

News from the NHSN Help Desk

Positive Blood Culture FAQs Part 4: Using NHSN Data for Improvement

Interpreting and understanding data is an important part of surveillance. Review your facility's bloodstream infection (BSI) and access-related bloodstream infection (ARBSI) rates in NHSN quarterly and share with frontline staff.

What reports are available in NHSN to review positive blood culture data?

In addition, to the Dialysis Event line listings, NHSN has two rate tables for positive blood culture data: (1) Bloodstream Infection Data report and (2) Access Related Bloodstream Infection report. These rate tables are found under the Dialysis Events folder and Rates sub-folder on the Output Options screen.

How do I run and interpret the NHSN rate tables?

Follow the instructions to run the [Rate Table – Bloodstream Infection Data](#) report and the [Rate Table – Access Related Bloodstream Infection](#) report.

Rates are composed of a numerator and denominator. The numerator in the BSI rate, (found in the Rate Table – Bloodstream Infection Data report) is the number of positive blood cultures. All positive blood cultures, regardless of the suspected source, are included in the facility's BSI rate. The numerator in the ARBSI rate, (found in the Rate Table – Access Related Bloodstream Infection report) is the number of ARBSIs. The [Dialysis Event Protocol](#) defines an ARBSI as a positive blood culture with the suspected source reported as the vascular access or uncertain. The denominator for both BSI and ARBSI rates is the number of patient-months. Denominator data is collected from the Denominators for Dialysis Event Surveillance - Census Form in NHSN. NHSN rates are calculated per 100 patient-months and are stratified by vascular access type.

$$BSI \text{ Rate (per 100 patient – months)} = \frac{\text{Number of positive blood cultures}}{\text{Number of patient – months}} * 100$$

How can the data I enter in NHSN be used for my facility's infection prevention efforts?

A quarterly review of NHSN data can be used to detect problems in your facility, provide feedback to your staff, and encourage staff to be engaged in quality improvement.

Each rate table includes aggregate data from all of NHSN. Use the aggregate data to compare your facility to the rest of the facilities reporting to NHSN. The p-value and percentile are provided to assist with rate comparison. Typically, a p-value <0.05 is considered a statistically significant difference between rates. The lower the percentile, the better the facility is performing relative to the others in NHSN. Learn more about creating BSI and ARBSI rate tables and interpreting the results by reviewing the quick reference guides on the [Dialysis homepage](#) under the "Analysis Resources to Create Reports" tab.

Continue to implement evidence-based infection prevention practices (such as those found on the [CDC Dialysis Safety webpage](#)) and use NHSN surveillance and reports to monitor improvements in your facility's infection rates!



Questions? Email the NHSN helpdesk at nhsn@cdc.gov with "Dialysis" in the subject line and we will respond to your inquiry within 5 business days.