# Appendix X. Questionnaire HAI surveillance methods - SSI

Center :
HAI type: SSI after what procedure ?
Date :

Please fill in one questionnaire per type of procedure (TKA/THA, cardiac surgery or colon surgery). Providing detailed information will help us to construct an algorithm with higher predictive values. The aim of the questionnaire is not to assess the validity of your surveillance or to compare surveillance methods, but to help us build an algorithm and understand possible discrepancies. In addition, this survey does not assess the feasibility of data collection, this will be discussed once the ‘ideally desired’ data has been determined based this survey.

The survey consists of several parts:

1. Selection of the patient in the study population
2. Routine surveillance methods
3. Clinical practice in all patients
4. Clinical practice in patients suspected of SSI
5. Information on risk factor

***Please answer the following questions*** *if necessary please consult colleagues or relevant clinical parties.*This questionnaire focuses on the treatment and diagnosis of **DEEP** surgical site infections.

If you provide retrospective data and methods have changed recently, please specify this explicitly

## A . Selection of the patients in the study population.

What data sources are used to select patients that should be in the surveillance?
*Examples are operating records, nursing notes, administrative data or special modules of the electronic health record.*

Can you provide details?
*incl. specific codes used, in- and exclusion criteria, persons performing the selection etc…*

Are you able to distinguish primary operations from reoperations or non-primary operations? And if so, how do you make this distinction?
*e.g. specific codes used, criteria, persons performing the selection…*

What challenges do you encounter in this process?
*Have you validated your selection? Do you miss certain patients or wrongfully include a fraction of your patients?*

B. Routine surveillance methods

*The questions below aim to elucidate your routine surveillance methods*

Please enclose (if not yet done) the definition used to determine SSI.
*The definition can be written in original language and does not need to be translated to English*

Are there any (local) modifications to this definition or are certain parts of the definition never applied?

Are deep incisional and organ-space infections taken together in surveillance?

[ ]  Yes, we combine both categories
[ ]  No, we survey and report these separately

What data sources used do you consult in order to determine if a patient was affected by an SSI?

|  |  |  |
| --- | --- | --- |
| [ ]  Demographics | [ ]  Antibiotic use in ICU | [ ]  Clinical notes (nursing) |
| [ ]  (re)admission & discharge | [ ]  Antibiotic use in general ward | [ ]  General practice notes/letters |
| [ ]  Operating records | [ ]  Outpatient antibiotic use | [ ]  Wound therapies |
| [ ]  Anesthesiology records | [ ]  Outpatient clinic visits | [ ]  Other:       |
| [ ]  Microbiology data | [ ]  Temperature & vital signs | [ ]  Other:       |
| [ ]  Clinical chemistry (eg CRP) | [ ]  Clinical notes (doctor) | [ ]  Other:       |

Do you use one or more data sources to identify patients that require more elaborate chart review (e.g. cultures)? If so, which one?
*This implies that patients not meeting these criteria do not undergo elaborate chart review.*

[ ]  No
[ ]  Yes, please mark the data sources below

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|  |  |  |
| --- | --- | --- |
| [ ]  Demographics | [ ]  Antibiotic use in ICU | [ ]  Clinical notes (nursing) |
| [ ]  (re)admission & discharge | [ ]  Antibiotic use in general ward | [ ]  General practice notes/letters |
| [ ]  Operating records | [ ]  Outpatient antibiotic use | [ ]  Wound therapies |
| [ ]  Anesthesiology records | [ ]  Outpatient clinic visits | [ ]  Other:       |
| [ ]  Microbiology data | [ ]  Temperature & vital signs | [ ]  Other:       |
| [ ]  Clinical chemistry (eg CRP) | [ ]  Clinical notes (doctor) | [ ]  Other:       |

How many days do you follow your patients after surgery?

Do you perform post-discharge surveillance?

[ ]  No
[ ]  Yes,

If so, how and using what data sources? And is this restricted to certain groups of patients or infections ?

Who determines whether the patients developed a SSI?
*More than one answer possible*

[ ]  Infection control professional
[ ]  Ward nurse
[ ]  Ward physician
[ ]  Microbiologist/head of infection control
[ ]  Data manager
[ ]  Other, please specify

Is there an adjudication step with a clinician or other doctor to confirm SSI, or a clinical veto? Please specify.

## C. Clinical practice in all patients

Do patients receive antibiotic prophylaxis?

[ ]  Prior to procedure? If so, what and for how long?

[ ]  During the procedure? If so, what and for how long?

[ ]  After the procedure? If so, what and for how long?

*In case only subgroups of patients receive the prophylaxis, please specify below:*

*Have you measured the compliance to antibiotic prophylaxis protocols (pre, peri and/or post-operative)?*

*Is information on the prophylaxis documented in the medical records (as a medication order)?*

Are microbiological cultures obtained routinely from patients (apart from a suspicion of infection)? If so, when and at which site?

[ ]  No

[ ]  Yes. If so, at which site(s)?

Is the patient typically (routinely) admitted to the ICU ?

[ ]  Normally a patient is not admitted to the ICU

[ ]  This study only includes ICU follow-up

[ ]  Prior to the procedure. Number of days/hours
[ ]  After to the procedure. Number of days/hours

What are the most common (serious) complications after the procedure, other that SSI?

Are there routine re-operations?

How long does the patient typically stay in the hospital after the procedure?

## D. clinical practice in patients suspected of SSI

*Please describe below how patients suspected of SSI are usually diagnosed/treated in your center.*

1. **Microbiology cultures**

Are cultures (almost) always obtained when a patient is suspected of SSI?

What sites/materials are cultured?

How often are cultures obtained under antibiotics?

1. **Antibiotics**

What is the empiric treatment regimen when an SSI is suspected (agent + duration)?

If an infection if proven, how long is the patient typically treated?

How often are antibiotics continued in the outpatient setting and are these data available in your medical record system?

1. **Re-operation**

Are patients re-operated when an infection is suspected?

[ ]  No

[ ]  Yes

What procedure is typically performed (description or operating codes)?

How many operations are typically done in the diagnosis and treatment of a deep surgical site infection (e.g. 2-step exchange or single debridement?)?

By what specialty are re-operations performed?

[ ]  Only by the initial specialty (e.g. orthopedics, neuro etc…)

[ ]  Also by other (related) specialties such as general surgery. If so, what specialties?

1. **Admission records**

If patients are discharged and develop a deep SSI at home, are they typically readmitted in your hospital?

Are patients (often) transferred to an ICU or other dedicated ward to treat their SSI? If so, which ward?

What do you feel would be a good cut-off length of stay to determine whether the patient had a complicated post-operative course (and perhaps had an infection)?

1. **Clinical signs and symptoms**

Do you feel temperature would be a reliable marker to differentiate patient with SSI from those without?

Is wound aspect recorded in a fixed field?

1. **Discharge diagnosis and financial records**

Do you feel administrative data such as discharge codes and financial records would be a reliable marker to differentiate patient with SSI from those without?

Are you able to extract this data?

## Information on risk factors (optional)

What – if any – information on risk factor are you able to extract or would you like to extract and connect to your data ?

[ ]  Patient demographics (age, gender)

[ ]  ASA classification

[ ]  Operative duration

[ ]  indication for surgery

[ ]  Bundle elements (door movements, normothermia, clipping etc…)

[ ]  APACHE or other severity of disease scores

[ ]  Diabetes

[ ]  Other comorbidities

[ ]  Other

[ ]  Other

[ ]  Other