Summary report

About HSIB

The Healthcare Safety Investigation Branch (HSIB) began operating on 1 April 2017. HSIB offers an independent service for England, guiding and supporting NHS organisations on investigations and also conducting safety investigations.

HSIB aims to improve patient safety through effective and independent investigations that do not apportion blame or liability. This is delivered through:

- **Learning for improvement** – by using findings to deliver practical solutions, address causes and contributory factors and provide support to increase the capability within local NHS systems.

- **Diffusing learning** – through effective communications and engagement with the wider health and social care system.

HSIB’s investigations are conducted by a team of professional investigators from a range of safety critical backgrounds, including the NHS, transport and the military. HSIB also draws on additional expertise when required, including human factors advisors.

HSIB investigates up to 30 safety incidents each year to provide meaningful safety recommendations and share learning across the whole of the healthcare system for the benefit of everyone who is cared for by it and works in it.

HSIB investigations do not replace local investigations and are focused on looking at the wider opportunities to learn from exploring where harm has already happened, or may potentially happen.

HSIB works with patients and their families and carers, healthcare staff, Trusts, hospitals and other healthcare providers across England.
How HSIB decides what to investigate

Safety issues for potential investigations can be shared by individuals, groups or organisations. The decision to start an investigation could relate to a single event, a series of events or an issue discovered through current, ongoing investigations.

An HSIB investigation does not replace the local investigation of a patient safety incident. Instead, the aim is to identify national learning from these events to consider the wider systems and processes involved.

The following three criteria are used to determine whether the HSIB will commence an investigation:

Outcome impact

Assessing the impact, or potential impact, on people is a crucial part of the process. It helps identify the most serious issues as these usually involve significant impact physical and emotional harm.

The impact on services, and whether the safety issues have, for example, reduced the ability to deliver safe and reliable care is also considered, as well as the public view and whether there has already been a broader loss of confidence in that area of healthcare.

Systemic risk

The wider system risk associated with the safety issues – effectively, how common or widespread it is, and whether it spans different areas of healthcare and different locations – is an essential consideration.

Learning potential

HSIB will consider whether its investigation will bring added benefit to the safety issue in terms of meaningful, influential and effective safety recommendations.
Investigation approach

HSiB investigations focus on the wider opportunities for systemic learning. We do not attribute blame or liability.

Although funded by the Department of Health and hosted by NHS Improvement, HSiB operates independently. We’re also independent from regulatory bodies like the Care Quality Commission (CQC).

A HSiB investigation does not replace a local investigation carried out by the healthcare organisation in which the incident happened. The HSiB focus is on learning and identifying themes and patterns. Investigations may consider similar incidents in different locations or incidents across different organisations. HSiB acts independently and does not investigate on behalf of the families, staff, organisations or regulators. Safety recommendations will be made to organisations that HSiB considers are best placed to address the identified risks both within and outside the NHS.

Following investigation, Safety Recommendations, Safety Observations or Safety Actions taken may be identified.

**Safety Recommendations** will be directed to a specific individual or organisation for action. They will be based on information derived from the investigation or other sources such as safety studies, made with the intention of preventing future, similar events.

**Safety Observations** may be made for wider learning within the NHS or may be directed to a specific individual or organisation for consideration. They will be made where there is insufficient or incomplete information on which to make a definite recommendation for action but where findings are deemed to warrant attention.

**Safety Actions** are actions taken during the course of the investigation as a response to the issue under investigation.
A note of acknowledgement

We would like to thank Mr Awcock, the patient whose experience is detailed in this report, for the practical assistance he willingly provided to the investigation team.

Providing feedback and comment on HSIB reports

At HSIB we welcome feedback on our investigation reports. The best way to share your views and comments is to email us at enquiries@hsib.org.uk.

When we receive your feedback, we will share it with the most appropriate person to provide a response and you can expect to be contacted within five working days.

The decision to conduct a national investigation is based on specific criteria. More detail on these criteria can be found on page 17 of this report (under Section 3.2, Decision to investigate) or on our website www.hsib.org.uk.

All information provided to HSIB is collated and may provide insight into another reference event and inform other investigations.

Thank you for taking the time to read this investigation report and we look forward to receiving your feedback and comments.
The reference incident

Mr Awcock, a 69-year-old man, attended a specialist NHS orthopaedic treatment centre for elective surgery on his right ankle. This included a plan to administer anaesthetic nerve blocks (injections to block pain in a specific region of the body) and a general anaesthetic as part of the procedure.

Before the procedure commenced, the ‘sign in’ stage of the World Health Organization Safer Surgery Checklist was completed by the consultant, the registrar, and the operating department practitioner. The ‘sign in’ includes anaesthetic checks. A ‘Stop Before You Block’ (SBYB) check was then completed for the first nerve block (a popliteal nerve block\(^1\)). The first nerve block was administered by the registrar whilst Mr Awcock was awake and in the prone position (lying on his front). Mr Awcock was then repositioned to the supine position (lying on his back) and given a general anaesthetic.

Following induction of anaesthesia, it was noted that Mr Awcock’s blood oxygen saturation levels were decreasing. In response, the registrar and the operating department practitioner focused on repositioning the laryngeal mask airway (LMA) to address the oxygen saturation issue. While the airway intervention was ongoing, the consultant proceeded with the second nerve block (a saphenous nerve block\(^2\)). Following the administration of the local anaesthetic, it was realised the second nerve block had been carried out on the left leg in error.

The National Investigation

The Trust conducted its own local investigation and informed HSIB about the incident for consideration as a national investigation. After gathering additional information and assessing the incident against HSIB’s investigation criteria the decision was made to progress to a national investigation.

The national investigation focused on:

- The SBYB process and its use nationally.
- Specific distractions arising from the reference incident that impacted on the anaesthetic team.

The investigation sought to identify opportunities and systemic remedies to reduce the risk of wrong site anaesthetic blocks occurring.

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\(^1\) This is a block to the sciatic nerve (the nerve that carries sensation and runs from the back to the lower limb) above the popliteal fossa (area on the back of the leg behind the knee).

\(^2\) This is a block to the saphenous nerve (a sensory branch of the femoral nerve) and is usually administered 10-15 cm above the knee.
Although the investigation and the report focus primarily on wrong site anaesthetic blocks, the findings, safety recommendations and safety observation may be beneficial when considering the development of other national patient safety initiatives.

Findings

- It is unclear whether SBYB in its current form has had any impact on the incidence of wrong site blocks.
- The SBYB guidance does not provide sufficient clarity or direction on how SBYB should be used in practice. Consequently, there is significant variation in SBYB practice and its uptake amongst clinical staff.
- No evaluation of SBYB practice has taken place to confirm how SBYB is working in practice and whether local variations or alternate approaches to SBYB improve its effectiveness.
- A consistent approach to training and supervision in SBYB is not incorporated into anaesthetic specialist training.
- There is an opportunity for an additional safety barrier if a patient is awake and able to engage with clinicians during the block procedure.
- Drawing on human factors principles, it would be expected that changes to the position of patients between blocks and administering multiple blocks would increase the risk of a wrong site block.
- The current variability of how SBYB is understood and practised means that SBYB does not always form a strong systemic protective barrier to wrong site blocks occurring.
HSIB makes the following Safety Recommendations:

1. **Recommendation 2018/012**: The Royal College of Anaesthetists establishes a specialist working group to evaluate the current practices used to reduce wrong site block incidents. This group should consider how safety initiatives to reduce wrong site blocks can be standardised in anaesthesia training and practice. It is recommended that the specialist working group consider the impact of: the patient’s state of consciousness, changes in a patient’s position and the prevalence of wrong site block incidents compared to the number of blocks administered.

2. **Recommendation 2018/013**: The Royal College of Anaesthetists ensures any further work identified by the specialist working group to reduce wrong site block incidents is subject to human factors-based testing and evaluation.

The investigation makes the following Safety Observation:

The development of patient safety initiatives should incorporate human factors and safety science specialism. This can help ensure that appropriate planning, testing and evaluation take place to ensure a strong evidential basis for patient safety initiatives.

HSIB has directed safety recommendations to Royal College of Anaesthetists, who are expected to respond within 90 days of the publication of this report. HSIB will publish their responses on [www.hsib.org.uk](http://www.hsib.org.uk).
More information about HSIB – including its team, investigations and history – is available at www.hsib.org.uk.

If you would like to request an investigation then please read our guidance before submitting a safety awareness form.

Contact Us

@hsib_org is our Twitter handle. We use our feed to direct followers to publications, news and events. Unfortunately, we won’t be able to answer queries via Twitter but please do contact us via email using enquiries@hsib.org.uk.

If you have a press query please email the Press Office on media@hsib.org.uk or phone 07710114191.