



Dialysis Prevention Process Measures

Hand Hygiene Surveillance

Background

Infections are the second most common cause of death in end-stage renal disease patients, and they account for nearly 14% of deaths (1). Hand hygiene is considered the cornerstone of infection prevention. CDC guidelines to prevent intravascular catheter-related infections recommend tracking hand hygiene adherence to inform healthcare personnel practice (2). This surveillance option allows facilities to monitor adherence to hand hygiene among healthcare personnel.

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. When hand hygiene (“HH”) surveillance is selected on the *Monthly Reporting Plan*, a minimum of 30 hand hygiene adherence observations are required per month. Report data to NHSN within 30 days of the end of the month in which they were collected (e.g., hand hygiene adherence data from September must be reported no later than October 30).

Use of the *CDC Hemodialysis Hand Hygiene Observations Audit Tool* to collect individual observations is encouraged. Access the audit tool at: <http://www.cdc.gov/dialysis/PDFs/collaborative/Hemodialysis-Hand-Hygiene-Observations.pdf>. If the CDC audit tool is not used, another tool employing the same methods can be used. See additional information on conducting hand hygiene observations at <http://www.cdc.gov/dialysis/prevention-tools/Protocol-hand-hygiene-glove-observations.html>. Hand hygiene surveillance summary data are collected on the Dialysis Prevention Process Measures form (CDC 57.504).

Definitions

Antiseptic handwashing: Washing hands with water and soap or other detergents containing an antiseptic agent.

Antiseptic hand-rubbing: Applying an antiseptic hand-rub product to all surfaces of the hands to reduce the number of microorganisms present.



Handwashing: Washing hands with plain (i.e., non-antimicrobial) soap and water.

Hand hygiene: A general term that applies to: handwashing, use of an antiseptic hand wash or antiseptic hand-rub, or surgical hand antiseptics.

Reporting Instructions

Perform at least 30 unannounced observations of hand hygiene opportunities each month. 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 at particularly busy times, such as during shift change, when staff are sometimes less attentive to proper practices. Observers should focus on an area of the unit where staff interactions with patients are clearly visible. This may include observation of several staff members.

In general, hand hygiene should be performed according to the [World Health Organization's "5-Moments"](#): 1. before touching a patient; 2. before performing clean/aseptic procedures; 3. after body fluid exposure/risk; 4. after touching a patient; and 5. after touching patient surroundings (3). Specific examples of situations when hand hygiene is indicated include after completing tasks at one patient station before moving to another station, before and after contact with the patient's vascular access, before and after dressing changes, and after contact with items/surfaces at patient stations. Consider using a tool that allows documentation of the professional category of staff who are observed, along with space to document circumstances of successful or unsuccessful hand hygiene opportunities.

See back of the CDC Hand Hygiene Observational tool for additional examples (<http://www.cdc.gov/dialysis/PDFs/collaborative/Hemodialysis-Hand-Hygiene-Observations.pdf>).

*Note: Observations are made to first identify whether hand hygiene was indicated (i.e. an opportunity) and then to determine whether hand hygiene was successfully performed for that opportunity.

Although not reported for the purpose of this module, as part of hand hygiene observations, observers should evaluate whether there are sufficient supplies of alcohol-based hand-rub, soap and paper towels and unrestricted access to sinks.



Data Analysis

Feedback of rates of adherence with proper hand hygiene is crucial to improvement. Facilities should consider posting and/or reporting aggregate rates to staff members regularly so that they may track rates over time. In addition, feedback (positive or negative) to individuals can be useful.

Numerator: Hand Hygiene Successes = Total number of observed opportunities when hand hygiene was indicated and was successfully performed.

Denominator: Hand Hygiene Opportunities = Total number of observed opportunities during which hand hygiene was indicated.

$$\text{Hand Hygiene Percent Adherence} = \frac{\text{Successful Hand Hygiene Observations}}{\text{Total Hand Hygiene Opportunities}} \times 100$$

Locate reports in Analysis Output Options, under Prevention Process Measures folder.

References

1. NIH: *U.S. Renal Data System, USRDS 2006 Annual Report*. Bethesda, MD: National Institute of Diabetes and Digestive and Kidney Diseases, 2006
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
3. WHO: About SAVE LIVES: Clean Your Hands. <http://www.who.int/gpsc/5may/background/5moments/en/>, 2014



Hemodialysis Catheter Connection/Disconnection Observation

Background

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. When hemodialysis catheter connection/disconnection surveillance is selected on the *Monthly Reporting Plan*, a minimum of 10 observations are required per month. Report data to NHSN within 30 days of the end of the month in which they were collected (e.g., data from September must be reported no later than October 30).

Use of the *CDC Audit Tool* to collect individual observations is encouraged. Access the audit tool at: [Hemodialysis Catheter Connection & Disconnection Observations Audit Tool](#).

If the CDC audit tool is not used, another tool employing the same methods can be used. Summary data are collected on the Dialysis Prevention Process Measures form (CDC 57.504).

Definitions

Reporting Instructions

Perform at least 10 observations each month.

Data Analysis

Feedback of rates of adherence with best practices is crucial to improvement. Facilities should consider posting and/or reporting aggregate rates to staff members regularly so that they may track rates over time. In addition, feedback (positive or negative) to individuals can be useful.

Numerator: The total number of observed catheter connections and/or catheter disconnections when all CDC recommended infection prevention best practices were successfully performed.

Denominator: The total number of observed catheter connections and/or catheter disconnections.

References



Hemodialysis Catheter Exit Site Care Observation

Background

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. When hemodialysis catheter exit site care surveillance is selected on the *Monthly Reporting Plan*, a minimum of 10 observations are required per month. Report data to NHSN within 30 days of the end of the month in which they were collected (e.g., data from September must be reported no later than October 30).

Use of the *CDC Audit Tool* to collect individual observations is encouraged. Access the audit tool at: [Hemodialysis Catheter Exit Site Care Observations Audit Tool](#).

If the CDC audit tool is not used, another tool employing the same methods can be used. Summary data are collected on the Dialysis Prevention Process Measures form (CDC 57.504).

Definitions

Reporting Instructions

Perform at least 10 observations each month.

Data Analysis

Feedback of rates of adherence with best practices is crucial to improvement. Facilities should consider posting and/or reporting aggregate rates to staff members regularly so that they may track rates over time. In addition, feedback (positive or negative) to individuals can be useful.

Numerator: The total number of hemodialysis catheter exit site care observations when all CDC recommended infection prevention best practices were successfully performed.

Denominator: The total number of hemodialysis catheter exit site care observations.

References



Arteriovenous Fistula and Graft Cannulation/Decannulation

Background

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. When arteriovenous fistula and graft cannulation/decannulation surveillance is selected on the *Monthly Reporting Plan*, a minimum of 10 observations are required per month. Report data to NHSN within 30 days of the end of the month in which they were collected (e.g., data from September must be reported no later than October 30).

Use of the *CDC Audit Tool* to collect individual observations is encouraged. Access the audit tool at: [Arteriovenous Fistula & Graft Cannulation and Decannulation Observations Audit Tool](#). If the CDC audit tool is not used, another tool employing the same methods can be used. Summary data are collected on the Dialysis Prevention Process Measures form (CDC 57.504).

Definitions

Reporting Instructions

Perform at least 10 observations each month.

Data Analysis

Feedback of rates of adherence with best practices is crucial to improvement. Facilities should consider posting and/or reporting aggregate rates to staff members regularly so that they may track rates over time. In addition, feedback (positive or negative) to individuals can be useful.

Numerator: The total number of arteriovenous fistula and graft cannulation or decannulation observations when all CDC recommended infection prevention best practices were successfully performed.



Denominator: The total number of arteriovenous fistula and graft cannulation or decannulation observations. In-plan, a minimum of 10 observations is required each month. Individual observations can be collected using an audit tool, such as the CDC.

References

Dialysis Station Routine Disinfection Observation

Background

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. When dialysis station routine disinfection surveillance is selected on the *Monthly Reporting Plan*, a minimum of 10 observations are required per month. Report data to NHSN within 30 days of the end of the month in which they were collected (e.g., data from September must be reported no later than October 30).

Use of the *CDC Audit Tool* to collect individual observations is encouraged. Access the audit tool at: [Dialysis Station Routine Disinfection Checklist](#)

If the CDC audit tool is not used, another tool employing the same methods can be used. Summary data are collected on the Dialysis Prevention Process Measures form (CDC 57.504).

Definitions

Reporting Instructions

Perform at least 10 observations each month.

Data Analysis

Feedback of rates of adherence with best practices is crucial to improvement. Facilities should consider posting and/or reporting aggregate rates to staff members regularly so



that they may track rates over time. In addition, feedback (positive or negative) to individuals can be useful.

Numerator: The total number of dialysis station routine disinfection observations when all CDC recommended infection prevention best practices were successfully performed.

Denominator: The total number of dialysis station routine disinfection observations.

References

Injection Safety Observation

Background

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. When injection safety surveillance is selected on the *Monthly Reporting Plan*, a minimum of 10 observations are required per month. Report data to NHSN within 30 days of the end of the month in which they were collected (e.g., data from September must be reported no later than October 30).

Use of the *CDC Audit Tool* to collect individual observations is encouraged. Access the audit tool at: [CDC Outpatient Injection Safety Checklist](#).

If the CDC audit tool is not used, another tool employing the same methods can be used. Summary data are collected on the Dialysis Prevention Process Measures form (CDC 57.504).

Definitions

Reporting Instructions

Perform at least 10 observations each month.

Data Analysis



Feedback of rates of adherence with best practices is crucial to improvement. Facilities should consider posting and/or reporting aggregate rates to staff members regularly so that they may track rates over time. In addition, feedback (positive or negative) to individuals can be useful.

Numerator: The total number of injection safety observations when all CDC recommended infection prevention best practices were successfully performed.

Denominator: The total number of injection safety observations. In-plan, a minimum of 10 observations is required each month.

References

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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 be auto-entered by the computer.
*Month	Required. Enter the month during which the data were collected for this location.
*Year	Required. Enter the 4-digit year during which the data were collected for this location.
*Location code	Required. Enter the location code for the outpatient hemodialysis clinic location from which you will collect data about dialysis events.
*Observation Type	
Total # of Successful Hand Hygiene Observations	Required. The total number of observed opportunities when staff hand hygiene was indicated and was successfully performed.
Total # of Hand Hygiene Observations	Required. The total number of observed opportunities during which hand hygiene was indicated. In-plan, a minimum of 30 unannounced observations of hand hygiene opportunities is required each month. Individual observations can be collected using any hand hygiene audit tool, such as the CDC Hemodialysis Hand Hygiene Observations Audit Tool .
Total # of Hemodialysis Catheter Connection/Disconnection Successful Observations	Required. The total number of observed catheter connections and/or catheter disconnections when all CDC recommended infection prevention best practices were successfully performed.
Total # of Hemodialysis Catheter Connection/Disconnection Observations	Required. The total number of observed catheter connections and/or catheter disconnections. 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 Hemodialysis Catheter Exit Site Care Successful Observations	Required. The total number of hemodialysis catheter exit site care observations when all CDC recommended infection prevention best practices were successfully performed.
Total # of Hemodialysis Catheter Exit Site Care Observations	Required. The total number of hemodialysis catheter exit site care observations. 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 Exit Site Care Observations Audit Tool .
Total # of Arteriovenous Fistula and Graft Cannulation/	Required. The total number of arteriovenous fistula and graft cannulation or decannulation observations when all CDC recommended infection prevention best practices were successfully performed.



Data Field	Instructions for Data Collection
Decannulation Successful Observations	
Total # of Arteriovenous Fistula and Graft Cannulation/Decannulation Observations	Required. The total number of arteriovenous fistula and graft cannulation or decannulation observations. 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 .
Total # of Dialysis Station Routine Disinfection Successful Observations	Required. The total number of dialysis station routine disinfection observations when all CDC recommended infection prevention best practices were successfully performed.
Total # of Dialysis Station Routine Disinfection Observations	Required. The total number of dialysis station routine disinfection observations. In-plan, a minimum of 10 observations is required each month. Individual observations can be collected using any audit tool, which includes all of the elements of the CDC Dialysis Station Routine Disinfection Checklist .
Total # of Injection Safety Successful Observations	Required. The total number of injection safety observations when all CDC recommended infection prevention best practices were successfully performed.
Total # of Injection Safety Observations	Required. The total number of injection safety observations. In-plan, a minimum of 10 observations is required each month. Individual observations can be collected using any hand hygiene audit tool, such as the CDC Outpatient Injection Safety Checklist .
Custom fields	Optional. Up to 50 alphanumeric, numeric, and/or date fields may be added to this form for local use. 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 form is “PPM – Prevention Process Measures.”
Comments	Optional. Use this field to add any additional information about the dialysis event that would help you to interpret your surveillance data. CDC typically does not analyze these data.