

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 2016

FOR THE REPORTING PERIOD OF:

OCTOBER 1, 2015, through SEPTEMBER 30, 2016



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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 all licensed healthcare providers or medical facilities 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 as part of the ongoing effort to improve healthcare delivery.

Starting in 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 DC DOH through its subcontractor, ECRI Institute. These reports are confidential.

The web-based reports are analyzed to identify patterns and trends, to determine recommended methods to reduce systematic adverse events, and serve as the basis for the information disseminated to ensure best practices. In addition, technical assistance is provided to healthcare providers and medical facilities. 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 ninth annual report provides an update on the District of Columbia Patient Safety Reporting System. The 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, 2015, and September 30, 2016, 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 the quality of healthcare delivery. During the reporting period of October 2015 through September 2016 (fiscal year [FY] 2016), the District’s healthcare providers and medical facilities submitted a total of 232 events to the DC DOH (DC DOH, 2016; ECRI Institute Patient Safety Organization (PSO)).

Forty-five adverse event reports were submitted to the District of Columbia Patient Safety Reporting System, and 187 CLABSI reports (DC DOH, 2016) were submitted to CDC’s NHSN. These events are reported to and validated by the District of Columbia Department of Health’s CPPE DE-DSI; data are from reports submitted as of June 9, 2017 at 9:49 a.m.

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 2016. The NQF events analysis is based on events submitted between October 2015 and September 2016, regardless of event occurrence date. The lag time in reporting is due to the time lag established within the reporting requirement. Acute care hospitals submitted 88% of the reports.

Analysis of the 45 adverse events revealed that 3 (7%) involved serious safety events. Many of these reports did not fall into the required NQF “serious reportable events” category and were categorized as “other” events.

Similar to past years, the most commonly reported event types, representing 222 (96%) of reports submitted, were CLABSIs (81%), pressure ulcers (9%), falls (3%), and retained foreign objects (3%).

Figure 1 (p. 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 (ECRI Institute PSO). The adverse event reports submitted by healthcare providers and medical facilities in the ninth year of the District’s reporting program represent a continued effort by the District to contribute to the Patient Safety Reporting System.

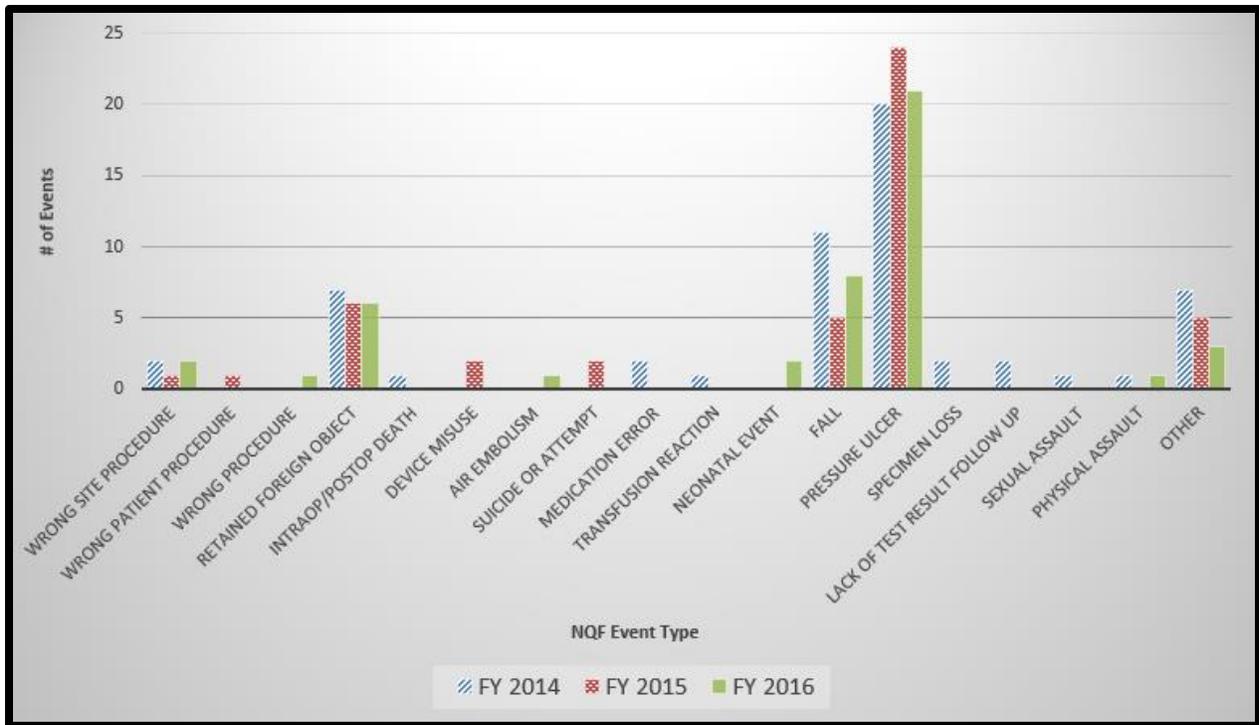


FIGURE 1. NUMBER OF NQF EVENTS BY TYPE, FY 2014–FY 2016

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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 are to:

- ▶ Promote patient safety
- ▶ Improve the culture of safety
- ▶ Learn from and prevent the reoccurrence of similar adverse events
- ▶ Provide 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 through [ECRI Institute PSO](#) at 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 fiscal year and presents guidance and recommendations to help look further into the practices surrounding these adverse events.

Aside from the annual report, in FY 2016, the District's Patient Safety Reporting System offered facilities the following resources:

- ▶ Webinars (Table 1, p. 7) are offered at least quarterly on patient safety topics.
- ▶ Patient safety advisory articles (Table 2, p. 7) are offered quarterly in the publications *National Navigator* and *District Navigator*.
- ▶ *Patient Safety Membership Update* is a twice-monthly electronic newsletter that compiles updated patient safety news.

If a thorough corrective action plan (CAP) is submitted along with an event, it is analyzed through ECRI Institute PSO's root-cause analysis (RCA) review process. The facility can then be provided with a report to further assist providers and staff in improving their processes. See "Corrective Action Plans in Reports" (pp. 16-18) for details.

Custom feedback (Table 3, p. 8) on adverse events or topics provides resources and best practice information directly to facilities. Research responses (Table 3, p. 8) are summaries of research requests received at a national level on various topics. *Patient Safety Compass Points and E-Alerts* (Table 4, p. 8) are un-preplanned special notices on major patient safety issues that have occurred at a national level.

TABLE 1. EDUCATIONAL WEBINARS (WITH NUMBER OF LINES PARTICIPATING), FY 2016

### *Webinars*

- November 2015—Lean Six Sigma: A Deep Dive into Reducing Patient Falls (4 lines)
- December 2015—The Michigan Opioid Safety Score: A New Tool to Improve Patient Safety
- January 2016—Robotic Surgery Adverse Events and Program Development Initiatives
- February 2016—Assessing and Managing the Behavioral Health Needs of the Medical Patient
- March 2016—Using Lean Six Sigma as a Structure for an Accountable RCA Process (4 lines)
- April 2016—Key Strategies for Improving Medication Safety: An ISMP Perspective (2 lines)
- May 2016—Health IT Safe Practices: Safe Use of Copy and Paste
- June 2016—ECRI Institute PSO: Top 10 Patient Safety Concerns for Healthcare Organizations 2016 (7 lines)
- July 2016—Collecting and Analyzing Meaningful Data to Reduce Falls (8 lines)
- September 2016—ECRI Institute PSO Deep Dive™: Patient Identification

TABLE 2. NAVIGATOR PUBLICATIONS

### *Navigator Publications*

#### **National:**

- ▶ Managing Behavioral Health Needs of Adult Medical Inpatients
- ▶ ECRI Institute PSO “Safe Table” Explores Human Factors Methods for Event Analysis
- ▶ The Results from Our Surveys of Safety Culture Are In: Now What?
- ▶ Improving Recognition and Management of Sepsis and Septic Shock

#### **District:**

- ▶ Alcohol Withdrawal: Early Assessment Eases Care
- ▶ Human Factors: A Lens through Which to Learn
- ▶ Handoffs and Transitions: Opportunities to Improve Communication
- ▶ Policies and Procedures: Two Sides of the Same Coin

TABLE 3. CUSTOM FEEDBACK AND RESEARCH RESPONSES

<i>Feedback on Specific Events or Topics</i>	
<b>Custom Feedback</b>	<b>Research Responses</b>
Preventing retained foreign objects	Warming and refrigeration equipment temperature monitoring
Pressure ulcers from devices	Electroencephalogram electrode application
Wrong site surgery	Narcotic patches: admission assessment and handling/disposal
Falls prevention	Behavioral rapid response teams for acute care medical units
Reducing hospital acquired pressure ulcers	Managing alcohol withdrawal syndrome in the hospital
De-escalation techniques	Emergency department care of pregnancies: the nonobstetric hospital
Neonatal clavicle fractures	Voluntary adverse event reporting: volume versus effectiveness
	Patient elopement: prevention and response

TABLE 4. PATIENT SAFETY COMPASS POINTS AND E-LERTS

<i>Patient Safety Compass Points and E-Alerts</i>
Syringe pumps—delay in drug delivery may occur at low flow rates, putting patients at risk
B Braun—various infusion pumps: dose error may result from inability to set care-area-specific limits for patient weight in the drug library
Patient Safety E-alerts: weigh in: wrong patient weights cause dosing errors
Babies and buzzers: faulty infant security systems
Could you repeat that? Low health literacy
Opioids and oversedation: still a common problem
Adverse drug reactions: first time should be the last time
Drinks and drugs: early assessment and evaluation in the hospital setting
Bard—various central venous catheters: correct catheter care is essential to prevent catheter damage and subsequent patient risk
One, two, three, four: I counted all, but found some more
CooperSurgical—Koh colpotomizer systems
Silent risk: inhaled epoprostenol
Operating room medication safety practices: don't skip safety
Clamping electrosurgical unit electrode cables may result in burn risk and/or fire
Ambulatory fluorouracil infusion: coordination, double-checks needed
Iatrogenic pneumothorax: accidental puncture is largely preventable
Central venous catheter placement: reduce patients' risk
Raised bed rails: helpful or harmful?
Lessons learned from wrong site surgery near misses
Focus on falls assessments: fill the gaps
Foam can be a pain: dangers of negative pressure wound therapy

## 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 District of Columbia Department of Health’s CPPE DE-DSI.

Since 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 (96% of events reported met this requirement). The DC DOH 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 ninth reporting period (October 1, 2015, to September 30, 2016), District medical facilities and healthcare providers submitted 232 reports to the DC DOH. The most frequently reported types of events were CLABSIs (81%), pressure ulcers (9%), falls (3%), and retained foreign objects (3%), representing 222 (96%) of the reports submitted. Table 5 summarizes the reports submitted by event type (DC DOH, 2016; ECRI Institute PSO; National Quality Forum, 2011). Figure 2 (p. 12) provides a graphic version.

**TABLE 5. NUMBER AND PERCENTAGE OF NQF REPORTS BY EVENT TYPE, FY 2016**

Category	Event Type	Reports	%
<i>Surgical or invasive procedure events</i>	1A - Surgery or other invasive procedure performed on the wrong site	2	1%
	1B - Surgery or other invasive procedure performed on the wrong patient	0	0%
	1C - Wrong surgical or other invasive procedure performed on a patient	1	<1%
	1D - Unintended retention of a foreign object in a patient after surgery or other invasive procedure	6	3%
	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	0	0%
	2C - Patient death or serious injury associated with intravascular air embolism that occurs while being cared for in a healthcare setting	1	<1%
<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	0	0%
<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	2	1%
	4E - Patient death or serious injury associated with a fall while being cared for in a healthcare setting	8	3%
	4F - Any stage 3, stage 4, and unstageable pressure ulcers acquired after admission/presentation to a healthcare setting	21	9%
	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 contain 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	1	<1%
<i>CLABSI</i>	8 - Central-line-associated bloodstream infection (DC DOH, 2016)	187	81%
<i>“Other” event type reported</i>	X - “Other” non-NQF type of event reported	3	1%
<b>Total</b>		<b>232</b>	<b>100%*</b>

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

ASA: American Society of Anesthesiologists

MRI: magnetic resonance imaging

Figure 2 (p. 12) details the NQF event types for which one or more events were reported during the FY 2016 reporting period; eight total NQF event types were reported plus other events (ECRI Institute PSO).

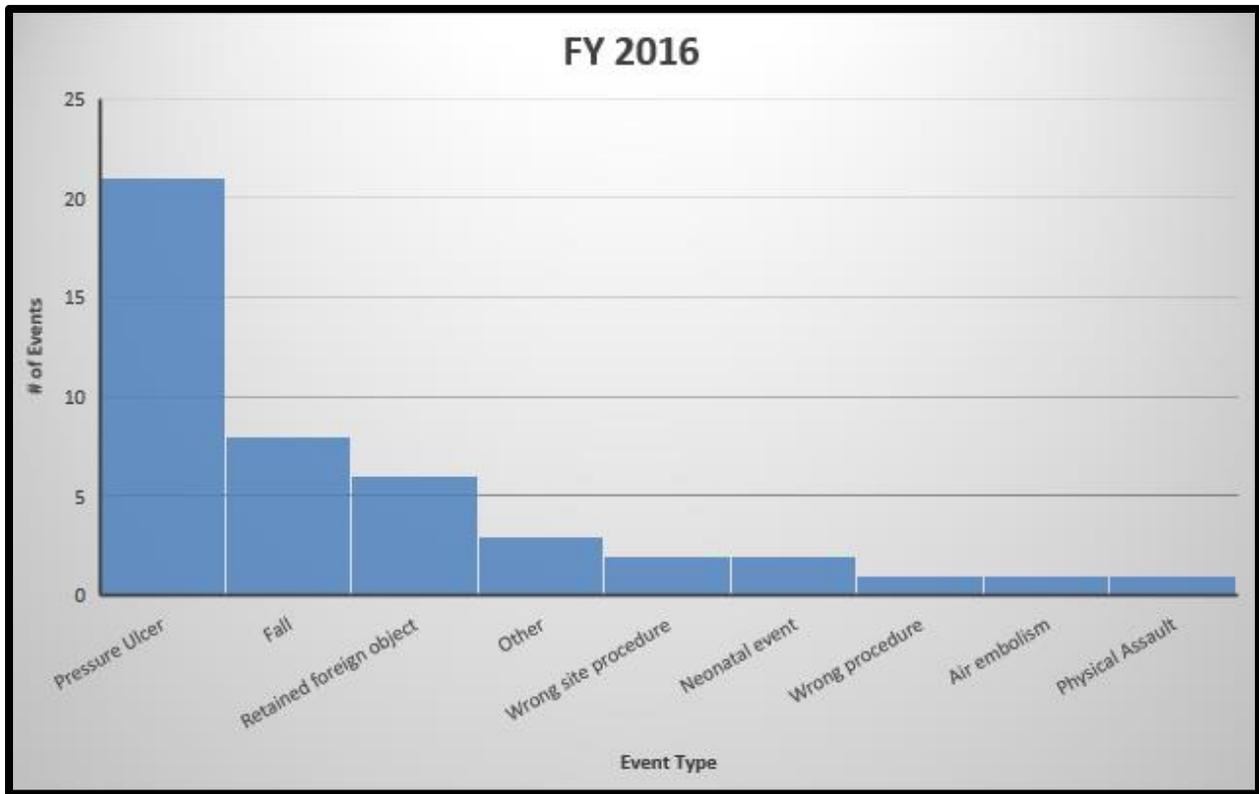
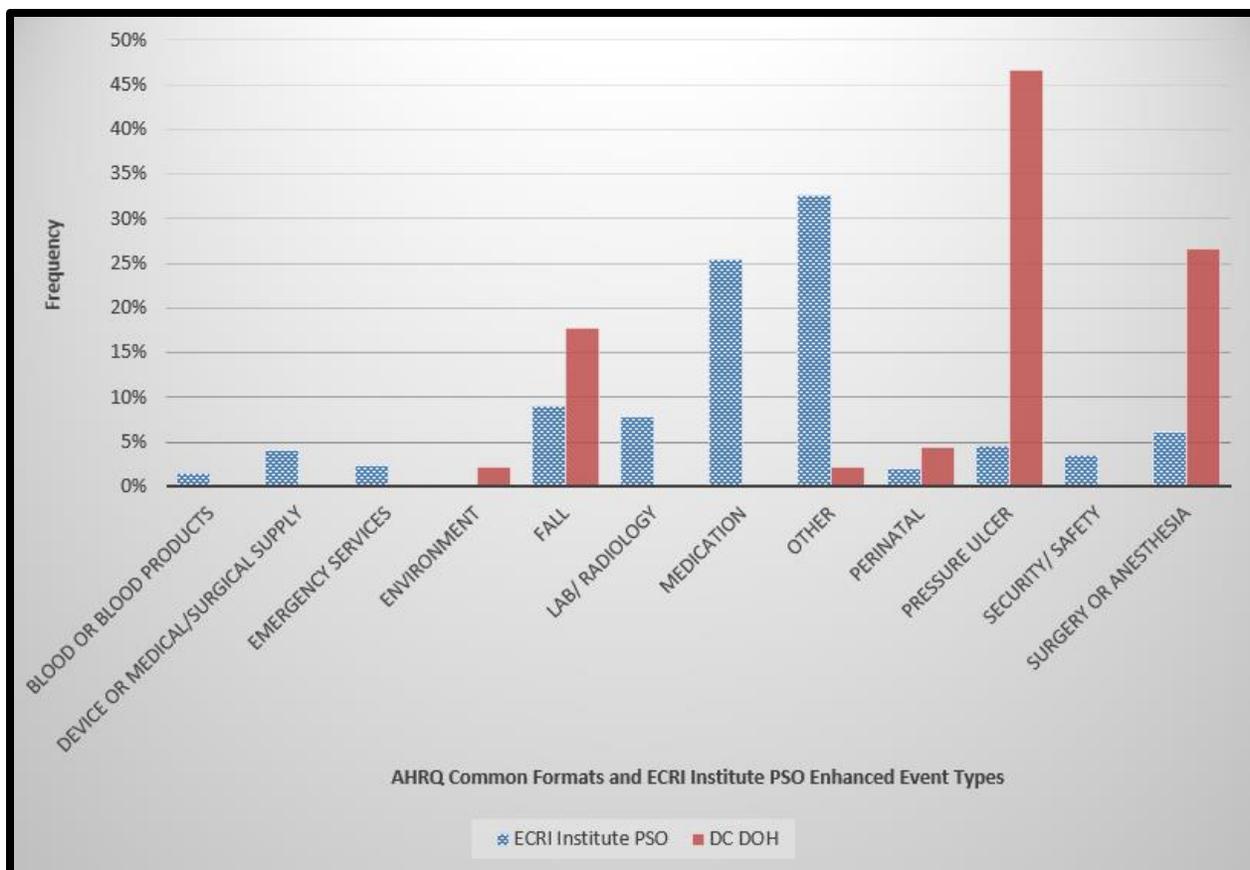


FIGURE 2. NUMBER OF NQF EVENTS BY EVENT TYPE, FY 2016

Figure 3 (p. 13) compares event categories reported by District facilities between October 1, 2015, and September 30, 2016, with those in the ECRI Institute PSO system overall aggregate.

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.

For Figure 3 (p. 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 (ECRI Institute PSO).



**FIGURE 3. COMPARISON OF AHRQ EVENT TYPE FREQUENCY**

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” events and “Other events.”

Again, excluding HAIs, pressure ulcers clearly stand out as the most frequently reported event type in the District (47%), whereas they were reported 5% of the time in the ECRI Institute PSO aggregate data. Also, similar to FY 2015, medication errors were apparent 26% 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 its data trends over time (see Figure 1, p. 5).

Comparison with other mandatory reporting systems may also be valuable (Figure 4, p. 14) (ECRI Institute PSO; Minnesota Department of Health, 2017; National Quality Forum, 2011). For example, the Minnesota Department of Health’s 2017 *Adverse Health Events in Minnesota* report noted 336 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 (38%), falls (21%), and retained foreign objects (8%). However, Minnesota reports wrong site surgeries or invasive procedures (9%) as the third most commonly reported events. The Minnesota system also includes eight additional event categories for which the District did not receive reports (e.g., device misuse, medication error, specimen loss, sexual assault). Figure 4 shows the NQF event-report type frequency from the District of Columbia for FY 2016 and from the Minnesota Department of Health’s 2016 reporting year; the percentages are based on the total number of NQF and “other” events (ECRI Institute PSO; Minnesota Department of Health, 2017).

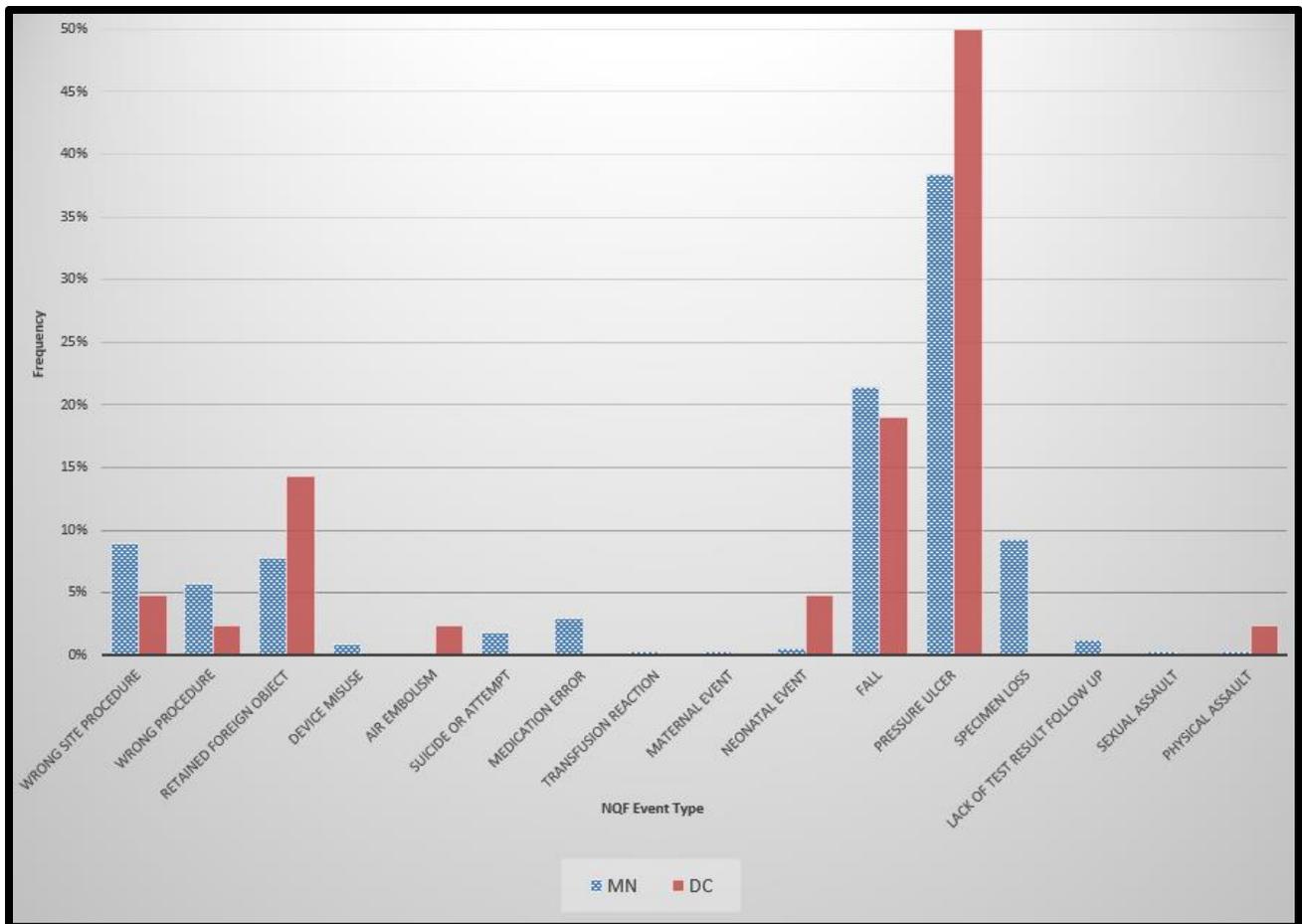


FIGURE 4. COMPARISON OF NQF EVENT TYPE FREQUENCY (MINNESOTA AND DISTRICT OF COLUMBIA)

### 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 (National Quality Forum). 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 45 events could be categorized based on the information provided.

The CLABSI events that the DC DOH provided from NHSN do not include information on level of harm; therefore, those events could not be included in this analysis (DC DOH). Table 6 summarizes the level of harm among the 45 reports and Figure 5 (p. 16) illustrates the percentages of the levels of harm identified (ECRI Institute PSO).

**TABLE 6. NUMBER AND PERCENTAGE OF NQF REPORTS BY LEVEL OF HARM, FY 2016**

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	31	69%
F	An event occurred that contributed to or resulted in temporary harm and required initial or prolonged hospitalization	6	13%
G	An event occurred that contributed to or resulted in permanent harm	0	0%
H	An event occurred that resulted in a near-death event (e.g., required ICU care or other intervention necessary to sustain life)	0	0%
I	An event occurred that contributed to or resulted in death	3	7%
	Harm score not provided	2	4%
<b>Total</b>		<b>45</b>	<b>99%*</b>

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

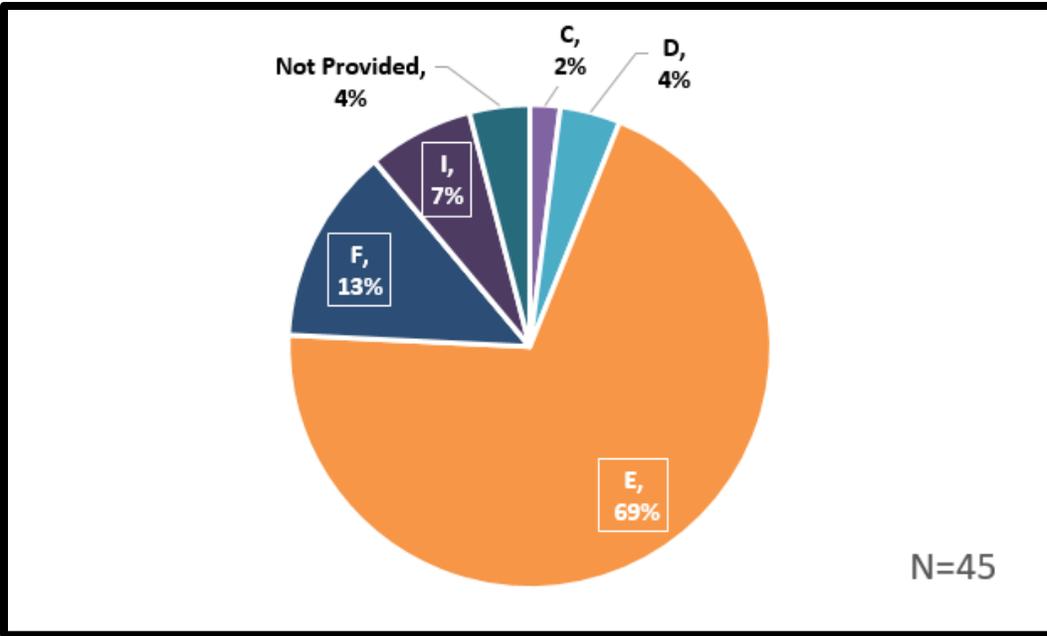


FIGURE 5. PERCENTAGE OF NQF REPORTS BY HARM SCORE, FY 2016

Harm scores associated with the reports submitted ranged from C (“An event occurred that reached the individual but did not cause harm and did not require increased monitoring”) (2%) to I (“An event occurred that contributed to or resulted in death”) (7%).

The majority of the events (69%) were categorized as having a harm score of E (“An event occurred that contributed to or resulted in temporary harm and required treatment or intervention”), which is consistent with the minimal harm score severity level described in the NQF events.

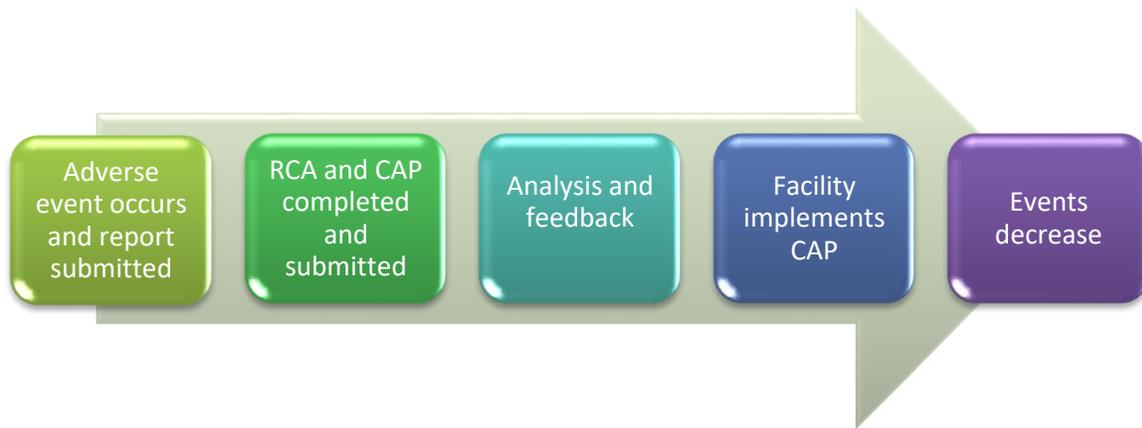
District facilities continue to voluntarily report events that did not cause patient harm. Harm scores reported during FY 2016 included C and D; NQF serious reportable events typically have a harm score of E or higher.

#### IV. Report Quality

During FY 2016, 84% of the 45 NQF events reported to the District of Columbia Patient Safety Reporting System had thorough event descriptions and 16% 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 corrective action plan (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:



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 45 NQF reports submitted, 1 (2%) included mention of corrective action(s), whereas over the previous two fiscal years, 32% to 35% mentioned corrective actions. Although some reports identified contributing factors or root causes, no complete RCAs were submitted for review during FY 2016.

Some facilities have found an additional field within the reporting system labeled “Supplemental Information” 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. 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.

Contributing factors were cited in 24% of the reported events (Figure 6, p. 18); of those, policies and procedures were cited 15% of the time and human factors 21% of the time. The following resources are available to District facilities (access required) on these topics:

- *Navigator:* [ECRI Institute PSO “Safe Table” Explores Human Factors Methods for Event Analysis](#)
- *Webinar:* [Creating and Sustaining Policy and Evidence Based Procedures](#)

Facility staff can obtain access to the DC Patient Safety Reporting System web portal by contacting the liaison in their facility.

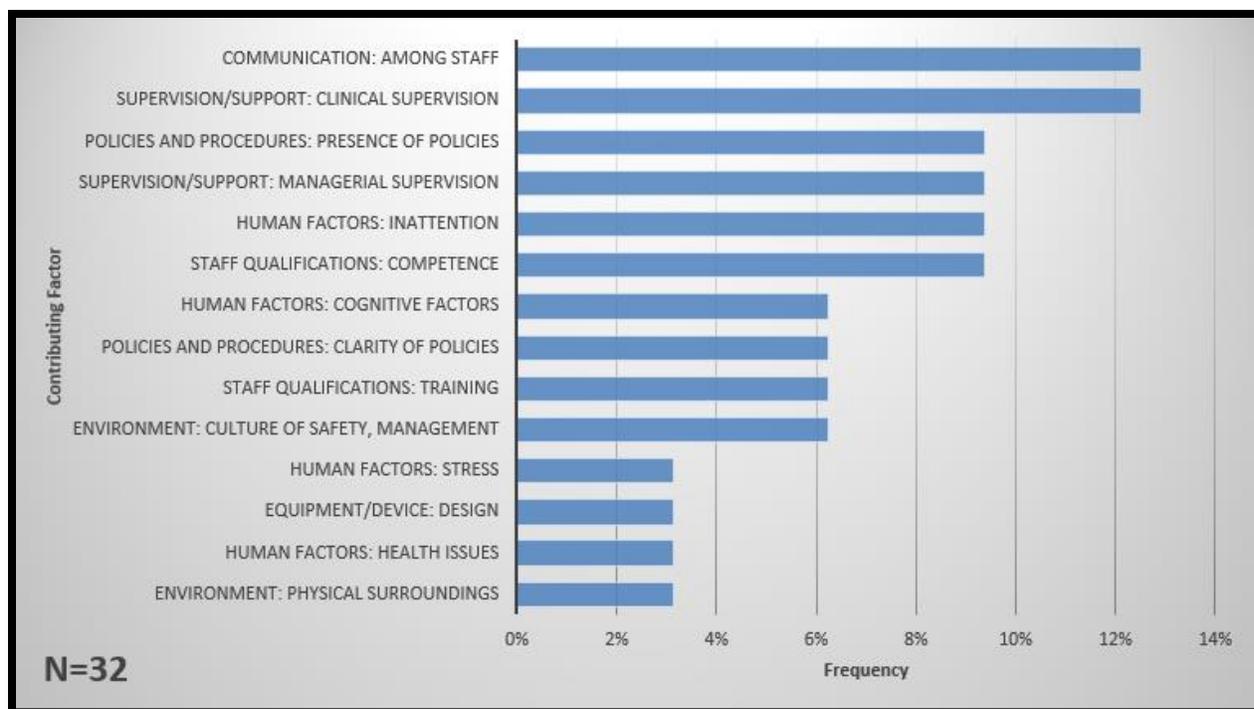


FIGURE 6. FREQUENCY OF CONTRIBUTING FACTORS

## VI. Central-line-associated bloodstream infections (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 eight short-term acute care and two long-term acute care facilities covered by the mandate. Epidemiologists at the District of Columbia Department of Health’s CPPE DE-DSI perform validation studies on CLABSIs reported to NHSN.

The following data were provided by the District of Columbia Department of Health’s CPPE DE-DSI in advance of publication by CDC, from the reports submitted to CDC’s NHSN. During FY 2016, units from all 10 acute care facilities reported a total of 187 CLABSIs and 182,127 central-line-days for a CLABSI rate of 1.03 infections per 1,000 central-line days. Data viewed in this way represent 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 (DC DOH, 2016).

To take these data one step further, a standardized infection ratio (SIR) was calculated for eight of the short-term acute care 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 (DC DOH, 2016).

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 HAIs (DC DOH, 2016).

The SIR is calculated by dividing the number of observed CLABSIs by the number of statistically predicted CLABSIs based on the national baseline data, and provides a basis for comparison between how many CLABSIs occurred and how many were expected to occur based on the national experience. A SIR of 1.0 means the observed number of infections is similar, or equal, to the number of predicted infections. A SIR above 1.0 means that there were a greater number of infections than predicted, and a SIR below 1.0 means that there were fewer infections than predicted. For FY 2016, the overall SIR for the eight short-term acute care facilities was 0.928 (0.794, 1.080) (DC DOH, 2016).

### Additional Resources

Centers for Disease Control. Healthcare associated infections progress. D.C. acute care hospitals. 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. For the 10 webinars offered in FY 2016, and the number of lines that called in for each presentation, see Table 1 (p. 7) (note that number of participants on each line is not shown). After the presentation, webinar recordings and handouts are posted to the web portal for future viewing.

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## Guidance and Recommendations

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The DC 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

Surgical-related events reported included the following:

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

A review of the six retained foreign object events submitted over the past fiscal year (Figure 7) (ECRI Institute PSO), between October 2015 and September 2016, revealed the following findings (related recommendations follow):

#### DC DOH Findings

- ▶ 67% of retained foreign objects were soft goods such as sponges and lap pads; 17% screws; 17% drains
- ▶ 33% of these reported events required unplanned return to surgery; 17% involved another planned surgery, and the others did not specify (ECRI Institute PSO)

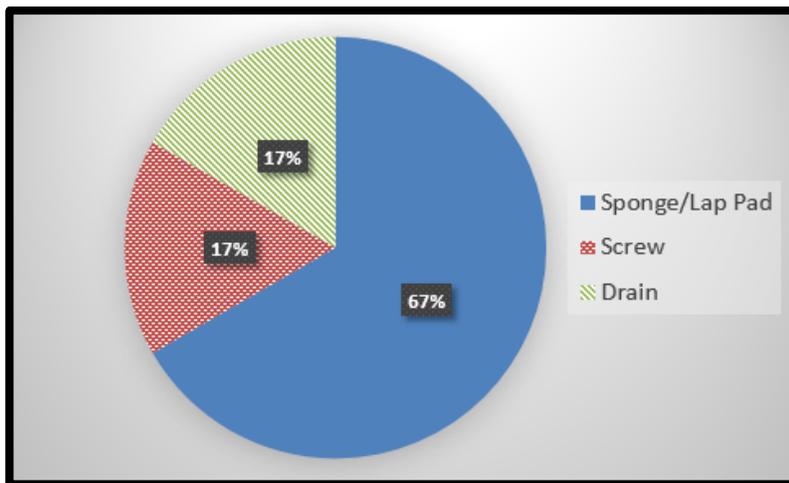


FIGURE 7. RETAINED FOREIGN OBJECTS, FY 2016

## Recommendations

- ▶ Consider utilizing a human factors analysis when investigating a retained foreign object event.
- ▶ Evaluate use of adjunct technologies as an enhancement to manual counting.
- ▶ Use radiopaque soft goods items for internal wounds.
- ▶ Do not cut or alter radiopaque soft goods.
- ▶ Form a multidisciplinary team to develop and maintain policies and procedures for prevention of retained foreign objects.

(Association of periOperative Registered Nurses, 2017)

## Resources

- ▶ Expert Insight: [Unintentionally Retained Objects despite Correct Count](#)
- ▶ Research Response: [Adjunct Technologies for Retained Surgical Items](#)
- ▶ Compass Point: [One, Two, Three, Four: I Counted All, But Found Some More](#)

## II. Falls

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 eight falls events submitted over the past fiscal year, between October 2015 and September 2016, revealed the following findings (related recommendations follow):

### DC DOH Findings

- ▶ All of the falls reports that provided the patient's age involved adult patients; of those, 38% were older adults (ages 75 to 84 years)
- ▶ 50% of the falls resulted in fractures; the others did not report the type of injury
- ▶ 2 of the fall events reported that the patient subsequently died
- ▶ 5 medication types were reported in the fall events (Figure 8, p. 22)  
(ECRI Institute PSO)

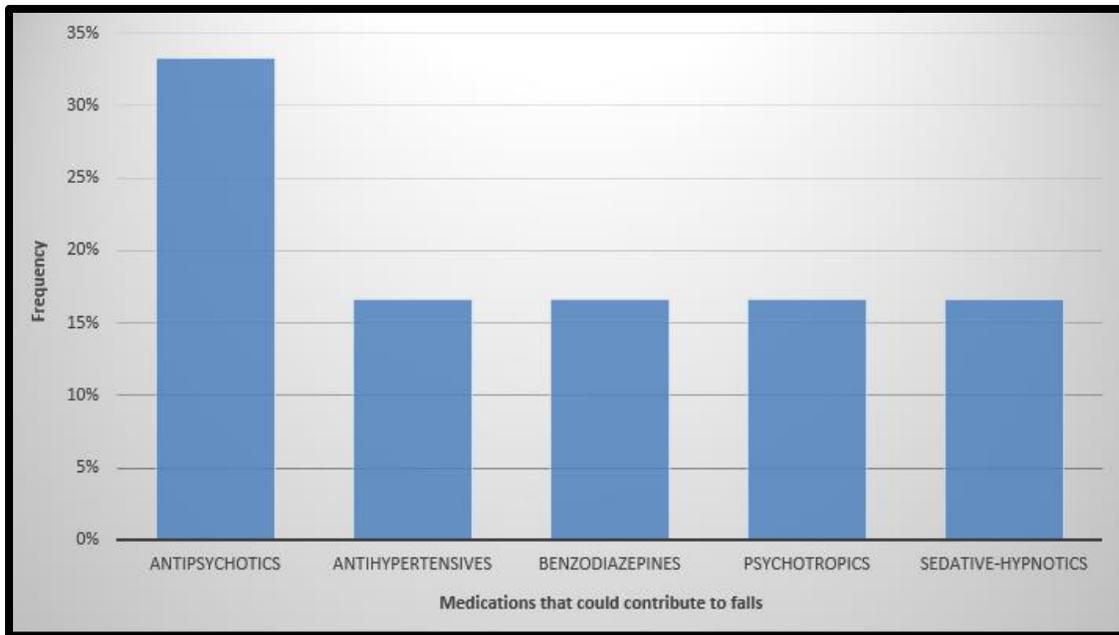


FIGURE 8. MEDICATIONS INVOLVED IN FALL EVENTS, FY 2016

### Recommendations

- ▶ Hold postfall huddles to identify preventable falls.
- ▶ Enhance the electronic medical record’s capability to develop an individualized care plan.
- ▶ During the change-of-shift, identify and communicate about patients at highest fall risk.
- ▶ Consider proactive rounding to supervise high-fall-risk patients.  
(AHRQ, 2013; ECRI Institute PSO, 2017)

### Resources

- ▶ Webinar: [Collecting and Analyzing Meaningful Data to Reduce Falls](#)
- ▶ Webinar: [Lean Six Sigma: A Deep Dive into Reducing Patient Falls](#)
- ▶ Research Response: [Fall Injury Prevention Interventions](#)

## III. Pressure Ulcers

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 21 pressure ulcer events submitted over the past fiscal year, between October 2015 and September 2016 (Figure 9, p. 23), revealed the following findings (related recommendations follow) (ECRI Institute PSO):

## DC DOH Findings

- ▶ 19% of patients were in specialty care areas (such as ICUs), 24% were in general inpatient care areas, and for the rest, location was unreported
- ▶ 67% of the events for which pressure ulcer location and cause were reported were related to use of medical devices: tracheostomies and the ties, endotracheal tube (ET) securement devices, cervical collars, splints, and nasal breathing masks (Figure 9)
- ▶ There were no commonalities with pressure ulcer location: nose, neck, philtrum, clavicle, back, penis, sacrum, buttocks, and ankle were among pressure ulcer locations reported (ECRI Institute PSO)

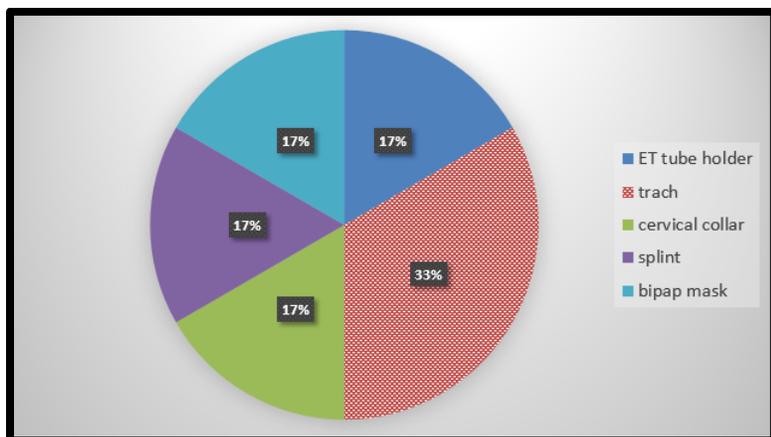


FIGURE 9. DEVICE-RELATED PRESSURE ULCERS, FY 2016

## Recommendations

- ▶ Implement multidisciplinary staff education and engagement on best practices related to pressure ulcer prevention and maintenance of skin integrity.
- ▶ Ensure that wound care products are readily available in patient care areas.
- ▶ Involve nutrition services to ensure appropriate nutritional intake.
- ▶ Ensure that the skin under medical devices is assessed on a routine basis, that staff is aware of the proper use of the device, and that the device fits properly.
- ▶ Discuss skin integrity and pressure ulcer risk during huddles and at change of shift.
- ▶ Perform a root-cause analysis (RCA) or case review on each patient with pressure ulcers to identify improvement areas to prevent future pressure ulcers.  
(AHRQ)

## Resources

- ▶ *National Navigator:* [Medical Devices' Role in Causing Pressure Ulcers](#)
- ▶ *DC Navigator:* [Medical Devices and Pressure Ulcers](#)

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## Conclusion

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Medical facilities and providers in the District of Columbia continue to take important steps to improve patient safety by submitting adverse event reports in accordance with 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 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 2017, 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 District of Columbia Department of Health by ECRI Institute in collaboration with the DC DOH. 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.

## 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
- HAI: healthcare-associated infection
- ICU: intensive care unit
- NHSN: National Healthcare Safety Network
- NQF: National Quality Forum
- PSO: patient safety organization
- RCA: root-cause analysis
- SIR: standardized infection ratio

## Figures

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TABLE 4. Patient Safety Compass Points and E-lets

TABLE 5. Number and Percentage of NQF Reports by Event Type, FY 2016

TABLE 6. Number and Percentage of NQF Reports by Level of Harm, FY 2016

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