



Comprehensive Guidance for NHSN Dialysis Event Surveillance: Reporting Protocols and Real-World Scenarios

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Education for Dialysis Clinical Staff on Protocol Adherence and Real-World Scenarios

Objectives

- Define numerator and denominator data reporting and their importance.
- Clarify the 21-day rule and its application.
- Explain dialysis event types, date of event criteria, and contamination reporting.
- Address patient adherence and reporting challenges.
- Discuss real-life scenarios involving infection reporting.

Introduction to NHSN Dialysis Event Surveillance

- **The purpose of reporting dialysis events inside NHSN is to track infections, improving patient safety, and benchmarking.**
- **Core reporting components:**
 - **Denominator data**
 - **Numerator data**

Understanding Denominator Data Reporting

- Captures the number of all unique hemodialysis outpatients treated during the first two working days of the month.
- Categorizes patients based on vascular access type.
- **Important Reminders:**
 - This data forms the foundation for infection rate calculations.
 - Required to report all patients who received care during those two days.

Understanding Numerator Data Reporting

- **Captures dialysis events including IV antimicrobial start, access-related infections, and positive blood cultures.**
- **Key components:**
 - Dialysis event type
 - Date of event
 - Contamination reporting
- **Reporting is based on laboratory evidence or documented signs and symptoms.**

Dialysis Event Types and Reporting Criteria

- **IV antimicrobial start**
 - The initiation of intravenous antibiotics in response to suspected infection. Reporting date is the date of first outpatient dose of antimicrobial course.
- **Access-related infection**
 - Signs of pus, redness, or increased swelling at the vascular access site. Reporting date is the date of onset.
- **Positive blood culture**
 - Laboratory test detects bacteria, fungi, or other microorganisms in blood sample. Report the day of specimen collection.
- **If multiple events occur, report the earliest date among the three types.**

21-Day Rule for Reporting

- **Report a dialysis event once every 21 days for the same patient unless:**
 - A new type of event occurs.
 - A different vascular access site is affected.
- **Examples:**
 - Scenario 1: Positive blood culture reported on January 1. Another positive blood culture on January 15 (same access type) is **not** a new event.
 - Scenario 2: A new vascular access infection within 21 days **is** reported as a new event.

Contamination Reporting

- **What constitutes contamination?**
 - If the organism isolated from the blood culture is thought by the physician, infection preventionist, or nurse manager to be a contamination is more likely if the organism is a common commensal and is isolated from only one of several blood cultures
 - Examples: Mixed skin flora in blood culture without clinical signs of infection.
- **When to exclude contaminated data?**
 - Exclude from reporting if clear documentation supports no contamination.

Contamination Reporting Continued...

- **Document the contamination.**
- **There must be specific evidence in the medical records or lab notes indicating the sample was improperly collected or that the result was due to contamination.**
 - **Examples of clear documentation:**
 - Notes indicating improper technique during sample collection.
 - Laboratory reports specifying "likely contamination" or "mixed skin flora" without clinical signs of infection.

Real-Life Scenarios

Scenario 1:

- A patient has a BSI but denies symptoms. Lab confirms **S. aureus** in blood culture.
- **Action:** Report as a positive blood culture event. Note: regardless of the pathogen found, if the culture is positive it is reported.

Scenario 2:

- A patient misses dialysis for two weeks due to hospitalization of an unrelated illness and returns with signs of an infection.
- **Action:** Any time a patient shows signs of infection; a blood culture will likely be drawn and antimicrobials probably started. These, of course, would be reportable.

Real-Life Scenarios Continued...

Scenario 3:

- A patient has blood drawn, but the nurse notes the sample was collected improperly (e.g., the collection site was not disinfected). The lab report shows mixed skin flora. There are no signs or symptoms of infection in the patient.
- **Action:** If the nurse notes that the blood draw was done incorrectly, very likely the nurse would complete a new draw and then send the sample to the lab for analysis. If the blood culture returns positive, the event must be reported to NHSN.

Best Practices for Reporting

- **Always document clearly, especially for numerator and denominator data.**
- **Confirm dates and vascular access details with care teams.**
- **Train staff to recognize contamination and proper collection techniques.**
- **Leverage NHSN error messages and dashboard alerts to identify and resolve reporting inconsistencies promptly.**

Resources and Support

- [NHSN Dialysis Event Protocol](#)
- [CDC Dialysis Component Training](#)
- Submit [Service Now](#) ticket
- [E-mail](#) NHSN CDC Dialysis team
- Connect with your facility teammates or infection prevention team for guidance and support

Q&A

Thank You

For more information, contact CDC/ATSDR
1-800-CDC-INFO (232-4636)

TTY: 1-888-232-6348 www.cdc.gov www.atsdr.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention and the Agency for Toxic Substances and Disease Registry.



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