NHS National Services Scotland

Surgical site infection surveillance protocol

Edition 7.1

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Appendix 6- SSI Surveillance Questions & Answers

Contents

General

Pre-operative

Q1: If a patient is an emergency admission is the operation therefore unplanned?

A: No

• If there has been time to prepare the patient for theatre while a pre-op inpatient, it is not an unplanned procedure. Therefore, it is important to establish what the routine pre op prep would be.

• Pre-op preparation time differs between surgical specialities therefore a definitive time is not stated.

Q2: When is an operation unplanned?

A: Unscheduled operative procedures are those that do not allow for the standard immediate pre-operative preparation normally done within the facility for a scheduled operation (e.g., stable vital signs, adequate antiseptic skin preparation, etc.). Examples of unplanned procedures:

- An emergency admission with a life threatening vascular perforation
- An inpatient who develops a bowel obstruction
- A woman in labour who's baby shows signs of foetal distress

Peri-operative

Q3: How can we make sure if a procedure is included in surveillance?

A: To decide if a procedure should be included within surveillance, find out the OPCS4 code that the surgeons use for coding. It is a requirement to code all operations for reporting to Information Service Scotland (ISD). Then check against the protocol listing (appendix1). Information on OPCS Codes is available from ISD through the Terminology Advisory Service helpdesk on 0131 275 7283 or via email. NSS.terminologyhelp@nhs.net

Q4: Why it is so important to record ASA score?

A: As it is part of the NNIS risk index which will be used for risk stratification, along with wound class and length of operative procedure. Risk stratification adjusts for variations in patients underlying severity of illness and allow interhospital and intrahospital comparisons to be made.

Q: Antibiotics were prescribed for 24 hrs but due to timing ofadministration they were given just out with the 24 hrs. Should this be yes or no to the question "is patient receiving prophylactic antibiotic more than 24 hrs following surgery"?

A: Yes, they received prophylactic antibiotic more than 24 hours following surgery. You can add the reason.

Q: Are the surgeon/ consultant codes found anywhere in particular?

A: The question on the forms asking for consultant codes is the code used locally. It mentions that in brackets, however if you don't identify consultants with a code you then enter 999 in the boxes or on SSIRS.

Q: During an operation it was realised that there was existing infection at the site.

a) Is this procedure included in the surveillance?

b) Does this mean that all known infected wounds are classed as a SSI at the time of surgery?

A: a) Yes, this procedure should be included in the surveillance.

b) No, this should not be recorded as SSI at the time of the surgery. If the site is noted to be infected at the time of the original operation then the **surgery** should be recorded as contaminated or dirty using the definitions within the protocol. Surveillance should then continue and any infection diagnosed from the surgical site following the procedure should be recorded as a SSI (the organism may be the same). Dirty wound class is not a reason for exclusion of SSI. Please check the wound contamination class section in the protocol.

Post-operative

Q: Surveillance was discontinued on a patient because of a re-operation at the same site; however the patient was receiving antibiotics > 24 hours following surgery. What should be recorded as a date/time last given antibiotic? Should we record the date/time last given as 0909999 0909 as we are no longer following up this patient?

A: In such cases, you need to put the information to the point that the patient is being followed up so please put the real time (not 09099999).

Q: Does HPS have a definition for purulence?

A: No, HPS does not define purulence as there is no standard, clinically agreed definition. Generally, thick/ viscous, creamy/opaque fluid discharge with or without blood seen at the site or document of pus/ purulence by a medical professional would be accepted evidence of purulence drainage, according to CDC.

Q: Patient was discharged home on 20/06/17 and attended A&E on 22/06/17 where SSI was detected, is it a readmission?

A: If patients are assessed at the hospital, given antibiotics then sent home as they are not readmitted, they would not be included in the readmission SSI reporting. However if the visit for the c-section patient is within 10 days post op they should be reported.

Q: If a patient is readmitted for a non- wound related issue e.g. respiratory infection within 30 days and coincidentally has a wound infection or develops a wound infection that would not normally have resulted in readmission is this included in the surveillance?

A: Yes, it is included.

Q: If patient is still in hospital after surveillance period so do I wait until discharge before completing or mark final discharge dates as 10/10/9999?

A: Ideally you would record the discharge date but if this is not available and you want to complete the record then 10/10/9999 can be recorded as the discharge date.

Q: If a patient does have a SSI confirmed before day 30 what should the reason be for ending surveillance?

A: The date of SSI (detection) is the date the first signs and symptoms of infection were noted. However this is not a reason to discontinue the surveillance and

the patient should be followed up 30 days post-op (this is the date surveillance is discounted) and the reason for discontinuation is “End of 30 days surveillance”. For example, if a patient had an operation on 1st May and patients developed a SSI on 6th May, the date surveillance discontinued would be 30th May and the reason would be “end of 30 day surveillance”.

Detection of SSI is not a reason for discontinuation of surveillance anymore.

Q: **In cases where a patient has a surgical intervention after 24 hours post-op via a puncture site or endoscope, the actual incision is not re-opened but the surgical site is still re-entered. Would this indicate end of surveillance?**

A: If the same incision is used for endoscopic tools, then the surveillance should be ended.

Q: If a patient returns to theatre during the 30 days (re-operation not included in codes) and a different incision is used is surveillance discontinued or is it only if the same incision is used?

A: The original surveillance should be continued as re-operation has been done through another incision. Since the OPCS code for re-operation is not included, there is no need for new surveillance form for this procedure.

Q: Does a wound swab count for culturing fluid?

A: No – fluid, tissue or bone must be sent for culture as wound swabs are not considered reliable enough within this definition. Therefore the positive wound swab result alone is not a criterion for SSI unless patient has other sign and symptom of infection (please check the protocol for SSI definition).

Q: Does redness and cellulitis alone count as infection?

A: No, these signs and symptoms also require other criteria such as the wound spontaneously dehiscing or being deliberately re-opened by a surgeon, unless incision is culture negative.

Q: Is a stitch abscess a SSI?

A: No, a stitch abscess alone (minimal inflammation and discharge confined to the points of suture penetration) is not considered a SSI.

Q: If the criteria used for SSI are positive cultures, what is the date of the confirmed SSI – is it the date the result is reported?

A: No, it is the date the sample was taken as this is the date of the first sign or symptom.

Q: What if the surgeon believes it is an infection and it does not fit the criteria of the definition?

A: This should be recorded as such, i.e. diagnosis by surgeon or trained healthcare worker and the additional criteria can also be recorded.

Q: How long should the paper copies of the surveillance forms be kept?

A: The length of time SSI surveillance paper copies should be kept is a decision taken locally. Each board will have a data retention policy to which you should refer. At HPS the decision has been taken to retain the electronic SSI surveillance database from the commencement of the programme, therefore information should be accessible from SSIRS if required.

Caesarean Section

Q: Is the 30 day readmission surveillance mandatory for c-section?

A: No, it is voluntary however SSIRS allows you to put data on readmission until day 30.

Q: Should the SSI detected post-discharge at 21 days (out with 10 days) be reported?

A: The mandatory requirement for c-section surveillance is inpatient and PDS to day 10.It is voluntary to report SSIs **readmitted** from day 11 to day 30 post op day; So if you have a SSI case found post-discharge on day 21, not on readmission, you don't need to report.

Q: A patient who went on to develop a deep SSI post c-section had chorioamnionitis at time of delivery. Would this be submitted as a SSI as it sounds like there was infection at time of surgery?

A: Yes, in such cases if a patient develops a SSI following the operation, even with the same organism, this should be included in surveillance as a SSI with the wound class recorded as dirty.

Q: C-section patient present with the following symptoms: increased lochia, pain, wound is healing well, the case is presumed endometritis. Should this case be reported as a SSI?

A: If the diagnosis of endometritis is confirmed by clinician using the SSI definitions then this will count as SSI diagnosed by surgeon.

Q: **How would you classify the wound class for a c-section where meconium is present?**

A: This would be considered a contaminated procedure.

Q: A patient was seen on day 6 by the community midwife and the wound was documented as clean and dry with no infection. On day 9 the community midwife again documented that the wound was clean and dry with no infection. But in between on day 7/8 the patient went to her GP and was prescribed antibiotics for what the audit nurse has been led to believe was a wound infection. This has been included as a superficial infection as a clinical diagnosis was made by a healthcare professional and antibiotics prescribed but the community midwife feedback had no evidence of infection.

A: The community midwife has been trained in SSI definitions and has stated that the wound was showing no evidence of infection on both day 6 and day 9. The

GP is not trained in the definitions and could have prescribed antibiotics as a precautionary measure. Therefore midwifes diagnosis should be followed.

Q: Are hysterotomy abortion procedures included in surveillance?

A: The OPCS code for this procedure is: Q09.1 Open removal of products of conception from uterus which is not included in the OPCS code appendix. These patients are not followed up by midwives 10 days post operative.

Orthopaedics

Q: A SSI was confirmed on readmission, after discharge following neck of femur repair. Will this be included in the final HPS SSI rate or excluded as diagnosis was after discharge although within the 30 days post-op period?

A: Inpatient and readmission rates are included for **mandatory and voluntary** procedures. This example of an infection is now included as voluntary procedures report readmission SSI.

Q: A patient had an operation that is included in the category for orthopaedic surveillance and then returns to theatre to have their prosthesis removed during the inpatient stay for operation. How should this be recorded?

A: The surveillance period would end when the patient returned to theatre to have their prosthesis removed, as this OPCS is not included in the SSI surveillance programme.

Large Bowel

Q: Surgery starts out with a laparoscopic approach and ends up with an open surgery. Would this be included in surveillance?

A: No, as the open surgery was not planned, this procedure should not be included.

Q: If the patient operation has two codes which code do we use, e.g. proctectomy and stoma were coded separately although part of the same procedure.

A: Please use the code for main procedure i.e. proctectomy.

Q: A patient has more than one procedure during surgery, one bowel and one urology, however not through the same incision. Does this count as more than one procedure?

A: No, only data related to the large bowel procedure should be collected for surveillance

Q: Patient had an anastomotic leak following surgery causing a pre-sacral collection. Would this be included as a SSI?

A: Anastomsis leak can be due to infection or cause of infection. If the patients meet the SSI organ/space infection definition criteria then a SSI should be recorded.

Q: Patient had hemicolectomy and then an anastamotic leak resulting in re-operation to mend the leak. Samples from the intra-peritoneal fluid grew organisms would this be termed a SSI?

A: According to protocol this should be reported as a SSI.

ORGAN/SPACE SSI:

Infection occurs within 30 days after the operation if no implant* is left in place or within 90 days if implant* is in place and the infection appears to be related to the operation and infection involves any part of the anatomy (e.g., organs and spaces) other than the incision which was opened or manipulated during an operation **and at least one of the following**:

1. Purulent drainage from a drain that is placed through a stab wound into the organ/space .
2. Organisms isolated from an aseptically obtained culture of fluid or tissue in the organ/space….

Q: Would a partially necrotic stoma be classed as a SSI in colorectal surgery?

A: Necrosis e.g. partial necrosis of the stoma site may be due to infection but also could be due to poor blood supply. The presence of an infection would be decided on clinical signs and symptoms. If patient meet the SSI criteria then it should be counted.

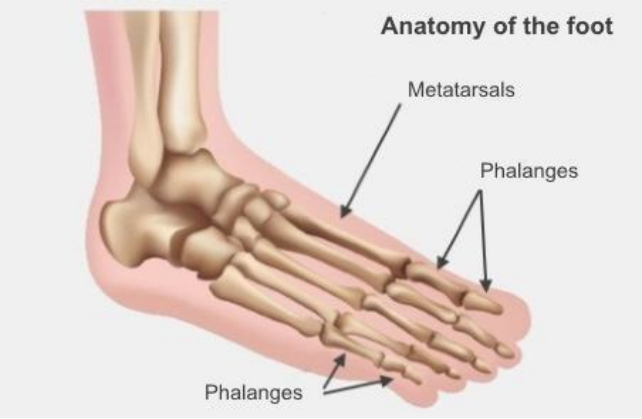
Q: If a patient comes in as an emergency with a perforated bowel and is treated conservatively for between 24-72 hours before being taken to theatre; are they classed as a planned procedure?

A: If staff has been able to perform pre-operative preparation of the patient during this period then this is a planned procedure.

Vascular

Q: What amputation procedure is included in Vascular?

A: The codes for amputation procedure under surveillance are X09 and X10 (please check appendix 1 OPCS codes)
X09: Amputation of leg
X10: Amputation of foot



As per OPCS appendix, **X11 codes are not included in the surveillance.** X11 code includes amputation of toes which is preformed at the level of phalanx (toes) but X10 (amputation of foot) includes the amputation procedures at the level of metatarsal bones and higher level.

Q: Endo vascular aneurysm repair of abdominal Aorta (EVAR) was converted to the open repair of abdominal aorta aneurysm (AAA) in the theatre. Is this procedure included in surveillance?

A: In such cases (conversion procedures) as the open surgery was not planned, it is not included in the surveillance.

Q: A patient who underwent a cardiac procedure has developed a bilateral leg SSI (the donor sites, left and right). How should this be reported?

A. This counts as one SSI occurring during a procedure with multiple incisions; therefore the most serious infection should be reported.

Q: A patient had both a left and right leg amputation but only one option (for laterality) can be used on the form. How can we record this on the form?

A: For this case, as two operations were performed, one on the left side and one on the right side, two forms should be completed.

Q: A patient was scheduled for vascular surgery (Right Common Femoral Endarterectomy (CFA)) but the procedure was abandoned due to "small calibre vessels and post-radiotherapy changes". Should this procedure be included in the surveillance programme?

A: No, incomplete procedures are not included in the surveillance