



Quality
Insights

Renal Network 4



NHSN Data Quality QIA

Increased Reporting of Positive Blood Cultures from Hospitals to
Outpatient Dialysis Facilities

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Project Overview

- **Goal** – Improve reporting of positive blood cultures (PBCs) drawn in the emergency room or within 1 calendar day of admission to the hospital to NHSN.
- **Measurement:** A 1 percentage point improvement in the # of PBCs drawn by a hospital from the baseline period to the re-measurement period: 2016 Q1 & Q2/ 2017 Q1 & Q2
- **Criteria** – At least 20 facilities and 5 associated hospitals which do not have access to the hospital EMR or reported having difficulty obtaining PBC results from hospitals.
- **Structure** - 3 cohorts
 - 1 year of planning, followed by 1 year of implementation and up to 3 years of monitoring

Due Dates

- Baseline Survey – Friday, January 13th
- Baseline & Monthly BC Tracking Checklist & PDSA Cycle Tool - 5th working day of the month.
 - The final PDSA Cycle is due – Friday, July 7th
- Mid-project Survey Monkey evaluation – Friday, April 28th
- Final project Survey Monkey evaluation – Friday, July 28th.
 - This evaluation will require a description of the communication process(s) in place with targeted hospital(s) as of June 30th.

Why Did CMS Add this QIA?

- Research

- 2014 CDC study found “...NHSN DE [dialysis events] underestimated MRSA BSI burden among dialysis patients: 81% of cases were not reported as MRSA BSI to NHSN DE in 2013.”¹
- “Quality of communication and the actual process were highly variable....Poor or absent communication contributes to adverse events, including omission of antibiotics....”²

1 Nguyen DB, See I, Gualandi N. et al. Completeness of Methicillin-Resistant Staphylococcus aureus Bloodstream Infection Reporting From Outpatient Hemodialysis Facilities to the National Healthcare Safety Network, 2013. Infect. Control Hosp. Epidemiol. 2015; 00(0): 1-3 doi:10.1017/ice.2015.265

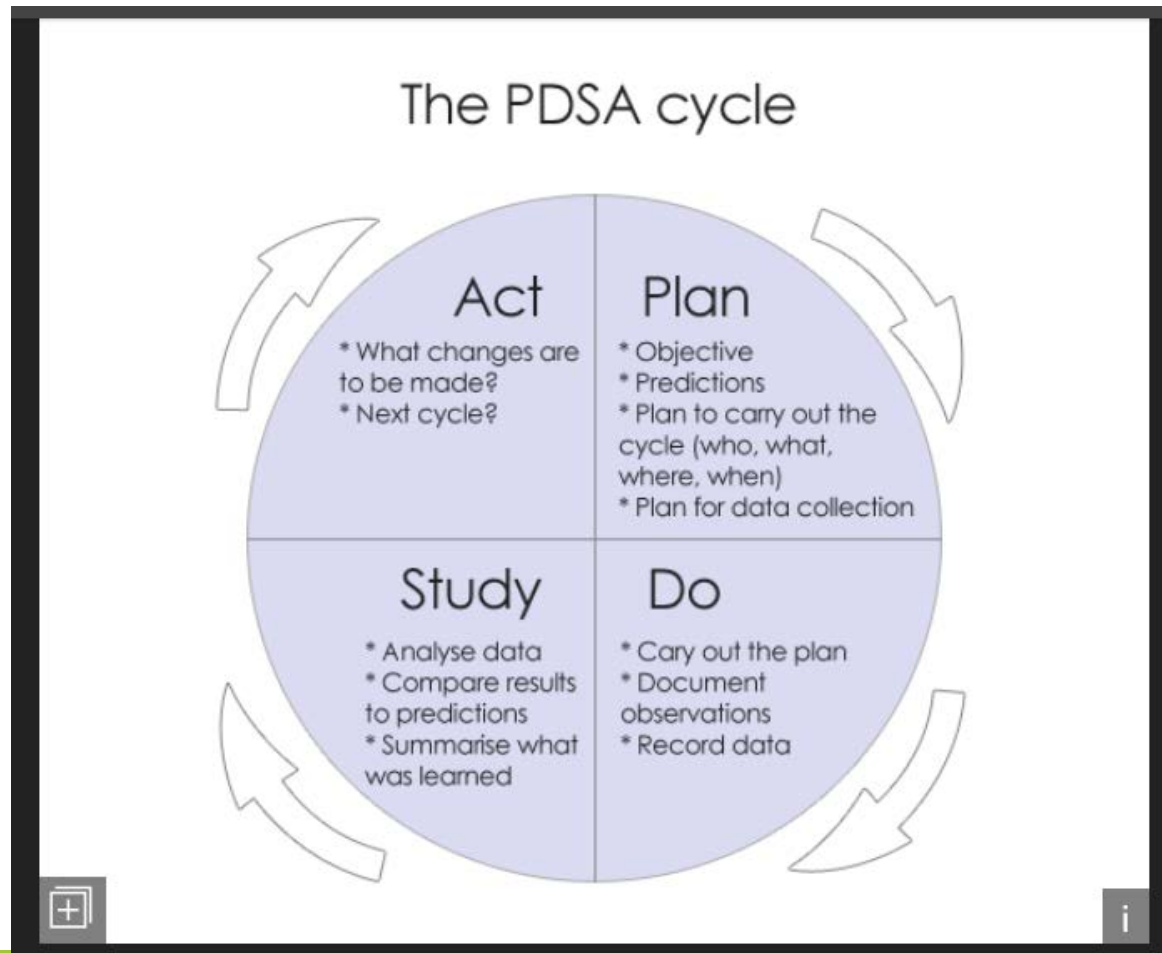
2 Reilly JB, Marcotte LN, Berns JS, et al. Handoff communication between hospital and outpatient dialysis units at patient discharge: A qualitative study. JT Comm J Qual Patient Saf. 2013;39(2):70-77

Polling Question #1-Barriers

Important Points to Remember

- Facilities will use the IHI's Plan-Do-Study-Act cycle throughout the project
- Facilities have the freedom to define the best communication method & source to obtain hospital blood culture results
- Facilities and 'source' must agree upon a mutually acceptable timeframe in which to receive the BC results (and sensitivities for PBCs)

Plan-Do-Study-Act Cycle



Polling Question #2 - Timing

Interventions

Interventions – 3 Required, 1 Optional

- #1 - Baseline Survey of current process and barriers
- #2 - Baseline & Monthly BC data collection using tracking checklists
 - The Baseline data collection must be completed PRIOR to beginning PDSA Cycle #1
- #3 - Monthly PDSA cycles - to develop an efficient communication process
 - An efficient communication process with a focus hospital will be defined as a process which has been implemented without barriers and sustained for => 3 months. Data collection and PDSA forms will continue to be submitted throughout the project
 - Once an efficient process has been established, a new focus hospital will be selected, baseline data will be collected, etc.
- *Optional* - Patient Education Regarding Diagnosis of BSI

Intervention - Baseline Survey

- Facilities will BEGIN by completing a Baseline Survey prior to any data collection or changes to current processes **DUE DATE: Close of Business, Friday 1/13**
- Purpose
 - Facility Contact information
 - Infection Preventionists contact information – NOT physician IP; the person responsible for NSHN data. This is usually a nurse.
 - Identify/describe current communication process(es) for top 2 hospitals patients are admitted to
 - Identify barriers or opportunities to improve efficiency of communication between hospitals and facility

Intervention – Baseline BC Tracking Checklist

- Data collection begins January 1st – document all BCs drawn in the ED or within 1 calendar day of admission
- Track:
 - hospital(s) where BC were drawn
 - Source providing lab results
 - barriers or inefficiencies in the communication process

Hospitalized Patients Blood Culture (BC) Tracking Checklist/ Baseline – ONLY

Provider# (begins with 08 or 39): [Click here to enter text.](#) **Facility Name:** [Click here to enter text.](#) **Contact Person:** [Click here to enter text.](#)

Month of BC Data Collection: [Click here to enter text.](#) **If NO Hospital BCs drawn this month, check here:**

Directions: Complete the table below THEN complete the Monthly PDSA Cycle Tool. Email both forms to jshriff@nw4.esrd.net by the 5th business day of the month

A	B	C	D	E	F	G	H	I	J	K
Patient Initials	Name of Hospital & Date of ER visit or Inpatient Admission	Were BCs drawn in the ED or <u>within 1 calendar day after ADMISSION?</u> If YES, obtain BC results. If NO, STOP.	Were BCs positive?	Date BC result was obtained?	What Source(s) provided the BC information in column D (see suggested strategies @ bottom of form)	Was PBC result obtained prior to the NHSN closure date for reporting?	Were any barriers encountered? If NO, proceed to column J	Barriers (i.e. took more than 2 weeks to obtain results, multiple phone calls to Med Records Dept., additional calls needed to obtain sensitivities)	Date PBC reported to NHSN or entered into the EMR with "hospital" as the source	Completed by (submit form to NW4)
EXAMPLE	JSU 1/1/2017	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <small>Click on box to enter "x"</small>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	2/1/17	F	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Multiple calls to Med. Rec. Dept.	2/15/17	AB
		<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO			<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	Click here to enter text.		
		<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO			<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	Click here to enter text.		
		<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO			<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	Click here to enter text.		

Comments:

Suggested Strategies for Obtaining Blood Culture Results:

A. Inpatient Electronic Medical Records	F. Medical Records Department
B. Infection Preventionist	G. Acute dialysis unit staff
C. Outpatient Nephrologist	H. Discharge Planner/Case Manager
D. Laboratory	I. Healthcare Information Organization [i.e. HSX]
E. In-hospital Rounding Nephrologist or Nephrology Resident	J. Other – please specify

If NO BCs were drawn this month, please check the box at the top, right corner of this form and submit to jshriff@nw4.esrd.net

Sources

A. Inpatient Electronic Medical Records IDEAL	F. Medical Records Department
B. Infection Preventionist RECOMMENDED	G. Acute dialysis unit staff
C. Outpatient Nephrologist	H. Discharge Planner/Case Manager
D. Laboratory	I. Healthcare Information Organization [i.e. HSX]
E. In-hospital Rounding Nephrologist/Resident/PA/NP	J. Other – please specify

NO BCs Drawn This Month

- If NO BCs are drawn in January, please submit this form the 5th business day of February; repeat each month until BCs are drawn



Hospitalized Patients Blood Culture (BC) Tracking Checklist/ Baseline – ONLY

Provider# (begins with 08 or 39): [Click here to enter text.](#) Facility Name: [Click here to enter text.](#) Contact Person: [Click here to enter text.](#)

Month of BC Data Collection: [Click here to enter text.](#)

If NO Hospital BCs drawn this month, check here:

Directions: Complete the table below THEN complete the Monthly PDSA Cycle Tool. Email both forms to jshriff@nw4.esrd.net by the 5th business day of the month

A	B	C	D	E	F	G	H	I	J	K
Patient Initials	Name of Hospital & Date of ER visit or Inpatient Admission	Were BCs drawn in the ED or <u>within 1 calendar day after ADMISSION?</u> If YES, obtain BC results. If NO, STOP.	Were BCs positive?	Date BC result was obtained?	What Source(s) provided the BC information in column D (see suggested strategies @ bottom of form)	Was PBC result obtained prior to the NHSN closure date for reporting?	Were any barriers encountered? If NO, proceed to column J	Barriers (i.e. took more than 2 weeks to obtain results, multiple phone calls to Med Records Dept., additional calls needed to obtain sensitivities	Date PBC reported to NHSN or entered into the EMR with "hospital" as the source	Completed by (submit form to NW4)

Polling Question #3

Intervention -The PDSA Cycle

PDSA Cycle Tool- When to begin

- Use this form once you have collected baseline data
- This begins cycle 1 –The starting point of the process improvement process.
- Each time you change your process, it becomes a new cycle
- If you maintain the same process as the month before, the cycle number stays the same

Intervention – PDSA Cycle

2017 NHSN Data Quality QIA PDSA Cycle Tool

FACILITY NAME:

PROVIDER# (*begins with 39 or 08*):

Contact Person:

Month of Data Collection (CHECK one): Jan Feb Mar Apr May June |

Cycle# [Click here to enter text.](#)

Tool: Hospitalized Patients BC Tracking Checklist (*check one*) **Baseline** (*for Cycle 1 only*) **Monthly**

Plan: Based on the information from the BC tracking checklist, develop a plan to address the barriers you identified by answering the questions below. **No barriers identified** (*skip to ACT*)

- What hospital(s) you plan to work with to improve the communication process? [Click here to enter text.](#)
- What source you do you intend to utilize as your primary contact to obtain BC/sensitivity results? [Click here to enter text.](#)
- What will be your process to obtain lab results (e.g. phone call, fax, EMR, HIO): [Click here to enter text.](#)
- What role (s) (nurse, manager, AA, etc.) will be responsible for implementing this plan? [Click here to enter text.](#)
- Additional information, if any [Click here to enter text.](#)

Do: Implement the above plan and collect data using the **Monthly** Hospitalized Patients BC Tracking Tool throughout the month

Study: Analyze the data you just collected on the tracking tool and summarize the findings.

- Was there any improvement from the baseline process? Yes No If yes, specify: [Click here to enter text.](#)
- Do any barriers /inefficiencies still exist? Yes No If yes, specify: [Click here to enter text.](#)
- Were there any unexpected results? Yes No If yes, explain: [Click here to enter text.](#)
- Additional information, if any [Click here to enter text.](#)

Act: Plan the next cycle. Decide whether to: (*check one and then begin the next cycle using the PDSA Tool*)

- Adopt this new process and re-evaluate
- Adapt this new process
- Abandon this process and begin a new process

Email **this** form to jshrif@nw4.esrd.net by the 5th working day of the month

PDSA Cycle Tool – Header Info



610 Freedom Business Center Suite 102
King of Prussia, PA 19406
610.265.2418
Fax 610.783.0374
www.qirn4.org

2017 NHSN Data Quality QIA PDSA Cycle Tool

FACILITY NAME:

PROVIDER# (*begins with 39 or 08*):

Contact Person:

Month of Data Collection (CHECK one): Jan Feb Mar Apr May June

Cycle# [Click here to enter text.](#)

Tool: Hospitalized Patients BC Tracking Checklist (*check one*) **Baseline** (*for Cycle 1 only*) **Monthly**

Plan

Based on the information from the BC tracking checklist, develop a plan to address the barriers you identified by answering the questions below.

Same plan as last month -No barriers identified *(skip to DO) This box cannot be selected for cycle 1*

- *What hospital do you plan to work with to improve the communication process?*
- *What source do you intend to utilize as your primary contact to obtain BC/sensitivity results?*
- *What will be your process to obtain lab results (e.g. phone call, fax, EMR, HIO)?*
- *What role (s) (nurse, manager, AA, etc.) will be responsible for implementing this plan?*
- *Additional information, if any.....*

Do

- Implement the above plan and collect data using the Monthly Hospitalized Patients BC Tracking Tool throughout the month

Monthly BC Tracking Checklist

- Begin using this form once you have baseline data and have written your plan for PDSA cycle 1
- Similar format to Baseline Tracking Checklist



Monthly Hospitalized Patients Blood Culture (BC) Tracking Checklist

Provider# (begins with 08 or 39): [Click here to enter text.](#) **Facility Name:** [Click here to enter text.](#) **Contact Person:** [Click here to enter text.](#)

Month of BC Data Collection: [Click here to enter text.](#)

If NO Hospital BCs drawn this month, check here:

This month's Primary Source of BC Results (see suggested sources in table below): [Click here to enter text.](#) **Focus Hospital:** [Click here to enter text.](#)

What is the agreed upon timeframe to receive BC results from Primary Source? [Click here to enter text.](#)

NOTE: This form is used for 1 hospital. If you working on improving a process with more than 1 hospital, complete a separate tracking form for each hospital

Directions: Complete the table below THEN complete the Monthly PDSA Cycle Tool. Email both forms to jshrift@nw4.esrd.net by the 5th business day of the month

A	B	C	D	E	F	G	H	I	J
Patient Initials	Date of ER visit or Inpatient Admission	Were BCs drawn the day of or within 1 calendar day after HOSPITAL ADMISSION? IF NO, STOP.	Were BCs positive?	Date BC result obtained?	Was PBC result obtained within the agreed upon timeframe?	Were you able to obtain PBC results from this month's Primary Source on the 1 st attempt? IF NO, proceed to column H IF YES, proceed to Column I	Barriers (i.e. multiple phone calls, multiple faxes, delay in getting patient consent form signed)	Date PBC reported to NHSN or entered into the EMR with "hospital" as the source	Completed by (Initials)
		<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	Click here to enter text.		
		<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	Click here to enter text.		
		<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	Click here to enter text.		
(Optional): Patient(s) was educated regarding the diagnosis of a BSI upon return to the clinic (click box to select) <input type="checkbox"/> YES <input type="checkbox"/> NO # of patients:									

Suggested Sources for Obtaining Blood Culture Results

A. Inpatient Electronic Medical Records	F. Medical Records Department
B. Infection Preventionist	G. Acute dialysis unit staff
C. Outpatient Nephrologist	H. Discharge Planner/Case Manager
D. Laboratory	I. Healthcare Information Organization [i.e. HSX]
E. In-hospital Rounding Nephrologist/Resident/PA/NP	J. Other – please specify

If NO BCs were drawn this month, please check the box at the top, right corner of this form and submit to jshrift@nw4.esrd.net

Study

Analyze the data you just collected on the monthly tracking tool and summarize the findings.

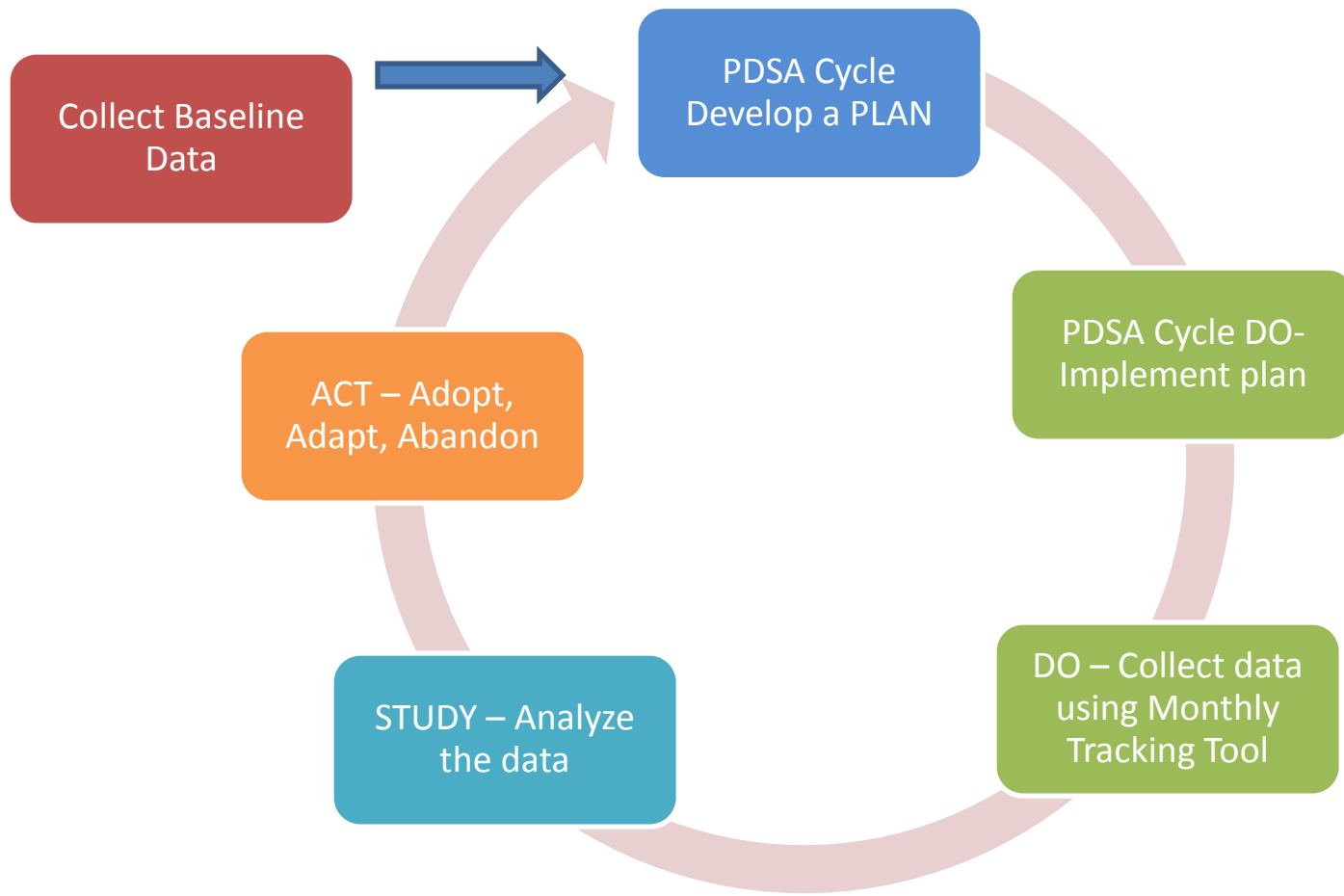
- Was there any improvement from the baseline process? Yes No If yes, specify:
- Do any barriers /inefficiencies still exist? Yes No If yes, specify:
- Were there any unexpected results? Yes No If yes, explain: [Click here to enter text.](#)
- Additional information, if any....

Act

Plan the next cycle. (*check one and then begin the next cycle using the PDSA Tool*)

- I will Adopt this process and re-evaluate
- I will Adapt this process
- I will Abandon this process and begin a new process

PDSA Cycle Graphic

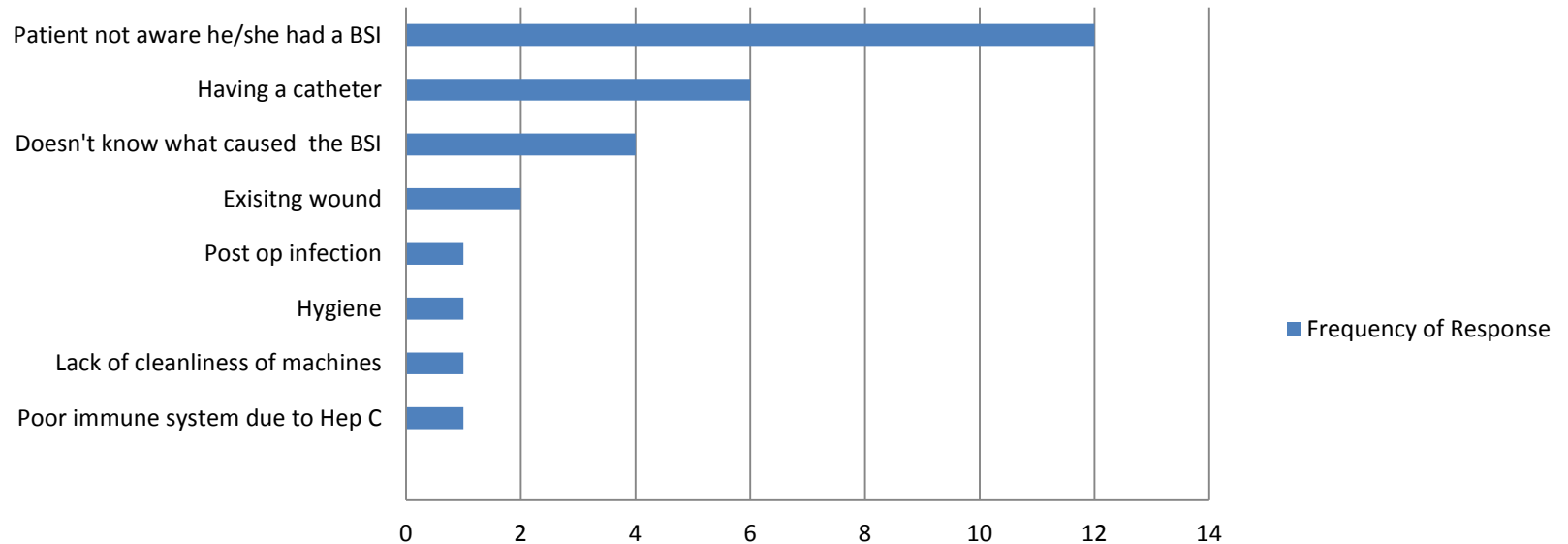


Intervention – *Optional* – Patient Education Regarding Diagnosis of BSI

- Based on 2016 QIA results for reducing BSIs, a patient survey revealed 12 out of 28 patients surveyed about the reasons they experienced a BSI were unaware that they had even had a BSI.
- To address this knowledge deficit the Network is providing an optional patient education opportunity in conjunction with this QIA: Educated/review with the patient at the first treatment, post hospitalization, the diagnosis of a BSI.

2016 BSI QIA – Patient Survey

Patient Reasons for Cause of or Contributing to Their BSI (n= 28 responses)



Patient Education Documentation



A	B	C	D	E	F	G	H	I	J
Patient Initials	Date of ER visit or Inpatient Admission	Were BCs drawn <u>the day of or within 1 calendar day after HOSPITAL ADMISSION?</u> # NO, STOP.	Were BCs positive?	Date BC result obtained?	Was PBC result obtained within the agreed upon timeframe?	Were you able to obtain PBC results from this month's Primary Source on the 1 st attempt? IF NO, proceed to column H IF YES, proceed to Column I	Barriers (i.e. multiple phone calls, multiple faxes, delay in getting patient consent form signed)	Date PBC reported to NHSN or entered into the EMR with "hospital" as the source	Completed by (Initials)
		<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	Click here to enter text.		
		<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	Click here to enter text.		
		<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	Click here to enter text.		
(Optional): Patient(s) was educated regarding the diagnosis of a BSI upon return to the clinic (<i>click box to select</i>) <input type="checkbox"/> YES <input type="checkbox"/> NO # of patients:									



Suggested Sources for Obtaining Blood Culture Results

A. Inpatient Electronic Medical Records	F. Medical Records Department
B. Infection Preventionist	G. Acute dialysis unit staff
C. Outpatient Nephrologist	H. Discharge Planner/Case Manager
D. Laboratory	I. Healthcare Information Organization [i.e. HSX]
E. In-hospital Rounding Nephrologist/Resident/PA/NP	J. Other – please specify

If NO BCs were drawn this month, please check the box at the top, right corner of this form and submit to Jshrift@nw4.esrd.net

Final Polling Question – ER and Hospital Visits Between Treatments

Clarification for NHSN PBC Reporting

- “Was the patient admitted/readmitted to the dialysis facility on this dialysis event date?”
 - ‘Admitted’ means the first visit to the facility ever
 - ‘Readmitted’ means the first visit to the facility after a period of being away (e.g. hospitalization, vacation)

Contact Information

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 - Fax: 610-783-0374

