TEMPLATE FOR STANDARD OPERATING PROCEDURE
[ENTER TRUST/HOSPITAL NAME]
FOR PERIPHERAL NERVE BLOCKADE:
STOP BEFORE YOU BLOCK
(PREP-STOP-BLOCK)

Full Title of Standard Operating Procedure (SOP):	SOP For Safe Performance of Peripheral Nerve Blockade: Stop Before You Block (SBYB)
Author *(include email and role):*	Insert local lead names
Division & Specialty:	
Scope *(Target audience, state if Trust wide):*	Anaesthetists Surgeons Anaesthetic Practitioners Theatre Practitioners Other healthcare professionals involved in placing nerve blocks
Review date *(when this version goes out of date):*	
Explicit definition of patient group to which it applies *(e.g. inclusion and exclusion criteria, diagnosis):*	
Changes from previous version:	Renaming anaesthetist as 'Blocker' (to recognise other healthcare professionals who may place nerve blocks) Renaming anaesthetic practitioner as Blocker's 'Assistant' Emphasising 3 stages: Preparation, Stop and Block Recommending Blocker's Assistant to hold equipment until Blocker ready to insert needle Prohibiting any local variation from this SOP (but note FAQs at the end)

Summary of evidence base:	Stop Before You Block Campaign. RA-UK. Available at http://www.ra-uk.org/index.php/stop-before-you-block Safe Anaesthesia Liaison Group, SALG at: www.salg.ac.uk

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Reference	Stop Before You Block SOP
Approving Body	
Date Approved	
Implementation Date	
Version	
Summary of Changes from Previous Version	
Supersedes	
Consultation Undertaken	
Accreditation Implications	Supports Patient Safety Agenda
Target Audience	Anaesthetists Surgeons Anaesthetic Practitioners Theatre Practitioners Other healthcare professional involved in placing nerve blocks
Review Date	
Lead Executive/Director	
Author/Lead Manager	
Further Guidance/Information	http://www.ra-uk.org/index.php/stop-before-you-block www.salg.ac.uk

Contents

Introduction

This standard operating procedure (SOP) has been designed as part of a new training package for use in regional anaesthesia techniques involving laterality. This document should be used in combination with the 'Stop Before You Block' training video and poster (at: www.salg.ac.uk).

Purpose

The purpose of this document is to present a single national, standardized operating procedure (SOP) so that any future wrong-side peripheral nerve blocks (WSBs) can be investigated and mapped against a common framework. It will replace the many Trust-specific SOPs currently in existence.

Inadvertent WSBs are uncommon but can cause nerve injury, local anaesthetic toxicity, delayed hospital discharge, patient anxiety and distress and even lead to the risk of wrong-side surgery. WSB is an NHS England & Improvement Never Event: a *"serious incident.. wholly preventable as guidance or safety recommendations that provide strong systemic protective barriers are available at a national level and should have been implemented by all healthcare providers." (https://www.england.nhs.uk/publication/never-events/)*

The original safety recommendation 'Stop Before You Block' (SBYB) was devised by Nottingham University Hospitals (NUH) NHS Trust in 2011 and subsequently adopted by the Royal College of Anaesthetists' Safe Anaesthesia Liaison Group (SALG) and the sub-specialty society Regional Anaesthesia-UK. When performed correctly, the SBYB process is a strong preventative measure to avert wrong side blocks. However, the literature suggests that SBYB is being inconsistently applied and overall frequency of WSB has not declined. The Health Service Investigation Board (HSIB) tasked SALG to review the guidance and this SOP is now the result of that review.

This SOP describes when and how 'Stop Before You Block' should be performed under a common framework. The emphasis is on a 3-step process consisting of <u>preparation</u> and a <u>stop</u> moment *just* prior to <u>blocking</u> (Prep-Stop-Block) that ensures there is a stop moment *just* before the block.

It is recognised from the outset that this new, standardised SOP may not be the strongest possible barrier to prevent WSB (not least because, as with any

SOP, practitioners have to remember to do it). However, in the absence of a single framework (with each Trust having its own very different SOP) it will provide a single standard against which any future adverse event can be investigated and analysed.

Objectives

The objectives of this document are that:

- Relevant staff will understand their roles and responsibilities in relation to the performance of 'Stop Before You Block' whenever peripheral nerve blockade is undertaken.
- Relevant staff will have access to a common framework, written SOP on how to perform 'Stop Before You Block'.
- The standardized performance of 'Stop Before You Block' will enable clearer audit and analysis of adverse events.

Scope

This SOP should be used by all staff involved in placement of peripheral nerve blocks. Whilst most nerve blocks are placed by anaesthetists, we recognise that other healthcare professionals may also place nerve blocks, so we will refer to the healthcare professional placing the nerve block in this document as the 'Blocker'. In addition, whilst anaesthetists will be assisted by anaesthetic practitioners, other healthcare professionals may undertake this role, especially if the Blocker is not an anaesthetist, so refer to the healthcare professional assisting as the Blocker's 'Assistant'.

The SOP is written primarily with reference to the common context of a single peripheral nerve block (or injected local anaesthetic infiltration), where laterality is relevant, which is undertaken before a surgical intervention, either before or after (or without) general anaesthesia or sedation. There are numerous other contexts where nerve block or local infiltration injections are undertaken, and guidance for these other scenarios is outlined in the FAQs. Regardless, for all situations, this SOP constitutes a single framework and reference point in the performance of nerve block or local infiltration injections, with the key consistent component being to separate the action of the 'block' into three distinct steps: preparation, stop, and block.

Summary of key roles

The Blocker:

- Prepares drugs and equipment (syringes, needles) for injection: then hands this over on a drug tray to the Assistant
- Dons gloves, and prepares site to be blocked
- Performs the ultrasound scan (an orientation scan may have been performed before donning gloves or preparing drugs) as required.
- When ready to block states (as the Stop moment): "*I've completed my prep; let's Stop Before You Block*"
- Only then, receives drugs/equipment tray handed back from the Assistant
- Immediately performs the block
- If there is any delay in performing block from receiving tray; hands back tray to Assistant and re-starts the process as if at Preparation phase

The Assistant

- Receives prepared drugs/equipment tray from the Blocker
- Only hands this back to the Blocker after verbal confirmation from Blocker, at the Stop moment, that they have finished prep and are ready to Stop Before You Block
- At this point replies '*OK, let's Stop Before Your Block*' and re-confirms correct site against surgical site mark and consent form, as part of the Stop moment, before handing back tray to the Blocker

Both

- Undertake WHO sign in, as for all surgical patients, on arrival of the patient
- Confirm that the consent form and the surgical site mark both reconcile (and confirm this also with the patient, if patient awake)
- Check site to be blocked with verbal confirmation at the 'Stop' step.

Stop Before You Block process

Stop Before You Block is a three-step process of undertaking any peripheral nerve block or local anaesthetic infiltration:

> **Step 1 = Prep; Step 2 = Stop; Step 3 = Block**

Step 1: 'Prep'; Preparation

Sign-in; On the arrival of the patient in the Anaesthetic Room, Block Room or Operating Theatre, the WHO 'Sign In' is performed, including the confirmation of the patient identity, the operative consent form and that the operative site has been marked. General anaesthesia may or may not be administered first (or at all): regardless the following steps should be taken in relation to the conduct of the block.

Drugs and Equipment; the Blocker draws up the local anaesthetic solution and places the labelled syringe, along with a suitable nerve block needle, in a dedicated tray/container, separate from intravenous drugs. This tray/container is then handed over to the Assistant, out of the Blocker's immediate reach.

Positioning: The Blocker and Assistant should position the patient and equipment (e.g., ultrasound machine, peripheral nerve stimulator) in the final position ready for the block. Where necessary for the conduct of the block, any dressing or plasters casts should be removed. A 'pre-scan' ultrasound might be undertaken at this stage. At this point, or before, the Blocker may perform a preliminary 'scoping' ultrasound scan (if relevant).

Preparing site/gloving: The Blocker dons gloves and prepares the site (cleaning, draping) suitable for the block. Where drapes cover the surgical site mark, the Assistant should ensure they can later reveal the mark for the Stop moment. Ideally, the surgical site mark should always be visible.

Step 2: Stop moment

The stop moment is a two-person step that happens only after preparation is complete and thus *immediately before* needle insertion.

When the Blocker is ready (e.g., with the nerve(s) to be blocked located by ultrasound), the Blocker formally announces they have completed all preparation and are ready to block using a consistent form of words: "*I've completed my prep; let's Stop Before You Block*". The Assistant similarly should reply: "*OK, let's Stop Before You Block*".

The Blocker and Blocker's Assistant together should then check the block side by viewing the surgical site mark, verbally confirming the correct side: the Assistant reconciles this with the consent form. If the patient is awake and unsedated, they may also confirm the side is correct.

Step 3: Block

Only when the correct side is confirmed does the Assistant hand the tray/container to the Blocker. The Blocker *immediately* performs the block.

Any delay between handing back the tray and/or performing the block should require the Blocker and Assistant to re-start the SBYB process at Step 1. Delays might arise due to movement of the patient/site to be blocked; patient instability and need to resuscitate, or interruptions from visitors to the room or by telephone calls. This re-start is to re-create a situation in which the block *immediately* follows the handing of tray from Assistant to Blocker. Re-start might be at the very start of the Preparation stage (e.g., if the site has become unsterile) or later, depending on circumstance; but will always involve first *handing the tray back* to the Assistant.

Recording and Analysing the process

After the block, the Blocker and Assistant should record that the SBYB protocol was followed. The process allows analysis of compliance with the SOP for audit purposes, and also permits analysis of a wrong side block by serving as a reference against which any adverse event can later be mapped.

Appendix FAQs: Different Circumstances

This SOP has been designed with the context in mind of the common situation of a single block injection in a surgical/operative setting. There are numerous other contexts in which a block may be performed which do not precisely match this scenario. Examples might include performing multiple blocks (where some locations to be blocked have surgical site marks and others do not); inserting a perineural catheter and topping this up immediately or after a delay; blocks inserted after surgery, or blocks administered in non-theatre locations. It is not possible to provide a 'universal SOP' or detailed guidance for each and every situation and to encompass individualized approaches to these other types of block insertions.

However, it is possible to emphasise that in all cases, the overarching principle is to deconstruct the block process into the three distinct phases of: (i) preparation, (ii) a stop moment and then (iii) *immediate* block insertion. This process is always strengthened by an Assistant who hands over the tray after a verbal statement that preparation is complete and the Blocker is ready to perform the block.

Any Blocker who has a personal technique that cannot be deconstructed into these three distinct components of a prep phase, a stop moment and a block action must be viewed as inevitably running a statistically higher risk of performing a wrong side block.

Some specific 'frequently asked questions' (FAQs) are discussed below:

I am inserting a perineural catheter using aseptic technique so I need to gown and glove: how can the Assistant hand me the (non-sterile) tray?

The question arises because in this situation the block tray/container will be part of the Blocker's sterile field and cannot be handed over, so extra vigilance is required by the team. Nevertheless, the verbalizing: '*I've completed my prep, let's Stop Before You Block*' should still occur after preparation is complete such that injection only occurs *immediately* after the combined (Assistant and Blocker) verification of correct side.

I intend to perform more than one block injection, at separate sites in a patient. For example first a popliteal block, then an adductor canal block. When should I do SBYB?

The 3-step SBYB process (prep-stop-block) should be undertaken for each discrete needle insertion. This applies especially to where the patient is turned (e.g., supine to prone, or supine to lateral) to block additional nerves as part of the regional anaesthesia technique. Thus, a 'block' is regarded as the insertion of a needle and injection of local anaesthetic to provide local anaesthesia to a discrete nerve territory. A 'block' is not a group noun that refers to all the injections made to accomplish a given aim (e.g., 'numbness of the leg').

I perform a multi-injection technique for the same block (e.g, an ankle block, or the three-injection technique for deep cervical block): do I need to undertake the 3-step process for each injection within these type of blocks?

In this scenario of something like an ankle block, the multiple injections occur in close proximity and in rapid sequence. There is no turning of the patient and arguably, not a greatly distant anatomical site that is being blocked by the additional injections. A judgement should be made to assess the likelihood that a wrong side block might arise between successive injections. The risk is negligible for an ankle block but is in contrast high for a block involving anterior and posterior injections, with the patient turned in between (as in FAQ2, above). Thus, where the Blocker feels that the risk of wrong side block between such injections in close temporal and anatomical proximity is low or absent, a single 3-step SBYB process should provide a suitable safety margin. If, however, their technique of conducting these blocks carries a high risk of performing WSB between successive injections, it is always safer to follow the SOP for each injection.

I need to perform a block outside of the operating theatre environment: there is no surgical site mark or assistant with me. What do I do?

The Blocker should be aware of the increased risk of a WSB in this context and should make every effort to engage an Assistant. Where there is no surgical site mark (i.e., an anaesthetic-only block) then this is an exception where an 'anaesthetic' (as opposed to 'surgical') site mark is logical and acceptable. (Normally the surgical site mark alone suffices and there should be no additional marks made). Note that with anaesthetic-only blocks, there should also be a formal, written process of consent which should include site

marking; as would happen for surgical consent. An Assistant should be located to assist in reconciling the consent and site mark and help in verifying the correct side in accordance with the 3-step process.

I am performing a block after surgery: there is no longer a surgical site mark. What do I do?

Often, the operative side will be self-evident. If not, this is again a situation in which, with no surgical site mark, an anaesthetic-only mark is acceptable. The 3-step SBYB SOP process should be followed.

There are multiple surgical site marks for a complex operation, but I only intend to block one side. What shall I do?

Multiple surgical site marks make it difficult to identify with certainty the one that unambiguously identifies to anyone other than the Blocker, the site to be blocked. Good communication is important, between the Blocker and Assistant as to the precise identification process to be followed but in principle, the 3-step SBYB SOP should apply. Additional caution needs to be exercised in the situation where the surgical site mark is on the correct side, but at some distance from the site of intended block insertion; or if the block is to be inserted posteriorly when the mark is anterior (or vice versa). This increases the risk of concealment of the mark.

I always teach a trainee, and there is often also a medical student – plus the assistant/ODP. In this situation who is the 'Blocker?

This should be regarded as a situation in which the risk of error is higher than normal, because of the potential for distraction. The supervisor should adopt the role of the Blocker since they are directing or teaching the process. While the supervisee performing the block is also expected to follow the 3-step SBYB SOP process and should also be guided/prompted/taught by the Assistant to do so, the supervisor is ultimately responsible for ensuring patient safety and compliance with all relevant guidelines.

We wish to add additional steps to the SBYB Prep-Stop-Block process: is this allowed?

The very purpose of having a single national SOP is to reduce the local variation that has led to numerous, inconsistent local guidelines. There are some additional barriers that might not conceivably change the fundamental

3-step SOP process outlined above, such as placing a SBYB sticker on the tray, or having a physical SBYB flap or electronic screen on the ultrasound machine. While these may not disrupt the 3-step SOP, they should not be regarded as in any way integral to the SOP. Similarly, individual habits or aide-memoires may help some Blockers reinforce the SBYB message (e.g., the manner in which syringes/drugs are place on the tray, or adopting the habit of 'mock before you block'). Again, these may not be disruptive but should not be seen as integral to the SOP. However, some other steps currently employed in some Trusts have potential to disrupt the SOP. For example, the use of extra markings additional to the surgical site mark (except in the instance where there is no site mark at all),or adding extra steps to the process designed to address other concerns (such as drug allergies). These additional steps should be avoided.

I am performing a block close to the midline (e.g., an erector spinae block): how does the assistant confirm the side of my proposed injection (especially if there is anatomical abnormality of the spine)?

This question highlights the difficulty of the Assistant's task in identifying laterality for a block close the midline: the point of injection may not appear on the correct side, but is in fact so as confirmed by ultrasound; yet the Assistant may not be trained to interpret ultrasound images. This is one situation where marking the surface anatomy of the midline will be essential to the Assistant in being able to confirm the block is on the correct side, as reconciled with the surgical site mark. Note that if the midline anatomy is delineated by mark in this way, this is *not* an extra anaesthetic site mark, but rather to ensure the Assistant can confirm the correct side.

An anaesthetist wishes to perform a right axillary block but in error performs a right femoral block. This is the correct side, but the wrong block: will this SOP prevent this error?

This SOP focusses on reconciling the intended *side* with the *side* of the surgical site mark; it does not of itself ensure that the most clinically effective block is performed for the given operation. Usually, the location of the surgical site mark will approximate the site(s) of local anaesthetic injection. But if these are very distant, it may be possible to undertake in error a predictably clinically ineffective block, albeit on the correct side.

Relevant Legislation and National Guidance

Stop Before You Block Campaign. RA-UK. Available at http://www.ra-uk.org/index.php/stop-before-you-block

Safe Anaesthesia Liason Group Publications: Stop Before You Block (A4 poster & supporting information). Available at https://www.salg.ac.uk/salg/publications

CERTIFICATION OF EMPLOYEE AWARENESS

Document Title	
Version (number)	
Version (date)	

I hereby certify that I have:
- Identified the staff groups within my area of responsibility to whom this procedure applies.
- Made arrangements to ensure that such members of staff have had the opportunity to be aware of the existence of this document and have the means to access, read and understand it.
- Explained the mandatory nature of this procedure to my staff and I have informed them that no staff members should undertake this procedure without appropriate local training.

Signature	
Print name	
Date	
Directorate/ Department	

The manager completing this certification should retain it for audit and/or other purposes for a period of six years (even if subsequent versions of the document are implemented).