

NHSN Dialysis Surveillance Call

May 23, 2017

Outline

- Use of Data by NHSN Group Users
- NHSN Agreement to Participate and Consent
- Acute Kidney Injury (AKI) Definition and Reporting
- NHSN Release 8.9 - Resolution of System Issues
- NHSN Release 8.9 Updates
- Dialysis Component Data Quality Checks

Use of Data by NHSN Group Users

NHSN Assurance of Confidentiality

- NHSN group users are reminded of the 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 Section 304, 306, and 308(d) of the Public Health Service Act (42 USC 242b, 242k, and 242m(d))."
- Group users have a responsibility to safeguard and use the data accessed via the group function in an appropriate manner
- If the integrity of NHSN data were adversely affected, it would negatively impact decision-making and scientific data analysis

Appropriate Use of NHSN Data

- If a group user seeks to use NHSN data outside of the stated purposes, consent from participating facilities may be required
- Any personally identifiable information entered into NHSN must not be used for anything other than the intended purpose
- Questions about the use of NHSN data by group users can be directed to NHSN@cdc.gov
- Additional information on the NHSN Rules of Behavior can be found here: <https://www.cdc.gov/nhsn/PDFs/FacAdminROB.pdf>

NHSN Agreement to Participate & Consent

What's New?

- Submission will be done electronically through the NHSN application rather than a paper copy that is mailed, scanned, or faxed
- Some purposes of NHSN have been updated to reflect the current data reporting relationship with CMS
- NHSN data access is being extended to local health departments for surveillance and prevention purposes—as is currently done for state health departments

What's New?

- CDC will provide to state or local health departments facility-level information to facilitate healthcare-associated infection prevention efforts (e.g., identifying facilities to target for prevention activities), and provide patient and facility-level data to state or local health departments during an outbreak investigation to assist case-finding or outbreak control.

This does not replace the requirement for facilities to adhere to local and state public health reporting requirements including reporting outbreaks to public health authorities where mandated.

Consent Process

- Currently enrolled facilities are required to accept the new Agreement to Participate and Consent electronically by **June 15, 2018**
 - If a facility fails to re-consent by the deadline, its NHSN functionality will be suspended until the consent form is accepted
- Newly enrolled facilities must consent within 60 days of enrolling in NHSN
 - After submitting enrollment forms, the person(s) listed as the Dialysis Component Primary Contact and the Healthcare Personnel Primary Contact must log in to the enrolled facility in NHSN
 - On the component's homepage, the primary contact should review the electronic consent form and then check the 'Accept' box and click 'Submit'
- Contact NHSN@cdc.gov with "consent form" in the subject line for more information

Acute Kidney Injury (AKI) Definition and Reporting

Acute Kidney Injury (AKI): Definition

Among patients included in the NHSN Dialysis Event Surveillance population, the following criteria should be used to identify patients who have acute kidney injury:

1. No diagnosis of “End Stage Renal Disease” or “ESRD” in the patient medical record, or through the ESRD Medical Evidence Form (Form CMS-2728-U3) **AND**
2. Physician-diagnosis of “Acute Kidney Injury” or “AKI” listed in the patient medical record (e.g., nephrologist consult or referral form) **AND**
3. The event date, or date of denominator data collection, is not more than 6 months after the date the patient initiated outpatient hemodialysis

Acute Kidney Injury (AKI)

- Beginning January 1, 2018, reporting data for patients with AKI is required per the NHSN Dialysis Event Protocol
 - Facilities should no longer adhere to the 2017 AKI guidance
- Data for patients with AKI should be reported to the new, separate, “Outpatient Hemodialysis Clinic – Acute Kidney Injury (AKI)” location
- Created to exclude AKI patient data from NHSN Bloodstream Infection (BSI) data shared with CMS for the End-stage Renal Disease (ESRD) Quality Incentive Program (QIP)

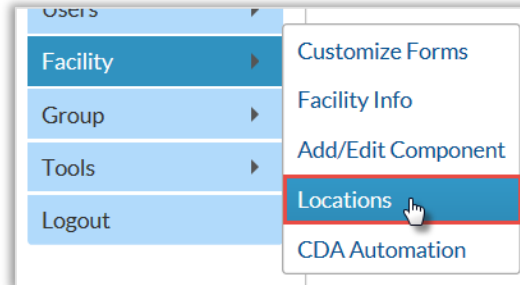
AKI Reporting

- Step 1: Map the 'Outpatient Hemodialysis Clinic – Acute Kidney Injury (AKI)' location
- Step 2: Add AKI location to Monthly Reporting Plans
- Step 3: Account for AKI patients each month
 - Denominators for Dialysis Event Surveillance form
 - Dialysis Event Form
 - Confirm AKI Data Alert

More information about these three steps can be found in the NHSN Dialysis Event Surveillance Instructions for AKI Data: <https://www.cdc.gov/nhsn/pdfs/dialysis/aki-location-instructions-508.pdf>

Mapping the AKI Location

- Facilities need to map (i.e., create) an “Outpatient Hemodialysis Clinic – Acute Kidney Injury (AKI)” location **once** in order to use the AKI location for their Monthly Reporting Plans, Denominator forms and Dialysis Event forms

A screenshot of a web application interface titled 'Locations'. It features a header with a kidney icon and the title 'Locations'. Below the header is an 'Instructions' section with a bulleted list of actions: 'Add', 'Find', 'Edit', and 'Delete'. The main form area contains several fields: 'Your Code' with an asterisk and a text input; 'Your Label' with an asterisk and a text input; 'CDC Location Description' with an asterisk and a dropdown menu showing 'Outpatient Hemodialysis Clinic - Acute Kidney Injury (AKI)'; 'Status' with an asterisk and a dropdown menu showing 'Active'; and 'Bed Size' with an asterisk and a text input. A red arrow points to the 'CDC Location Description' dropdown. Below the form fields is a note: 'A bed size greater than zero is required for most inpatient locations.' At the bottom are four buttons: 'Find', 'Add', 'Export Location List', and 'Clear'. The 'Add' button is highlighted with a red border.

Add AKI Location to Monthly Reporting Plans



Step 1: Map AKI Location

Step 2: Add AKI Location to MRP

Step 3: Account for AKI patients each month

- Monthly Reporting Plan:
 - Every facility that provides in-center hemodialysis for outpatients must create an AKI location and add both ESRD and AKI locations to their Monthly Reporting Plan for every month of the year with the 'DE' box checked

Events

	Locations	Dialysis Event (DE)	Central Line Insertion Practices (CLIP)
	AKI – AKI PATIENTS ▼	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	DIAL – DIALYSIS ▼	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Add AKI Location to Monthly Reporting Plans

Step 1: Map AKI Location

Step 2: Add AKI Location to MRP

Step 3: Account for AKI patients each month

- Once the AKI location is added to Monthly Reporting Plan with the 'DE' box checked, users will receive reminders to confirm AKI patients status
- The "Confirm Acute Kidney Injury (AKI) Data" alert will generate if the facility has not reported any Events or denominator data for that month

Events

	Locations	Dialysis Event (DE)	Central Line Insertion Practices (CLIP)
	AKI – AKI PATIENTS ▼	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	DIAL – DIALYSIS ▼	<input checked="" type="checkbox"/>	<input type="checkbox"/>



1

Confirm Acute Kidney Injury (AKI) Data

Account for AKI Patients Each Month

Step 1: Map AKI Location

Step 2: Add AKI Location to MRP

Step 3: Account for AKI patients each month

- If AKI patients received hemodialysis at your facility during the month:
 - Complete a Denominators for Dialysis Event Surveillance form
 - Complete a Dialysis Event form
 - If you see a 'Confirm AKI Data' alert, answer 'Yes'
- Facilities must report AKI patients who received in-center hemodialysis on the first two working days of the month on the Denominators for Dialysis Event Surveillance form
- Report all AKI Dialysis Events even if the patient was not present on the first two working days of the month
 - Complete the Denominators for Dialysis Event Surveillance form with all zeros

Account for AKI Patients each Month

Step 1: Map AKI Location

Step 2: Add AKI Location to MRP

Step 3: Account for AKI patients each month

- If your facility did not have any patients receive hemodialysis during the month:
 - When the 'Confirm AKI Data' alert appears, answer 'No'

X Don't complete a Denominators for Dialysis Event Surveillance form

Confirm whether your facility had any Acute Kidney Injury (AKI) patients dialyze these months.

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Location	Month/Year	Did any AKI Patients Dialyze this Month?
AKI	2/2018	<div><div>▼</div><div>Y - Yes</div><div>N - No</div></div>

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Save Reset

NHSN Release 8.9 - Resolution of System Issues

Release Date: April 28, 2018

Resolution of System Issues

- **Issue:** System prevented saving an all-zero AKI summary form if AKI events were previously entered for that month
 - Resolution: Users are now able to save an all-zero AKI summary form if AKI events are previously entered for that month
- **Issue:** 'Total Patients' field is blank when users enter an all zero AKI denominator form and subsequently enter AKI Events
 - Resolution: The 'Total Patients' field on the AKI denominator form will no longer be blank

Resolution of System Issues


- **Issue:** 'Missing Summary Data' alert appears when facilities indicate no AKI patients received hemodialysis that month
 - Resolution: 'Missing Summary Data' alert no longer appears for months where no AKI patients received hemodialysis
- **Issue:** System did not allow users to edit off-plan summary data and Dialysis Events
 - Resolution: Off-plan summary data and Dialysis Events can now be edited

NHSN Release 8.9 Updates

Release Date: April 28, 2018

User Interface Improvement – Edit Group User Rights

- Improvement to facility selection menu on Edit Group User Rights screen
 - Easier for users to sort, filter, and select multiple facilities

 **Edit User Rights**

- Select one or more entries from the Facility List
- Hold the <Ctrl> key while clicking facility names to select multiple facilities

User ID:

Select All	Facility Name	Facility ID	CCN	City	State	Status
<input checked="" type="checkbox"/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>
<input checked="" type="checkbox"/>	Atlanta Test Facility 1	10001	1000000	Kapolei	HI	A - Active
<input checked="" type="checkbox"/>	Atlanta Test Facility 2	10002	1000000	Washington	DC	A - Active
<input checked="" type="checkbox"/>	Atlanta Test Facility 3	10003	1111111	Atlanta	GA	A - Active
<input checked="" type="checkbox"/>	Atlanta Test Facility 4	10004		Atlanta	GA	A - Active
<input checked="" type="checkbox"/>	ATC - CCR-CA-MS (Atlanta, GA)	10005	1111111	Atlanta	GA	A - Active
<input checked="" type="checkbox"/>	AT - Minneapolis, MN	10006	1000000	Atlanta	GA	A - Active
<input checked="" type="checkbox"/>	Midwest General	11111		TAUNTON	MA	A - Active
<input checked="" type="checkbox"/>	Atlanta Test Facility 5	10007	1000000	Atlanta	GA	A - Active
<input checked="" type="checkbox"/>	Atlanta Test Facility 6	10008		Atlanta	GA	A - Active

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Select All Filtered Facilities

Rights	Patient Safety	Healthcare Personnel Safety	Biovigilance	Long Term Care	Dialysis
Administrator	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Analyze Data	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
View Data	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Effective Rights Save Back

Analysis Updates – Aggregate Data

- NHSN Dialysis Event rate tables and run charts updated with 2016 national aggregate data for benchmarking
 - Includes: IV antimicrobial starts, IV vancomycin starts, local access site infections, bloodstream infections, access-related bloodstream infections, vascular access infections

National Healthcare Safety Network Rate Table for Bloodstream Infection

Facility-level Rate Data

As of: April 21, 2018 at 12:03 AM

Date Range: PBC_RATES summaryYQ 2017Q1 to 2017Q1

Bloodstream Infection: Any positive blood culture.

Facility Org ID	CMS Certification Number	State	Location	Access Type	Summary Yr/Qtr	Months	Number Bloodstream Infections	Patient-months	Bloodstream Infection Rate/100 patient-months	NHSN Bloodstream Infection Pooled Mean Rate/100 patient-months	Incidence Density p-value	Incidence Density Percentile
10055	888888	DC	OFFICIAL NAME	All	2017Q1	2	1	46	2.17	0.56	0.2556	.
10055	888888	DC	OFFICIAL NAME	Fistula	2017Q1	2	0	13	0.00	0.22	0.9713	25
10055	888888	DC	OFFICIAL NAME	Graft	2017Q1	2	0	10	0.00	0.37	0.9636	50
10055	888888	DC	OFFICIAL NAME	Other Access	2017Q1	2	0	6	0.00	0.65	0.9618	.
10055	888888	DC	OFFICIAL NAME	Tunneled Central Line	2017Q1	2	1	10	10.00	1.85	0.1841	100
10055	888888	DC	OFFICIAL NAME	Nontunneled Central Line	2017Q1	2	0	7	0.00	2.14	0.8608	.
10055	888888	DC	OFFICIAL NAME	Any CVC	2017Q1	2	1	17	5.88	1.86	0.3113	94

Source of aggregate data: 2016 NHSN Dialysis Event Data

Data contained in this report were last generated on April 18, 2018 at 11:48 AM.

"Incidence Density Percentile" values were suppressed for "All" stratum and strata with insufficient data.

Analysis Updates – Excess Infections Report

- Group-level ‘TAP’ Report has been renamed to ‘Excess Infections – Bloodstream (BSI) Data’ report
- Can group by calendar quarter, calendar half-year, and calendar year by modifying the ‘Group by’ variable under the ‘Display Options’ tab

The screenshot shows a web-based interface for modifying a report. The title bar reads "Modify 'Excess Infections - Bloodstream Infection (BSI) Data'". Below the title bar, there is a checkbox labeled "Show descriptive variable names" with a link "(Print List)". To the right of the checkbox, it says "Analysis Data Set: PBC_TAP", "Type: TAP", and "Data Set Generated On: 04/20/2018 14:44:00". Below this, there are four tabs: "Title/Format", "Time Period", "Filters", and "Display Options". The "Display Options" tab is currently selected. Under the "Display Options" tab, there is a section labeled "TAP Options:". Inside this section, there is a label "SIR Goal" and a "Source:" dropdown menu with "HHS Goal" selected. To the right of the "Source:" dropdown, there is a "Group by:" dropdown menu with "Summary~Yr/Qtr" selected. At the bottom of the interface, there are four buttons: "Run", "Save...", "Export...", and "Close".

Analysis Updates – Excess Infections Report

- Group-level ‘TAP’ Report has been renamed to ‘Excess Infections – Bloodstream (BSI) Data’ report
- Can group by calendar quarter and calendar half-year by modifying the ‘Group by’ variable under the ‘Display Options’ tab

National Healthcare Safety Network
Excess Infections - Bloodstream Infection (BSI) Data
Totals for all Facilities in Group
SIR Goal : SIR Goal = 1
As of: April 21, 2018 at 12:18 AM
Date Range: PBC TAP summaryYQ 2016Q1 to 2016Q4

Number of Facilities	Summary Yr/Qtr	In-Plan Patient Months	Events	Predicted BSI	Excess Infections	SIR_Goal
5	2016Q1	535	20	5.1882	14.812	1
3	2016Q2	213	7	1.9922	5.008	1
4	2016Q3	348	17	3.5609	13.439	1
1	2016Q4	77	4	0.8866	3.113	1

National Healthcare Safety Network
Excess Infections - Bloodstream Infection (BSI) Data
Facilities within the Group ranked by Number of Excess Infections
SIR Goal : SIR Goal = 1
As of: April 21, 2018 at 12:18 AM
Date Range: PBC_TAP summaryYQ 2016Q1 to 2016Q4

Facility Rank	Facility Org ID	CMS Certification Number	Summary Yr/Qtr	Facility Name	State	In-Plan Patient Months	Events	Predicted BSI	Excess Infections
1	10856	111111	2016Q1	Dialysis Test Facility 3	GA	277	9	2.1295	6.871
2	10055	888888	2016Q1	Dialysis Test Facility 2	DC	100	6	1.1701	4.830

Analysis Updates – Creating Custom Lists

- Create custom lists for use as filters in all analysis reports at the group level
- Create and modify custom lists by going to Analysis>Preferences


The screenshot displays the NHSN Home interface. On the left is a vertical navigation menu with the following items: NHSN Home, Reporting Plan, Event, Summary Data, Surveys, Analysis (highlighted), Users, Group, Tools, and Logout. A sub-menu is open for 'Analysis', showing 'Generate Data Sets', 'Reports', 'Statistics Calculator', and 'Preferences' (highlighted). The main content area is titled 'Preferences' and features a 'Custom Lists' section. This section includes a table with the following data:

Custom List Name
HI_DC 4-20-2018
MA 4-20-18
PRFacs

Below the table are two buttons: 'Add' and 'Back'. The interface also shows pagination controls indicating 'Page 1 of 1' and 'View 1 - 3 c'.

Analysis Updates – Creating Custom Lists (cont)

- When adding a custom list, select facilities to include in the custom list, name the custom list, and click 'Save'

 Preferences - Custom List

Available Facilities

Facility ID	CCN	Name	State
<input type="text"/> x	<input type="text"/> x	<input type="text"/> x	<input type="text"/> x
10055	888888	Dialysis Test Facility 2	DC
10856	111111	Dialysis Test Facility 3	GA
10876		Dialysis Test Facility 4	GA
14215	000005	Dialysis Test Facility 6	GA
10901	022500	JE_Hemodialysis_4	GA
13780		McDowell General	MA
14600		qa hdpd	GA
10881	010022	XYZ_CDA-QA-MD_Dialysis_1_10099	GA

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Select all current >>>

<<< Select all current

Select all >>>

<<< Select all

Selected Facilities

Facility ID	CCN	Name	State
<input type="text"/> x	<input type="text"/> x	<input type="text"/> x	<input type="text"/> x
10001	666666	Dialysis Test Facility 1	HI

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Custom List name

Save

Back

Analysis Updates – Creating Custom Lists (cont)

- Select the custom list on the 'Filters' tab on the Modify screen of any report to view data only for the facilities in the list

The screenshot displays the 'Modify "Line Listing - Dialysis Events"' interface. At the top, a blue header bar contains the title. Below the header, a status bar shows 'Analysis Data Set: DE_Events', 'Type: Line Listing', and 'Data Set Generated On: 04/20/2018 14:44:00'. A row of tabs includes 'Title/Format', 'Time Period', 'Filters' (which is active and highlighted in green), 'Display Variables', 'Sort Variables', and 'Display Options'. Below the tabs, there is a section for 'Additional Filters' with 'Show' and 'Clear' buttons. The main filter area contains a hierarchical structure with 'AND' and 'OR' logic buttons. A single filter rule is visible: 'OrgID_CL' in a dropdown menu, followed by 'in' in another dropdown, and 'Sample Custom List' in a third dropdown. To the right of this rule are 'Add group', 'Add rule', and 'Delete' buttons. At the bottom right, there are four buttons: 'Run', 'Save...', 'Export...', and 'Close'.

Modify "Line Listing - Dialysis Events"

☒ Show descriptive variable names ([Print List](#)) Analysis Data Set: DE_Events Type: Line Listing Data Set Generated On: 04/20/2018 14:44:00

Title/Format Time Period **Filters** Display Variables Sort Variables Display Options

Additional Filters: Show Clear

AND OR

AND OR

OrgID_CL in Sample Custom List

Run Save... Export... Close

Dialysis Component Data Quality Checks

Dialysis Component Data Quality Checks

- CDC reviews Dialysis Event and denominator data monthly for accuracy
- Facility administrators will receive an email containing a report listing any data quality issues identified, for example:
 - Events reported, but missing access type data
 - 21 day rule violations
 - Event data reported, but no denominator data for a particular month
- If you have questions regarding how to correct any identified data quality issues, e-mail the NHSN helpdesk at nhsn@cdc.gov with “Dialysis” in the subject line

Thank you! Questions?

*For questions, please email us at nhsn@cdc.gov and
put "dialysis" in the subject line*

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.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.

