University Hospitals of Derby and Burton NHS Foundation Trust

TRUST STANDARD OPERATING PROCEDURE (SOP): SURGICAL SITE MARKING PROTOCOL - BURTON SITE ONLY

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Version / Amendment History	Version	Date	Author	Reason
	2	April 2015	Claire Saunders	Removed exemption to marking open wounds
	3	April 2017	Claire Saunders	Quick reference guide changed in reflection to NATSIPPS. Review post Never Event.
	3.1	January 2021	Claire Saunders	Reviewed and updated pending LOCSSIPs development.

Intended Recipients:

- Surgeons
- Anaesthetists
- Theatre Staff
- Ward Staff

Training and Dissemination: Dissemination via the Trust Intranet

To be read in conjunction with: Consent - Including the Mental Capacity Act (Lawful Authority for Providing Examination, Care or Treatment)

In consultation with and Date: N/A

EIRA stage One Completed:

Procedural Documentation Review Group Assurance and Date	Quality and Safety Theatre Lead for QHB site has agreed this as an interim SOP whilst the LOCSSIPs policy is developed
Approving Body and Date Approved	Trust Delivery Group – February 2021
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Contact for Review	Clinical Director Surgery
Executive Lead Signature	Executive Medical Director
Approving Executive Signature	Executive Medical Director

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SURGICAL SITE MARKING PROTOCOL AND SOP (BURTON SITE ONLY)

QUICK REFERENCE GUIDE

For quick reference the guide below is a summary of actions required. This does not negate the need for those involved in the process to be aware of and follow the full detail of this SOP. This SOP only applies to patients having surgery within the operating theatres complex.

Procedural Verification of Site Marking

The site for all procedures that involve incisions, percutaneous punctures or insertion of surgical instruments, must be marked unless the surgery involves a unilateral organ e.g. gall bladder, appendix. It will include unilateral operations on paired organs e.g. ovaries. Other exceptions are detailed in section 6.3. Specialty specific instructions are at section 6.4.

1. **Verify the mark:** The operator or a nominated deputy is responsible for verifying the surgical site. The operator or nominated deputy must verify the site marked with the patient or parent / guardian, with the consent form, medical notes, test results and imagining. If it is not possible to mark the operating site with the patient's involvement, the operating surgeon is responsible for ensuring correct site marking and surgery is performed.

2. **Mark on the ward:** The procedure site must be marked before the patient leaves the admitting department.

3. **Mark by the operator:** The marking must be performed by the operator or a nominated deputy who has verified the surgical site and will be present during the procedure. The mark is to be an arrow pointing to the site of the operative procedure, as close as possible to the incision site, visible when the patient has been draped, wherever possible nails should not be marked with ink. If there is a limb plaster in place, the mark should be on the affected limb. A further mark should be applied within the surgical field once the plaster has been removed.

4. **Use a Surgical Skin Marker:** The mark must be made with an appropriate surgical skin marker, the ink of which is not easily removed with skin prep solutions.

5. **Tooth notation:** Tooth notation must be clearly documented on the consent form and whiteboard for verification by the team.

6. **Check the mark:** A registered nurse will check the mark on the ward and record that the standard has been met on the patient's peri-operative patient care plan. The anaesthetist and operating department practitioner (ODP) will check the mark at sign in.

SURGICAL SITE MARKING PROTOCOLS AND SOP

1. INTRODUCTION

In a service as large and complex as the NHS, there will be occasions when things do not go as planned. These include such events as wrong site, wrong procedure or wrong person surgery. This SOP has been formulated in response to the recommendations made by the National Patient Safety Agency (NPSA) and is designed to complement the World Health Organisation (WHO) checklist.

The SOP has been formulated in response to the Department of Health publications Building a Safer NHS, Doing Less Harm and the National Patient Safety Agency publications Building a memory: preventing harm, reducing risks and improving patient safety, and Seven Steps to Patient Safety. However, the ultimate aim is to reduce the risk of harm to patients through improving the safety and quality of services and the environment.

2. PURPOSE

The purpose of this SOP is to clarify and inform a universally acceptable method within the Burton site of the University Hospitals of Derby and Burton NHS Foundation Trust (the Trust), by which patients undergoing a surgical procedure will have their operative site marked appropriately and accurately and all staff will use the Trust accepted standards to improve patient safety.

It will:

- Minimise the risk of surgery on the wrong site or wrong patient
- Minimise the risk of the wrong procedure being performed
- Inform and guide the operating surgeon as to the method used to mark the skin and operative site
- Where anatomically the site will be marked
- When the marking will be undertaken.

3. SCOPE

This SOP applies to all permanent, locum, agency, bank surgeons or their deputies and other Trust staff who work on the Burton site of the Trust and who are responsible for the identification, marking and subsequent checking of a patient's surgical site.

4. DEFINITIONS

World Health Organisation (WHO) Checklist: a checklist developed by the WHO and collaborators at the Harvard School of Public Health, the checklist identifies key safety steps during perioperative care that should be accomplished during every single operation no matter the setting or type of surgery. It has been shown to significantly reduce complications and deaths from surgery.

Time Out Section of WHO Checklist: a momentary pause taken by the team just before skin incision in order to confirm that several essential safety checks are undertaken and involves everyone in the team. This has been implemented in theatres across the Trust as the STOP

moment.

5. DUTIES AND RESPONSIBILITIES

Executive Medical Director
The Executive Medical Director has ultimate responsibility for ensuring that appropriate processes are in place for the safe management of surgical patients, including preoperative marking.

Lead Clinicians
Lead Clinicians in each specialty have responsibility for ensuring their surgeons mark patients accordingly and carry out the instructions within this SOP.

Operating Surgeon (or deputy)
It is the responsibility of the operating surgeon or deputy to mark the operative site in accordance with this SOP.

Ward Staff
The ward staff are responsible for ensuring that each individual patient has been marked by the operating surgeon prior to transfer to theatres from the ward and any marking / exemptions are handed over to theatre staff.

ODP
The ODP is responsible for ensuring the patient is marked correctly as part of the ward / theatre handover.

The Operating Theatre Team
The operating theatre team carrying out the WHO Checklist / STOP moment are responsible for ensuring that the correct site has been identified and the mark checked prior to commencement of surgery.

6. PROCESS

6.1 Making the Mark

6.1.1 The patient's surgical site is to be marked on the ward / department before the patient is moved to the operating theatre complex where the procedure will be performed. The patient will be involved, awake and aware unless their physical condition prevents this.

6.1.2 The mark is to be an arrow pointing to the site of the operative procedure, as close as possible to the incision site. Ideally this should be still visible once draping has occurred but at times this may not be possible e.g. during endoscopic surgery in Urology.

6.1.3 The mark is to be made with an appropriate surgical skin marker pen and should be sufficient to remain visible after skin preparation and draping, if practicable. In the very rare case of the patient's skin colour being such that the mark is not visible with either a blue or black standard pen, then other pen colours can be tried, a plaster applied with an arrow on or other attempt to mark site be carried out. The method of marking should be clearly documented on the consent form and checked as part of the STOP moment.

6.1.4 The site for all procedures that involve incisions, percutaneous punctures, or insertion of instruments must be marked taking into consideration:

- Surface, specific digit or lesion to be operated on
- Laterality. For procedures involving laterality of organs, but where the decision or approach may be from the mid-line or natural orifice, the site must be marked and a note made of the laterality
- Both sides of digits are to be marked.

6.1.5 All site markings must be made in conjunction with checks made on the patient's diagnostic imaging results i.e. X-rays, scans, electronic imaging or other appropriate test results, ensuring these match the patient's medical notes and identity band.

Other sites that may require marking are those necessary for some other aspect of care that directly relates to the planned, proposed procedure – i.e. dual / multiple surgical sites, stoma sites.

6.2 Who Marks the Site?

6.2.1 The person who is responsible for making the mark on the patient is the Operating Surgeon who will be performing the procedure, or his / her deputy

6.2.2 If the deputy marks the site, that deputy must also be present during the operative procedure

6.2.3 The Surgeon who makes the mark must be present for that specific operation

6.2.4 The exception to this is where a patient will require a stoma as a result of a planned, elective procedure. The stoma site may be marked by the stoma nurse specialist pre-operatively in collaboration with the surgical team.

6.3 Exceptions to Site Marking

6.3.1 All endoscopies without planned intentional, invasive procedures are considered exempt from surgical site marking. Also, such sites where there is no predetermined site of surgical access, such as cardiac catheterisation and other minimally invasive procedures, would be considered exempt

6.3.2 There may also be exemption instances where the laterality of surgery needs to be confirmed following examination under anaesthetic (EUA) or exploration e.g. ectopic pregnancy

6.3.3 Procedures that have a midline approach for specific named treatments intended for a single specific organ i.e. caesarean section, hysterectomy or thyroidectomy, can also be exempted from site marking

6.3.4 It is acknowledged that there is no practical or reliable way of marking teeth or mucous membranes; especially in the case of teeth planned for extraction. A review of the dental records and radiographs with the tooth / teeth must be

undertaken and their anatomical numbers for extraction clearly marked on these records and radiographs

6.3.5 Other areas / patients where it is anatomically and technically difficult to mark the operative site include areas such as the perineum, friable skin around the site and with neonates or premature infants

6.3.6 For <u>any</u> sites not marked or those in which the mark is not in the surgical field once draped, the proposed operation / procedure must be reviewed to verify patient and procedure at the STOP moment (or Time out) part of the WHO Safety Checklist. This must be undertaken in conjunction with a review of all relevant documentation, including: the patient's notes; appropriate charts; diagnostic imaging (correctly oriented); and a 'double person' check of all information. The procedure must not commence without this review having occurred.

6.4 Specialty Specific instructions (not otherwise covered above)

6.4.1 Ophthalmic Surgery

For single eye surgery a small mark should be made either on the temple, or on the lateral aspect of the eye between the lateral canthus and the ear, pointing to the correct eye for treatment. The exception is for planned bilateral procedures on both eyes (such as bilateral squint surgery), but the laterality of such procedures should be well documented. If no mark is made, then the procedures referred to at 6.3.6 must be adhered to

6.4.2 Bilateral Treatment

Whilst this SOP focuses on laterality, specific anatomical sites, levels and areas, surgeons must consider that it is possible to perform the wrong bilateral procedure(s). If no mark is made, then the procedures referred to at 6.3.6 must be adhered to

6.4.3 ENT Surgery

There may be occasions where marking the patient's skin to 'point' to the correct site for surgery may be inappropriate e.g. bilateral tonsillectomy / adenoidectomy. In these cases 6.3.3 / 6.3.4 / 6.3.6 apply. For ENT surgical sites where a skin incision is made on a specific side i.e. surgery on the external pinna, thyroid, lymph nodes, tympanotomy and surgical side / site to take the graft, these should be marked with an arrow accordingly

6.4.4 Digital Surgery

Each and every digit to be operated on must have an individual arrow pointing to and as close as possible to the respective digit.

Both aspects of the digit must be marked so that the mark(s) is / are visible when the foot / hand is turned over

6.4.5 Limbs in Plaster

If there is a limb plaster in place, the mark should be on the affected limb. A further mark should be applied within the surgical field once the plaster has been removed.

6.5 STERILITY OF MARKING

Research has been carried out to ascertain whether the use of a permanent ink marker to mark a surgical site, affects the sterility of a patient's skin after it has been cleaned with surgical preparation solution.

The results showed that no growth was seen in the cultures of swabs taken on both the control group (un-marked) and on the experimental group (marked). Pre-operative marking of surgical sites in accordance with the Joint Commission protocol did not affect the sterility of the surgical field, therefore providing support for the safety of surgical site marking (Cronen, *et al* 2005).

7. TRAINING REQUIREMENTS

Responsibility for ensuring surgeons and anaesthetists are familiar with this SOP and its implementation lies with the appropriate clinical lead. Similar responsibility for theatre staff lies with the theatre manager.

8. REFERENCES

- Joint Commission – Sentinel Event Alert, Lesson learned – Wrong Site Surgery (1998)
- Joint Commission – Sentinel Event Alert, Issue 4, (2001)
- National Patient Safety Agency (NPSA) – Patient Safety Alert 06 – Correct site surgery, making your surgery safer (2005)
- National Patient Safety Agency (NPSA) – New Guidance for Neurosurgical Teams to avoid wrong side Burr-holes (2008)
- Joint Commission – Universal Protocol, procedure site marking (2009)
- World Health Organisation (WHO) – Implementation Manual, Surgical Safety Checklist 1st Ed (2009)
- Cronen, G. *et al.* Sterility of Surgical Site Marking. *Journal of Bone & Joint Surgery, 2005; 87: p.2193 – 2195*

9. MONITORING COMPLIANCE WITH, AND THE EFFECTIVENESS OF, MARKING PROCEDURE

Each element of marking procedure (marked correctly by surgeon on ward, patient not leaving ward unless marked correctly, correct mark checked at handover in anaesthetic room and correct marking confirmed at STOP moment) to be audited continuously until evidence 100% compliance consistently.