❸ Steps to Review NHSN Dialysis Event Surveillance Data

Three Steps:

1. Verify minimum monthly Dialysis Event (DE) reporting requirements are met.
2. Check submitted data are correct and complete.
3. Assess your facility's performance.

Review of Running NHSN Reports

Under "Analysis" on the navigation bar:
1. Generate new Data Sets
2. Find the output option (report) and modify it, if desired
3. Run the report

Step ① Have Minimum Monthly DE Reporting Requirements Been Met?

Run this report: Line Listing – CMS ESRD QIP Rule
Find this report under: Analysis "Reports" → "CMS Reports" folder → "QIP" folder

USE THIS REPORT TO VERIFY CMS ESRD QIP MINIMUM NHSN REPORTING REQUIREMENTS ARE MET each month, as indicated by a "Y" (Yes) on each line under the "Criteria Met this Month" column. To get a "Y" all Yes/No fields in the same row must = Y.

➢ Verify the facility's CCN is present and correct.

Org ID	CMS Certification Number	Facility Name	Location	Summary Year/ Month	DE on Reporting Plan	Dialysis Event Numerator Reported	Dialysis Event Denominator Reported	Criteria Met this Month
10856	123456	Dialysis Facility	DIAL	2014M01	Y	Y	Y	Y
10856	123456	Dialysis Facility	DIAL	2014M02	N	Y	Y	N

- **DE on Reporting Plan = Y:** if "DE" is checked on the Monthly Reporting Plan, indicating Dialysis Event data will be collected according the Dialysis Event Protocol.

- **Dialysis Event Numerator Reported = Y:** if (for each dialysis event type) at least 1 dialysis event was reported that month *or* the corresponding "Report No Events" checkbox was selected on the Denominators for Outpatient Dialysis form to confirm there were zero events of that type for the month.

- **Dialysis Event Denominator Reported = Y:** if the Denominators for Outpatient Dialysis census form was completed for the month.

Step ② Are the Submitted Data Correct and Complete?

Run these reports: Line Listing – Dialysis Events (detailed) and Line Listing – All DE Denominators
Find these reports under: Analysis "Reports" → "Dialysis Events" folder → "Numerators" or "Denominators" folders

USE THESE TWO REPORTS TO CHECK ALL DATA ARE CORRECT AND COMPLETE.

Report A: Check all dialysis events are correctly reported. Review the "Data Validity Check PBC ABX Description" column and check if IV antimicrobial starts or positive blood cultures were missed.

Report B: Review denominator data across months. For each vascular access type, verify minimum and maximum values are reasonable and the numbers of patient-months are consistent with the facility's census.

Follow-up:

If new information becomes available or an error is found, access the record to add, edit, and/or delete, as needed.

Ⓐ Org ID	Event ID	Patient ID	Transient	Event Date		IV Anti-microbial Start	IV Vanco-mycin Start	Positive Blood Culture	Pus Redness Swelling Event		Data Validity Check PBC ABX Description
10856	32403	0322	Y	01/20/2014		Y	Y	N	N		Is This Antimicrobial Start w/o PBC Valid?
10856	30936	1234	N	02/01/2014		N	N	Y	N		Is This PBC w/o Antimicrobial Start Valid?

Ⓑ Org ID	Location	Summary Year/Month	No Dialysis Events	Number of Patients: AV Fistula	Number of Buttonhole Patients	Number of Patients: AV Graft	Number of Patients: Tunneled Central Line	Number of Patients: Nontunneled Central Line	Number of Patients: Other Access Device	Patient-months	Number of Fistulas and Grafts	Number of All Central Lines
10856	DIALYSIS	2014M01	Y	38	0	32	12	2	0	84	70	14
10856	DIALYSIS	2014M02	N	38	0	33	12	1	0	84	71	13

Step 3 How is Your Facility Doing?

Run this report: Rate Table – Bloodstream Infection
Find this report under: Analysis "Reports" → "Dialysis Events" folder → "Rates" folder

USE THIS REPORT TO ASSESS FACILITY PERFORMANCE.

➢ Review facility rates over time.
➢ Benchmark facility rates against NHSN rates.

Rate Table Column Headers:

- **Access Type:** The vascular access type that applies to the row.
- **Summary Yr/Qtr:** The year and three month calendar quarter that applies to the row.
- **Months:** Number of months that included data during the quarter.
- **Number Bloodstream Infections (BSI):** by access type that occurred during the quarter.
- **Patient-months:** The number of patient-months by access type during the quarter.
- **Bloodstream Infection Rate/100 patient-months:** The facility's BSI rate for the quarter.

Org ID	CMS Certifi-cation Number	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
10856	123456	DIALYSIS	Fistula	2013Q4	3	0	114	0.000	0.48	0.5779	25
10856	123456	DIALYSIS	Fistula	2014Q1	3	0	113	0.000	0.48	0.5808	25
10856	123456	DIALYSIS	Graft	2013Q4	3	0	98	0.000	0.88	0.4228	50
10856	123456	DIALYSIS	Graft	2014Q1	3	0	94	0.000	0.88	0.4385	50
10856	123456	DIALYSIS	Tunneled	2013Q4	3	2	36	5.556	3.24	0.3250	78
10856	123456	DIALYSIS	Tunneled	2014Q1	3	1	34	2.941	3.24	1.0000	54

REVIEW RATES OVER TIME

Table rows are sorted by vascular access type and then chronologically, so changes to each vascular access type's rate can be observed over time.

➢ **Review Data Monthly to:**
  - Ensure all data have been accurately reported

➢ **Review Data Quarterly to:**
  - Detect problems in your facility
  - Provide feedback to your staff
  - Engage staff in quality improvement

➢ **Act on the Data:**
  - Consider discussing the data at QAPI meetings
  - Identify areas for improvement
  - Set measurable goals
  - Provide feedback to frontline staff

BENCHMARK AGAINST NHSN RATES

The three right-most columns contain aggregate NHSN data (i.e., data combined from facilities that participated in NHSN Dialysis Event Surveillance).

Compare the facility's rate to the NHSN rate.

- NHSN Infection Rate/100 patient-months: The mean or average rate of Dialysis Event bloodstream infections for NHSN (per 100 patient-months).

- Incidence Density p-value: Probability that the facility's rate is statistically different than the NHSN rate (a p-value <0.05 is usually considered significant).

- Incidence Density Percentile: The facility's percentile ranking for bloodstream infection rate compared to the NHSN aggregate rate (lower numbers are better).

Other NHSN Rate Reports:

NHSN also includes reports for rates of: IV Antimicrobial Starts, IV Vancomycin Starts, Access-Related Bloodstream Infections (ARB), Local Access Site Infections (LASI), and Vascular Access Infections (VAI).

These rate tables are interpreted in the same way as the BSI report shown here, although newer measures may not yet have aggregate data available for benchmarking.

NHSN
National Healthcare
Safety Network

National Center for Emerging and Zoonotic Infectious Diseases
Division of Healthcare Quality Promotion

CDC