KNHSS

Infections Surveillance System

Kuwait National Healthcare-associated

Instructions for Completion of Laboratory Record of Urinary Tract Infection (UTI) Event Form.

Data Field	Instructions for Data Collection
Page 2	
Surveillance date	Write down Surveillance date using the format: mm/yyyy
Facility name	Write down the facility name
Facility code	Write down the Facility code using **form A**
Number of Pathogens	Write the number of isolated pathogen as recorded in page 1.
Pathogen (s)name(s)	Write the name of the isolated microorganism(s). If the species is not given on the lab report or is not found on the KNHSS pathogen list, then select the "spp" choice for the genus.
Pathogen (s)code(s)	Write the code of each pathogen according to **Form D.**
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 **any *Enterococcus*** species that is resistant (R) 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>Date of sampling</td><td>Write the date of sample taken using this format: dd/mm/yyyy.</td></tr>
<tr><td>Type of infection</td><td>Write the type according to the UTI Criteria (e.g. SUTI 1a, CA-ABUTI….).</td></tr>
<tr><td>Type of sample</td><td>Write down the sample type (e.g. urine obtained from catheter, clean catch urine, purulent drainage, tissue……)</td></tr>
<tr><td>Antimicrobial agents and susceptibility results</td><td>For each isolated organism:
In front of the each antimicrobial tested write the susceptibility result either:
S – Sensitive,
I – Intermediate or R – Resistant
Others specify: any antimicrobial other than listed can be included.</td></tr>
</table>