



Infection Surveillance in Outpatient Dialysis Settings Using NHSN

California Campaign to Prevent Bloodstream Infections in Hemodialysis Patients



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Objectives

1. Discuss rationale, value, and surveillance of healthcare-associated infections (HAI) in hemodialysis settings
2. Review how to perform HAI surveillance using the National Healthcare Safety Network (NHSN) system and surveillance definitions
3. Describe how to use NHSN to analyze data for trends and prompt prevention activities

Background

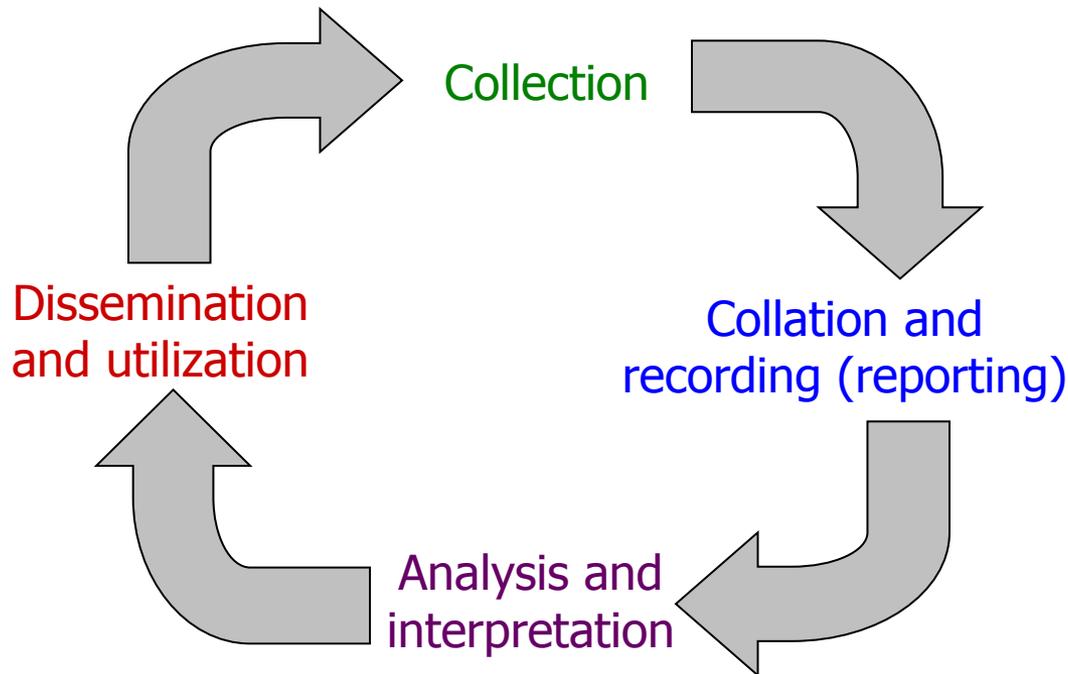
- 395,000 patients in the United States received maintenance dialysis in 2011
- Devices that provide direct access to the bloodstream put dialysis patients at high risk for bloodstream infections (BSIs)
 - Central venous catheters pose the highest risk, resulting in ~37,000 BSI in hemodialysis patients in 2008
- Robust infection prevention practices are essential for reducing BSI and localized infections at access sites
 - Includes measuring and tracking infection rates



Surveillance

- A surveillance system is an information loop or cycle
- Starts and ends with communication and action

Flow of Surveillance Data



Why Perform Infection Surveillance?

- HAI data enable us to answer questions where the answer is not immediately obvious
- Data can direct plans, priorities and strategies
 - Necessary to understand the effectiveness of interventions
- Data provide baseline metrics and targets for improvement
- Data tell a story

Surveillance for Dialysis Infections in NHSN

- NHSN protocols provide consistent definitions and rules for collecting HAI data in dialysis settings
 - Allows comparison against national data
 - To ensure accuracy and comparability over time, must use the same definitions every time, every month
- HAI surveillance in dialysis settings is performed for three types of common infection “events”
 1. IV antimicrobial starts
 2. Positive blood cultures or BSI
 3. Evidence of local access site infection (pus, increased redness, increased swelling)



NHSN Dialysis Event Surveillance

- Setting: US outpatient dialysis centers
- Population: patients receiving maintenance, transient, or temporary hemodialysis
- Participant requirements:
 - use NHSN definitions
 - Report data to NHSN within 30-60 days of each month
 - Report additional infections (if new information becomes available) to ensure accuracy of data



Reporting to NHSN

Four Components for Dialysis:

1. Annual Practices Survey

- Data collected and reported every February

2. Monthly Reporting Plan

- What you are planning to report for the month

3. Denominator Data

- Number of hemodialysis outpatients dialyzed in the facility on the first two working days of the month

4. Infection Events

- Three types: IV antibiotic starts, BSI, local access site infections



Infection Events 21-Day Rule

- Prevents the reporting of more than one infection event that may be related to the same problem
- Twenty one or more days must exist between two events of the same type for the second occurrence to be reported as a new event
- Applies to all three types of dialysis infection events
- Applies across calendar months



Infection Event 1: IV Antimicrobial Starts

ALL starts of IV antibiotics or antifungals administered in the outpatient setting must be reported, regardless of the reason or duration of treatment

- Include:
 - ☑ Any single dose given as an outpatient
 - ☑ The first dose given as an outpatient even if the course of antibiotics started in the hospital
- Exclude:
 - ☒ Outpatient antimicrobial starts less than 21 days after previous start
 - ☒ Antiviral agents (e.g. Acyclovir, Oseltamivir/Tamiflu)



IV Antimicrobial Start-21 Day Rule

There must be 21 or more days from the end of one IV antimicrobial course to the **beginning** of a second IV antimicrobial start for two starts to be reported as separate dialysis events, even if different antimicrobials are used.

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					Final IV Antimicrobial Dose	DAY 1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	DAY 21	



If IV antimicrobials are stopped for fewer than 21 days and then restarted, the second start is NOT considered a new dialysis event and therefore, is not reported.

Report new IV antimicrobial starts if they occur 21 or more days after the last IV antimicrobial dose.

Surveillance for IV Antimicrobial Starts

Is structure/process in place to answer the following questions?

- Who asks the patient if they started on antibiotics?
- Who is responsible for documenting it in medical record?
- What is the system for communicating to the person who would report the antibiotic start to NHSN?

Infection Event 2: Positive Blood Culture / BSI

Report ALL positive blood cultures regardless if related to hemodialysis or if thought to be a “true” infection

- Include:
 - Any blood collected in outpatient setting
 - Blood collected on the day of hospital admission or the day after hospital admission
- Exclude:
 - Blood cultures collected less than 21 days after a previous blood culture

Positive Blood Cultures – Hospital Admission

Sun	Mon	Tue	Wed	Thur	Fri	Sat
Outpatient	1	2	3	H 4	H 5	H 6
H 7	H 8	Discharged Outpatient 9	10	11	12	13

- “H” indicates hospital days
- Pink boxes indicate days positive blood culture will be attributed to hospital
- Gray boxes indicate days positive blood cultures will be attributed to outpatient facility

Example: 21-Day Rule Applied to BSI Event

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
26	27 Positive blood culture collected	28	29	30	1	2
3	4	5	6	7	8 Day 18. Not a new event	9
10	11	12 Day 22 New event	13	14 Positive blood culture collected	15	16
17	18 Positive blood culture collected	19	20	21	22	23

Reporting the Suspected Source of a BSI Event

When reporting a BSI event, you will be asked to choose the suspected source from four possible indications:

1. **Vascular access**

- Evidence of infection and the access site (e.g. line) is thought to be the source

2. **A source other than the vascular access**

- A positive culture from another body site with the same organism as found in blood
- Evidence of infection at another body site but the other site was not cultured

3. **Contamination**

- Physician, infection preventionist or nurse manager considers the organism in the blood to be a contaminant, i.e. a common commensal isolated from one of several blood cultures

4. **Uncertain**

- If there is insufficient evidence to support 1-3

Recommended Surveillance for BSI Events

Is a process in place to answer the following questions?

- Are patients asked if they have had chills and/or fever since last dialysis session? (evidence of infection)
- What is the process for notifying the RN or MD if there is evidence of infection?
 - Is this documented in the patient's record?
- What is the system for communicating to the person who reports positive blood cultures to NHSN?
 - A report form or log book?

Infection Event 3: Pus, Redness or Swelling at Vascular Access Site

Report all new outpatient episodes of local access site infection regardless of whether patient received treatment for infection

- Include:
 - Pus (ALWAYS reportable)
 - Increased redness or swelling
- Exclude:
 - Pus, redness or swelling less than 21 days after previous access site infection



Reporting Vascular Access Types

When reporting a local access site infection event you will be asked to choose the vascular access type:

1. **Non-tunneled central line**

- Short term central venous catheter (CVC) fixed in place at point of insertion, travels directly from entry site to vein, and ends at the heart or great vessel

2. **Tunneled central line**

- CVC that travels under the skin for a distance from point of insertion before entering a vein and ends at the heart or great vessel

3. **Graft**

- Surgically created connection (implanted synthetic material) between an artery and vein to provide permanent access for hemodialysis

4. **Fistula**

- Surgically created direct connection between an artery and vein to provided permanent access for hemodialysis

Vascular Access Types Risk For Infection

- All vascular accesses for hemodialysis and CVCs must be considered when reporting a dialysis event, regardless if they are being used for dialysis
- Risk for infection from highest to lowest
 - Non-tunneled central lines
 - Tunneled central lines
 - Other access devices
 - Arteriovenous (AV) Graft
 - Arteriovenous Fistula



Dialysis Event Training April 2014

Recommended Surveillance for Access Site Infection Events

- Is a process in place to answer the following questions?
 - Do staff document if the access site was changed since the last dialysis session?
 - What actions are taken if it appears that the patient has an infection at the access site?
 - Does the RN or MD evaluate a change in redness or presence of pus?
 - What is the system for communicating the event to the person who would report to NHSN?

Outpatient Dialysis Center Practices Annual Survey

- Must be completed upon NHSN enrollment and annually
- Includes general Dialysis Center information, infection control practices, dialysis polices and practices and vascular access information
- To be completed by someone with NHSN access who is familiar with facility's practices



Annual Survey - continued

Complete this survey as described in the [Dialysis Event Protocol](#).

Instructions: Complete one survey per center. Surveys are completed for the current year. It is strongly recommended that the survey is completed in February of each year by someone who works in the center and is familiar with current practices within the center. Complete the survey based on the actual practices at the center, not necessarily the center policy, if there are differences. For complete instructions on the survey questions, please see the "Instructions for the Outpatient Dialysis Center Practices Survey" document available at: <http://www.cdc.gov/nhsn/dialysis/dialysis-event.html#dcf>.

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*required to save as complete



Facility ID#: _____	*Survey Year: _____
ESRD Network#: _____	
A. Dialysis Center Information	
A.1. General	
*1. What is the ownership of your dialysis center? (choose one)	
<input type="checkbox"/> Government	<input type="checkbox"/> Not for profit <input type="checkbox"/> For profit
*2. What is the location/hospital affiliation of your dialysis center?(choose one)	
<input type="checkbox"/> Freestanding	<input type="checkbox"/> Hospital based <input type="checkbox"/> Freestanding but owned by a hospital
*3. What types of dialysis services does your center offer? (select all that apply)	
<input type="checkbox"/> In-center daytime hemodialysis	<input type="checkbox"/> In-center nocturnal hemodialysis <input type="checkbox"/> Peritoneal dialysis <input type="checkbox"/> Home hemodialysis
*4. How many in-center hemodialysis stations does your center have? _____	
*5. Is your center part of a group or chain of dialysis centers? <input type="checkbox"/> Yes <input type="checkbox"/> No	
a. If yes, what is the name of the group or chain? _____	
*6. Do you (the person primarily responsible for collecting data for this survey) perform patient care in the dialysis center? <input type="checkbox"/> Yes <input type="checkbox"/> No	
*7. Is there someone at your dialysis center in charge of infection control? <input type="checkbox"/> Yes <input type="checkbox"/> No	
a. If yes, which best describes this person? (if >1 person in charge, select all that apply)	
<input type="checkbox"/> Hospital-affiliated or other infection control practitioner comes to our unit	
<input type="checkbox"/> Dialysis nurse or nurse manager	
<input type="checkbox"/> Dialysis center administrator or director	
<input type="checkbox"/> Dialysis education specialist	
<input type="checkbox"/> Patient care technician	
<input type="checkbox"/> Other, specify: _____	
*8. Is there a dedicated vascular access nurse/coordinator (either full or part-time) at your center? <input type="checkbox"/> Yes <input type="checkbox"/> No	
A.2. Isolation and Screening	
*9. Does your center have capacity to isolate patients with hepatitis B?	
<input type="checkbox"/> Yes, use hepatitis B isolation room <input type="checkbox"/> Yes, use hepatitis B isolation area <input type="checkbox"/> No hepatitis B isolation	
<p>Assurance of Confidentiality: The voluntarily provided information obtained in this surveillance system that would permit identification of any individual or institution is collected with a guarantee that it will be held in strict confidence, will be used only for the purposes stated, and will not otherwise be disclosed or released without the consent of the individual, or the institution in accordance with Sections 304, 306 and 308(d) of the Public Health Service Act (42 USC 242b, 242k, and 242m(d)).</p> <p>Public reporting burden of this collection of information is estimated to average 1.75 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to CDC, Reports Clearance Officer, 1600 Clifton Rd., MS D-74, Atlanta, GA 30333, ATTN: PRA (0920-0666).</p>	
CDC 57.500 (Front) Rev 5, V 8.3	



Monthly Reporting Plan

- Informs CDC which data your dialysis center will be reporting each month (***required***)
 - Must be completed each month before data can be entered
 - A plan must be entered for every month of the year
 - Plans can be modified retrospectively if necessary
- If you are not reporting any data in a given month, you must go into the Reporting Plan and mark a box to indicate no surveillance was done for the month.



Data Collection Form – Monthly Reporting Plan

		Dialysis Component Monthly Reporting Plan			Form Approved OMB No. 0920-0666 Exp. Date: 12/31/2017 www.cdc.gov/nhsn	
Select the surveillance module checkbox(es) to inform CDC that those data are being collected and reported as specified by their corresponding surveillance protocol(s).						
*required for saving Facility ID: _____ *Month/Year: _____ / _____						Page 1 of 1
<input type="checkbox"/> No NHSN Reporting this Month						
Events						
Locations:	Dialysis Event (DE)	Central Line Insertion Practices (CLIP)				
_____	<input type="checkbox"/>	<input type="checkbox"/>				
_____	<input type="checkbox"/>	<input type="checkbox"/>				
Prevention Process Measures						
Location:	Hand Hygiene	HD Catheter Connection/ Disconnection	HD Catheter Exit Site Care	AV Fistula & Graft Cannulation/ Decannulation	Dialysis Station Routine Disinfection	Injection Safety
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Patient Vaccination						
Influenza Vaccination - Dialysis Patients:		<input type="checkbox"/>				
<p>Assurance of Confidentiality: The voluntarily provided information obtained in this surveillance system that would permit identification of any individual or institution is collected with a guarantee that it will be held in strict confidence, will be used only for the purposes stated, and will not otherwise be disclosed or released without the consent of the individual, or the institution in accordance with Sections 304, 306 and 308(d) of the Public Health Service Act (42 USC 242b, 242k, and 242m(d)).</p> <p>Public reporting burden of this collection of information is estimated to average 5 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to CDC, Project Clearance Officer, 1600 Clifton Rd., MS D-74, Atlanta, GA 30333, ATTN: FRA (0920-0666).</p>						
CDC 57.501 Rev 2, v8.3						

Denominators for Dialysis Surveillance

- Needed to estimate the dialysis patients at risk for a dialysis infection event each month
- Report the number of patients that received dialysis during the first two working days of the month
 - Report all patients seen in the clinic those two days (regardless if an event occurred)
 - Report separately by type of vascular device
- Count each patient only once; if patient has multiple vascular accesses, report the device with the highest risk of infection



Calculating Denominators

For example, if a facility dialyzes patients 6 days a week, Monday through Saturday, and the first day of the month falls on a Sunday, then Monday and Tuesday would be the first two working days of the month for that facility.

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
1 Facility closed	2 Working day 1	3 Working day 2	4	5	6	7

For facilities that provide nocturnal hemodialysis, working days should include nocturnal hemodialysis patients.

- If the facility was closed for the entire month, select “No NHSN Reporting for this Month”



Data Collection Form- Denominator



Denominators for Dialysis Event Surveillance Census Form – completed once per month

Complete this form as indicated by the Dialysis Event Protocol:
<http://www.cdc.gov/nhsn/PDFs/pscManual/8pscDialysisEventcurrent.pdf>
Instructions for this form are available at: http://www.cdc.gov/nhsn/forms/instr/57_503.pdf
*required for saving

Reporting to "Outpatient Hemodialysis Clinic" Location:

Record the number of outpatients who received hemodialysis at your center on the first two working days of the month, including transient patients. A patient must be physically present for hemodialysis on one of these days to be counted on this form (e.g., exclude patients who are hospitalized). Record each patient only once. If a patient has more than one vascular access, record the access type with highest risk for infection (per the protocol), even if that access is not used for dialysis or is abandoned.

Facility ID #:

*Location Code:

*Month:

*Year:

*Vascular Access Type	*Number of Hemodialysis Outpatients		
Fistula		<div style="border: 1px solid black; padding: 5px; display: inline-block;"> Number of these Fistula Patients who undergo Buttonhole Cannulation </div>	
Graft			
Tunneled central line			
Nontunneled central line			
Other vascular access device (e.g., catheter-graft hybrid, port)			
*Total patients (sum of all patients listed above)			

Custom Fields:

Label _____
Data _____

Comments:

Assurance of Confidentiality: The voluntarily provided information obtained in this surveillance system that would permit identification of any individual or institution is collected with a guarantee that it will be held in strict confidence, will be used only for the purposes stated, and will not otherwise be disclosed or released without the consent of the individual, or the institution in accordance with Sections 304, 305 and 308(d) of the Public Health Service Act (42 USC 242b, 242k, and 242m(d)).

Public reporting burden of this collection of information is estimated to average 6 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a



Dialysis Infection Event (Numerator)

- An event form must be completed for each patient who has a dialysis infection event
- All patients receiving outpatient dialysis must be monitored for dialysis events
 - including those that may not have been counted in the monthly denominator
- If multiple infection events occur together, due to the same problem, they should be reported on the same form
- The date of event is either the IV antimicrobial start date, blood culture collection date or date of onset of pus, redness or swelling



Data Collection Form - Numerator (Infection Event)



Dialysis Event

Complete this form as indicated by the Dialysis Event Protocol
Instructions for this form are available at http://www.cdc.gov/nhsn/forms/Instr/57_502.pdf

*Required for saving	
Facility ID:	Event ID #:
*Patient ID:	Social Security #:
Secondary ID #:	Medicare #:
Patient Name, Last:	First: Middle:
*Gender: F M Other	*Date of Birth:
Ethnicity (Specify):	Race (Specify):
*Event Type: DE – Dialysis Event	*Date of Event:
*Location:	

*Was the patient admitted/readmitted to the dialysis facility on this dialysis event date? Yes No

*Transient Patient Yes No

Risk Factors

*Vascular accesses: (check all that apply)	*Access placement date (mm/yyyy):
<input type="checkbox"/> Fistula	____/____/____ <input type="checkbox"/> Unknown
Buttonhole? <input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Graft	____/____/____ <input type="checkbox"/> Unknown
<input type="checkbox"/> Tunneled central line	____/____/____ <input type="checkbox"/> Unknown
<input type="checkbox"/> Nontunneled central line	____/____/____ <input type="checkbox"/> Unknown
<input type="checkbox"/> Other vascular access device, specify: _____	____/____/____ <input type="checkbox"/> Unknown
Is this a catheter-graft hybrid? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Vascular access comment: _____	

Event Details

*Specify Dialysis Event: (check at least one)

IV antimicrobial start
 *Was vancomycin the antimicrobial used for this start? Yes No

Positive blood culture (*specify organism and antimicrobial susceptibilities on pages 2-3)
 *Suspected source of positive blood culture (check one):
 Vascular access A source other than the vascular access Contamination Uncertain
 Where was this positive blood culture collected?
 Dialysis clinic Hospital (on the day of or the day following admission) or E.D. Other location

Pus, redness, or increased swelling at vascular access site
 *Check the access site(s) with pus, redness, or increased swelling:
 Fistula Graft Tunneled central line Nontunneled central line Other vascular access device

*Specify Problem(s): (check one or more)

Fever $\geq 37.8^{\circ}\text{C}$ (100°F) oral Chills or rigors Drop in blood pressure

Wound (NOT related to vascular access) with pus or increased redness Urinary tract infection

Cellulitis (skin redness, heat, or pain without open wound) Pneumonia or respiratory infection

Other problem (specify): _____

None

*Specify Outcomes:

Loss of vascular access	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown
Hospitalization	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown
Death	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown



Data Analysis and Interpretation

- Dialysis event rates are calculated for each vascular access type
 - $\text{Rate} = \text{Dialysis Events} \div \text{Patient-months} (\times 100)$
- CDC calculates pooled mean rates by combining the rates from ALL participating facilities
- Facilities can then compare their rates with the CDC pooled rates
 - Using the NHSN analysis features, either the rate table or run chart
- Facilities are encouraged to analyze their infection data and provide feedback to staff



Data Analysis Feature in NHSN



Department of Health and Human Services
Centers for Disease Control and Prevention

NHSN - National Healthcare Safety Network

Logged into PRB Dialysis Test Facility 3 (ID 22077) as VKELLER.
Facility PRB Dialysis Test Facility 3 (ID 22077) is following the DIAL component.

NHSN Home
Alerts
Reporting Plan
Patient
Event
Summary Data
Import/Export
Analysis
Generate Data Sets
Output Options
Statistics Calculator
Surveys
Users
Facility
Group
Log Out

Expand All Collapse All

Dialysis Events

Numerators

Denominators

Rates

CDC Defined Output

- Rate Table - IV Antimicrobial Start Data
- Run Chart - IV Antimicrobial Start Data
- Rate Table - IV Vancomycin Start Data
- Run Chart - IV Vancomycin Start Data
- Rate Table - Local Access Site Infection Data
- Run Chart - Local Access Site Infection Data
- Rate Table - Bloodstream Infection Data
- Run Chart - Bloodstream Infection Data
- Rate Table - Access Related Bloodstream Infection
- Run Chart - Access Related Bloodstream Infection
- Rate Table - Vascular Access Infection Data
- Run Chart - Vascular Access Infection Data

Outcomes

- Prevention Process Measures
- Central Line Insertion Practices
- Patient Vaccination
- Data Quality
- CMS Reports
- Advanced
- My Custom Output
- Published Output

Run	Modify

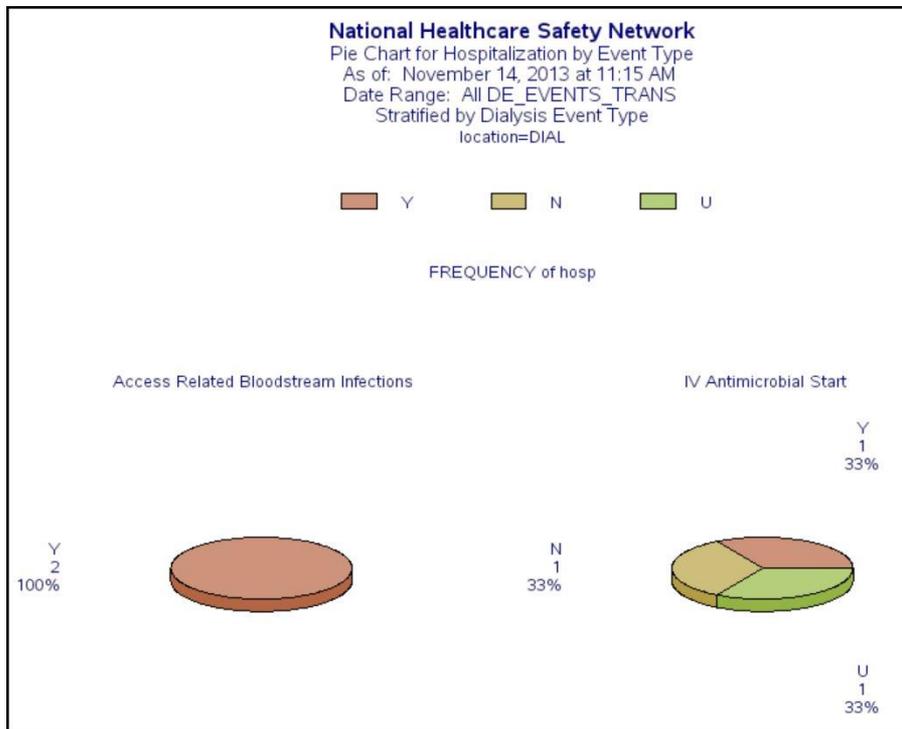
Analysis Output Options

NHSN analysis features allows each Dialysis Clinic to run their own reports

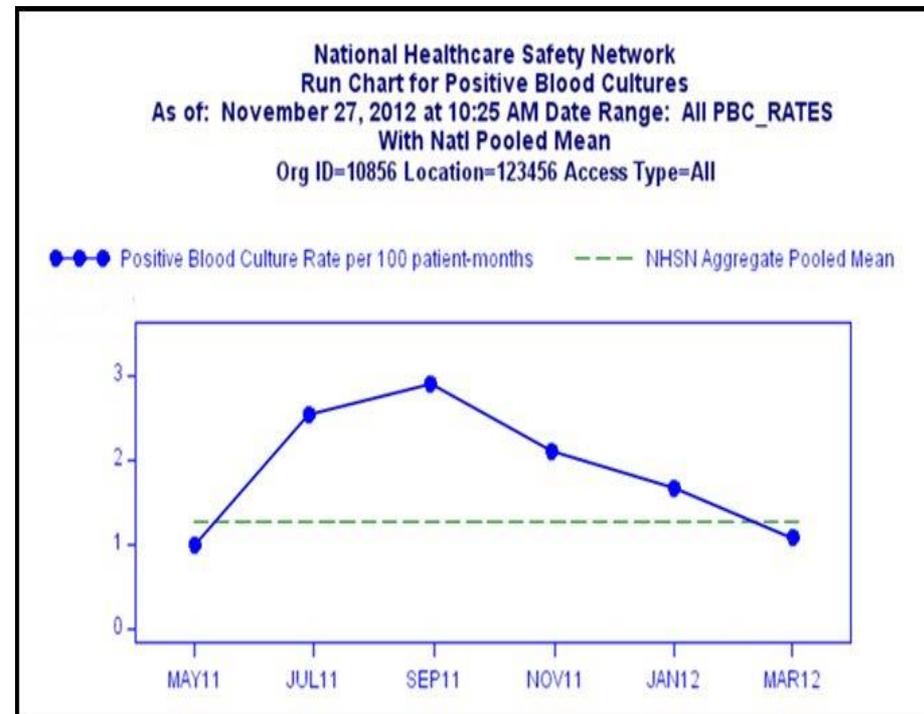
- to compare their rates to the national database
- to compare their own rates over time

NHSN Analysis Reports

PIE CHART



RUN CHART



Summary

- Vascular access devices put hemodialysis patients at greater risk for bloodstream and localized infections
- Understanding NHSN surveillance definitions for the dialysis setting is essential for accurate data and rate comparisons
- NHSN data collection tools contribute to a systematic approach for data collection and standardized submission of data
- Analysis of data is instrumental in viewing the “whole picture” to direct change and target improvement

<http://www.cdc.gov/nhsn/dialysis/>

National Healthcare Safety Network (NHSN)

Tracking Infections in Outpatient Dialysis Facilities

A leading cause of death among hemodialysis patients, second only to vascular disease, bloodstream and other types of infections are a significant threat to patient safety. CDC helps the dialysis community prevent infections by providing evidence-based guidelines and access to the National Healthcare Safety Network (NHSN), a surveillance system that allows facilities to track infections. These resources are critical for tracking and preventing infections and for evaluating the effectiveness of a specific infection prevention effort.

In 2008, CDC estimated that 37,000 bloodstream infections occurred among hemodialysis patients with central lines. One in four of these infected patients may have died as a result of the infection. Since 1993, hospitalization rates among hemodialysis patients have increased 47% for bloodstream infection and 87% for vascular access infection.

The Burden and Risk

Healthcare providers including [doctors, nurses, and technicians](#) [can prevent](#) many of these infections by following basic infection prevention recommendations and tracking rates.

A patient's risk of infection is related to their vascular access type (how a patient's veins are accessed so they can receive hemodialysis). Common types include: central lines, arteriovenous (AV) fistulas created from the patient's own blood vessels, and AV grafts constructed from synthetic materials.



To Report Dialysis Events, [click here.](#)

- Training
- Protocol
- Forms
- Support Materials
- Analysis Resources
- FAQs



Dialysis Prevention Process Measures

- Training
- Protocol
- Forms
- Support Materials

References

- Centers for Disease Control and Prevention, Jan, 2014. *NHSN Dialysis Event Manual*. Retrieved from <http://www.cdc.gov/nhsn/PDFs/pscManual/Dialysis-Manual.pdf>
- Centers for Disease Control and Prevention, April, 2014. *Dialysis Event Training*. Retrieved from <http://nhsn.cdc.gov/nhsntraining/courses/2014/C18/>
- Centers for Disease Control and Prevention, June, 2015. *Dialysis Event Surveillance*. Retrieved from <http://www.cdc.gov/nhsn/dialysis/dialysis-event.html>

Questions?



For more information, please contact
the HAIProgram@cdph.ca.gov

Thank you