KNHSS

Kuwait National Healthcare-associated
Infections Surveillance System

Instructions for Completion of the Dialysis Event (DE) 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 the 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.
Event Type	DE
Date of Event	Enter date of the event using this format: dd/mm/yyyy. Date depends on event type: • For IV antimicrobial starts, enter the date of the first outpatient IV antimicrobial administration. • For positive blood cultures, enter the date the blood specimen was collected. • For pus, redness, or increased swelling at the vascular access site, enter the onset date. • If reporting more than one type of dialysis event, using the above criteria select the earliest date of what is reported.
Location	Write location of outpatient hemodialysis as specified in patient file.eg. Ward 2.
Location type	Check Adult or Pediatric to indicate Location type.
Risk Factors	
Vascular access type	Check only one. Check for the vascular access that the patient has present at the time of the dialysis event. Consider ALL central vascular accesses present, not just those being used for dialysis. If a patient has more than one vascular access, record the access type with **highest risk for infection.** Lowest Risk  - Fistula - Graft - Other access device (e.g., hybrid access device) - Tunneled Central Line - Non-tunneled Central Line Highest Risk

Fistula Buttonhole	A surgically created connection between an artery and a vein. Conditionally required for patients with fistulas. Check Yes if the fistula is regularly accessed via buttonhole cannulation technique.
Graft	A surgically created connection between an artery and a vein created with implanted synthetic tubing.
Tunneled central line	A central venous catheter that travels a distance under the skin from the point of insertion before terminating at or close to the heart or one of the great vessels.
Non-tunneled central line	A central venous catheter that is fixed in place at the point of insertion and travels directly from the skin entry site to a vein and terminates close to the heart or one of the great vessels.
Other access device	Includes hybrid access devices (e.g., HeRO®), ports, and any other vascular access devices not meeting definitions for fistula, graft, tunneled central lines, or non-tunneled central lines.
Access Placement Date	For each access type present, indicate the date the access was placed. Enter the date using this format: dd/mm/yyyy.
Other Patient Information	
Transient Patient	Check **"Yes"** if this patient was temporarily admitted for treatment at the facility for a short time (less than 30 days or 13 treatments) due to vacation, emergency, or other short-term displacement. Check **"No"** if this patient is part of your regular patient census.
Event Details	
*Specify Dialysis Event	Check all that apply
IV antimicrobial start	Check **"yes"** for "IV antimicrobial start", if the patient had an outpatient intravenous (IV) antibiotic or antifungal start, regardless of the reason for treatment (i.e., include IV antimicrobial starts unrelated to vascular access problems) and regardless of the duration of treatment. Report all IV antibiotic starts, not just vancomycin. Do not report IV antiviral starts. Report outpatient starts that are continuations of inpatient treatment. There must be 21 or more days from the **end** of the first IV antimicrobial start to the **beginning** of a second IV antimicrobial start for two starts to be considered separate dialysis events, even if different antimicrobials are used. If IV antimicrobials are stopped for less than 21 days and then restarted, the second start is NOT considered a new dialysis event. To apply the 21 day rule to outpatient IV antimicrobial starts that are continuations of inpatient treatment, consider the start day to be the first day of outpatient treatment. If no IV antimicrobial start check "**No"**.

Was Vancomycin the antimicrobial used for this start?	Conditionally required for IV antimicrobial start dialysis events. Indicate whether IV Vancomycin was started by checking **"Yes"** or **"No".**
Positive blood culture	Check **"Yes"**: for "Positive blood culture" if the patient had a positive blood culture where the specimen was collected as an outpatient or collected within 1 calendar day after a hospital admission, regardless of whether or not the patient received treatment. The date of a blood culture result is based on the date the blood specimen was collected, not the date the laboratory reported the result. There must be 21 or more days between positive blood cultures **(between collection dates)** for each positive blood culture to be considered a separate dialysis event, even if organisms are different. If positive blood cultures occur less than 21 days apart, the second positive blood culture(s) is NOT considered a new dialysis event: add new organisms from these subsequent positive blood cultures to the first report. If there is no positive blood culture check "**No"**.
Suspected source of positive blood culture (check one):	Conditionally required for positive blood culture dialysis events. Check the suspected source of the positive blood culture: **Vascular access**: Choose "Vascular access" if there is objective evidence of vascular access infection and the vascular access is thought to be the source of the positive blood culture. **A source other than the vascular access**: Choose "A source other than the vascular access" if either (a) or (b) is true: a) a culture from another site (e.g., infected wound, urine) shows the same organism found in the blood and is thought to be the source of the positive blood culture. b) there is clinical evidence of infection at another site and the other site is thought to be the source of the positive blood culture, but the site was not sampled for culture. **Contamination**: Choose "Contamination" if the organism isolated from the blood culture is thought by the physician, infection preventionist, or nurse manager to be a contaminant. Contamination is more likely if the organism is a common commensal and is isolated from only one blood culture. Examples of some common commensals include: diphtheroids [*Corynebacterium* spp., not *C. diphtheriae*], *Bacillus* [not *B. anthracis*] spp., *Propionibacterium spp*., coagulase-negative staphylococci [including *S.epidermidis*], viridians group streptococci, *Aerococcus* spp., *Micrococcus* spp. **Uncertain:** Choose "Uncertain" only if there is insufficient evidence to decide among the three previous categories.
If positive blood culture, specify pathogen on page 2	Conditionally required for positive blood culture. Specify the pathogen(s) and antimicrobial susceptibility results on page 2 of the Dialysis Event form.

Number of Pathogens	Write the number of isolated pathogens. Up to three pathogens may be reported per positive blood culture.
Pathogen codes	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.

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:

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

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

Pus, redness, or increased swelling at the vascular access site

Check "**yes"** for "Pus, redness, or increased swelling at the vascular access site" if the patient had a new outpatient episode of one or more symptoms of pus, greater than expected redness or greater than expected swelling at a vascular access site, regardless of whether the patient received treatment.

There must be 21 or more days between the **onset o**f a first episode and **onset** of a second episode of pus, redness, or increased swelling at a vascular access site to be considered separate dialysis events. If an episode of pus, redness, or increased swelling at a vascular access site resolves and then recurs within 21 days, the recurrence is NOT considered a new dialysis event.

If no Pus, redness, or increased swelling at the vascular access site check "**No"**.

Check one access site with pus, redness, or increased swelling	Conditionally required if there is pus, redness, or increased swelling at the vascular access site. Check the vascular access site with these findings. If a patient has two vascular accesses and there is pus, redness or increased swelling **at both**, record the access of highest risk for infection.(check only one access)
Specify Problem(s)	Required. For each problem, check all that are present.
Fever	Check if fever ≥37.8°C (100°F) oral is present.
Cellulitis	Check if cellulitis is present at a site other than the vascular access and without open wound.
Drop in Blood Pressure	Check if abnormal drop in blood pressure is present.
Wound (NOT related to vascular access) with pus or increased redness	Check if a wound that is unrelated to the vascular access site has pus or increased redness is present.
Pneumonia or respiratory infection	Check if pneumonia or respiratory infection is present.
Chills or rigors	Check if chills or rigors are present.
Other Problem	Check if other problem related to the IV antimicrobial start; positive blood culture; and/or pus, redness, or increased swelling at vascular access site is present. Specify the problem.
None	Check “none” if there are no problems.
Outcome(s)	
Hospitalization	Check **“Yes”** if the patient was hospitalized related to the event or problem. Check **“No”** if patient was not hospitalized or was hospitalized for another cause not related to the dialysis event or problem. Check **“Unknown”** if uncertain about whether or not the patient was hospitalized.
Death	Check **“Yes”** if the patient died related to the event or problem. Check **“No”** if patient did not die or died for another cause not related to the dialysis event or problem. Check **“Unknown**” if uncertain about whether or not the patient died.