Network 15
Reducing Bloodstream Infections (BSIs)
Quality Improvement Activity (QIA) for 2018 Orientation

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Health Services Advisory Group (HSAG):
End Stage Renal Disease (ESRD) Network 15

January 30 and 31, 2018
Agenda

• ESRD Network staff introductions
• Attendance
• Reducing BSIs QIA
  – Purpose, goals, evaluation
  – Focus Group assignments
• Root cause analysis (RCA)
• Plan-Do-Study-Act (PDSA)
• Centers for Medicare & Medicaid Services (CMS) expectations
• Next steps
• Questions/comments
ESRD Network 15 Staff

Jennie Pike, ND, MBA, RN
*Executive Director*

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*Patient Services Director*

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Susan Moretti, BSN, RN
*Quality Improvement Nephrology Nurse*

Debbie Buchanan
*Project Coordinator*
Goal, Purpose, and Action

• **Goal:** Reduce the national rate of blood stream infections in dialysis patients by 50%.

• **Purpose:** To reduce the rates of BSIs in patients with end stage renal disease (ESRD) because of their increased vulnerability to healthcare-associated infections (HAIs) and mortality.

• **Activities:** Will focus on reducing the rate of BSIs by:
  
  – Supporting ESRD facilities’ use of the National Healthcare Safety Network (NHSN) and compliance with the infection reporting requirements for the Centers for Medicare & Medicaid Services (CMS).
  
  – Participating in the HAI Learning and Action Network (LAN).
  
  – Assisting facilities in the implementation *ALL* of the Centers for Disease Control and Prevention (CDC) CORE Interventions
    
    • Increasing awareness
  
  – Reducing the use of long-term catheters (LTCs).
  
  – Improving communication across care settings
    
    • Especially between hospitals and dialysis units
  
  – Encouraging facilities to join a Health Information Exchange (HIE) or other information transfer system to receive information relevant to emphasis on positive blood cultures during transition of care.
Inclusion Criteria and Focus

• At least 50% of facilities in Network 15 reporting the highest BSIs
  – Goal: decrease rates by 10%
  – 163 facilities participating
    • Arizona, Colorado, Nevada, New Mexico, Utah and Wyoming
    – Group: “Mountain Lions”

• 20% of facilities with the highest reported BSI rates
  – Goal: decrease rates by 20%
  – 65 facilities included
  – Group: “Cheetahs”

• Facilities with a catheter “in-use rate” greater 15%
  – Goal: decrease LTCs by two percentage points at re-measurements
  – 25 facilities included
  – Group: “Leopards”
Activities: All Groups

All groups will:

• Utilize the CDC Core Interventions monthly to decrease BSIs. They can be found on the Network 15 website at [Bloodstream Infection Toolkit](#), which includes links to:
  – The BSI Toolkit Introduction and Instructions.
  – The CDC audit tools.
  – Patient resources.
  – Reporting forms.

• Utilize an on-line communication platform Basecamp.

• Utilize a reporting form.
  • Form will be specific to group classification.

• Increase patient and family engagement in their facilities.

• Complete annual National Healthcare Safety Network (NHSN) Training.
CMS Expectation for all QIAs

CMS requires all QIA facilities to:

• Promote patient and family engagement at the facility level by:
  – Encouraging patients to impact their own care and engage in monitoring infection prevention opportunities.
  – Involving patients/families/caregivers in facility health meetings (FHMs), quality activities (QAs), and governing bodies.
  – Including patients and caregivers in LAN meetings and activities.

• Participate in bi-monthly HAI LAN meetings.
  – Patient participation
    • Patients must complete/sign a Patient Interest Form.
    • Group will specify requirements.
  – Staff presence is required.
“Mountain Lion” facilities **must**:

- Complete a BSI Monthly Reporting Form **when** a BSI occurs.
- Join an HIE.
- Complete annual NHSN training.
- Perform an RCA.
- Conduct a PDSA if a 10% improvement is not achieved.
“Cheetah” facilities must:

• Submit a monthly reporting form.
  – Form is provided by the Network.
• Join/participate in an HIE or other information transfer system.
• Have patient volunteers complete monthly CDC audits.
• Perform an RCA.
• Conduct PDSA cycle, as necessary.
• Achieve a 20% improvement.
“Leopard” facilities must:

• Utilize a patient-specific access form.
  – Fax transmission.

• Monitor, track, and report on:
  – Permanent access placement.
  – Arteriovenous fistula (AVF) maturation.
  – LTC use and removal.

• Report in CROWNWeb correctly.

• Perform an RCA.

• Conduct PDSA cycle, as appropriate.
There are nine CDC core interventions for reducing BSIs, each focused on a different area of prevention:

1. Surveillance using the National Healthcare Safety Network (NHSN)
2. Hand hygiene
3. Catheter/vascular access observation
4. Staff education and competency
5. Patient education/engagement
6. Catheter reduction
7. Use of chlorhexidine for skin antisepsis
8. Catheter hub disinfection
9. Use of antimicrobial ointment
CDC Audit Tools

• The CDC’s BSI audit tools are easy to find by category, including:
  – Catheter Care
  – Catheter Exit Site Care
  – AV Fistula & Graft Cannulation and Decannulation
  – Dialysis Station Disinfection
  – Injection Safety
  – Hand Hygiene

• Tools are located at  www.hsag.com and https://www.cdc.gov/dialysis/prevention-tools/audit-tools.html
CDC Audit Tools (cont.)

Catheter Care Tools:

- Catheter Connection and Disconnection Audit Tool [PDF - 188 KB]
- Add Your Organization's Logo: Catheter Connection and Disconnection Audit Tool [PDF - 1 page]
- Hemodialysis Catheter Connection Checklist [PDF - 103 KB]
- Add Your Organization's Logo: Hemodialysis Catheter Connection Checklist [PDF - 1 page]

- Hemodialysis Catheter Disconnection Checklist [PDF - 110 KB]
- Add Your Organization's Logo: Hemodialysis Catheter Disconnection Checklist [PDF - 1 page]
- Hemodialysis Central Venous Catheter Scrub-the-Hub Protocol [PDF - 186 KB]
- Add Your Organization's Logo: Hemodialysis Central Venous Catheter Scrub-the-Hub Protocol [PDF - 2 pages]

Catheter Exit Site Care Tools:

- Catheter Exit Site Care Audit Tool [PDF - 254 KB]
- Add Your Organization's Logo: Catheter Exit Site Care Audit Tool [PDF - 1 page]
- Hemodialysis Catheter Exit Site Care Checklist [PDF - 111 KB]
- Add Your Organization's Logo: Hemodialysis Catheter Exit Site Care Checklist [PDF - 1 page]
CDC Audit Tools (cont.)

AV Fistula & Graft Cannulation and Decannulation Tools:

- AV Fistula & Graft Cannulation and Decannulation Audit Tool [PDF - 384 KB]
- Add Your Organization's Logo: AV Fistula & Graft Cannulation and Decannulation Audit Tool [PDF - 2 pages]

- Arteriovenous Fistula & Graft Decannulation Checklist [PDF - 112 KB]
- Add Your Organization's Logo: Arteriovenous Fistula & Graft Decannulation Checklist [PDF - 1 page]

Checklist for Arteriovenous Fistula & Graft Cannulation:

- Clean site with soap and water
- Before hand hygiene staff:
- Gown and non-latex gloves:
- Apply skin antiseptic and allow to dry:
- Next contact (after antiseptic):
- Insert needle(s):
- Connect tubing:
- Remove gloves:
- Perform hand hygiene:

Dialysis Station Disinfection Tools:

- Dialysis Station Routine Disinfection Audit Tool [PDF - 241 KB]
- Add Your Organization's Logo: Dialysis Station Routine Disinfection Audit Tool [PDF - 1 page]

- Dialysis Station Routine Disinfection Checklist [PDF - 106 KB]
- Add Your Organization's Logo: Dialysis Station Routine Disinfection Checklist [PDF - 2 pages]
### Injection Safety Tools:

- **Injection Safety: Medication Preparation & Administration Audit Tool** [PDF - 368 KB]
- **Hemodialysis Injection Safety: Medication Administration Checklist** [PDF - 71 KB]
- **Add Your Organization’s Logo: Injection Safety - Medication Preparation & Administration Audit Tool** [PDF - 2 pages]
- **Add Your Organization’s Logo: Hemodialysis Injection Safety - Medication Administration Checklist** [PDF - 1 page]

### Hand Hygiene Tools:

- **Hand Hygiene Audit Tool** [PDF - 184 KB]
- **Add Your Organization’s Logo: Hand Hygiene Audit Tool** [PDF - 2 pages]
Staff Education: **Required**

- **Dialysis Event Surveillance Annual Training**
  - Introduction to the NHSN Dialysis Event Surveillance Protocol
    - [YouTube Link](https://www.youtube.com/watch?v=dQw4w9WgXcQ) [Video – 59 min]
  - NHSN Dialysis Event Surveillance Training
    - 60 minute self-paced interactive training
    - **Required annually** for all users participating in Dialysis Event Surveillance.

- **Dialysis Event Protocol Document**

- To receive continuing education credits for the required NHSN annual training, follow the instructions provided on CDC’s Continuing Education web page at: [https://www.cdc.gov/nhsn/training/continuing-edu.html](https://www.cdc.gov/nhsn/training/continuing-edu.html).
Staff Education: Additional

• **NHSN Dialysis Event Surveillance homepage**
• Infection Prevention in Dialysis Settings
  – A one hour self-guided training course with a flash-based slide presentation and audio narration that reviews:
    • Infections that patients can get from dialysis.
    • Infection control recommendations for outpatient hemodialysis healthcare workers.
    • Educating patients and their caregivers.
Patient Education and Engagement: The Patient Pledge

My dialysis healthcare team has educated me on infection prevention practices.

I Pledge

to protect myself and others by doing the following:

☐ Using frequent and good hand washing techniques
☐ Washing my vascular access or keeping my catheter site dry
☐ Asking staff members to follow infection prevention protocols
☐ Notifying my healthcare team if I notice any signs or symptoms of infection

Print Name: ____________________________
Signature: ____________________________ Date: ________

Paciente

Me comprometo
A protegerme a mi mismo y a los demás al hacer lo siguiente:

☐ Emplear buenas técnicas de lavado de manos con frecuencia
☐ Lavar mi acceso vascular o mantener seca la zona del catéter
☐ Pedir a los miembros del personal que sigan los protocolos de prevención de infecciones
☐ Notificar a mi equipo de atención médica en caso de notar cualquier signo o síntoma de infección

Nombre: ____________________________
Firma: ____________________________ Fecha: ________
Patient Participation: Interest Form

Thank you for your interest in working with the Health Services Advisory Group (HSAG): End Stage Renal Disease (ESRD) Network 15.

Network 15 is honored that you've chosen to partner with us in our quest to prevent dialysis-related infections, and we're excited to begin working with you. We think it's important for you to understand what the Network does and what need you to do to help reduce the risk of infections at your dialysis clinic.

This quality improvement activity (QIA) will focus on decreasing bloodstream infections (BSIs) and reducing the use of long-term catheters (LTCs) for hemodialysis. Your input is very important to us; we appreciate that no one knows the challenges and understands the experience of dialysis better than a patient.

Overview of What We Do

Network 15 is contracted by the Centers for Medicare & Medicaid Services (CMS) to provide quality improvement in your state. We work with local state agencies, other quality improvement providers, and national organizations, including the Centers for Disease Control and Prevention (CDC), to provide the most up-to-date information and education for our dialysis providers and patients. The Network:

- Provides assistance to dialysis patients and providers
- Evaluates and resolves grievances in the dialysis setting
- Analyzes and improves the quality of care for dialysis patients.

What You Would Be Doing to Help

The Network needs your help in monitoring facility infection control practices and procedures, as well as guaranteeing that staff use the most current educational materials and resources. Your assistance could prevent the beginning of an infection that could be potentially life threatening! Some examples of what we might ask you to do include:

- Completing monthly audits to evaluate if staff are washing their hands, using hand sanitizer, and changing gloves as recommended by the CDC.
- Observing the cleanliness of dialysis stations.
- Monitoring appropriate catheter care; checking to see if needle sites are clean and protected.
- Sharing your experience as a kidney patient and encouraging other patients to do their part to stay safe while dialyzing.

What Would You Like to Do Next?

- Supporting your facility’s efforts to encourage and other patients' decisions to remove/replace central venous catheters (CVCs) with a permanent access, either a fistula or a graft.
- Participating in Network calls and/or at the national level.
- You will receive materials, training, and support in your facility to learn how to complete audits and any other duties you may be assigned.

What Would You Like to Do Next?

- I am willing to help in this year’s quality QIA for BSI Prevention/Reduction of LTC use.
- I am interested in speaking with Network 15 to join an occasional call or give input, only by email or group calls, when opinion or experience is needed by the Network.

If you checked either of the boxes above, please complete the information below and return this page to the Network.

Personal Information:

Name: ____________________________
Email: ____________________________ Phone (mobile): ____________________________
Name of Dialysis Facility: ____________
City: ____________________________ State: _________ Zip ____________
Days of Dialysis: □ M-W-F □ T-Th-Sat

Contact Information

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This material was prepared by HSAG: ESRD Network 15, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. The contents presented do not reflect CMS policy. OAA/ESRD/IB-01/0701/050/001.
BSI QIA: Evaluation

• QIA facilities will be evaluated on:
  — The percentage of patients participating.
  — Use of CDC Core Interventions.
  — Use of CDC Audit Tools monthly, as instructed.
  — Completion of RCA and PDSA as specified.
  — Development/implementation of a sustainment plan by September, 2018.
  — NHSN data.
  — Correct reporting in CROWNWeb.
    • Correct “in-use” definition
    • Monthly correction and updates for LTC Reporting

• Evaluation will be based on activity and reporting between January and June, 2018.

• The baseline for this QIA is January, 2017–June, 2017.
Additional Resources

**Conversation Starter to Prevent Infections in Dialysis Patients**

Preventing infections is important for patient safety. The Centers for Disease Control and Prevention (CDC) wants dialysis patients and dialysis centers to start a conversation about preventing infections. Family members can also start the conversation. We hope this guide can be a starting point to improve awareness about patient safety issues.

**How does this facility involve patients and their families in infection control activities? Are patients encouraged to speak up when they see a concerning practice (for example, a staff member who does not wash her hands)?**

Dialysis centers should educate and empower patients to help prevent infections and support a safe care environment. Talk to your social worker or facility administrator for ideas on how you can get involved.

**How does this facility make sure that all patients receive necessary vaccines to prevent illness (such as Hepatitis B, seasonal flu, and pneumococcal vaccines)?**

Patients on dialysis have weakened immune systems and should get certain vaccines to keep from getting sick.

**How does this facility make sure that dialysis center staff are vaccinated against the flu every year?**

Sick staff members can spread the flu to patients. Requiring dialysis center staff to get vaccinated each year can help prevent this spread. Dialysis centers should also have policies that support staff to stay home when they are sick.

**Does this facility check all patients for Hepatitis C infection?**

All hemodialysis patients should be tested for Hepatitis C when they start treatment at a center, and then every 6 months if they could become infected. Testing is the only way to know if patients have Hepatitis C and to find out if the infection is spreading in the facility.

**Does this facility prepare medications in a separate room away from dialysis stations to avoid contamination?**

Medications for infection should be prepared away from patient treatment areas to keep them safe from germs. One way to do this is to prepare them in a separate room. More information about infection safety can be found at www.cdc.gov/ndss/dialysis-safety.

To learn more about dialysis safety, visit www.cdc.gov/dialysis

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**TOGETHER LET’S KEEP DIALYSIS PATIENTS SAFE**

#

**DAYS SINCE LAST BLOODSTREAM INFECTION**

Our last bloodstream infection was on

XX/XX/XXXX

To learn more about dialysis safety, visit www.cdc.gov/dialysis
BSI QIA Activities to Date:

1/17/2018  Facilities were notified by email of required participation in the QIA.

1/23/2018  Facilities received, by email, two documents to complete and return; the facility contact form and acknowledgement form were both due back to the Network by 1/16/2018.

1/23/2018  Facilities received, by email, a survey to complete prior to the Orientation Webinar.

1/30/2018* Attendance at the required orientation webinar.

1/31/2018* Attendance at the required orientation webinar.

*Facilities were required to attend one or the other of these sessions, not both.
Performing an RCA helps a team to:

Make a positive impact on outcomes

That contribute to desired outcomes

And sustain change moving forward
RCA Tool and the “5 Whys”

When completing your RCA, use the “5 Whys” problem-solving technique to:

• Ask, “Why?” or “What caused this problem?”
• Identify one initial issue and not five separate issues.
• Help the team to identify important details.
• Focus on what can be impacted.
RCA Tool and the “5 Whys” (cont.)

Root Cause Analysis: 5 Whys Worksheet

Issue: Increase in access related infections

1. Why is this happening?
   Improper hand washing and cleaning of CVC hubs and access sites

2. Why is this happening?
   Staff knowledge deficit on the risks and complications of infection

3. Why is this happening?
   Lack of auditing and teachable moments to identify breaks in processes

4. Why is this happening?
   Lack of accountability in following Infection Prevention policy and procedure

5. Why is this happening?
   Historically review of policy/procedures and ongoing monitoring of infection control has not been a priority

Plan of Action:
staff education, review of Policy and Procedure, focus CDC audits on staff caring for CVC patients, continue to review trend(s) in monthly quality meeting.
PDSA: The Cycle

ACT  PLAN
STUDY  DO
PDSA: Plan

- Make objective predictions.
- Plan to carry out the cycle:
  - Who
  - What
  - Where
  - When
PDSA: **Do**

- Implement the plan
- Document observations
PDSA: Study

- Compare results to predictions
- Identify changes to be made in the plan
- Summarize what was learned
PDSA: Act

- Make changes
- Repeat cycle
# PDSA Worksheet

**Project:**

**Contact:**

### Background:

- What is the objective of this improvement cycle?
- Predictions (what do we want to happen?):
  - Plan for change or test (Who? What? When? Where?):
  - Plan for collection of data (Who? What? When? Where? How will we collect it?):

### Do

- Was the cycle carried out as planned? What did we observe that was not a part of our plan?

### Study

- How did or didn’t the results of this cycle agree with the predictions that we made earlier?
- List what new knowledge we gained by this cycle:

### Act

- List actions we will take as a result of this cycle:

### Plan

- Plan for the next cycle:
CMS Expectations: Your Relationship with the ESRD Network

ESRD Regulations

§ 494.180 Condition: Governance.

• The CEO or administrator is responsible to receive and act on correspondence from the ESRD Network and to promptly respond to any request from the applicable Networks.

(i) Standard: Relationship with the ESRD network. The governing body receives and acts upon recommendations from the ESRD network. The dialysis facility must cooperate with the ESRD network designated for its geographic area, in fulfilling the terms of the Network’s current statement of work. Each facility must participate in ESRD network activities and pursue network goals.

• The facility must participate in Network projects and activities aimed at addressing identified needs and improving quality of care in the individual facility or the Network-wide area.

Chapter 10 – Sanctions and Referrals

• **Code of Federal Regulations (CFR) 42 CFR 405.2134** stipulates as a condition for coverage under Subpart U that a facility/provider must participate in Network activities and pursue Network goals.

• If the Network identifies a facility/provider that is not cooperating in meeting the Network’s goals and or is not providing appropriate medical care, the Network recommends to CMS the imposition of a sanction for that provider/facility.

• **30 - Requirements for Participation in Network Activities**

• **42 CFR, Subpart U, §405.2100-405.2184**, describes the Conditions for Coverage for suppliers of end stage renal disease services, and the Medicare State Operations Manual, Pub. 100-07, provides guidance for ensuring compliance by certified facilities/providers with these Conditions. At a minimum, facilities/providers are expected to provide data to the Network to assist CMS in maintaining accurate and complete data on ESRD patients, participate in Network activities, and pursue Network goals.

BSI QIA: Next Steps

• Review all slides in this PowerPoint orientation webinar.
• Focus on slides about RCA and the PDSA cycle.
• Check email each day for updates/assignments from the Network.
  – Example: Basecamp, an online project platform, will be utilized by all QIA facilities and Network staff to better ensure the success of the QIA. Basecamp allows for easy exchange of ideas and materials to support collaboration between all parties during the QIA.
• Inform all staff of the facility’s participation in this QIA.
• Select one or more patient participants, fax “Patient Interest Form” by February 9, 2018.
• Complete Staff Training https://www.cdc.gov/dialysis/clinician/ce/infection-prevent-outpatient-hemo.html and submit Attestation.
Reducing Bloodstream Infections (BSIs)
Quality Improvement Activity (QIA)

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<th>Full Name of Facility per the Centers for Medicare &amp; Medicaid Services (CMS)</th>
<th>CCN</th>
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February Attestation

Please have staff complete the Centers for Disease Control and Prevention’s (CDC’s)
*Infection Prevention In the Dialysis Setting* training and sign below:

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Fax or email the completed form to Susan Moretti by
February 28, 2018
303.860.8392 or smoretti@nw15.euclid.net
Questions
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Thank you!