



Dialysis Prevention Process Measures (PPM) Protocol

Infections are the second most common cause of death in end-stage renal disease patients, and they account for nearly 14% of deaths.¹ NHSN prevention process measure surveillance tracks staff adherence to CDC’s recommended practices that are shown to prevent infections in dialysis settings.²

Audit adherence to recommended practices to:

- Ensure complete and correct implementation.
- Promote and reinforce recommended practices among staff.
- Track practice adherence over time
- Help inform where quality improvements should be directed

Setting: Surveillance occurs in outpatient hemodialysis centers. These centers may be attached to or affiliated with a hospital, but should serve hemodialysis outpatients.

Requirements: Participating facilities are required to report data according to this protocol, using the NHSN definitions described herein, to ensure data are uniformly reported across participating facilities. Facilities can participate in any combination of the six PPM options. When a PPM surveillance option is selected on the *Dialysis Monthly Reporting Plan*, users must complete a minimum number of observations that month. Report data to NHSN within 30 days of the end of the month in which they were collected (e.g., data from September 2015 should be reported no later than October 30, 2015).

Data Collection Instructions:

For each PPM followed in-plan, use the corresponding audit tool to collect the minimum number of observations each month:

Audit Tool	Observations per Month
Hand Hygiene Audit Tool	30
Hemodialysis Catheter Connection/Disconnection Audit Tool	10
Hemodialysis Catheter Exit Site Care Audit Tool	5
Arteriovenous Fistula and Graft Cannulation/Decannulation Audit Tool	10
Dialysis Station Routine Disinfection Audit Tool (<i>coming soon</i>)	10
Injection Safety Audit Tool (<i>coming soon</i>)	5



Please see the CDC's Dialysis Safety website: <http://www.cdc.gov/dialysis/prevention-tools/index.html> for additional resources and updates.

Observers should try to ensure that observations are as representative as possible of normal practice at the facility. This might include observing many different staff members on different days and shifts. Observers should also consider observing staff members at particularly busy times, when staff may be less attentive to proper practices.

NHSN Reporting Instructions

Complete Dialysis Monthly Reporting Plans

The *Monthly Reporting Plan* (CDC 57.501) is used by NHSN facilities to inform CDC that they are committed to following the NHSN surveillance protocol, in its entirety, for each monitoring selection on the plan. These data are referred to as "in-plan." A *Monthly Reporting Plan* must be completed before data can be entered into NHSN for that month. To indicate the facility is reporting in accordance with this protocol, save a Monthly Reporting Plan with the PPM checkbox(es) selected for the 'outpatient hemodialysis clinic' location for each month of participation.

Report Summary Data Monthly

Results of each audit tool are summarized into two numbers:

1. The number of successful observations (instances where adherence to each audit tool step was observed).
2. The total number of observations performed.

Report these summary numbers to NHSN using the *Prevention Process Measures* form (NHSN 57.504). In NHSN, this form is accessed via "Summary Data," then "Add," and then "Prevention Process Measures."

NHSN Data Analysis

Feedback to staff on the adherence to recommended practices is crucial to improvement. Facilities should consider regularly posting and/or reporting aggregate data to staff. In addition, feedback (positive or negative) to individuals can be useful.

Percent adherence is calculated by dividing the number of successful observations by the total number of observations and multiplying the result by 100:

$$\text{Percent Adherence} = \frac{\text{Number of Successful Observations}}{\text{Total Number of Observations}} \times 100$$



Effective April 2015, NHSN analysis includes output options (reports) that calculate percent adherence for each measure.

Additional Resources:

[CDC's Dialysis Safety website](#)

Hand Hygiene:

- [Hand Hygiene and Glove Use Observation Protocol](#)
- [World Health Organization's My 5 Moments for Hand Hygiene](#)

Dialysis Station Disinfection

- [Environmental Surface Disinfection in Dialysis Facilities: Notes for Clinical Managers](#)

Injection Safety

- [Protect Patients Against Preventable Harm from Improper Use of Single-Dose/Single-Use Vials](#)
- [Injection Safety Checklist](#)

References

1. NIH: *United States Renal Data System, 2014 Annual Data Report: Epidemiology of Kidney Disease in the United State*. National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, MD, 2014.
2. CDC: Healthcare Infection Control Practices Advisory Committee (HICPAC) *Guidelines for the prevention of intravascular catheter-related infections*, <http://www.cdc.gov/hicpac/bsi/bsi-guidelines-2011.html>, 2011



Instructions for Prevention Process Measures Form

(CDC 57.504)

Complete a Prevention Process Measures form to summarize observations, according to definitions and reporting instructions in the Prevention Process Measures Protocol.

** Indicates a required field when reporting in-plan.*

Data Field	Instructions for Data Collection
Facility ID #	The NHSN-assigned facility ID will auto-populate in this field.
*Location code	Required. Select the location code from the dropdown menu for the outpatient hemodialysis clinic location at which data were collected.
*Month	Required. Select the month during which the data were collected for this location.
*Year	Required. Select the 4-digit year during which the data were collected for this location.
*Total # of Successful Hand Hygiene Opportunities	Required. Enter the total number of observations made throughout the month when staff hand hygiene was indicated and was successfully performed.
*Total # of Hand Hygiene Opportunities	Required. Enter the total number of hand hygiene observations made throughout the month when staff hand hygiene was indicated. Note: When reporting in-plan, a minimum of 30 observations is required each month. Individual observations can be collected using a hand hygiene audit tool such as the CDC Hemodialysis Hand Hygiene Observations Audit Tool .
*Total # of Successful Hemodialysis Catheter Connection/ Disconnection Observations	Required. Enter the total number of catheter connection and/or catheter disconnection observations made throughout the month during which all CDC-recommended infection prevention best practices for this procedure were successfully performed.
*Total # of Hemodialysis Catheter Connection/ Disconnection Observations	Required. Enter the total number of catheter connection and/or catheter disconnection observations made throughout the month. Note: When reporting in-plan, a minimum of 10 observations is required each month. Individual observations can be collected using an audit tool such as the CDC Hemodialysis Catheter Connection & Disconnection Observations Audit Tool .
*Total # of Successful Hemodialysis Catheter Exit Site Care Observations	Required. Enter the total number of hemodialysis catheter exit site care observations made throughout the month during which all CDC-recommended infection prevention best practices for this procedure were successfully performed.
*Total # of Hemodialysis Catheter Exit Site Care Observations	Required. Enter the total number of hemodialysis catheter exit site care observations made throughout the month.



Data Field	Instructions for Data Collection
	<p>Note: When reporting in-plan, a minimum of 5 observations is required each month. Individual observations can be collected using an audit tool such as the CDC Hemodialysis Catheter Exit Site Care Observations Audit Tool.</p>
<p>*Total # of Successful Arteriovenous Fistula and Graft Cannulation/Decannulation Observations</p>	<p>Required. Enter the total number of arteriovenous fistula and graft cannulation and/or decannulation observations made throughout the month during which all CDC-recommended infection prevention best practices for this procedure were successfully performed.</p>
<p>*Total # of Arteriovenous Fistula and Graft Cannulation/Decannulation Observations</p>	<p>Required. Enter the total number of arteriovenous fistula and graft cannulation and/or decannulation observations made throughout the month.</p> <p>Note: When reporting in-plan, a minimum of 10 observations is required each month. Individual observations can be collected using an audit tool such as the CDC Arteriovenous Fistula & Graft Cannulation and Decannulation Observations Audit Tool.</p>
<p>*Total # of Successful Dialysis Station Routine Disinfection Observations</p>	<p>Required. Enter the total number of dialysis station routine disinfection observations made throughout the month during which all CDC-recommended infection prevention best practices for this procedure were successfully performed.</p>
<p>*Total # of Dialysis Station Routine Disinfection Observations</p>	<p>Required. Enter the total number of dialysis station routine disinfection observations made throughout the month.</p> <p>Note: When reporting in-plan, a minimum of 10 observations is required each month. Individual observations can be collected using an audit tool that includes all elements of the CDC Dialysis Station Routine Disinfection Checklist.</p>
<p>*Total # of Successful Injection Safety (Medication Preparation) Observations</p>	<p>Required. Enter the total number of medication preparation injection safety observations made throughout the month during which all CDC-recommended infection prevention best practices for this procedure were successfully performed.</p>
<p>*Total # of Injection Safety (Medication Preparation) Observations</p>	<p>Required. Enter the total number of medication preparation injection safety observations made throughout the month.</p> <p>Note: When reporting in-plan, a minimum of 5 observations is required each month. Individual observations can be collected using an injection safety audit tool that includes all elements of the CDC Outpatient Injection Safety Checklist.</p>
<p>*Total # of Successful Injection Safety (Medication</p>	<p>Required. Enter the total number of medication administration injection safety observations made throughout the month during which all CDC-recommended infection prevention best practices for this procedure were successfully performed.</p>



Data Field	Instructions for Data Collection
Administration) Observations	
*Total # of Injection Safety (Medication Administration) Observations	<p>Required. Enter the total number of medication administration injection safety observations made throughout the month.</p> <p>Note: When reporting in-plan, a minimum of 5 observations is required each month. Individual observations can be collected using an injection safety audit tool that includes all elements of the CDC Outpatient Injection Safety Checklist.</p>
Custom fields	<p>Optional. Add up to 50 alphanumeric, numeric, and/or date fields to this form for local use.</p> <p>NOTE: Each custom field must be added in advance. Within NHSN, select “Facility,” then “Customize Forms,” and then follow on-screen instructions. The Form Type is “CDC-Defined – DIAL – Summary Data” and the form is “PPM – Prevention Process Measures.”</p>
Comments	<p>Optional. Use this field to add any additional information about the Prevention Process Measures that would help you to interpret your surveillance data. CDC typically does not analyze these data.</p>