

GOVERNMENT OF THE DISTRICT OF COLUMBIA

DEPARTMENT OF HEALTH



HEALTH REGULATION AND LICENSING ADMINISTRATION

# Patient Safety Reporting System

## District of Columbia

# Annual Report

Fiscal Year 2015

FOR THE REPORTING PERIOD OF:

OCTOBER 1, 2014, through SEPTEMBER 30, 2015



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## Executive Summary

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### I. Background

In December 2006, the District of Columbia passed the Medical Malpractice Amendment Act of 2006. The act requires that any licensed healthcare provider or medical facility report adverse events, which include the 29 serious reportable events defined by the National Quality Forum (NQF) as events that are unambiguous (identifiable and measurable), serious (resulting in death or significant injury), and usually preventable.

In 2009, the act was amended to require that adverse events be reported within 60 days of their occurrence. In January 2010, the web-based District of Columbia Department of Health (DC DOH) Health Regulation and Licensing Administration Patient Safety Reporting System, hosted by ECRI Institute, was implemented in the ongoing effort to improve healthcare delivery.

Starting in October 2010, District facilities were required to report central-line-associated bloodstream infections (CLABSIs) in intensive care units (ICUs) through the National Healthcare Safety Network (NHSN) system, allowing epidemiologists at the DC DOH to monitor and validate infection rates for District facilities and contribute District information to the Centers for Disease Control and Prevention's (CDC) national database.

Current users of the web-based adverse event reporting system include acute care hospitals and long-term acute care, rehabilitation, and ambulatory surgical facilities.

Adverse event reports are submitted to the DOH through its subcontractor, ECRI Institute. These reports are confidential.

The web-based reports are analyzed to identify patterns and trends, recommend methods to reduce

systematic adverse events, and disseminate information and advice on best practices through various methods. In addition, technical assistance to healthcare providers and medical facilities is provided. All other facilities and providers can submit adverse event reports using the original paper-based form.

The DC DOH Center for Policy, Planning and Evaluation's Division of Epidemiology Disease Surveillance and Investigation (CPPE DE-DSI) provides CLABSI data from CDC's NHSN to ECRI Institute to include in the annual report.

This eighth annual report provides an update on the District of Columbia Patient Safety Reporting System. This report presents an overview of the program's offerings, analysis of adverse event reports, and descriptions of the most significant findings from events submitted between October 1, 2014, and September 30, 2015, as well as comparisons with data from previous years.

### II. Data Collection—Patterns and Trends in Adverse Event Reports

Collecting and analyzing reports of adverse events is a vital component of the District's goal to improve healthcare delivery. During the reporting period of October 2014 through September 2015, the District's healthcare providers and medical facilities

submitted a total of 283 events in fiscal year (FY) 2015 to the DC DOH.<sup>1,2</sup>

Forty-six adverse event reports were submitted to the District of Columbia Patient Safety Reporting System, and 237 reports of CLABSI<sup>3</sup> were submitted to CDC's NHSN (these events are reported to and validated by the DC DOH CPPE DE-DSI).

The NQF events analysis is based on events submitted between October 2014 and September 2015, regardless of event occurrence date, due to the lag in reporting time within the reporting requirement. Acute care hospitals submitted 89% of the reports.

Analysis of the 46 adverse events revealed that 4 (9%) were serious safety events. Many of these reports did not fall into the required NQF serious reportable events category and were reported as "other" events.

The DC DOH continued to use NQF's updated 2011 list of 29 serious reportable events as a classification

system for reportable events during FY 2015. Similar to past years, the most commonly reported event types, representing 277 (98%) of reports submitted, were CLABSIs (84%), pressure ulcers (8.5%), falls (1.8%), retained foreign objects (2.1%), or "other" events (1.8%).

Figure 1 (page 5) provides an overview of the number of serious reportable events by NQF event type that have been reported over the past three fiscal years. The graph includes only those NQF event categories that are similar between the 2006 list used in previous fiscal years and the 2011 list used in FY 2014 and FY 2015; however, some specifics within the definitions may have been adjusted by NQF. The adverse event reports submitted by healthcare providers and medical facilities in the eighth year of the District's reporting program represent a continued effort by the District to contribute to the Patient Safety Reporting System.

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<sup>1</sup> ECRI Institute PSO Database. Component of ECRI Institute, Plymouth Meeting, Pennsylvania.

<sup>2</sup> CLABSI data is provided by the District of Columbia Department of Health CPPE DE-DSI from the reports submitted to CDC's NHSN as of Feb 2016.

<sup>3</sup> CLABSI data is provided by the District of Columbia Department of Health CPPE DE-DSI from the reports submitted to CDC's NHSN as of Feb 2016.

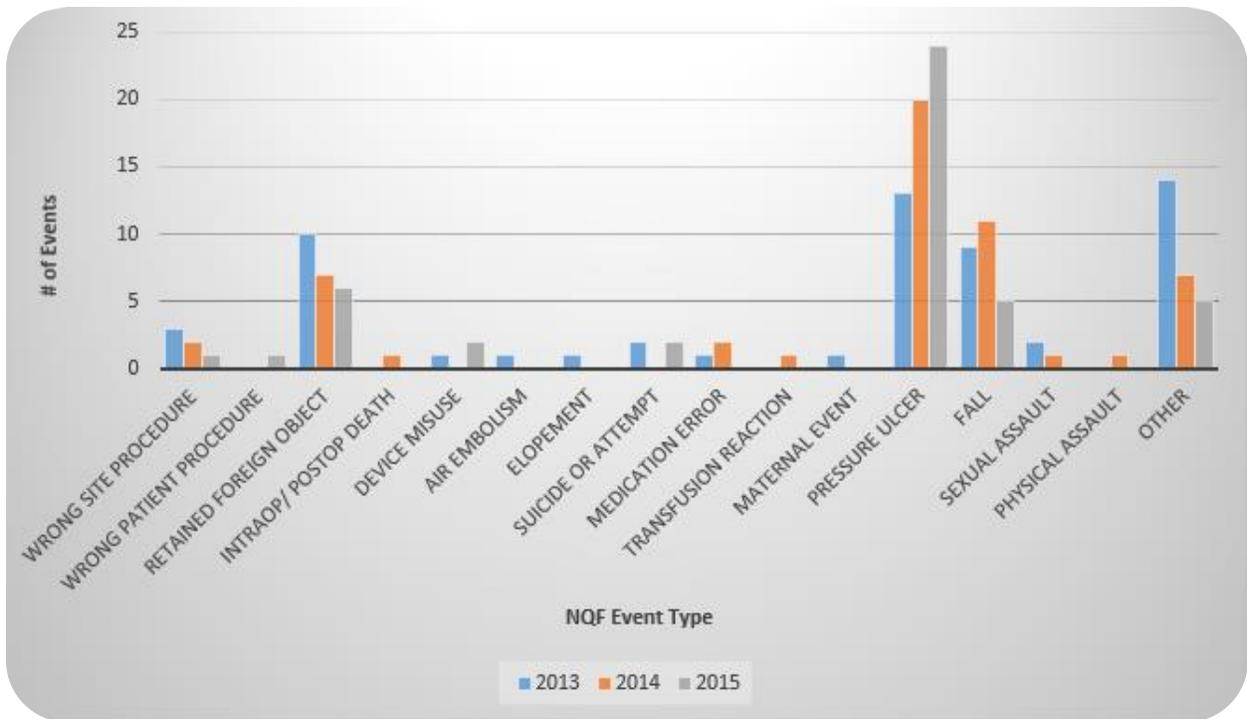


FIGURE 1. NUMBER OF NQF EVENTS BY TYPE FROM FY 2013—FY 2015<sup>4</sup>

<sup>4</sup> ECRI Institute PSO Database. Component of ECRI Institute, Plymouth Meeting, Pennsylvania.

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## Introduction

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### I. The District's Patient Safety Reporting System

Goals of the District's Patient Safety Reporting System include the following:

- ▶ Promoting patient safety
- ▶ Improving the culture of safety
- ▶ Learning from and preventing the reoccurrence of similar adverse events
- ▶ Providing feedback and information on best practices to District facilities

Aggregation of adverse event data gathered from facilities and providers throughout the District is a powerful tool to identify trends that challenge safe and effective healthcare and assists in achieving the primary goal of the reporting program to prevent the reoccurrence of similar adverse events. The web-based adverse event reporting system provides access to aggregate data at the District level and the [ECRI Institute Patient Safety Organization](#) (PSO) on the national level. Analysis of the information received through the District's reporting program serves as the basis for meaningful insights, lessons learned, and the development of best practices that can improve patient safety.

For three event categories—retained foreign objects, falls, and pressure ulcers—this report provides an overview of data from the past three fiscal years and presents guidance and recommendations to help look further into the practices surrounding these topics.

Aside from the annual report, in FY 2015, the District's Patient Safety Reporting System offered the following resources in which facilities could access:

Webinars (Table 1) are offered quarterly at minimum on patient safety topics. Patient safety advisory articles (Table 2, page 7) are offered quarterly which

include a National Navigator and a District Navigator article. Patient Safety Membership Update is a newsletter sent twice a month (Table 2, page 7).

Corrective Action Plans are discussed in Table 3 (page 7). Custom feedback (Table 4, page 8) on adverse events or topics provides resources and best practice information directly to facilities. Research responses (Table 4, page 8) are summaries of research requests received at a national level on various topics. Patient Safety E-lets (Table 5, page 8) are unplanned special notices on major patient safety issues that have been seen at a national level.

TABLE 1. Educational Webinars

<i>Webinars</i>
<ul style="list-style-type: none"><li>▶ <i>Patient/Person and Family Centered Care</i></li><li>▶ <i>ECRI Institute PSO Deep Dive Care Coordination</i></li><li>▶ <i>Proven Strategies for Achieving Healthcare Security Program Excellence</i></li><li>▶ <i>Top 10 Patient Safety Concerns</i></li><li>▶ <i>Creating and Sustaining Policy and Evidence Based Procedures</i></li><li>▶ <i>Breast Milk Mix Ups</i></li><li>▶ <i>Oral Anticoagulants Old and New: Scrutinizing the Risks, Monitoring for Safety</i></li><li>▶ <i>Acute and Post-Acute Care Providers—Shared Care, Shared Risks, Shared Responsibilities and Shared Outcomes</i></li><li>▶ <i>Discovering Hidden Challenges with Patient Identification</i></li><li>▶ <i>Lost Specimens: Do You Know Where Your Surgical Specimens Are?</i></li><li>▶ <i>Medication Reconciliation: The Journey from Current Practice to Best Practice</i></li><li>▶ <i>Alarm Safety: The Clock is Ticking!</i></li></ul>

TABLE 2. Publications: Navigators and Patient Safety Membership Updates

<b>Navigators</b>	
<b>National:</b>	<ul style="list-style-type: none"><li>▶ <i>Ambulatory Surgery Oversight</i></li><li>▶ <i>Wrong-Record, Wrong-Data Errors with Health IT Systems</i></li><li>▶ <i>Patients' Use of Their Own Medications: How to Address Risks</i></li><li>▶ <i>Fixing Bad Links to Prevent Tubing Mismatches</i></li></ul>
<b>District:</b>	<ul style="list-style-type: none"><li>▶ <i>Pediatric Ambulatory Surgery: Common but Not without Risk</i></li><li>▶ <i>Understanding Health IT's Role in Medication Administration Errors</i></li><li>▶ <i>Match the Patch: Remembering Medication Patches</i></li><li>▶ <i>Be Prepared for New Enteral Connectors</i></li></ul>

**Patient Safety Membership Update**

A twice a monthly electronic newsletter that compiles updated patient safety news.

TABLE 3. Corrective Action Plans

**Corrective Action Plans (CAP)**

If a thorough CAP is submitted along with an event, it is analyzed through ECRI Institute PSO's root-cause analysis review process. The facility can then be provided with a report to further assist them in improving their process. See section on Corrective Action Plans p. 17-19 for details.

TABLE 4. Custom Feedback and Research Responses

<i>Feedback on Specific Events or Topics</i>	
<b>Custom Feedback</b>	<b>Research Responses</b>
Black Box Medication Warnings	Crisis Management Teams and Disclosure
Crisis Management	Low-Volume Surgery
Medical Devices and Pressure Ulcers	Fall Injury Prevention
Patient Suicide	Medication Reconciliation
Patient Violence	Adjunct Technologies for Retained Surgical Items
Retained Needles	Wet Pack Syndrome
Suicide Screening	Patient Photographs in the Electronic Medical Record
Wrong-Patient Procedures	Methods to Prioritize Patient Safety Events for Strategic Planning
	Breast Milk Management
	Event Classification and Reporting Systems
	Surgical Instrument Maintenance and Life Expectancy

TABLE 5. Patient Safety E-Alerts and Compass Points

<i>Patient Safety E-Alerts</i>
Infusion Pumps—Lack of Acceptance Inspection Can Lead to Patient Harm
Over-Reliance on Arrhythmia Detection Algorithms in Physiologic Monitoring Systems Puts Patients on Telemetry at Risk
GE—Revolution CT Scanners: Optimize Protocols to Prevent System Freeze during Image Reconstruction
CareFusion—Alaris Infusion Pump Modules: May Stop Infusing When Bumped
SentreHEART—LARIAT Suture Delivery Devices
Infusion Pump Occlusion Alarms Cannot Detect Infiltrations
Heliox Gas Cylinders—Confusion Over Look-Alike Cylinders May Cause Incorrect Heliox Therapy and Adverse Patient Outcomes
Enovate Medical—Mobius Power Batteries Used with Workstations on Wheels: May Catch Fire in Battery Charger
Bard—Broviac Central Venous Catheters: Incorrect Clamping or Use of Incorrect Sized Syringes May Damage Catheter and Pose Risk to Patient
ECRI Institute Reminds Facilities to Only Use Administration Sets with Antisiphon Valve with Moog Curlin
Preventing Misconnections—Oxygen Tubing Misconnections in the Post Anesthesia Care Area

## Data Collection and Analysis

### I. Reportable Events

The District has mandated the reporting of adverse events by a broad range of healthcare providers and medical facilities. Adverse events that must be reported include the 29 NQF serious reportable events listed in 2011. During this past fiscal year, CLABSI events continued to be submitted to CDC’s NHSN. These events are reported to and validated by the DC DOH CPPE DE-DSI.

Since January 2010, hospitals and ambulatory surgical centers have been required to report adverse events and CAPs using the web-based reporting system. A standardized adverse event reporting form is available to all other medical facilities and healthcare providers for this purpose. Reports must be submitted within 60 days of the occurrence of an adverse event. The Department of Health collects and analyzes the reports, providing an annual report that includes summary data and recommendations. The Medical Malpractice

Amendment Act contains well-defined confidentiality provisions related to reporters and information provided to the system administrator. This annual report compiles and provides analysis on both the CLABSI data from NHSN and the NQF events submitted to the web-based reporting system.

### II. Reports by Event Type

In the eighth reporting period, which covers events submitted between October 1, 2014, and September 30, 2015, District medical facilities and healthcare providers submitted 283 reports to the DC DOH. The most frequently reported types of events were CLABSIs (84%), pressure ulcers (8.5%), falls (1.8%), retained foreign objects (2.1%) and “other” events (1.8%) representing 277 (98%) of the reports submitted. Table 6 summarizes the reports submitted by event type, and Figure 2 (page 12) provides a graphic version.

**TABLE 6. NUMBER AND PERCENTAGE OF REPORTS BY EVENT TYPE IN FY 2015<sup>5</sup> 6<sup>7</sup>**

Category	Event Type	Reports	%
<i>Surgical or invasive procedure events</i>	1A - Surgery or other invasive procedure performed on the wrong site	1	0.4
	1B - Surgery or other invasive procedure performed on the wrong patient	1	0.4
	1C - Wrong surgical or other invasive procedure performed on a patient	0	0

<sup>5</sup> CLABSI data is provided by the District of Columbia Department of Health CPPE DE-DSI from the reports submitted to CDC’s NHSN as of Feb 2016.

<sup>6</sup> ECRI Institute PSO Database. Component of ECRI Institute, Plymouth Meeting, Pennsylvania.

<sup>7</sup> National Quality Forum. Serious reportable events in healthcare—2011 update [online]. 2011 [cited 2015 Nov 30]. [http://www.qualityforum.org/Publications/2011/12/Serious\\_Reportable\\_Events\\_in\\_Healthcare\\_2011.aspx](http://www.qualityforum.org/Publications/2011/12/Serious_Reportable_Events_in_Healthcare_2011.aspx)

	1D - Unintended retention of a foreign object in a patient after surgery or other invasive procedure	6	2.1
	1E - Intraoperative or immediately postoperative/postprocedure death in an ASA Class 1 patient	0	0
<i>Product or device events</i>	2A - Patient death or serious injury associated with the use of contaminated drugs, devices, or biologics provided by the healthcare setting	0	0
	2B - Patient death or serious injury associated with the use or function of a device in patient care, in which the device is used or functions other than as intended	2	0.7
	2C - Patient death or serious injury associated with intravascular air embolism that occurs while being cared for in a healthcare setting	0	0
<i>Patient protection events</i>	3A - Discharge or release of a patient/resident of any age, who is unable to make decisions, to other than an authorized person	0	0
	3B - Patient death or serious injury associated with patient elopement	0	0
	3C - Patient suicide, attempted suicide, or self-harm that results in serious injury, while being cared for in a healthcare setting	2	0.7
<i>Care management events</i>	4A - Patient death or serious injury associated with a medication error	0	0
	4B - Patient death or serious injury associated with unsafe administration of blood products	0	0
	4C - Maternal death or serious injury associated with labor or delivery in a low-risk pregnancy while being cared for in a healthcare setting	0	0
	4D - Death or serious injury of a neonate associated with labor or delivery in a low-risk pregnancy	0	0
	4E - Patient death or serious injury associated with a fall while being cared for in a healthcare setting	5	1.8
	4F - Any Stage 3, Stage 4, and unstageable pressure ulcers acquired after admission/presentation to a healthcare setting	24	8.5
	4G - Artificial insemination with the wrong donor sperm or wrong egg	0	0

	4H - Patient death or serious injury resulting from the irretrievable loss of an irreplaceable biological specimen	0	0
	4I - Patient death or serious injury resulting from failure to follow up or communicate laboratory, pathology, or radiology test results	0	0
<i>Environmental events</i>	5A - Patient or staff death or serious injury associated with an electric shock in the course of a patient care process in a healthcare setting	0	0
	5B - Any incident in which systems designated for oxygen or other gas to be delivered to a patient contains no gas, the wrong gas, or are contaminated by toxic substances	0	0
	5C - Patient or staff death or serious injury associated with a burn incurred from any source in the course of a patient care process in a healthcare setting	0	0
	5D - Patient death or serious injury associated with the use of physical restraints or bedrails while being cared for in a healthcare setting	0	0
<i>Radiologic events</i>	6A - Death or serious injury of a patient or staff associated with the introduction of a metallic object into the MRI area	0	0
<i>Potential criminal events</i>	7A - Any instance of care ordered by or provided by someone impersonating a physician, nurse, pharmacist, or other licensed healthcare provider	0	0
	7B - Abduction of a patient/resident of any age	0	0
	7C - Sexual abuse/assault on a patient or staff member within or on the grounds of a healthcare setting	0	0
	7D - Death or serious injury of a patient or staff member resulting from a physical assault that occurs within or on the grounds of a healthcare setting	0	0
<i>CLABSI</i>	8 - Central-catheter-associated bloodstream infection <sup>2</sup>	237	83.7
<i>“Other” event type reported</i>	X - “Other” non-NQF type of event reported	5	1.8
<b>Total</b>		<b>283</b>	<b>100.1*</b>

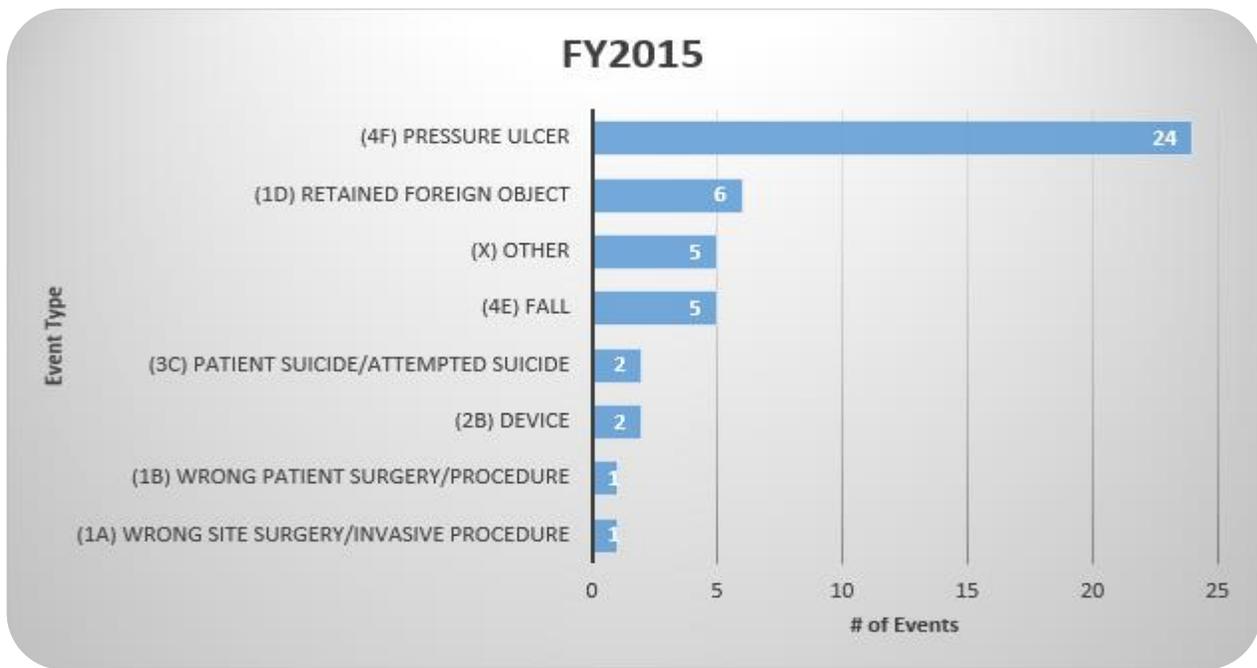
*\*Total percentage may not equal 100 due to rounding.*

Figure 2 details the NQF event types for which one or more events were reported during the FY 2015 reporting period; 8 total event types were reported. This fiscal year, the number of reported falls decreased, although falls are usually the second most frequently reported event.

It should be noted that this graph cannot be considered a benchmark, as the ECRI Institute PSO system is a voluntary national event reporting database, whereas the District of Columbia Patient Safety Reporting System mandates reporting of adverse events.

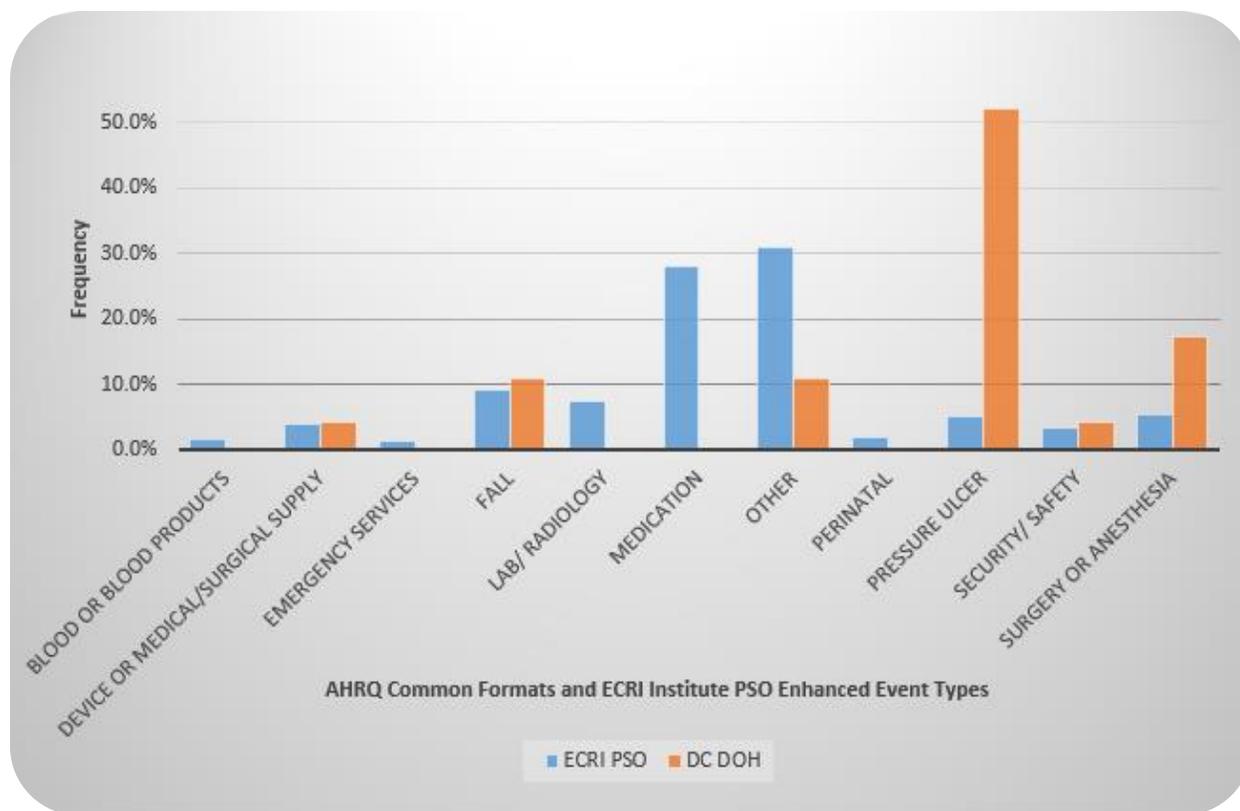
Figure 3 (page 13) compares event categories reported by District facilities between October 1, 2014, and September 30, 2015, with those in the ECRI Institute PSO (EIPSO) system overall aggregate.

For Figure 3 (page 13), the event types are categorized according to the Agency for Healthcare Research and Quality's (AHRQ) Common Formats and ECRI Institute enhanced event types rather than as NQF event types.



**FIGURE 2. NUMBER OF NQF EVENTS BY TYPE IN FY 2015<sup>8</sup>**

<sup>8</sup> ECRI Institute PSO Database. Component of ECRI Institute, Plymouth Meeting, Pennsylvania.



**FIGURE 3. COMPARISON OF AHRQ EVENT TYPE FREQUENCY<sup>9</sup>**

When viewed using this definition, and excluding healthcare-associated infections (HAIs) and CLABSIs, the District’s most frequently reported event categories were pressure ulcers, falls, surgery or anesthesia events, and other events.

The most frequently reported events in the ECRI Institute PSO database were “Medication” and “Other events.”

Again, excluding HAIs, pressure ulcers clearly stand out as the most frequently reported event type in the District (52%), whereas they were reported 5% of the time in the ECRI Institute PSO aggregate data. Also, similar to FY 2014, medication errors were apparent 28% of the time in the reports to ECRI Institute PSO but make up 0% of the District’s reports. However, conclusions cannot be drawn when comparing mandatory and voluntary reporting

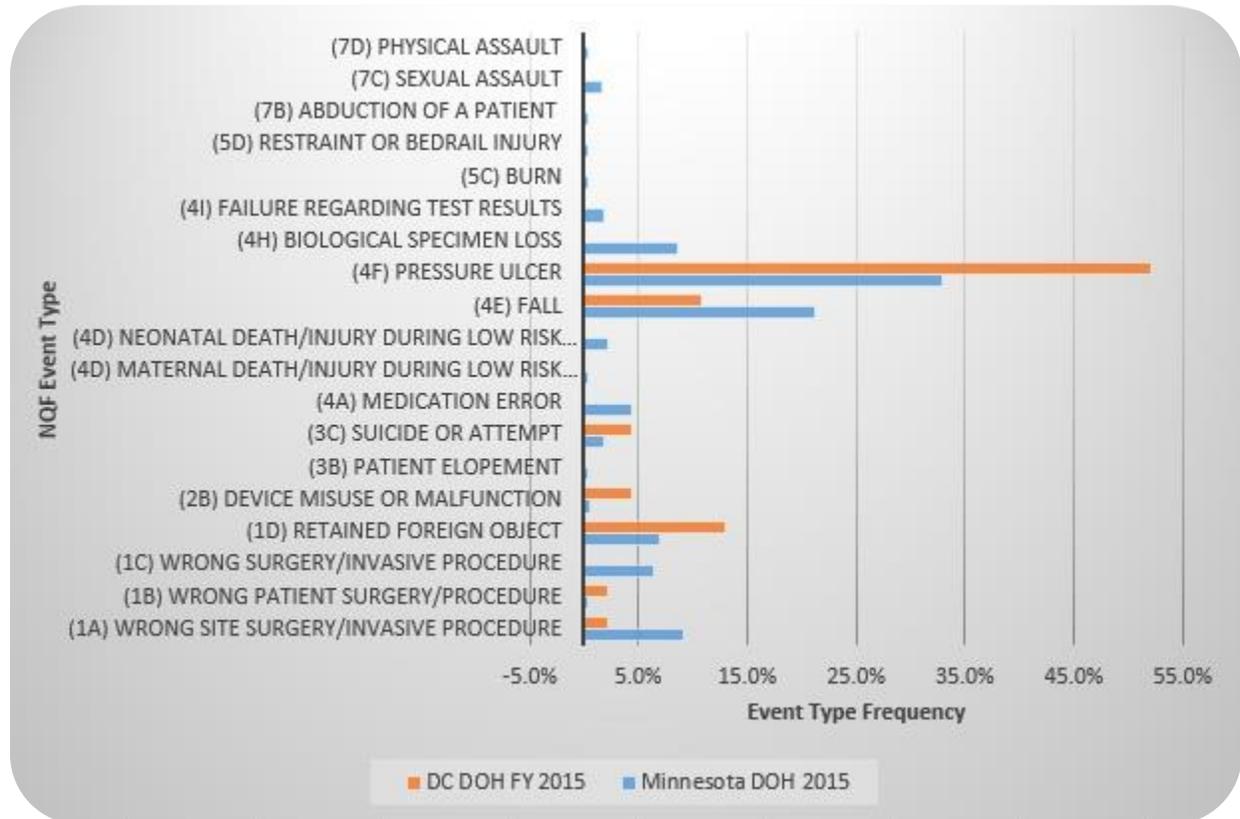
programs. The District’s best benchmark is comparing their data trends over time.

Comparison with other mandatory reporting systems may also be valuable. For example, the Minnesota Department of Health’s *Adverse Health Events in Minnesota* report published in 2016 noted 316 NQF events reported. Minnesota Department of Health adverse health events are also based on NQF’s list of serious reportable events updated in 2011. Although the Minnesota system includes many more facilities that are required to report, when broken down by event type percentages, Minnesota’s most frequently reported events were similar to those reported by the DC DOH in that they included pressure ulcers (33%), falls (21%), and retained foreign objects (7%). However, Minnesota reports wrong-site surgery or invasive procedures (9%) as the third most commonly reported events. The

<sup>9</sup> ECRI Institute PSO Database. Component of ECRI Institute, Plymouth Meeting, Pennsylvania.

Minnesota system also includes 12 additional event categories for which the District did not receive reports (e.g., abduction of a patient). Figure 4 shows the NQF event report type frequency from the District of Columbia for FY 2015 and from the

Minnesota Department of Health’s 2015 reporting year; the percentages are based on the total number of NQF and “other” events.<sup>10,11</sup>



**FIGURE 4. COMPARISON OF NQF EVENT TYPE FREQUENCY<sup>12, 13, 14</sup>**

<sup>10</sup> ECRI Institute PSO Database. Component of ECRI Institute, Plymouth Meeting, Pennsylvania.  
<sup>11</sup> Minnesota Department of Health. Adverse health events in Minnesota: 12th annual public report [online]. 2016 Feb [cited 2016 Mar 1]. <http://www.health.state.mn.us/patientsafety/ae/2016ahereport.pdf>  
<sup>12</sup> ECRI Institute PSO Database. Component of ECRI Institute, Plymouth Meeting, Pennsylvania.  
<sup>13</sup> National Quality Forum. Serious reportable events in healthcare—2011 update [online]. 2011 [cited 2015 Nov 30]. [http://www.qualityforum.org/Publications/2011/12/Serious\\_Reportable\\_Events\\_in\\_Healthcare\\_2011.aspx](http://www.qualityforum.org/Publications/2011/12/Serious_Reportable_Events_in_Healthcare_2011.aspx)  
<sup>14</sup> Minnesota Department of Health. Adverse health events in Minnesota: 12th annual public report [online]. 2016 Feb [cited 2016 Mar 1]. <http://www.health.state.mn.us/patientsafety/ae/2016ahereport.pdf>

### III. Reports by Level of Harm

The 2011 list of NQF serious reportable events changed the language from “serious disability” to “serious injury” in applicable event types.<sup>15</sup> Not all reportable events necessarily imply the same degree of harm, and it is often useful to distinguish among degrees of harm. To this end, the harm scale developed by the National Coordinating Council for Medication Error Reporting and Prevention continues to be applied to the event reporting

system, and 46 events could be categorized based on the information provided.

The CLABSI events that the Department of Health provided from NHSN do not include information on level of harm; therefore, those events could not be included in this analysis.<sup>16</sup> Table 7 summarizes the level of harm among the 46 reports, and Figure 5 (page 16) illustrates the percentages of the levels of harm identified.

**TABLE 7. NUMBER AND PERCENTAGE OF NQF REPORTS BY LEVEL OF HARM (FY 2015)<sup>17</sup>**

Harm Score	Description	Reports	%
A	Circumstances that could cause adverse events (e.g., look-alike medications, confusing equipment)	0	0
B1	An event occurred but did not reach the individual (“near miss” or “close call”) because of chance alone	0	0
B2	An event occurred but did not reach the individual (“near miss” or “close call”) because of active recovery efforts by caregivers	0	0
C	An event occurred that reached the individual but did not cause harm and did not require increased monitoring (an error of omission, such as a missed medication dose, does reach the individual)	1	2
D	An event occurred that required monitoring to confirm that it resulted in no harm and/or required intervention to prevent harm	2	4
E	An event occurred that contributed to or resulted in temporary harm and required treatment or intervention	34	74
F	An event occurred that contributed to or resulted in temporary harm and required initial or prolonged hospitalization	4	9
G	An event occurred that contributed to or resulted in permanent harm	0	0

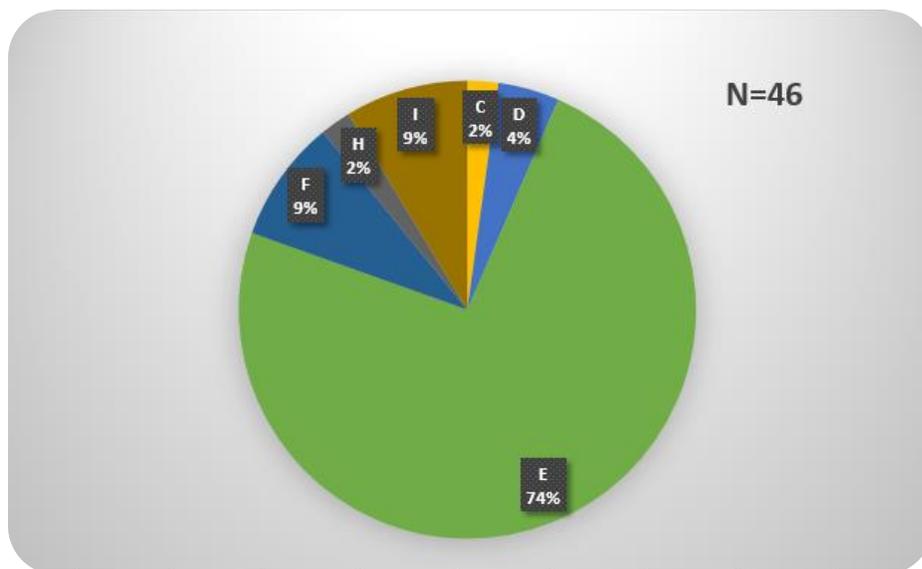
<sup>15</sup> National Quality Forum. Serious reportable events in healthcare—2011 update [online]. 2011 [cited 2015 Nov 30].

[http://www.qualityforum.org/Publications/2011/12/Serious\\_Reportable\\_Events\\_in\\_Healthcare\\_2011.aspx](http://www.qualityforum.org/Publications/2011/12/Serious_Reportable_Events_in_Healthcare_2011.aspx)

<sup>16</sup> CLABSI data is provided by the District of Columbia Department of Health CPPE DE-DSI from the reports submitted to CDC’s NHSN as of Feb 2016.

<sup>17</sup> ECRI Institute PSO Database. Component of ECRI Institute, Plymouth Meeting, Pennsylvania.

H	An event occurred that resulted in a near-death event (e.g., required ICU care or other intervention necessary to sustain life)	1	2
I	An event occurred that contributed to or resulted in death	4	9
<b>Total</b>		<b>46</b>	<b>100</b>



**FIGURE 5. PERCENTAGE OF NQF REPORTS BY HARM SCORE (FY 2015)<sup>18</sup>**

Harm scores (Figure 5) associated with the reports submitted ranged from C (“Circumstances that could cause adverse events”) (2%) to I (“An event occurred that contributed to or resulted in death”) (9%).

The majority of the events (74 %) were categorized as having a harm score of E (“An event that resulted in temporary harm and required treatment or intervention”), which is consistent with the minimal harm score severity level described in the NQF events.

District facilities continue to voluntarily report events that did not cause patient harm. Harm scores reported during FY 2015 included C and D; NQF

serious reportable events typically have a harm score of E or higher.

Compared with the previous year (FY 2014), the percentage of events with harm scores of F or G decreased (“Events that contributed to or resulted in temporary harm and required initial or prolonged hospitalization” or “Events that contributed to or resulted in permanent harm,” respectively).

Those two categories—harm scores F and G—made up 18% of events reported for FY 2014. Percent of events categorized by these harm scores declined by half (to 9%) for FY 2015 (see Figure 6, page 17). It is also important to note that 75% of the events with harm score I were categorized as “other” events.

<sup>18</sup> ECRI Institute PSO Database. Component of ECRI Institute, Plymouth Meeting, Pennsylvania.

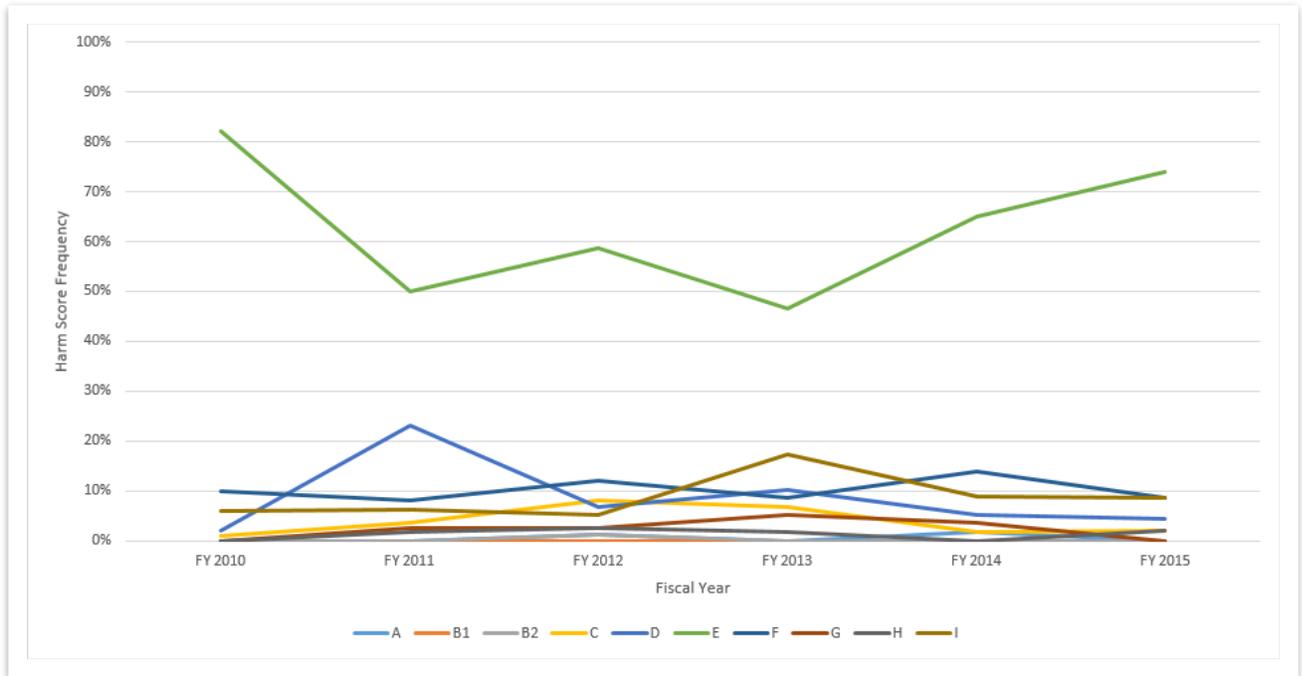


FIGURE 6. COMPARISON OF HARM SCORE FREQUENCY<sup>19</sup>

#### IV. Report Quality

During FY 2015, 68% of the 2015 of the 46 NQF events reported to the District of Columbia Patient Safety Reporting System, had thorough event descriptions and 32% had minimal event descriptions. The “Event Description” field is a free-text field on the web-based form; when reporters complete it, this field can capture the most important details of the event. This area of reporting

has remained consistent and coincides with the implementation of the electronic reporting systems.

#### V. Corrective Action Plans in Reports

The District requires the submission of a CAP as a follow-up to a reported adverse event. This procedure allows the facility to receive a review of their CAP. The goals of the program include handling an adverse event in the following steps:

<sup>19</sup> ECRI Institute PSO Database. Component of ECRI Institute, Plymouth Meeting, Pennsylvania.



A CAP describes how the facility or provider plans to prevent or reduce the risk of similar events in the future and should be based on the findings from the event investigation. The investigation of an event must look beyond the direct patient care provider to identify system failures. Of the 46 NQF reports submitted, 14 (32%) included mention of corrective action(s), which is a slight decrease from the 20 (35%) in FY 2014.

Figure 7 (page 19) shows a breakout of the percentages of CAPs submitted for the reported events during FY 2015. Although some reports identified contributing factors or root causes, no complete root-cause analyses (RCAs) were submitted for review during FY 2015.

There is an additional field within the reporting system labeled “Supplemental Information” that some facilities have found to be an easy way to incorporate their CAPs. This also allows the event details and the action plans to be stored in the same location. Currently, some facilities use this method, and others continue to submit their CAPs via secure communication. Facilities have the ability to update an event report after the event has been submitted

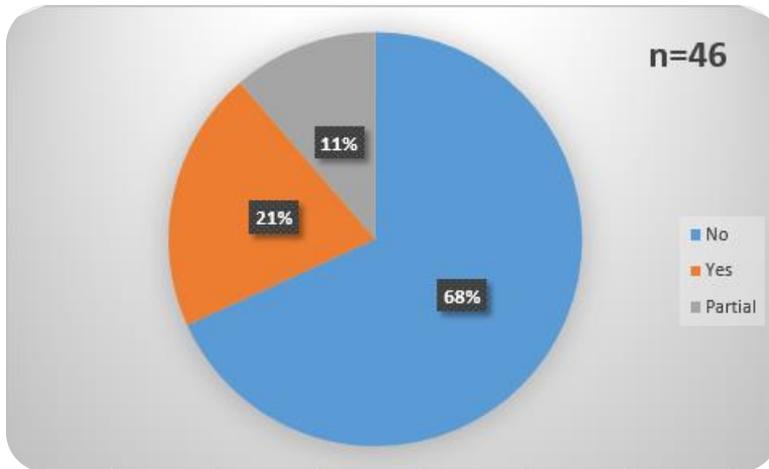
if the RCA and CAP have not been completed at the time of the event submission.

## VI. CLABSIs

Facilities in the District of Columbia are required by law to report CLABSIs to CDC’s NHSN. NHSN is an online tracking system that provides a reporting mechanism for the District and its 10 facilities covered by the mandate. Epidemiologists at the District of Columbia Department of Health CPPE DE-DSI perform validation studies on CLABSIs reported to NHSN.

The following data was provided by the DC DOH CPPE DE-DSI in advance of publication by CDC, from the reports submitted to CDC’s NHSN. During FY 2015, units from 10 facilities reported a total of 237 CLABSIs and 179,755 central-line-days. Data viewed in this way represents a different mix of hospitals and units for each year. This raw, unadjusted rate provides the actual number of events over a specified time frame. This rate is useful in assessing the overall burden of HAIs in the healthcare system.<sup>20</sup>

<sup>20</sup> CLABSI data is provided by the District of Columbia Department of Health CPPE DE-DSI from the reports submitted to CDC’s NHSN as of Feb 2016.



**FIGURE 7. FREQUENCY OF CAP SUBMISSIONS FOR NQF EVENTS<sup>21</sup>**

To take these data one step further, a standardized infection ratio (SIR) was calculated for eight of the facilities that submitted data in the District. The SIR is an indirect standardization method that is used to summarize the HAI experience across any number of stratified groups.<sup>22</sup>

The SIR allows for comparison of data across risk groups, procedures, and hospital characteristics to gain a better understanding of the incidence, trends, and patterns of HAIs while adjusting for underlying patient or hospital factors that may affect occurrence of healthcare-related infections.<sup>23</sup> The SIR is calculated by dividing the number of CLABSIs by the number of expected CLABSIs. For FY 2016, the SIR for eight facilities in the District was 0.731.<sup>24</sup>

In addition, the CDC recently published their HAI progress report in 2016. The DC progress report for acute care hospitals show that DC “hospitals reported no significant change in CLABSIs between 2013 and 2014”.<sup>25</sup>

#### Additional Resources

Centers for Disease Control. District of Columbia: Healthcare Associated Infections Progress. 2016. <http://www.cdc.gov/hai/pdfs/stateplans/factsheets/dc.pdf>

<sup>21</sup> ECRI Institute PSO Database. Component of ECRI Institute, Plymouth Meeting, Pennsylvania.

<sup>22</sup> CLABSI data is provided by the District of Columbia Department of Health CPPE DE-DSI from the reports submitted to CDC’s NHSN.

<sup>23</sup> CLABSI data is provided by the District of Columbia Department of Health CPPE DE-DSI from the reports submitted to CDC’s NHSN.

<sup>24</sup> CLABSI data is provided by the District of Columbia Department of Health CPPE DE-DSI from the reports submitted to CDC’s NHSN as of Feb 2016.

<sup>25</sup> CDC. HAI Progress report. 2016. <http://www.cdc.gov/hai/pdfs/stateplans/factsheets/dc.pdf>

## VII. Patient Safety Webinars and Trainings

Webinars are provided on various patient safety topics and are also used to train users of the reporting system. Table 8 shows the webinars offered in FY 2015 and the number of lines that called in for each presentation (however, number of participants on each line is not shown). Webinar

recordings and handouts are then posted to the web portal for future viewing.

**TABLE 8. FREQUENCY OF WEBINAR ATTENDANCE FY 2015**

Webinar Topic	Number of Lines
Patient/Person and Family Centered Care	0
ECRI Institute PSO Deep Dive Care Coordination	3
Proven Strategies for Achieving Healthcare Security Program Excellence	0
Top 10 Patient Safety Concerns	3
Creating and Sustaining Policy and Evidence Based Procedures	0
Breast Milk Mix Ups	4
Oral Anticoagulants Old and New: Scrutinizing the Risks, Monitoring for Safety	0
Acute and Post-acute Care Providers—Shared Care, Shared Risks, Shared Responsibilities and Shared Outcomes	0
Discovering Hidden Challenges with Patient Identification	1
Lost Specimens: Do You Know Where Your Surgical Specimens Are?	1
Medication Reconciliation: The Journey from Current Practice to Best Practice	0
Alarm Safety: The Clock Is Ticking!	0

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## Guidance and Recommendations

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The Department of Health is charged with providing facilities and providers with recommended methods to reduce systematic adverse events and disseminating information and advice on best practices. The following is a summary of three important topic categories and a discussion of lessons learned and strategies to help prevent reoccurrence of these event types. The three event types are as follows:

- ▶ Retained foreign objects
- ▶ Falls
- ▶ Pressure ulcers

As required by the Medical Malpractice Amendment Act, the information is deidentified and anonymized with regard to facility, provider, and patient. Root causes, contributing factors, and preventive strategies identified by healthcare facilities and providers are shared if available. Finally, recommended best practices are provided to further assist facilities and providers in improving healthcare delivery in the District.

### I. Retained Foreign Objects over the Past Three Fiscal Years

Surgical-related events reported included the following:

- ▶ Unintended retention of a foreign object in a patient after surgery or other procedure

A review of retained foreign object (RFO) events submitted over the past three fiscal years, between October 2012 and September 2015, revealed a decreasing trend in the number of events submitted, from 10 to 6 (see Figure 8, page 22). Of the RFO events (also referred to as unintentionally retained surgical items) reported over these three years, 33% (7) involved sponges and 19% (4) involved a retained guidewire. Needles and pins were also among those reported more than once. Harm scores reported as a whole varied from level C through F (see Figure 9, page 22), with harm score of E being the most frequent.

### Findings

- ▶ The number of incidents for RFOs or retained surgical items shows a decline over the past three years
- ▶ 33% of the retained objects were sponges; 19% were guidewires

### Recommendations

Because sponges were the most frequent RFO, including several retained during vaginal and cesarean deliveries, the following recommendations will focus on this trend in the event category<sup>26</sup>:

- ▶ Review and update the organization's RFO policy and ensure an RFO is clearly defined.
- ▶ Count every sponge and every sharp during each delivery.<sup>27</sup>
- ▶ Allow only radiopaque sponges and other soft goods on trays or on the sterile field.<sup>28</sup>

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<sup>26</sup> ECRI Institute. Count early and often to prevent RSIs in L&D. *PSO Navigator* 2013 Nov;5(4). Also available at

<sup>27</sup> Institute for Clinical Systems Improvement (ICSI). Prevention of unintentionally retained foreign objects during vaginal deliveries [online]. 4th ed. 2012 Jan. <https://www.icsi.org/asset/3xvmi8/RFO.pdf>

<sup>28</sup> Institute for Clinical Systems Improvement (ICSI). Prevention of unintentionally retained foreign objects during vaginal deliveries [online]. 4th ed. 2012 Jan. <https://www.icsi.org/asset/3xvmi8/RFO.pdf>

- ▶ If the count is inaccurate, ensure imaging is completed.<sup>29</sup>
- ▶ The following counts should be included in each procedure: initial, relief, new opened items, and closing.

## Resources

[ECRI Institute PSO. Patient Safety E-Alerts: Retained Guidewires: On the rise? 2010 Aug.](#) (access limited to membership)

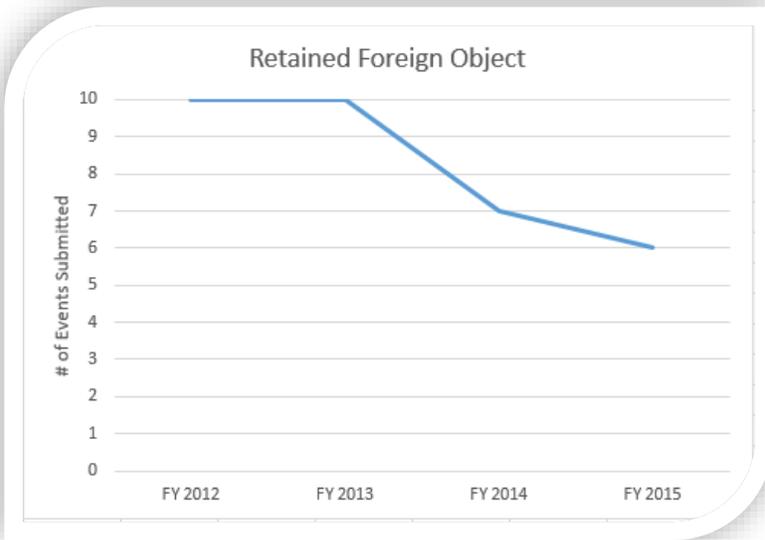


FIGURE 8. RETAINED FOREIGN OBJECTS OVER MULTIPLE FISCAL YEARS<sup>30</sup>

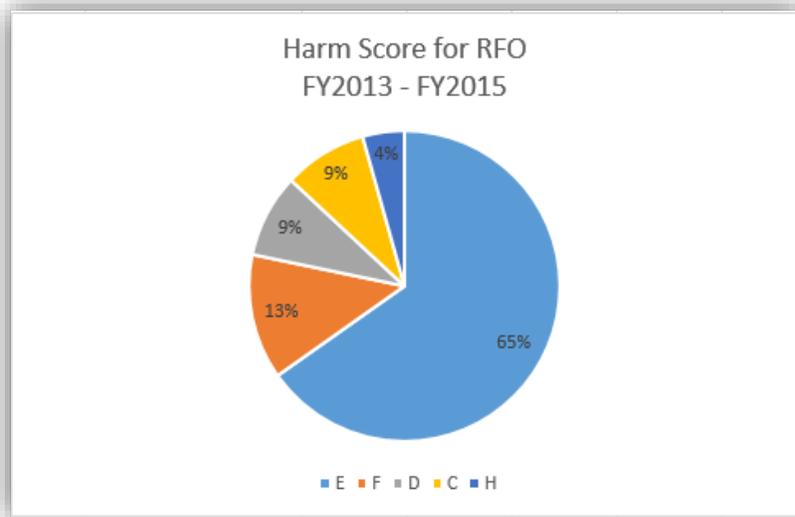


FIGURE 9. HARM SCORES FOR RETAINED FOREIGN OBJECTS OVER MULTIPLE FISCAL YEARS<sup>31</sup>

<sup>29</sup> Institute for Clinical Systems Improvement (ICSI). Prevention of unintentionally retained foreign objects during vaginal deliveries [online]. 4th ed. 2012 Jan. [https://www.icsi.org/\\_asset/3xvmi8/RFO.pdf](https://www.icsi.org/_asset/3xvmi8/RFO.pdf)

<sup>30</sup> ECRI Institute PSO Database. Component of ECRI Institute, Plymouth Meeting, Pennsylvania.

<sup>31</sup> ECRI Institute PSO Database. Component of ECRI Institute, Plymouth Meeting, Pennsylvania.

## II. Falls over the Past Three Fiscal Years

Fall events are defined as follows:

- ▶ Patient death or serious injury associated with a fall while being cared for in a healthcare setting

A review of 25 fall events submitted over the past three fiscal years, between October 2012 and September 2015 (Figure 10, page 24), revealed a significant decrease in the number of events submitted.

### Findings

- ▶ Decrease in falls over the past three years
- ▶ 44% (11) occurred in a psychiatry & psychology department
- ▶ 28% (7) occurred in an internal medicine department
- ▶ 12% (3) occurred in an orthopedics department

## Recommendations <sup>32</sup>

- ▶ Choose a falls risk assessment tool that has high sensitivity, specificity, and interrater reliability.<sup>33</sup>
- ▶ Perform a falls risk assessment at the following times: admission, transfer between units, status changes, after a fall, and at regular intervals.
- ▶ Individualize care planning and interventions, ensuring each risk factor is addressed, including those that were not captured by the assessment tool.
- ▶ Consider using a medication risk assessment along with the falls risk assessment tool.<sup>34</sup>
- ▶ Routinely provide staff education on falls risk assessment tools.

## Resources

[ECRI Institute PSO Navigator. Falls Prevention](#)  
(access limited to membership)

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<sup>32</sup> Feil M, Gardner L. Falls risk assessment: a foundational element of falls prevention programs. *Pa Patient Saf Advis* 2012 Sep;9(3):73-81. Also available at [http://patientsafetyauthority.org/ADVISORIES/AdvisoryLibrary/2012/Sep;9\(3\)/Pages/73.aspx](http://patientsafetyauthority.org/ADVISORIES/AdvisoryLibrary/2012/Sep;9(3)/Pages/73.aspx)

<sup>33</sup> Perell KL, Nelson A, Goldman RL, et al. Fall risk assessment measures: an analytic review. *J Gerontol A Biol Sci Med Sci* 2001 Dec;56(12):M761-6. Also available at <http://biomedgerontology.oxfordjournals.org/content/56/12/M761.long>

<sup>34</sup> Ganz DA, Huang C, Saliba D, et al. *Preventing falls in hospitals: a toolkit for improving quality of care*. Prepared by RAND Corporation, Boston University School of Public Health, and ECRI Institute. AHRQ publication no. 13-0015-EF. Rockville (MD): Agency for Healthcare Research and Quality; 2013 Jan. Also available at <http://www.ahrq.gov/sites/default/files/publications/files/fallpxtoolkit.pdf>

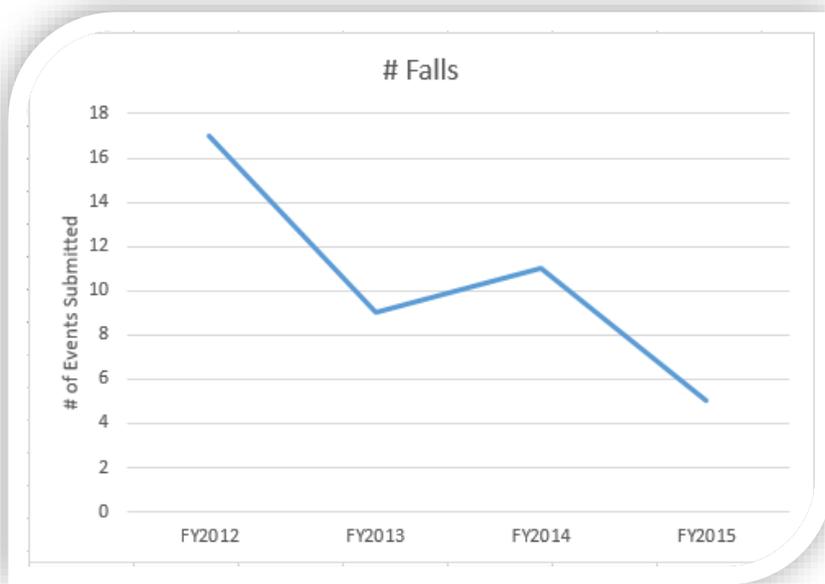


FIGURE 10. FALLS OVER MULTIPLE FISCAL YEARS<sup>35</sup>

### III. Pressure Ulcers over the Past Three Fiscal Years

Pressure ulcer events are defined as follows:

- ▶ Any Stage 3, Stage 4, or unstageable pressure ulcers acquired after admission/presentation to a healthcare setting

A review of 57 pressure ulcer events submitted over the past three fiscal years, between October 2012 and September 2015 (Figure 11, page 25), revealed a slight trend toward increase in the number of events submitted.

#### Findings

- ▶ Slight trend toward increase over past three years

- ▶ 35% (20) occurred on a critical care unit
- ▶ 23% (13) occurred on an internal medicine unit
- ▶ 11% (6) occurred on a general surgery unit

#### Recommendations<sup>36</sup>

- ▶ Review and update the organization's pressure ulcer policy and ensure that steps are clearly explained for handling a pressure ulcer found on admission versus one that is hospital acquired.
- ▶ Develop a pressure ulcer prevention program based on national guidelines and include unit-based champions.
- ▶ Complete pressure ulcer assessment on admission, daily, and with changes in status.

<sup>35</sup> ECRI Institute PSO Database. Component of ECRI Institute, Plymouth Meeting, Pennsylvania.

<sup>36</sup> Feil M, Bisbee J. Hospital-acquired pressure ulcers remain a top concern for hospitals. *Pa Patient Saf Advis* 2015 Mar;12(1):28-36. Also available at [http://patientsafetyauthority.org/ADVISORIES/AdvisoryLibrary/2015/mar;12\(1\)/Pages/28.aspx](http://patientsafetyauthority.org/ADVISORIES/AdvisoryLibrary/2015/mar;12(1)/Pages/28.aspx)

- ▶ Individualize care planning and interventions, ensuring each risk factor is addressed.
- ▶ Complete skin assessments on admission and every 8 to 24 hours, depending on the patient's condition.

### Resources

[AHRQ Pressure Ulcer Toolkit](#)

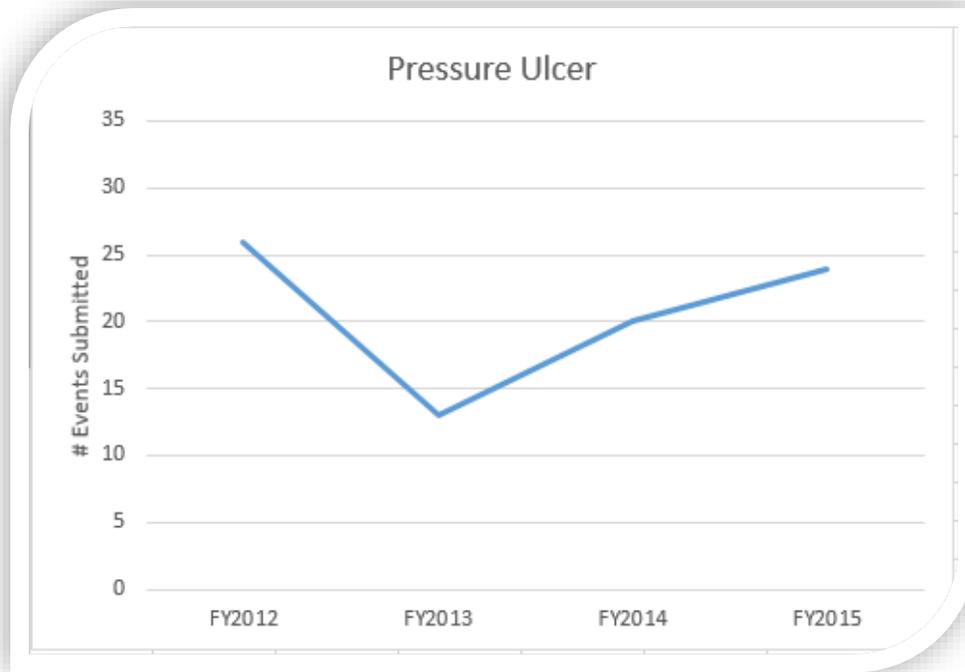


FIGURE 11. PRESSURE ULCERS OVER MULTIPLE FISCAL YEARS<sup>37</sup>

<sup>37</sup> ECRI Institute PSO Database. Component of ECRI Institute, Plymouth Meeting, Pennsylvania.

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## Conclusion

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Medical facilities and providers in the District continue to take important steps to improve patient safety by submitting adverse event reports under the Medical Malpractice Amendment Act of 2006. The success of the reporting program continues to rely on the willingness of healthcare facilities and providers to disclose NQF events and submit meaningful reports. The focus of the District's Patient Safety Reporting System is to analyze events to better understand how and why adverse events occur and to prevent the reoccurrence of similar adverse events. The vision for the reporting system is to provide a tool for quality improvement and education. Disseminating lessons learned and best practices facilitates system changes that consistently promote the delivery of safe patient care. In 2016, the District will have continued opportunities to benefit from custom feedback to support this objective as well as the ability to submit research requests, with the delivery of safe patient care as the ongoing goal of the program.

### **Technical Credits**

This report was prepared for the Department of Health by ECRI Institute. ECRI Institute, a nonprofit organization, dedicates itself to bringing the discipline of applied scientific research in healthcare to uncover the best approaches to improving patient care. As pioneers in this science for nearly 50 years, ECRI Institute marries experience and independence with the objectivity of evidence-based research. More than 5,000 healthcare organizations worldwide rely on ECRI Institute's expertise in patient safety improvement, risk and quality management, and healthcare processes, devices, procedures, and drug technology.

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## Appendices

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### Acronyms

- AHRQ: Agency for Healthcare Research and Quality
- CAP: Corrective Action Plan
- CDC: Centers for Disease Control and Prevention
- CLABSI: Central-line-associated Bloodstream Infection
- CPPE DE-DSI: Center for Policy, Planning and Evaluation’s Division of Epidemiology Disease Surveillance and Investigation
- DC DOH: District of Columbia Department of Health
- EIPSO: ECRI Institute Patient Safety Organization
- HAI: Healthcare Associated Infection
- HRLA: Health Regulation and Licensing Administration
- ICU: Intensive Care Unit
- NHSN: National Healthcare Safety Network
- NQF: National Quality Forum
- PSO: Patient Safety Organization
- RCA: Root-cause Analyses
- RFO: Retained Foreign Object
- SIR: Standardized Infection Ratio

### Figures

FIGURE 1. Number of NQF Events by Type from FY 2013—FY 2015

FIGURE 2. Number of NQF Events by Type in FY2015

FIGURE 3. Comparison of AHRQ Event Type Frequency

FIGURE 4. Comparison of NQF Event Type Frequency

FIGURE 5. Percentage of NQF Reports by Harm Score (FY2015)

FIGURE 6. Comparison of Harm Score Frequency

FIGURE 7. Frequency of CAP Submissions for NQF Events

FIGURE 8. Retained Foreign Objects over Multiple Fiscal Years

FIGURE 9. Harm Scores for Retained Foreign Objects over Multiple Fiscal Years

FIGURE 10. Falls over Multiple Fiscal Years

FIGURE 11. Pressure Ulcers over Multiple Fiscal Years

### Tables

TABLE 1. Educational Webinars

TABLE 2. Publications: Navigators and Patient Safety Membership Updates

TABLE 3. Corrective Action Plans

TABLE 4. Custom Feedback and Research Responses

TABLE 5. Patient Safety E-lerts and Compass Points

TABLE 6. Number and Percentage of Reports by Event Type in FY 2015

TABLE 7. Number and Percentage of NQF Reports by Level of Harm (FY 2015)

TABLE 8. Frequency of Webinar Attendance FY 2015