Surgical site surveillance guidelines

Guidance on implementing the surgical site surveillance programme, including data collection and reporting.

Who are these guidelines for?

Infection Prevention and Control Nurses (IPCNs) and anyone involved in the surgical site surveillance programme (SSSP) for both data collection and direction of the local programme.

What do they contain?

These guidelines describe the processes involved in the SSSP to enable standardised data collection to support local and national reporting and analysis.

Why is this important?

The purpose of the programme is to improve patient safety and reduce the incidence of preventable surgical site infections (SSIs).

The IPCN is responsible for overseeing the programme within the hospital, and the General Manager responsible for ensuring organisational commitment and resourcing.

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Defining the surveillance group

The Hospital Infection Prevention and Control Committee (HIPCC) is responsible for agreeing annually the surveillance group for each period in the local hospital.

Surveillance can be done continuously or over shorter survey periods. To ensure consistent reporting across the network, these periods should fall between January-June and July-December.

The number of procedures studied should be a minimum of 100 during each of these periods, but should also take into consideration the number of procedures performed

at the hospital.

Types of procedures selected should be clean or clean contaminated unless concerns are identified with other classes of wounds (eg bowel surgery); these can also be monitored via surveillance as agreed by the local HIPCC.

Class	Type of procedure	Description	Include in SSI surveillance?
Class 1	Clean	They are uninfected, no inflammation is present, and are primarily closed. If the draining of these wounds is necessary, a closed draining method is necessary. Additionally, these wounds do not enter respiratory, alimentary, genital, or urinary tracts.	Recommended types of wounds for inclusion in SSI surveillance
Class 2	Clean-contaminated	These wounds lack unusual contamination. Class 2 wounds enter the respiratory, alimentary, genital, or urinary tracts. However, these wounds have entered these tracts under controlled conditions.	
Class 3	Contaminated	These are fresh, open wounds that can result from insult to sterile techniques or leakage from the gastrointestinal tract into the wound. Additionally, incisions made that result in acute or	Not routinely advised for inclusion in SSI surveillance

Class	Type of procedure	Description	Include in SSI surveillance?
		lack of purulent inflammation are considered class 3 wounds.	
Class 4	Dirty or infected	These wounds typically result from improperly cared for traumatic wounds. Class 4 wounds demonstrate devitalized tissue, and they most commonly result from microorganisms present in perforated viscera or the operative field.	

Note: Patients with an existing infection should not be included in the surveillance programme. For patients undergoing revision surgery where a new prosthesis is inserted at the same site: if this is due to infection they should also be excluded from the surveillance programme.

Once the surveillance group is agreed the following should be notified:

- Preadmission/Admission teams
- Ward and Theatre teams
- Surgeons
- Patients

Suggested letters/communications can be found here:

Patient pre-op letter example

Surgeon letter example SSS notification

Data collection

The IPCN oversees the programme, but all members of the clinical team are responsible for assisting with data collection.

Information is collected pre-operatively, intra-operatively, post-operatively, and again post-discharge via the SSS forms in CWS.

CWS process

The CWS process outlines the process for enrolling patients, completing the forms, and where necessary removing any patients who have been incorrectly enrolled, had surgery cancelled or for any other amendments.

The process should be followed precisely to ensure that data extracted for reporting periods includes the correct patients.

Refer to:

CWS – Enrolling patient into surgical site surveillance (SSS)

CWS – Enrolling a patient into surgical site surveillance (SSS) who is already on SSS from a previous admission

CWS – IPC Nurse weekly review and update process for SSS

CWS – How to deactivate a SSS pathway when theatre booking cancelled or if patient was enrolled in error

Data is pulled from CWS into tableau weekly on a Tuesday. Tableau is used for generating reports and enables more timely access to data.

The IPCN should review and validate the information in tableau on a regular basis (at least monthly), there are two lists in tableau to assist with this process called sanity checks and QSM (quality safety marker) checks (further guidance can be found within tableau).

Any inaccurate information should be corrected in the appropriate CWS form, this will then be updated in tableau on the following Tuesday.

Post discharge follow up

30 day follow up

After discharge, patients are followed up at 30 days by the IPCN; this can be via text, phone call, email or letter.

Before contacting the patient, it is important to check that the patient is not deceased. In CWS open the visit summary tab – this will search the NHI database for the patient's status. If the patient has died you will see this message:

If you see this message, **do not** continue to contact the patient. Notify the admin team so that they can update the status in webPAS and remove this patient from your surgical site surveillance.

Templates can be found here:

Instructions for surgical site surveillance 30-day follow up by text

Patient letter example 30 day follow up

Replies should be reviewed for any indication of infection, with further follow up required for non-healing or infected wounds.

This may be through the Surgeon, GP or another health professional involved in the patients care, to gain additional information and determine whether the definition of surgical site infection is met.

Refer to:

Definitions of healthcare associated infections (HAI)

The 30 day form in CWS is used to document any contact with the patient, and whether or not an infection has been identified.

Where an infection is identified, further information about the infection is required on the 30-day form.

If you are unable to get a response from the patient after two attempts, then complete the 30 day form with reply received – no.

A 75% response rate is recommended. It is not a requirement that non-responding patients be followed up, however, for the non-responding patients:

- The Surgeon may be contacted for further information; OR
- For the report the patient is recorded as not having an infection.

Refer to:

Surgeon letter example patient follow up

90 day follow-up

Joint replacement and cardiac surgeries require a 90 day follow up (in addition to the review at 30 days) to check for any readmission to hospital for an infection (deep or organ space infections only).

This can be done through CWS under visit summary. In addition, good communication with the local DHB should also be established so that they are able to inform you of any readmissions to their hospital.

Any infections identified should have the appropriate level of investigation.

Where an infection has been identified at the 30 day follow up, on the 90 day follow form it can be recorded as no to readmission with infection, with a note added in the comments box that an infection has already been reported at the 30 day follow up.

Refer to:

Patient letter example 30 and 90 day follow up

Severity Assessment Code (SAC)

Use of the SAC examples for healthcare associated infections will help to assess the level of harm that has occurred. It is **not** necessary to enter all SSIs identified via surveillance into SafeHub as adverse events.

However, those which are assessed as SAC 1 or SAC 2 events will need to be entered onto SafeHub for national reporting purposes (to HQSC).

Refer to:

Severity assessment code (SAC) examples for healthcare associated infections (HAI)

Reporting and analysis

The IPCN should prepare a six-monthly report for the periods January-June and July-December using the validated data from tableau and the Surgical site surveillance report template. This should be sent to the Clinical Microbiologist and Lead IPCN for review and comments.

Refer to:

Surgical site surveillance report template

The report should be presented to the Hospital Infection Prevention & Control Committee, Safety Quality and Risk Committee, and Hospital clinical Governance Committee. Locally, clinical teams should be aware of the results of surveillance and any recommendations or actions required.

Individual Surgeons should receive a report of their SSI results and QSM compliance, which will show them where they are in relation to their peers (anonymously).

Suggested format for this is here:

Letter template to provide QSM feedback to individual Surgeons

A National report will be prepared by the Lead IPCN for presentation at NIPCC.

References

- Berrios-Torres S et al. 2017. Centres for disease control and prevention Guideline for the prevention of surgical site infection. https://jamanetwork.com/journals/jamasurgery/fullarticle/2623725 Evans H and Hedrick T. 2022. Overview of the evaluation and management of surgical site infection. https://www.uptodate.com/contents/overview-of-the-evaluation-and-management-of-surgical-site-infection/print
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