KNHSS

Kuwait National Healthcare-associated
Infections Surveillance System

Instructions for Completion of Surgical Site Infection (SSI) Form

Data Field	Instructions for Data Collection
Page 1	
Surveillance date	Write down Surveillance date in form of month/year using the format: mm/yyyy
Facility name	Write down the facility name
Facility code	Write down Facility code using **form A**
Patient information	
Patient ID	Write patient civil ID number
File number	Write patient hospital file number
Patient name	Write first, middle and the last name of the patient.
Nationality	Check Kuwaiti or non Kuwaiti to indicate Nationality of the patient.
Gender	Check Male or Female to indicate the gender of the patient.
Date of Birth	Record the date of the patient birth using this format: dd/mm/yyyy.
Date admitted to facility	Enter date patient admitted to facility using this format: dd/mm/yyyy. If a patient is readmitted with a previously unreported SSI associated with an operative procedure performed during a previous admission, enter the date of admission of the facility stay in which the operative procedure was performed. An NHSN Inpatient is defined as a patient whose date of admission to the healthcare facility and the date of discharge are different calendar days. When determining a patient's admission dates to both the facility and specific inpatient location, the NHSN user must take into account all such days, including any days spent in an inpatient location as an "observation" patient before being officially admitted as an inpatient to the facility, as these days contribute to exposure risk. Therefore, all such days are included in the counts of admissions and patient days for the facility and specific location, and facility and admission dates must be moved back to the first day spent in the inpatient location.

Location	Enter the patient care area where the patient was assigned in the postoperative period. Inpatient or outpatient locations are allowed, but Operating Room locations are not allowed.
Location code	Do not fill this part now – This part is for the future plan
Date of event	Date of event must be within 30 days or 90 days of the date of procedure, depending on the operative procedure category (see event protocol) Enter date of this event using this format: dd/mm/yyyy.
Procedure name	Write name of the procedure as written in operation sheet. eg. Lt sided popliteal bypass with graft.
NHSN Procedure category name	Enter the appropriate NHSN procedure category name according to **form C.** eg. Lt sided popliteal bypass with graft will be written as PVBY.
KNHSS Procedure category code	Enter the appropriate KNHSS procedure category code according to **form C**. eg. PVBY code will be 31.
Date of procedure	Enter the date of procedure using this format: dd/mm/yyyy.
Outpatient Procedure	Check "**Yes "**if this operative procedure was performed on a KNHSS outpatient; otherwise check "**No".**
MDRO infection surveillance	
MDRO infection surveillance	Do not fill this part now – This part is for the future plan
Event details	
specific event	Check the appropriate level of SSI from the list Superficial incisional primary (SIP) Superficial incisional secondary (SIS) Deep incisional primary (DIP) Deep incisional secondary (DIS) Organ/space: specify site and indicate specific site code using **form E**.
Specify criteria used	Check each of the elements of the definition that were used to identify the specific type of SSI. Specific Organ/space event types have their own unique criteria which must be met. They are found in the HAI Definitions chapter.
Detected	Check **A**: if SSI was identified before the patient was discharged from the facility following the operation. Check **P**: if SSI was identified only as part of post-discharge surveillance.

	Include as **P** those SSI identified in the Emergency Department but not readmitted to the facility. Alternatively, if patient was identified by post-discharge surveillance but was <u>also</u> readmitted to the facility, check either **RF** or **RO** as appropriate. Check **RF**: if SSI was identified due to patient readmission to the facility where the operation was performed. Check **RO**: if SSI was identified due to readmission to facility other than where the operation was performed.
Pathogen identified	Check "**Yes"** if Pathogen Identified, otherwise check "**No"**. if **Yes**, specify pathogen(s) and antimicrobial susceptibility results on page 2.
Number of Pathogens	Write the number of isolated pathogens causing SSI. (up to 3 pathogens may be reported).
Pathogen codes	Write the code of each pathogen according to **Form D**. If multiple pathogens are identified, enter the pathogen judged to be the most important cause of infection as #1, the next most as #2, and the least as #3 (usually this order will be indicated on the laboratory report). If the species is not given on the lab report or is not found on the KNHSS organism list, then select the "spp" choice for the genus.
MDRO	Check "Yes" and write the code if the isolated organism(s) was/were MDRO of the following, otherwise check "No". **(MRSA):** ***S. aureus*** cultured from any specimen that tests oxacillin-resistant (R), cefoxitin-resistant, or methicillin-resistant by standard susceptibility testing methods, or any laboratory finding of MRSA (includes but not limited to PCR or other molecular based detection methods). **VRE***: **Enterococcus faecalis, Enterococcus faecium**,* or **<u>any *Enterococcus*</u>** species that is <u>resistant (R)</u> to vancomycin, by standard susceptibility testing methods or a laboratory finding of VRE (includes but not limited to PCR or other molecular based detection methods). **ESBL producing Gram negative bacteria**: Gram negative spp. producing ESBLs enzymes that mediate resistance to extended-spectrum (third generation) cephalosporins (e.g., ceftazidime, cefotaxime, and ceftriaxone) and monobactams (e.g., aztreonam) but do not affect cephamycins (e.g., cefoxitin and cefotetan) or carbapenems (e.g., meropenem or imipenem).

CRE: ***Escherichia coli, Klebsiella oxytoca, Klebsiella pneumoniae, Klebsiella aerogenes, Enterobacter* spp*. or any Enterobacteriaceae spp.*** (see table 1 of the "Updated KNHSS MDRO definitions 2020" document for a partial list of *Enterobacteriaceae spp.*) testing resistant (R) to imipenem, meropenem, doripenem, or ertapenem by standard susceptibility testing methods (i.e., minimum inhibitory concentrations of ≥4 mcg/mL for doripenem, imipenem and meropenem or ≥2 mcg/mL for ertapenem) OR by production of a carbapenemase (specifically, KPC, NDM, VIM, IMP, OXA-48) demonstrated using a recognized test (e.g., polymerase chain reaction, metallo-β-lactamase test, modified-Hodge test, Carba-NP). For ***Morganella morganii*, *Proteus* spp and *Providencia* spp**. that have intrinsic imipenem non-susceptibility, resistance to carbapenems other than imipenem is required.

MDR-*Pseudomonas aeruginosa*: Tested intermediate or resistant (I or R) for at least one agent in at least 3 of the following 5 classes:

β-lactam/β-lactam β-lactamase inhibitor combination	**Aminoglycosides**	**Carbapenems**	**Fluoroquinolones**
Piperacillin Piperacillin/tazobactam	Amikacin Gentamicin Tobramycin	Imipenem Meropenem Doripenem	Ciprofloxacin Levofloxacin
Cephalosporins			
Cefepime Ceftazidime			

Carbapenem Non-Susceptible (C-NS) *Pseudomonas aeruginosa*: *Pseudomonas aeruginosa* testing intermediate or resistant (I or R) to imipenem, meropenem or doripenem.

<table>
<tr><td></td><td>MDR-Acinetobacter spp.: Any Acinetobacter spp. testing intermediate or resistant (I or R) to at least one agent in at least 3 antimicrobial classes of the following 6 antimicrobial classes:

<table>
<tr><th>β-lactam/β-lactam β-lactamase inhibitor combination</th><th>Aminoglycosides</th><th>Carbapenems</th><th>Fluoroquinolones</th></tr>
<tr><td>Piperacillin
Piperacillin/tazobactam</td><td>Amikacin
Gentamicin
Tobramycin</td><td>Imipenem
Meropenem
Doripenem</td><td>Ciprofloxacin
Levofloxacin</td></tr>
<tr><td>Cephalosporins</td><td>Sulbactam</td><td></td><td></td></tr>
<tr><td>Cefepime
Ceftazidime</td><td>Ampicillin/sulbactam</td><td></td><td></td></tr>
</table>

Carbapenem Non-Susceptible (C-NS) Acinetobacter spp: Any Acinetobacter spp. testing intermediate or resistant (I or R) to imipenem, meropenem or doripenem.</td></tr>
<tr><td>Secondary bloodstream infection</td><td>Check “Yes” if there is a culture-confirmed bloodstream infection (BSI) and a related healthcare-associated infection at the surgical site, otherwise check “No”.</td></tr>
<tr><td>Died</td><td>Check “Yes” if patient died during the hospitalization, otherwise check “No”.</td></tr>
<tr><td>If died; SSI Contributed to Death</td><td>If patient died: check “Yes” if the SSI contributed to death (checked from his/her hospital death report), otherwise check “No”.
If the patient did not die, do not answer this question.</td></tr>
<tr><td>Discharge/death date</td><td>Enter date patient discharged from facility using this format: dd/mm/yyyy.
If a patient is readmitted with a previously unreported SSI associated with an operative procedure performed in a previous admission, enter the date of discharge of the facility stay in which the operative procedure was performed.
If the patient died, write the date patient died using this format: dd/mm/yyyy.</td></tr>
</table>

N.B: Please attach each SSI (numerator) form of the infected operation with a copy of its related denominator for procedure form.