) where it is used.

Answer:

a.	*See above*
b.	*All Markers Violet*
c.	*Theatre is largest user of skin markers but used various services in NHS Lothian.*

Question:
3. Copies of any product specifications, catalogues, or procurement documents held by the organisation that describe available colours and intended use.

Answer:

None held. As per Section 17 of the Freedom of Information (Scotland) Act 2002 formally I must advise tht we do not hold this information.

Question:

4. Copies of any current Organisational policies, protocols, guidelines, or training materials that:
    - Refer to the choice of surgical skin marker colour.
    - Refer to visibility of markings in different clinical contexts or patient groups.
    - Address this issue within equality, diversity and inclusion, patient safety, or clinical governance documents.

Answer:

See enclosed.

Question:

5. Information on whether any additional or alternative marker colours (beyond standard ones) are available within the organisation (e.g., for use in clinical areas or patient groups where standard markings may be less visible).

Answer:

Skin markers above are the only skin markers used

Question:

6. Anonymised, aggregated incident reports, risk assessments, or patient safety reports (1 January 2019 to present) where visibility of skin markings was identified as a contributory factor. (No patient-identifiable information is requested.)

Answer:

I am advised that no incidents have been reported or recorded in relation to this.

I hope the information provided helps with your request. I

If you are unhappy with our response to your request, \you do have the right to request us to review it. Your request should be made within 40 working days of receipt of this letter, and we will reply within 20 working days of receipt. If our decision is unchanged following a review and you remain dissatisfied with this, you then have the right to make a formal complaint to the Scottish Information Commissioner within 6 months of receipt of our review response. You can do this by using the Scottish Information Commissioner's Office online appeals service at www.itspublicknowledge.info/Appeal. If you remain dissatisfied with the Commissioner's response you then have the option to appeal to the Court of Session on a point of law.

If you require a review of our decision to be carried out, please write to the FOI Reviewer at the email address at the head of this letter. The review will be undertaken by a Reviewer who was not involved in the original decision-making process.

FOI responses (subject to redaction of personal information) may appear on NHS Lothian's Freedom of Information website at: https://org.nhslothian.scot/FOI/Pages/default.aspx

Yours sincerely

ALISON MACDONALD
Executive Director, Nursing
Cc: Chief Executive

Procedure for pre-operative marking

Date effective from:	June 2025	Review date:	June 2028
Authors:	Mr James Powell AMD for Gen Surgery, Transplant, Trauma and Neurosciences, Dr K Kefala AMD for ATCC Lothian		
Authorised by:	Acute CMG		
Category / Level / Type:	Level 1		
Version number:	2.0		

Contents

1. Introduction

1.1 Pre-operative marking has a significant role in promoting surgical intervention on the correct site and/or the correct anatomical location or level (such as the correct finger on the correct hand).

1.2 Although surgery performed on the incorrect anatomical site is rare it has a devastating effect on staff and patients.

1.3 The National Safety Standards for Invasive Procedures (NatSSIPs) 2 published by the Centre for Perioperative Care (CPOC) in 2023 provides detailed recommendations and guidance around the need for pre- operative marking and the practical aspects of carrying out this task. Details can be found in Appendix 2.

1.4 Emergency Surgery should not be delayed due to a lack of preoperative marking

2. Aim of procedure

The aim of this procedure is to provide a consistent approach to pre-operative marking, helping staff to confirm that correct pre-operative marking has taken place and thereby promoting correct site surgery. This will reduce the chance of an error occurring.

3. Scope of procedure

3.1 This procedure is applicable to all medical and clinical staff involved in the pre- operative or peri-operative care of patients undergoing surgery or procedures where pre-operative marking is required.

3.2 The procedure includes details related to the process of marking, clarification as to who can mark operative sites and the process of checking, verification and documentation for correct site marking.

4. Objectives

Patient safety is maintained through consistent practice of staff related to correct pre operative site marking and verification checks as outlined in this procedure.

5. Principles

5.1 Wrong site, wrong procedure, wrong person surgery can and must be prevented.

5.2 A robust, comprehensive approach using multiple complementary strategies is required to achieve the objectives of this procedure.

5.3 Active involvement and effective communication among all members of the clinical team is important for success.

5.4 To the extent possible, the patient (or legally designated representative) should be involved in the process.

5.5 Consistent implementation of a standardised approach as outlined in this procedure.

5.6 A requirement for pre-operative marking should focus on cases involving right/left distinction, multiple structures (fingers, toes) the segment of a segmental organ whenever possible, or levels (spine).

5.7 This procedure should be applicable or adaptable to all operative invasive procedures that expose patients to harm, including procedures done in settings other than the operating room.

6. Standards to be followed

6.1 Pre Operative Marking

The purpose is to mark unambiguously the intended site of incision/insertion for all procedures for which variation is possible i.e. where there is laterality, level or more than one operating site.

6.2 Who Marks

The marking should be performed by the operator, a nominated deputy who will be present during the procedure or, in the case of emergency procedures, by a member of the clinical team (staff) who is familiar with the patient and capable of performing the procedure

6.3 When to Mark

- The procedure site must be marked on the ward or day care area prior to the patient transfer to operating theatre and not in the anaesthetic room or the procedure room.

- Marking should be done with the patient's agreement while the patient is awake and prior to premedication.

- Marking should be performed in parallel with consent verification by the operator if a primary consent is made in clinic or on another date.

- Wherever possible verification of consent and marking should involve the patient.

6.4 Where/What to Mark

- Surgical Operations involving side (laterally) should be marked close to the intended incision.

For digits on the hand and foot the mark should extend to the correct specific digit.

- Ascertain intended surgical site from reliable documentation and images, with confirmation with the patient.

The mark must be placed such that it will remain visible where possible and appropriate in the procedure field after preparation of the patient and application of drapes.

For procedures during which the patient's position may be changed, marking must be applied such that it is visible at all times.

When the patient's position is changed during a procedure, the site should be re-verified and the mark checked. An exception is when marking is limited by a dressing or cast; the mark should be made as close to the operative site as possible.

- Specification of segment of segmented organ should be identified if appropriate i.e. lobe of lung or liver. It is acknowledged that in some circumstances the surgical intervention may be modified according to clinical findings in the course of the actual surgical procedure. This needs to be made clear to the patient as part of the consenting process and information discussion.

  If the operative process involves specific (skin) lesions, these must be marked.

6.5 How to Mark

The mark should be applied after confirming the procedure to be undertaken by verifying the procedure with the records, including images and previous investigations and in conjunction with confirming the consent form and, where possible and most importantly, with discussion with the patient.

The scheduled printed / electronic operating list must not be relied upon as It may not be accurate for the site of the procedure being performed.

- How to make the Mark

An indelible marker pen should be used. The mark should be an arrow that extends to a point just short of where the incision site is to commence and remains visible after the application of skin preparation. It is desirable that the mark should also remain visible after the application of theatre drapes.

The table in appendix 2 provides specific specialty and procedure specific guidance on marking. This can be found at CPOC_NatSSIPs2_SiteMarkingTable.pdf.

Every theatre should have a written SOP detailing the required specific marking for procedures being carried out in that theatre. This SOP should include how surgical side and/or level is confirmed during the theatre check lists/briefs.

6.6 Involvement of others

The process of pre-operative marking should involve the patient and/or family members/significant others whenever possible.

In the case of children, parents should be involved in the process of marking.

In the case of incapacitated/vulnerable adults, family members should be given the opportunity to be involved in the process of marking where appropriate.

6.7 Verify

The surgical site mark should subsequently be checked against reliable documentation to confirm it is (a) correctly located, and (b) still legible. This checking should occur at each transfer of the patient's care and end with a final verification prior to commencement of surgery. All team members should be involved in checking the mark.

Every theatre should have a written SOP detailing the required specific marking for procedures being carried out in that theatre. This SOP should include how surgical side and/or level is confirmed during the theatre check lists/briefs.

7. Circumstances where marking may not be appropriate

7.1 Teeth and mucous membranes

7.2 Cases of bilateral simultaneous organ surgery such as bilateral tonsillectomy, squint surgery

7.3 Situations where the laterality of surgery needs to be confirmed following examination under anaesthesia or exploration in theatre such as revision of squint corrections

7.4 Diagnostic, not targeted or site/lesion specific, biopsies for example renal biopsies for parenchymal renal disease

8. Evidence base

Centre for Perioperative Care. National Safety Standards for Invasive Procedures 2 (NatSSIPs) January 2023. CPOC_NatSSIPs_FullVersion_2023_0.pdf

World Health Organisation : Safer Surgery Checklist, January 2009

Appendix 1

Specialty	When specifically?	Marks recommended	Text permitted	Specialty guidance links/Caveats
Anaesthesia	Regional blocks	Arrow		Prep Stop Block checks with surgical mark Link to pain
Breast	To indicate which breast	Arrow, localisation devices? Wires/clips With localised excisions there are seeds and / or wires or nuclear medicine injections. These are all part of the site/side identification process as patients agree which side they are having surgery	*In some scenarios based on surgical practice and following cosmetic discussion with the patient marks are used but note that marks can be seen as insensitive to the patient and is a detailed visible sign of the operation that the patient is having.*	
Cardiology				
Cardiothoracic	Thoracics	Arrow		
Critical Care	Chest drains, regional blocks, not required for access as site may change	Arrow – as respiratory		

Dental	To ensure correct tooth removal	Palmer notation on consent and whiteboard		
		Arrow on skin can be used		
Dermatology	To indicate which skin lesion (s) Risk of wrong lesion excised	Arrow and circle around lesion if multiple		Correlation with clinical notes and photographs and/or body map. Where a clinician is performing the procedure who is not a dermatologist and has not met the patient before, there should be a clear route for them to query and confirm the lesion if required.
ENT and Head and Neck	If laterality in parathyroid, thyroid. Ear,unilateral tonsil, nose, skin lesion, lacrimal dacryocystorhinostomy (DCR) parathyroid gland, and other neck masses	Arrow. Circle may be needed for some masses / nodes.		
Endoscopy	Consent to indicate			
Endocrine surgery	If laterality e.g. adrenals			
General	Stoma site marking, hernia side, abscesses	Pen markings for stoma, arrow for laterality and ring with arrow for abscesses		
Gynaecology	Labia, Ovaries	Labia; Mark to inner/upper thigh		Laparoscopic laterality decision making can be intraoperative and if consent does not indicate laterality, then a mark is not required
Haematology				

HPB				
Interventional Radiology and Radiology OP and IP	Renal intervention (e.g. nephrostomy, ureteric stenting, renal biopsy, renal tumour ablation) Arterio-venous fistulogram + proceed Angioplasty if laterality indicated, Joint injections, Biopsy of lesion	Arrow and clear drapes		
IVF	Laterality for egg harvest	Arrow		
Maxillofacial	Mandible ORIF laterality Teeth (see dental)	Arrow		
Neurosurgery	Craniotomy, cranioplasty Stealth guided	Arrow on neck / shoulder, or redo scalp mark after shaving		
Neurosurgery spinal	Can we link with ortho spinal?	Arrow	Anterior Posterior Left Right	Skin marking for spinal surgery may be a 2stage process: Pre-operatively: The skin will be marked at the level of the procedure. The skin mark should indicate anterior vs. posterior and right vs. left A mark (Level and side) can be drawn once the patient is anaesthetised and positioned and can form part of the Time - Out Intra-operatively: X-rays will be used to determine exact location and level of surgery and the site marked with a sterile permanent marker by the operating surgeon.

Neurology				
Obstetrics				
Oncology				
Ophthalmology	To indicate which eye Mydriasert is an insoluble ophthalmic insert indicated for mydriasis A local protocol should be developed with staff education for those inserting the pellet	Arrow above the eyebrow (not covered by hat)		RCOPth process to be published

	• A process to ensure it is removed after 2 hours or prior to surgery			
Orthopaedics	To indicate limb Digits – see main NatSSIPs document	Arrow		
Orthopaedics Spinal	Processes should be consistent for all spinal surgery regardless of specialty		Anterior Posterior Left Right	
Paediatrics?	As per other specialties. No specific extra / different requirements			

Pain	To indicate site of block or implant	Arrow	Additional marks to plan surgery	Prep stop block checks
Plastics	To indicate laterality, digit and plan surgical approach	Arrow and circle around lesion if multiple	Additional marks to plan surgery	
Radiotherapy				
Renal	To indicate which kidney	Arrow		
Respiratory	Chest drain	Arrow		
Urology	Testicular surgery Stent	Arrow		
Vascular	Angioplasty	Arrow		
SPECIAL Emergency checks e.g. Lifesaving surgery (Code red/Code black emergency)	In life saving			
Laparoscopic / endoscopic surgery through non-lateralising entry				Laparoscopic operative laterality decision making can be intraprocedural and if consent does not indicate laterality, then a mark is not required