

Quality Insights Renal Network 4

March 26, 2014

Healthcare Associated Infections
Initiative

- Quality Insights Renal Network 4 (QIRN4), under the direction of the Centers for Medicare & Medicaid Services (CMS), is to assist dialysis facilities in improving the quality of care they provide to End Stage Renal Disease (ESRD) patients.

- CMS adopted the Triple AIM as the model for improving/achieving national quality goals for the care of individuals with ESRD.
 - AIM 1: Better Care for the Individual through Beneficiary and Family Center Care
 - AIM 2: Better Health for the ESRD Population
 - AIM 3: Reduce Costs of ESRD Care by Improving Care

Welcome, your facility has been selected to join the Healthcare Associated Infection Initiative.

AIM I: Better Care for the Individual through Beneficiary and Family Center Care

- Health Care Associated Infections

- Blood Stream Infections, referred to as Dialysis Facility Events within NHSN

Aim 1: Healthcare Associated Infections - NHSN

Network's Role:

Support facilities reporting in NHSN

- Goal: 100% Network facilities reporting in NHSN
- Provide basic education and outreach to facilities to report NHSN data
 - Full 12 months of reporting is required. The quarter will close 90 days past quarter end. Jan-March will close June 30
 - All NHSN data is shared with CMS monthly
- Provide feedback to facilities to allow data to drive improvement

Aim 1: Healthcare Associated Infections

- **Facility Goals for NHSN:**
 - 100% of all facilities will accurately document in NHSN for 12 months and will join Network group
 - All users must **annually**
 - Watch the Dialysis Event Surveillance Protocol Training Video
 - <http://www.cdc.gov/nhsn/dialysis/dialysis-event.html>
 - Read the Dialysis Event Protocol and have a copy available and easily accessible
 - <http://www.cdc.gov/nhsn/PDFs/pscManual/8pscDialysisEventcurrent.pdf>

AIM 1: Healthcare Associated Infections - QIA

Network role . . .

- **Network will, as directed by CMS, implement a Quality Improvement Activity (QIA) using the CDC recommended tools**
- **The network will report the QIA results monthly to CMS on the facilities behalf**
- **We will promote and provide basic outreach to encourage **all** facilities to participate in CDC HAI training**

AIM 1: Healthcare Associated Infections - QIA

- In 2009 CDC launched a collaborative project to prevent bloodstream infections among dialysis patients. The participating dialysis facilities and CDC worked together to develop and implement the package of interventions. The facilities implemented many of the CDC recommended CDC's check list and tools. The article, *Following CDC Protocols Cuts Dialysis Bloodstream Infections in Half*, stated that CDC “released results of its Dialysis Bloodstream Infection Prevention Collaborative showing a 32 percent decrease in overall bloodstream infections and a 54 percent decrease in vascular access-related bloodstream infection after CDC prevention guidelines were used”. In light of these results, QIRN 4 has been directed to implement a Quality Improvement Activity utilizing the CDC tools.

Aim 1: Healthcare Associated Infections - QIA

- **HAI QIA:**

- **CMS Facility Role**

- 100% of required observations will be submitted to the network on a monthly basis.
 - 30 Hand Hygiene Observations
 - 10 Cannulation/Decannulation Observations
 - 10 Catheter Connection/Disconnection Observations
 - **Numerators / Denominators only submitted**

Aim 1: Healthcare Associated Infections - QIA

- **HAI QIA:**

- Importance is on facilities correctly doing audits, less on results at this time.
- Facilities are encouraged to review & share audits with staff.

Aim 1: Healthcare Associated Infections - QIA

Process Improvement Strategies:

– QIRN4 will:

- Analyze monthly facility reporting data and provide feedback
- Share Best Practices
- Site visits as needed
 - Review the facility's observation/reporting process
 - Provide education
- Submit facilities data to CMS monthly

Aim 1: Healthcare Associated Infections - QIA

■ Process Improvement Strategies:

– Facilities will:

- Use CDC developed tools and educational resources located on the CDC website
- Involve the facility management to help further an institution climate change.
- Observation and Feedback – Numerators and denominators are submitted to the network monthly
 - o Data should be submitted by the 5th of each month

Aim 1: Healthcare Associated Infections - QIA

▪ HAI QIA Required Trainings:

- All clinical staff should complete the “CDC Infection Prevention in Dialysis Settings”
 - **<http://www.cdc.gov/dialysis/clinician/CE/infection-prevent-outpatient-hemo.html>**
 - CEU’s are available on the CDC website.
- All clinical staff should view the CDC video entitled “Preventing Bloodstream Infection in Outpatient Hemodialysis Patients: Best Practices for Dialysis Staff”
 - **<http://www.cdc.gov/dialysis/prevention-tools-training-video.html>**
- Attestation that training was completed in Survey Monkey by April 15, 2014.
 - **<https://www.surveymonkey.com/s/HAIQIA2014>**

Aim 1: Healthcare Associated Infections -QIA

- **HAI QIA Tools:**

- CDC has developed Protocols, Checklist and Observation Tools to be reviewed with staff. These are available on the CDC website at:
- **<http://www.cdc.gov/dialysis/prevention-tools/index.html>**

CDC “Tool Kit”

- Protocol for Hand Hygiene
- The Hand Hygiene Observations Tool
- Check list for Hemodialysis Catheter Connection
- Check list for Hemodialysis Catheter Disconnection
- Catheter Connection/Disconnection Observation Tool
- Check List for Fistula/Graft Cannulation
- Check List for fistula/Graft Decannulation
- AV fistula/Graft Cannulation/Decannulation Observation Tool
- Protocol for Scrub the Hub for Hemodialysis Catheters

Hand Hygiene Observations

- ❑ **Hand hygiene audit tool can be printed from:**
<http://www.cdc.gov/dialysis/prevention-tools/index.html>
 - Data collection option: iScrub app for (iPhone & iPod Touch)
- ❑ **≥ 30 observations are required/facility/month**
- ❑ **The audit tool has two pages:**
 - Page 1: Facility auditor collects and tallies observations
 - 3 copies to collect 30 observations
 - Page 2: Guide to hand hygiene opportunities in dialysis
- ❑ **Note: unit of observation is a hand hygiene opportunity**

Facility Name: _____ Date: _____ Start time: _____ AM / PM

Day: M W F Tu Th Sa Shift: 1st 2nd 3rd 4th Observer: _____ Location within unit: _____

Audit Tool: Hemodialysis hand hygiene observations

(Use a "√" for each 'hand hygiene opportunity' observed. Under 'opportunity successful', use a "√" if successful, and leave blank if not successful)

[illegible]

Discipline: P=physician, N=nurse, T=technician, S=student, D=dietitian, W=social worker, O=other

Duration of observation period = _____ minutes Number of successful hand hygiene opportunities observed = _____

Total number of patients observed during audit = _____ Total number of hand hygiene opportunities observed during audit = _____

** See hand hygiene opportunities on back page



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<http://www.cdc.gov/dialysis/PDFs/collaborative/Hemodialysis-Hand-Hygiene-Observations.pdf>

Guide to Hand Hygiene Opportunities in Hemodialysis

Hand hygiene opportunity category	Specific examples
1. Prior to touching a patient	<ul style="list-style-type: none"> • Prior to entering station to provide care to patient • Prior to contact with vascular access site • Prior to adjusting or removing cannulation needles
2. Prior to aseptic procedures	<ul style="list-style-type: none"> • Prior to cannulation or accessing catheter • Prior to performing catheter site care • Prior to parenteral medication preparation • Prior to administering IV medications or infusions
3. After body fluid exposure risk	<ul style="list-style-type: none"> • After exposure to any blood or body fluids • After contact with other contaminated fluids (e.g., spent dialysate) • After handling used dialyzers, blood tubing, or prime buckets • After performing wound care or dressing changes
4. After touching a patient	<ul style="list-style-type: none"> • When leaving station after performing patient care • After removing gloves
5. After touching patient surroundings	<ul style="list-style-type: none"> • After touching dialysis machine • After touching other items within dialysis station • After using chairside computers for charting • When leaving station • After removing gloves

Please make note of the following during this session.

	Yes	No	Comments
There is a sufficient supply of alcohol-based hand sanitizer			
There is a sufficient supply of soap at handwashing stations			
There is a sufficient supply of paper towels at handwashing stations			
There is visible and easy access to hand washing sinks or hand sanitizer			



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<http://www.cdc.gov/dialysis/PDFs/collaborative/Hemodialysis-Hand-Hygiene-Observations.pdf>

Hand Hygiene: What Facilities Submit to the Network

❑ Facility monthly process:

- Facility uses the hand hygiene audit tool to collect a minimum of 30 observations
- Tallies numerator/denominator and either:
 - Submits this information to the Network via email OR
 - Uses NHSN to report hand hygiene audit results (encouraged)

Numerator = $\frac{\text{Number of successful hand hygiene opportunities observed}}{\text{Total number of hand hygiene opportunities observed during audits}}$

Denominator =

Catheter Connection/Disconnection Observations

- ❑ Catheter connection/disconnection audit tool can be printed from: <http://www.cdc.gov/dialysis/prevention-tools/index.html>
- ❑ ≥ 10 observations required/facility/month
- ❑ The audit tool has one page:
 - Facility auditor collects and tallies observations
 - 2 copies necessary collect 10 observations

Catheter Connection/Disconnection Observations

- ☐ **Understand the recommended steps**
- ☐ **Know what applies to connection vs. disconnection**
- ☐ **Tools devised for catheters without closed connector devices**
 - Can still be used at time of connector device exchange (e.g., connector removed/attached instead of caps)
 - Can still assess proper routine connection or disconnection procedure involving scrubbing the hub of the connector device

Audit Tool Corresponds to Hemodialysis Catheter Connection and Disconnection Checklists

Checklist: Hemodialysis catheter connection

- ☐ Wear mask (if required)
- ☐ Perform hand hygiene
- ☐ Put on new, clean gloves
- ☐ Clamp the catheter and remove caps
- ☐ Scrub catheter hub with antiseptic
- ☐ Allow hub antiseptic to dry
- ☐ Connect catheter to blood lines aseptically
- ☐ Remove gloves
- ☐ Perform hand hygiene



Checklist: Hemodialysis catheter disconnection

- ☐ Wear mask (if required)
- ☐ Perform hand hygiene
- ☐ Put on new, clean gloves
- ☐ Clamp the catheter
- ☐ Disconnect catheter from blood lines aseptically
- ☐ Scrub catheter hub with antiseptic
- ☐ Allow hub antiseptic to dry
- ☐ Attach new caps aseptically
- ☐ Remove gloves
- ☐ Perform hand hygiene



http://www.cdc.gov/dialysis/PDFs/collaborative/CL_Hemodialysis-Catheter-Connection-508.pdf

<http://www.cdc.gov/dialysis/PDFs/collaborative/CL-Hemodialysis-Catheter-Disconnection-508.pdf>

Facility Name: _____ Date: _____ Start time: _____ AM / PM

Day: M W F Tu Th Sa Shift: 1st 2nd 3rd 4th Observer: _____ Location within unit: _____

(Use a "√" if action performed correctly, a "Φ" if not performed. If not observed, leave blank)

Denominator

Duration of observation period = _____ minutes

Number of procedures performed correctly =

Total number of procedures observed during audit =

ADDITIONAL COMMENTS/OBSERVATIONS:



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<http://www.cdc.gov/dialysis/PDFs/collaborative/Catheter-Connection-Disconnection-Observations.pdf>

Catheter Connection/Disconnection: What Facilities Submit to the Network

□ Facility monthly process:

- Facility uses the catheter connection/disconnection audit tool to collect a minimum of 10 observations
- Tallies numerator/denominator
- Submits this information to the Network via email

Numerator = $\frac{\text{Number of procedures performed correctly}}{\text{Total number of procedures observed during audits}}$

Denominator =

Fistula/Graft Cannulation Observations

- ❑ **Fistula/ graft cannulation audit tool can be printed from: <http://www.cdc.gov/dialysis/prevention-tools/index.html>**
- ❑ **≥ 10 observations required/facility/month**
- ❑ **The audit tool has two pages:**
 - **Page 1: Cannulation observations**
 - 2 copies necessary collect the minimum 10 observations
 - Facility auditor collects and tallies observations
 - **Page 2: Decannulation observations**
 - *Decannulation auditing is NOT part of the QIA*

Audit Tool Corresponds to the Fistula/Graft Cannulation Checklist

Checklist: Arteriovenous fistula/ graft cannulation

- ☐ Clean site with soap and water
- ☐ Perform hand hygiene (staff)
- ☐ Put on new, clean gloves
- ☐ Apply skin antiseptic and allow it to dry
- ☐ Do not contact site (after antisepsis)
- ☐ Insert needles aseptically
- ☐ Connect to blood lines aseptically
- ☐ Remove gloves
- ☐ Perform hand hygiene



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<http://www.cdc.gov/dialysis/PDFs/collaborative/AV-Fistula-Graft-Cannulation-Observations.pdf>

CDC Dialysis Collaborative

Facility Name: _____ Date: _____ Start time: _____ AM / PM
 Day: M W F Tu Th Sa Shift: 1st 2nd 3rd 4th Observer: _____ Location within unit: _____

Audit Tool: Arteriovenous fistula/graft cannulation observations

(Use a "✓" if action performed correctly, a "Φ" if not performed. If not observed, leave blank)

Discipline	Site cleaned with soap and water	Hand hygiene performed (staff)	New, clean gloves worn	Skin antiseptic applied appropriately	Skin antiseptic allowed to dry	No contact with fistula/graft site (after antiseptics)	Cannulation performed aseptically	Connect to blood lines aseptically	Gloves removed	Hand hygiene performed	Comments
T	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

7 rows

Numerator

Denominator

Discipline: P=physician, N=nurse, T=technician, S=student, O=other

Duration of observation period = _____ minutes

Number of procedures performed correctly = _____

Total number of procedures observed during audit = _____

ADDITIONAL COMMENTS/OBSERVATIONS:



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<http://www.cdc.gov/dialysis/PDFs/collaborative/AV-Fistula-Graft-Can-Decannulation-Observations-AT.pdf>

Fistula/Graft Cannulation: What Facilities Submit to the Network

□ Facility monthly process:

- Facility uses the fistula/graft cannulation audit tool to collect a minimum of 10 observations
- Tallies numerator/denominator
- Submits this information to the Network via email

Numerator = $\frac{\text{Number of procedures performed correctly}}{\text{Total number of procedures observed during audits}}$

Denominator =

HAI QIA document

Table 1: Facility Submission of Audit Results to Network

	Hand Hygiene	Catheter Connection/ Disconnection	Fistula/ Graft Cannulation
Numerator	# of Successful Hand Hygiene Opportunities Observed	# of Procedures Performed Correctly	# of Procedures Performed Correctly
Denominator	Total # of Hand Hygiene Opportunities Observed During Audit	Total # of Procedures Observed During Audit	Total # of Procedures Observed During Audit
OR	<input type="checkbox"/> NHSN Used		
Comments (common breaches identified; challenges in implementing the audits):			

Facilities can use audit tools' comments to complete this field.

Monthly Reporting Tool

HAI QIA AUDIT REPORTING TOOL

FACILITY NAME _____ PROVIDER# _____

Contact Person _____ Phone Number _____



	Hand Hygiene	Catheter Connection/ Disconnection	Fistula/Graft Cannulation
Numerator			
Denominator			
Comments:			

Hand Hygiene

Numerator - Number of Successful Hand Hygiene Opportunities Observed

Denominator - Number of Total Hand Hygiene

Catheter Connection/Disconnection

Numerator - Number of procedures performed correctly

Denominator - Total number of procedures observed during audit

Fistula/Graft Cannulation

Numerator - Number of procedures performed correctly

Denominator - Total number of procedures observed during audit

Please email or fax this report by the 5th of each month to Anne Corcoran at ACorcoran@nw4.esrd.net or fax to 610-783-0374.

Any questions or concerns, please contact Cynthia Vernacchio @ cvernacchio@nw4.esrd.net or 610-265-2418 ext. 2821 or Kou Kha-Moua @ KKha-Moua@nw4.esrd.net 610-265-2418 ext. 2820.

Suggestions for Facility Auditors

- ❑ **First, understand the recommended steps and then practice using the tools**
- ❑ **Auditors should try to ensure that observations are as representative as possible of normal practice at the facility**
 - E.g., observe different staff members on different days and shifts
- ❑ **For hand hygiene**
 - Consider observing during busy times, such as during shift change
 - Try to select an area of the unit where staff interactions with patients are clearly visible

<http://www.cdc.gov/dialysis/prevention-tools/Protocol-hand-hygiene-glove-observations.html>

Implementation Guidance

- ❑ **There are multiple methods of auditing practices**
 - E.g., for hand hygiene, focusing closely on 1 - 2 patient stations at a time vs. broadly monitoring many stations at once
- ❑ **Covert monitoring may provide more realistic assessment of practices (for hand hygiene, e.g.)**
 - But may be difficult or impossible to do for vascular access care audits
- ❑ **Auditors may have to experiment to find the observation methods that work best for them**

Additional Resources for Facilities

❑ Best Practices Video

- Covers hand hygiene, catheter connection/disconnection, and fistula/graft cannulation
- Procedure steps mirror the checklists
- <http://www.cdc.gov/dialysis/prevention-tools/training-video.html>

❑ Catheter Scrub-the-hub Protocol

- Key step in catheter connection/disconnection
- <http://www.cdc.gov/dialysis/PDFs/collaborative/Hemodialysis-Central-Venous-Catheter-STH-Protocol.pdf>

❑ Checklist tools

- <http://www.cdc.gov/dialysis/prevention-tools/index.html>

❑ Hand Hygiene Observation Protocol

- <http://www.cdc.gov/dialysis/prevention-tools/Protocol-hand-hygiene-glove-observations.html>

Summary – Monthly Facility Actions

- ❑ **≥ 30 hand hygiene observations**
 - Collect data using CDC audit tool or the iScrub app
 - Report data to Network via email using Table 1 or via NHSN
- ❑ **≥ 10 catheter connection/disconnection observations**
 - Collect data using CDC audit tool
 - Report data to Network via email using Table 1
- ❑ **≥ 10 fistula/graft cannulation observations**
 - Collect data using CDC audit tool
 - Report data to Network via email using Table 1

Other Reporting Resources: iScrub



iScrub Lite 1.5.1

<http://compepi.cs.uiowa.edu/iscrub/>

Email: iscrub@compepi.cs.uiowa.edu

iScrub Lite 1.5.1

- Provides real-time feedback on hand hygiene compliance among healthcare workers
 - Hand washing
 - Hand rubbing
- Compatible with iPhones and iPod Touch
 - Free application
 - Search for the app on your handheld device in the App Store or download via iTunes

Aim 1: Healthcare Associated Infections - QIA

■ Review

- Facility will provide CDC training to staff
- Complete Survey Monkey Attestation by April 15, 2014
- Facility will complete observations and submit reports monthly – **DUE 5th of the month STARTING May 5th**
- Network will provide support to facilities, as needed.
- NW4 will present Final Webinar to review initiative results.

Aim 1: Healthcare Associated Infections

- Feedback/Questions

Questions?

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