

GOVERNMENT OF THE DISTRICT OF COLUMBIA

DEPARTMENT OF HEALTH



HEALTH REGULATION AND LICENSING ADMINISTRATION

# Patient Safety Reporting Program District of Columbia

Annual Report  
December  
2011

FOR THE REPORTING PERIOD:

OCTOBER 1, 2010 – SEPTEMBER 30, 2011

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## **Executive Summary**

### **Improving Healthcare Delivery in the District of Columbia**

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 must report adverse events, which includes the 28 Serious Reportable Events defined by the National Quality Forum (NQF) as events that are unambiguous (identifiable and measurable), serious (resulting in death or significant disability), and usually preventable. In 2009, the Act was amended to require that adverse event reports must be reported within 60 days of their occurrence. In January 2010, a web-based adverse event reporting system was implemented in the ongoing effort to improve healthcare delivery. The current users of the reporting system include hospitals (acute care, long term acute care, pediatrics, psychiatric and rehabilitation) and ambulatory surgical facilities. Adverse event reports are submitted to the Department of Health (the Department) through their subcontractor, ECRI Institute (ECRI), and are confidential with patient information not required. From there, ECRI analyzes these reports, identifies patterns or trends, recommends methods to reduce systematic adverse events, provides technical assistance to healthcare providers and medical facilities, and disseminates information and advice on best practices through various methods.

This fourth annual report provides an update on the District's Patient Safety Reporting Program including an overview of the program offerings, analysis of adverse event reports, and descriptions of the most significant findings from the reporting period October 1, 2010, through September 30, 2011. The Department continues to focus on educating reporting facilities by providing custom feedback on specific reported events and trends, corrective action plans, and root cause analyses.

### **Data Collection—Patterns and Trends in Adverse Event Reports**

Collecting and analyzing reports of adverse events is a vital component of the District of Columbia's goal to improve healthcare delivery. During the reporting period October 2010 through September 2011, the District's healthcare providers and medical facilities submitted a total of 112 adverse event reports. Seven (6%) of the reports involved a patient death. Acute care hospitals submitted 88 (78%) of the reports; 10 (9%) by rehabilitation hospital; 7 (6%) by psychiatric facilities; 7 (6%) by long term acute care facilities; 1 (1%) by nursing homes; and 0 (0%) reports were submitted by ambulatory surgical centers.

The Department continues to adopt NQF's list of 28 Serious Reportable Events as a classification system for reportable events. The most commonly reported event types were stage III or IV pressure ulcers, falls, healthcare-associated infections (HAI), device related events, medication errors, retained foreign objects, and 'other' events, representing 103 (92%) of reports submitted.

Highlights of the data submitted to the Department for the reporting period October 2010 to September 2011 include the following:

- There was an increase in the number of NQF and other events reports, not including HAI events. In FY 2010 66 NQF and other events were reported and in FY 2011 there were 90.
- A total of 112 adverse event reports were received. Seven (6%) involved a patient death.
- The majority of reports, 88 (78%), were submitted by acute care hospitals.

- During the current reporting period there was an increase in the total number of event types reported, from 9 event types in FY 2010 up to 14 event types this past year.

The adverse event reports submitted by healthcare providers and medical facilities in the fourth year of the District's reporting program represent a sustained effort by District healthcare providers and medical facilities. Over the past year facilities have proven to be more engaged with the program and have shown interest in the ongoing initiatives and feedback.

## Introduction

### **Adverse Event Reporting and Patient Safety**

Medical errors and adverse events are a significant killer in the United States, and most are preventable. We are familiar with the Institute of Medicine (IOM) report which stated 44,000 to 98,000 fatal preventable adverse events occur each year. While the accuracy of these numbers have been questioned, there is general consensus throughout the healthcare community that safety is a significant problem in virtually all care settings and that the healthcare system frequently puts patients at unnecessary risk.

It has been more than 10 years since IOM published *To Err is Human*. Both the healthcare community and the general public have become considerably more aware of and sensitive to the issues surrounding patient safety. One of the principal recommendations of the IOM report was to create a mandatory reporting system for the most serious events. Reporting systems are an important mechanism for generating knowledge about errors and their underlying causes. They help healthcare providers learn from experience, share lessons learned, and monitor their progress over time. When reports are shared beyond the four walls of a healthcare facility to an external party that aggregates and analyzes the results, there is a remarkable opportunity to disseminate lessons more broadly.

The importance of collecting data systematically was recognized at the federal level, leading to the establishment of the National Quality Forum (NQF), a voluntary consensus standards-setting organization. NQF has developed a list of serious reportable events in healthcare that are: (1) clearly identifiable and measurable; (2) of a nature such that the risk of occurrence is significantly influenced by the policies and procedures of the healthcare facility; and (3) of concern to both healthcare providers and the public.<sup>1</sup> In addition, to be considered a serious reportable event, an event must be unambiguous, usually preventable, serious, and one or more of the following:

- Adverse
- Indicative of a problem in a healthcare facility's safety systems
- Important for public credibility or public accountability

Requiring that an event be "usually preventable" acknowledges that some of these events are not always avoidable, given the complexity of the healthcare industry. The presence of an event on the list, therefore, is not an *a priori* judgment of either a systems failure or lack of due care. The ability to derive and disseminate good lessons from bad events is a hallmark of an effective reporting system. The primary goals are to prevent harm and enhance public trust. Through the establishment of an adverse event reporting program that encompasses standardized reporting requirements, the District has taken an important step in achieving this goal.

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<sup>1</sup> National Quality Forum (NQF). *Serious reportable events in healthcare 2006 update: a consensus report*. Washington (DC): NQF; 2007.

## The District's Patient Safety Reporting Program

The District's Patient Safety Reporting Program's main goals include:

- Promoting patient safety
- Improving the culture of safety
- Learning from and preventing adverse events
- Providing feedback to District facilities

One of the chief goals of any reporting program is to prevent the occurrence of similar adverse events in the future. By analyzing the causes of adverse events, we hope to find and repair the weaknesses in clinical processes in order to prevent the same events from occurring to other patients or residents. At the facility or provider level, the analysis of an individual adverse event can uncover root causes and contributing factors underlying the event and provide the basis for development of strategies to prevent recurrence. However, at this level of analysis, it may be difficult to determine trends in the data related to the type or volume of adverse events experienced by a provider or facility. When a particular type of adverse event occurs rarely, a facility may view it as a random occurrence, and the potential to implement systems and processes for prevention may be lost.

Aggregating adverse event data gathered from facilities and providers throughout the District is a powerful tool in identifying trends undermining safe and effective healthcare. The web-based adverse event reporting system provides access to aggregate data at the District and ECRI Institute PSO (EIPSO) national level. Analysis of the information received through the District's reporting program served as the basis for insights, lessons learned, and best practices that can improve patient safety. For each event type, this report discusses the causes of the event and presents prevention strategies to reduce and ideally help to eliminate any reoccurrence of these events.

Aside from the annual report, in FY 2011 the Patient Safety Reporting Program offered the following benefits in which members could engage:

- **Patient Safety Webinars** — offered quarterly included the following topics:
  - Gas Embolism: A Serious Reportable Event
  - Discovery Dilemmas: How Courts View Privilege from Disclosure
  - Controlling CT Radiation Dose
  - Essentials of Reactive Analysis
- **Quarterly "Navigators"** — patient safety advisories offered quarterly which include a National advisory which has an in-depth review of patient safety issues seen at a national level and a District advisory overviewing patient safety issues seen within the District. Articles have been provided on the following topics over FY 2011:
  - **National:**
    - Health Information Technology
    - Laboratory Testing
    - IV Infiltration
    - Medication Safety
  - **District:**
    - Root-Cause Analysis and Corrective Action Plans
    - Falls Prevention

- Central Line-Associated Bloodstream Infections
- **Custom Feedback on Adverse Events** — resources and best practices are provided back to the facilities directly on selected adverse events report and they are offered more in depth research if warranted. Facilities may also request feedback on specific topics. The following are some of the topics in which feedback was provided during FY 2011:
  - Accurate Weights and Med Errors
  - Benefits of Reporting
  - Blood Incompatibility
  - Breast Milk Mismanagement
  - Falls
  - Lab Specimen Errors
  - Monitor Alarm Fatigue
  - Pressure Ulcers
  - Retained Foreign Objects
  - Retained Guidewires
  - Sleep Aids and Falls
  - Suicide
  - Violence/assault in hospitals
  - Wrong Site Nerve Blocks
- **Root Cause Analyses (RCA) and Corrective Action Plans (CAP)** — if an RCA and CAP are submitted along with an event, it is analyzed through ECRI Institute’s RCA review process and then the facility is provided with a report to further assist them in improving their process.
- **Patient Safety Membership Update (PSMU)** — a monthly offering which compiles top patient safety news over the past month.
- **Monthly Brief** — a monthly offering that summarizes one major patient safety topic and provides best practices. Some of the topics in FY 2011 have consisted of:
  - How Safe is Your Computer Tomography (CT) Service?
  - Root-Cause Analysis
  - Central Line-Associated Bloodstream Infections
  - Who's on Your Team?
  - Alarm Fatigue Plagues Hospitals
  - Top Ten Health Technology Hazards
  - Patient Safety Reporting: It's Not About Counting Events
  - Communication Errors on Handoff
  - Wrong-Site Surgeries Continue
- **Patient Safety E-lets** — reviews major patient safety issues that have been seen at a national level. Topics in FY 2011 have included:
  - Patient Identification Prevents Life-Threatening Events: Did You Double-Check the Cardiac Monitor?
  - Radiation Therapy to an Unintended Site

## Data Collection and Analysis

### Reportable Events

The District has mandated the reporting of adverse events by a broad range of healthcare providers and medical facilities. Adverse events that were required to be reported include the 28 NQF Serious Reportable Events. During this past fiscal year, central-line-associated bloodstream infections (CLABSIs) were reported to the Center for Disease Control's National Healthcare Safety Network (NHSN) which is monitored by the DC Department of Health's Health Center for Policy, Planning and Epidemiology. Since January 2010, hospitals and ambulatory surgical centers have been required to report adverse events and corrective action plans (CAP) 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 collects and analyzes the reports, providing an annual report including summary data and recommendations. The Act contains well-defined confidentiality provisions related to reporters and information provided to the system administrator.

### Reports by Event Type

In the fourth reporting period, which covers events submitted between October 1, 2010 and September 30, 2011, District medical facilities and healthcare providers submitted 112 reports to the Department. The most frequently reported types of events were stage III or IV pressure ulcers, falls, HAIs, device related events, medication errors, retained foreign objects, and 'other' events, representing 103 (92%) of reports submitted. Figure 1 summarizes the reports submitted by event type. Figure 2 provides a comparison between the number of events reported during this reporting period and the previous reporting period. Event types and categories are as endorsed by the National Quality Forum (NQF) consensus standard 2009 update.

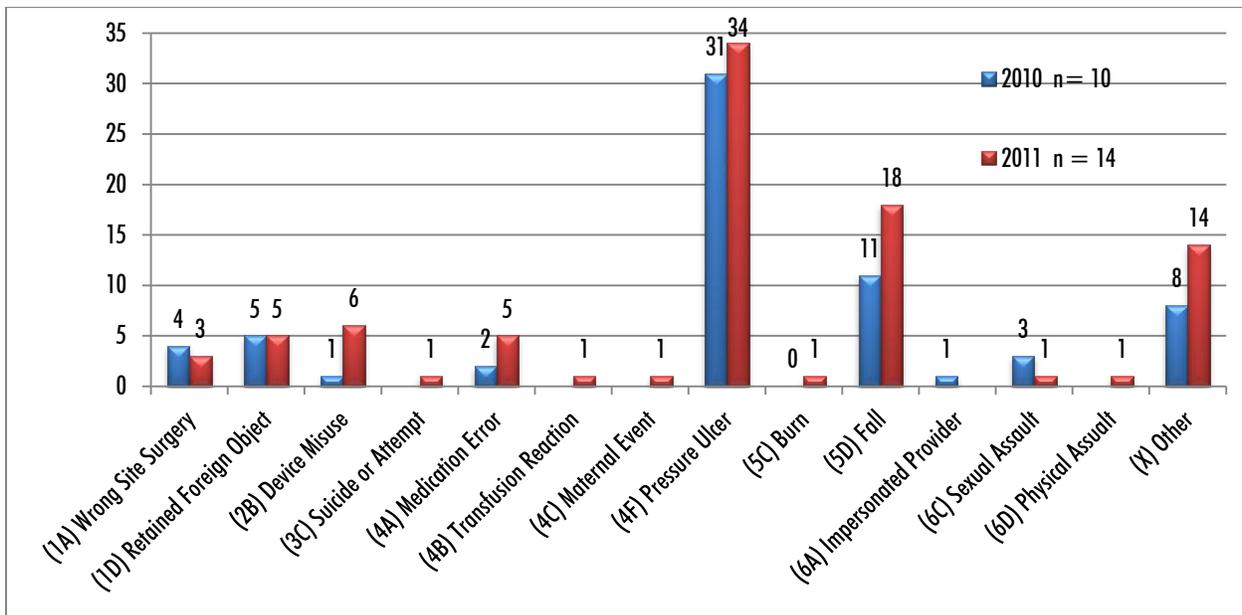
**Figure 1. Number and Percentage of Reports by Event Type in FY 2011 (web-based and paper)**

NQF Event Category	NQF Event Type	No.	%
<b>Surgical Events</b>	1A - Surgery performed on the wrong body part	3	3%
	1B - Surgery performed on the wrong patient	0	0%
	1C - Wrong surgical procedure performed on a patient	0	0%
	1D - Unintended retention of a foreign object in a patient after surgery or other procedure	5	4%
	1E - Intraoperative or immediately postoperative death in an ASA (American Society of Anesthesiologists) Class I patient	0	0%
<b>Product or Device Events</b>	2A - Patient death or serious disability associated with the use of contaminated drugs, devices, or biologics provided by the healthcare facility	0	0%
	2B - Patient death or serious disability associated with the use or function of a device in patient care in which the device is used or	6	5%

<b>NQF Event Category</b>	<b>NQF Event Type</b>	<b>No.</b>	<b>%</b>
	functions other than as intended		
	2C - Patient death or serious disability associated with intravascular air embolism that occurs while the patient is being cared for in a healthcare facility	0	0%
<b>Patient Protection Events</b>	3A - Infant discharged to the wrong person	0	0%
	3B - Patient death or serious disability associated with patient leaving the facility without permission	0	0%
	3C - Patient suicide or attempted suicide resulting in serious disability while the patient is being cared for in a healthcare facility	1	1%
<b>Care Management Events</b>	4A - Patient death or serious disability associated with a medication error	5	4%
	4B - Patient death or serious disability associated with a hemolytic reaction (abnormal breakdown of red blood cells) due to the administration of ABO/HLA-incompatible blood or blood products	1	1%
	4C - Maternal death or serious disability associated with labor or delivery in a low-risk pregnancy while the patient is being cared for in a healthcare facility	1	1%
	4D - Patient death or serious disability associated with hypoglycemia, the onset of which occurs while the patient is being cared for in a healthcare facility	0	0%
	4E - Death or serious disability associated with failure to identify and treat hyperbilirubinemia in newborns	0	0%
	4F - Stage III or IV pressure ulcers acquired after admission to a healthcare facility	34	30%
	4G - Patient death or serious disability due to spinal manipulative therapy	0	0%
	4H - Artificial insemination with the wrong donor sperm or wrong egg	0	0%
<b>Environmental Events</b>	5A - Patient death or serious disability associated with an electric shock while the patient is being cared for in a healthcare facility	0	0%
	5B - Any incident in which a line designated for oxygen or other gas to be delivered to a patient contains the wrong gas or is contaminated by toxic substances	0	0%
	5C - Patient death or serious disability associated with a burn incurred from any source while the patient is being cared for in a healthcare facility	1	1%
	5D - Patient death or serious disability associated with a fall while the patient is being cared for in a healthcare facility	18	16%
	5E - Patient death or serious disability associated with the use of restraints or bedrails while the patient is being cared for in a healthcare facility	0	0%
<b>Criminal Events</b>	6A - Any instance of care ordered by or provided by someone impersonating a physician, nurse, pharmacist, or other licensed healthcare provider	0	0%
	6B - Abduction of a patient of any age	0	0%
	6C - Sexual assault on a patient within or on the grounds of a healthcare facility	1	1%

NQF Event Category	NQF Event Type	No.	%
	6D - Death or significant injury of a patient or staff member resulting from a physical assault that occurs within or on the grounds of a healthcare facility	1	1%
Healthcare Associated Infections	7 – Central-catheter-associated bloodstream infection	22	20%
'Other' Event Type Reported	X – 'Other' non-NQF type of event reported	13	12%
<b>Total</b>		<b>112</b>	<b>100%</b>

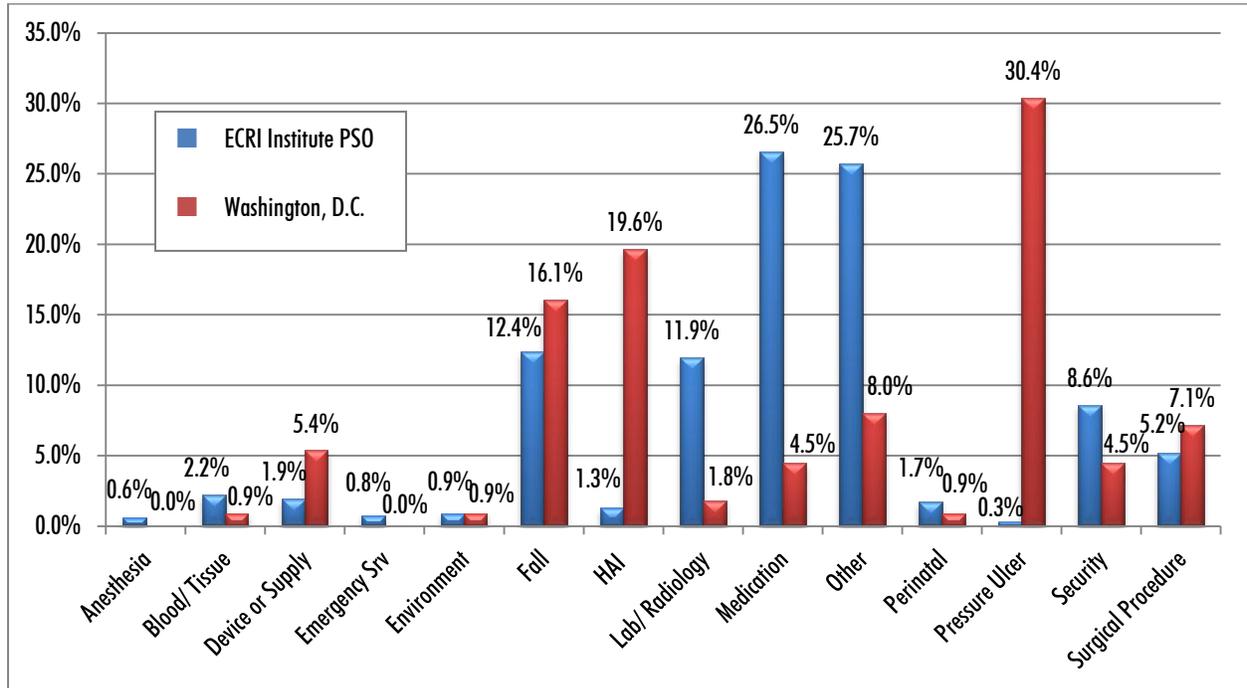
**Figure 2. Comparison of Number of Event Types (excluding HAIs) for 2010 and 2011**



This bar chart details the event types that had one or more events reported in that category and makes a comparison between FY 2010 and FY 2011. Overall, the most significant increase in the number of events reported occurred in with Falls, Medication Errors, and Other event type categories. A change in the number of events reported may reflect increased reporting or an increase occurrence for these events.

During the current reporting period there was also an increase in breadth of events that occurred: the total number of event types reported, from 9 event types in FY 2010 increased to 14 event types this past year. There was also an increase in the number of NQF and other events reports, not including HAI events. In FY 2010 66 NQF and other events were reported and in FY 2011 there were 90.

**Figure 3. Comparison of Event Type Frequency (FY 2011)**



This figure shows a comparison of event categories reported, between October 1, 2010 and September 30, 2011, in the District with those in the ECRI Institute PSO (EIPSO) system. It should be noted that this graph cannot be considered a true benchmark as the EIPSO system is a voluntary, national event reporting database, whereas the Washington, DC Patient Safety Reporting Program requires mandatory reporting of adverse events. These event types are bucketed according to the AHRQ common formats rather than NQF event type.

Based on the AHRQ Common Formats Categorization, the District’s top events were:

1. Pressure ulcers
2. HAIs
3. Falls
4. Device related events
5. ‘Other’ events
6. Surgical events

The top reported events in EIPSO were:

1. Medication errors
2. ‘Other’ events
3. Falls
4. Lab/radiology events
5. Security events
6. Surgical events

Although many categories have similar reporting frequencies, pressure ulcers clearly stand out as the most frequently reported event in the District (30.4%), whereas they were reported 0.3% of the time in the EIPSO aggregate. In addition, medication errors were apparent 26.5% of the time in EIPSO and only make up 4.5% of the District's reports. However, it is difficult to draw conclusions with mandatory versus voluntary reporting programs. The District would obtain a true baseline if each facility reports every NQF event that occurs in a year. The goal then will be to compare this data to the next year's data, to show improvement as reflected by a decrease in events.

## Reports by Level of Harm

The District's Department of Health interprets the submitted list of NQF's Serious Reportable Events to represent an event that was unanticipated and may not have been preventable. For example, the list does not require reporting of all patient falls; yet, it does require those resulting in serious disability or death.<sup>2</sup> The term used to describe harm is "*serious disability*" which includes any type of harm, mental or physical. NQF defines the term "*serious*" as resulting "in death or loss of a body part, disability or loss of bodily function lasting more than seven days or still present at the time of discharge from an inpatient healthcare facility." They define the term "*disability*" as "a physical or mental impairment that substantially limits one or more of the major life activities of an individual." Therefore, here are some examples of events that may be considered reportable:

- Fall resulting in a hip fracture, subdural hematoma, or semi-permanent or permanent harm
- Surgery on correct body part but wrong location
- Wrong-site surgery even if corrected intraoperatively
- Retained foreign object at any point after the surgery ends, regardless of whether object was removed
- Administration of medication to patient with a known allergy that causes anaphylaxis
- Air embolism that results in semi-permanent or permanent change in mental status
- Hypoglycemic event that results in semi-permanent or permanent change in mental status
- Spinal manipulative therapy that results in nerve damage
- Maternal event that occurs up until 42 days post-delivery
- Administration of the wrong breast milk that causes temporary harm

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, a harm scale developed by the National Coordinating Council for Medication Error Reporting and Prevention (NCC MERP)<sup>3</sup> was applied to the event reporting system, and 107 events (95%) could be categorized based on the information provided. Figure 4 summarizes the level of harm among those reports. Figure 5 provides a comparison of the percentage of the level of harm identified.

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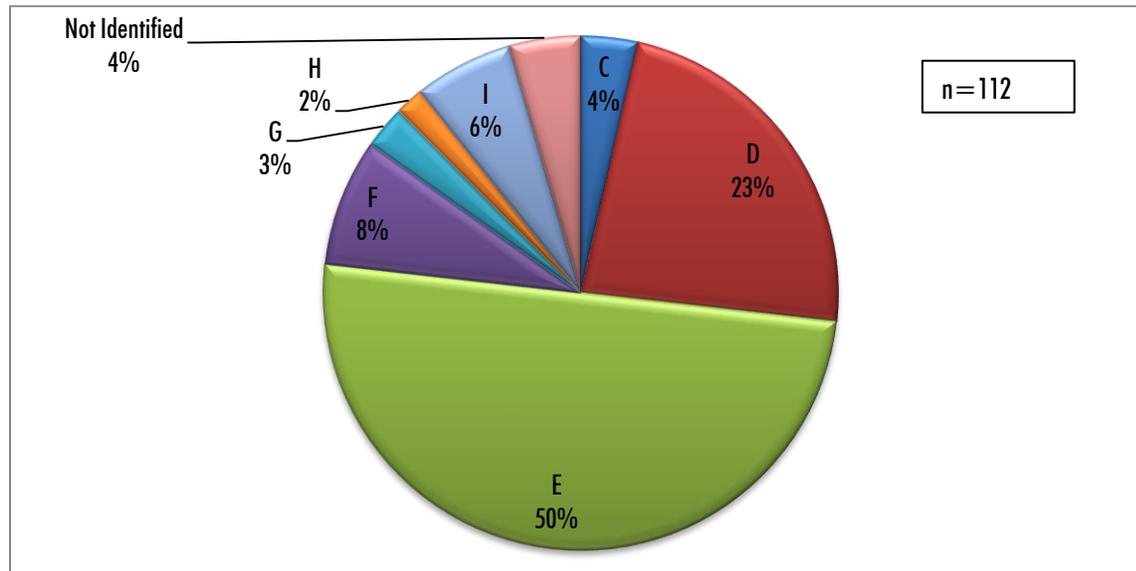
<sup>2</sup> National Quality Forum (NQF). NQF Serious Reportable Events in Healthcare 2006 Update [online]. 2006 [cited 2010 Nov 24] Available from Internet: [http://www.qualityforum.org/Publications/2007/03/Serious\\_Reportable\\_Events\\_in\\_Healthcare%E2%80%932006\\_Update.aspx](http://www.qualityforum.org/Publications/2007/03/Serious_Reportable_Events_in_Healthcare%E2%80%932006_Update.aspx).

<sup>3</sup> NCC MERP Index for Categorizing Medication Errors. Found at: <http://www.nccmerp.org/pdf/indexBW2001-06-12.pdf>

**Figure 4. Number and Percentage of Reports by Level of Harm Based on NCC MERP Harm Scale (FY 2011)**

Harm Score	Description	Reports (N)	%
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)	4	4%
D	An event occurred that required monitoring to confirm that it resulted in no harm and/or required intervention to prevent harm	26	23%
E	An event occurred that contributed to or resulted in temporary harm and required treatment or intervention	56	50%
F	An event occurred that contributed to or resulted in temporary harm and required initial or prolonged hospitalization	9	8%
G	An event occurred that contributed to or resulted in permanent harm	3	3%
H	An event occurred that resulted in a near-death event (e.g., required ICU care or other intervention necessary to sustain life)	2	2%
I	An event occurred that contributed to or resulted in death*	7	6%
Reports with harm score not identified		5	4%
<b>Total</b>		<b>112</b>	<b>100%</b>

**Figure 5. Percentage of Reports by Harm Score (FY 2011)**

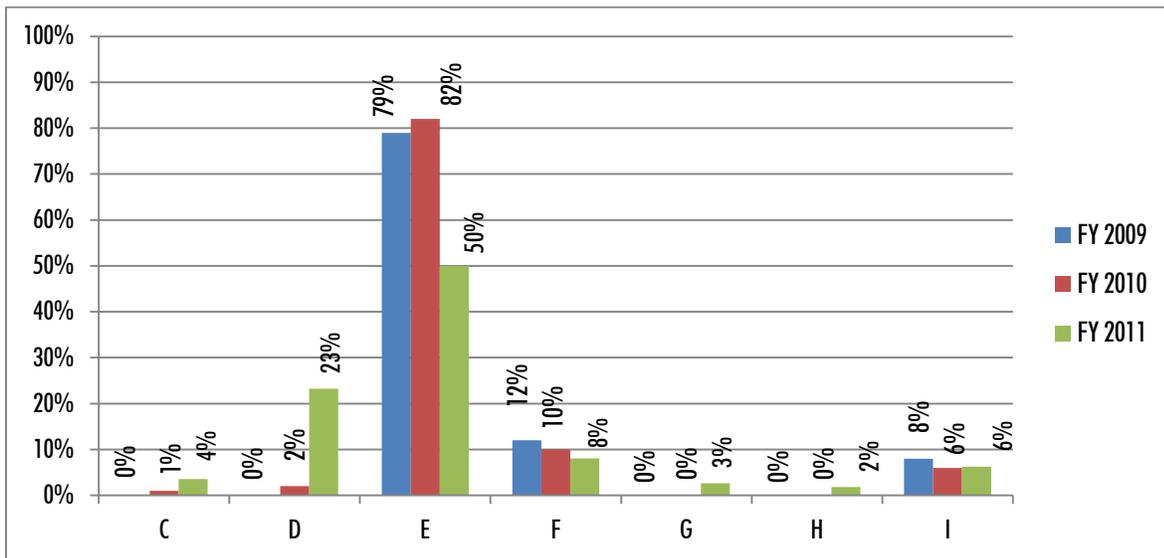


The reports submitted ranged from a harm score of C, an event that reached the patient and did not cause harm or any additional monitoring, to I, an event that contributed to or resulted in death. The majority of the events were categorized as a harm score of E, an event that resulted in temporary harm

and required treatment or intervention, which is consistent with the minimal harm score severity level described in the NQF events.

Harm score frequency during this reporting period differs from FY 2010 with a significant increase in level D reports and a corresponding decrease in level E reports, see Figure 6. Considering NQF serious reportable events are typically a harm score of E or above this shows that District facilities have become more engaged in the program and are now voluntarily reporting events that did not cause harm and are not mandatory to report.

**Figure 6. Comparison of Harm Score Frequency**



**Report Quality**

During the current reporting period, there was an increase in the overall quality of reports in terms of overall completion of the web-based event report form, as well as the quality of the information provided. Event description is a question on the web-based form and can capture the most important details of the event when completed. Of the 112 reports, 98% had adequate or thorough event descriptions, whereas in FY 2010 it was 74%.

## Root Causes and Corrective Action Plans in Reports

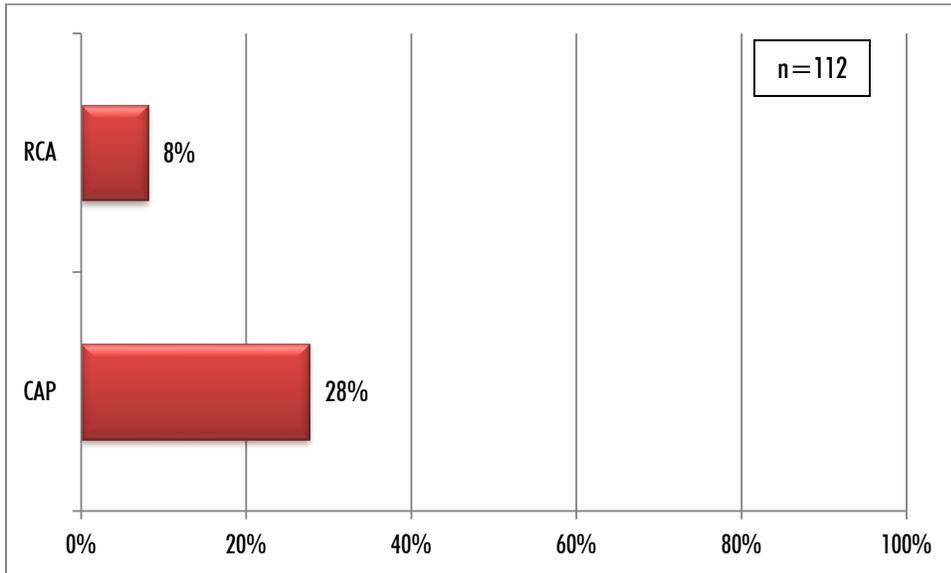
The District requires the submission of a Corrective Action Plan (CAP) as a follow-up to the reported adverse event; a Root Cause Analysis (RCA) can be submitted if applicable or if the facility would like a review. Ideally, an adverse event is handled in the following manner:



A CAP describes how the facility or provider plans to prevent or reduce the risk of similar events in the future. Any CAP should be based in part on the root cause or causes of the event. The provision of healthcare involves complex systems of people and technology and presents virtually unlimited opportunities for errors with many possible causes and contributing factors. Without a structured way to approach the investigation of errors, it would be easy to overlook important causative factors and miss the opportunity to put systems in place to eliminate error. Analysis of the cause or causes of an event helps ensure that all possible causes of medical error are considered and that appropriate, effective, CAPs are developed and implemented.

Failure in the performance of any one physician, nurse, or other practitioner is seldom the sole cause of an adverse event. The investigation of an event must look beyond the direct patient care provider to identify causes embedded in the system. Of the 112 reports submitted, 8% included an RCA submission which is increased from 1.5% in FY 2010. Figure 7 indicates both the percent of RCAs and CAPs submitted for the total reported events during FY 2011.

**Figure 7. Frequency of RCA and CAP Submissions (FY 2011)**



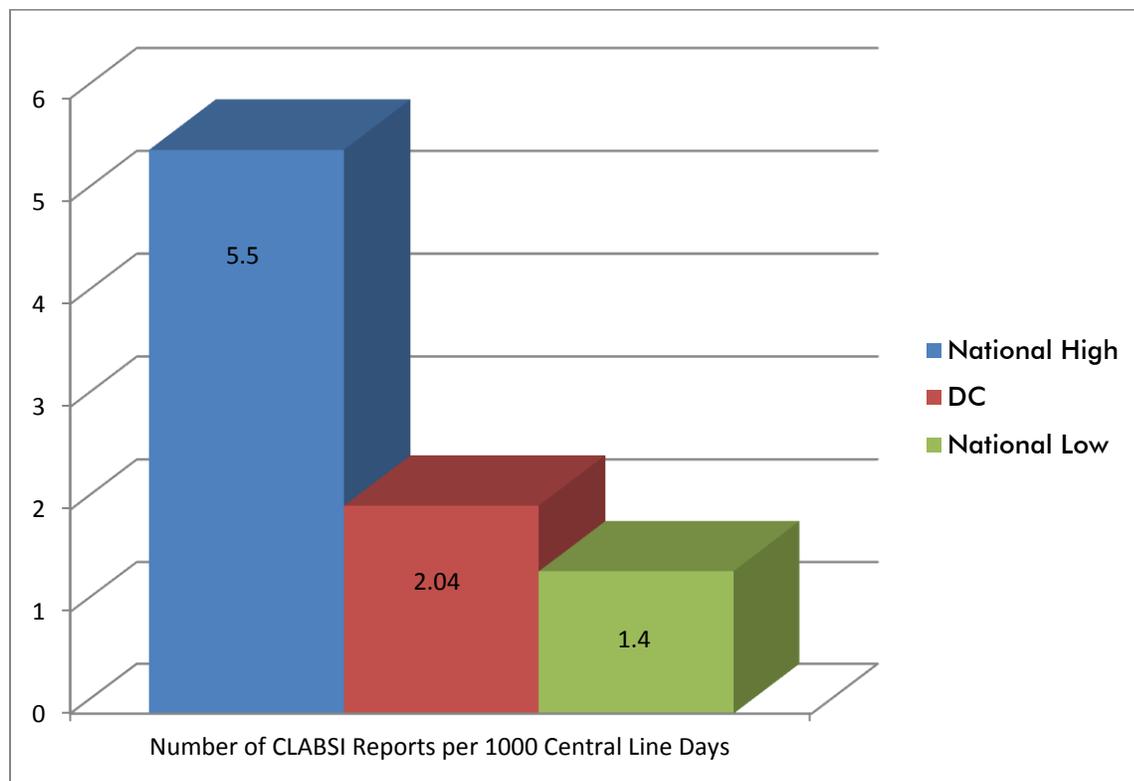
A total of 31 (28%) of the reports submitted had a CAP included. The significant decline in the CAPs occurred when the event submission changed from paper to electronic. In FY 2010 there was a vast difference in compliance with CAP for paper reports (83%) versus electronic reports (26%). There are additional fields under “Factors and Causes” within the reporting system labeled “Supplemental Information” that may be considered for use to enhance facility completion of these action plans. This way the event details and the action plans are stored in the same location. Currently some facilities use this method and others submit their CAP via secure communication. If a facility would like to use the reporting system to enter a CAP but has not completed the RCA and CAP at the time of submission, they may always go back and update a report.

## Central-Line-Associated Bloodstream Infections

The National Healthcare Safety Network (NHSN) reports the national incidence (or infection rate) of CLABSIs in hospital intensive care units (ICU) ranges from 1.4 to 5.5 infections per 1,000 central-line days,<sup>4</sup> depending on the type of hospital unit.<sup>5</sup> Comparing the FY 2011 CLABSI rate in District ICUs with NHSN national figures required collecting data not only on the infections, but also on the number of patients in each District ICU that had central line catheters during the same time period. Starting in October 2010, District facilities were required to report CLABSIs in ICUs through the NHSN system. This initiative allows the epidemiologists at the Department of Health to monitor infection rates for District facilities and also contributes to the CDC's National database. The following data was provided by the District of Columbia Department of Health Center for Policy, Planning and Epidemiology.

District healthcare facilities reported 88,414 central line days and 180 CLABSIs in their ICUs, resulting in a CLABSI rate of 2.04 during FY 2011, see Figure 8. Although not directly comparable to NHSN figures, the district CLABSI rate may nonetheless serve as an approximate baseline. Last year's CLABSI rate was 2.05 during FY 2010.

**Figure 8. Comparison of CLABSI Rates (FY 2011)**



<sup>4</sup> Central-line days are calculated on each critical care unit by counting the number of patients with a central line each day. At the end of the month, the daily totals for each unit are added up for monthly totals.

<sup>5</sup> Edwards JR, Peterson KD, Banerjee S, et al. National Healthcare Surveillance Network (NHSN) Report, data summary for 2006 through 2008, issued December 2009. *Am J Infect Control*. 2009;37(10):783-805.

CLABSI in ICUs were reported from the 28 units in the District which included:

- 1 Long Term Acute Care
- 1 Neurosurgical Critical Care
- 1 Pediatric Cardiothoracic Critical Care
- 1 Surgical Cardiothoracic Critical Care
- 1 Trauma Critical Care
- 2 Pediatric Medical/Surgical Critical Care
- 2 Medical Cardiac Critical Care
- 2 Surgical Critical Care
- 3 Neonatal Critical Care (level II/III)
- 3 Neonatal Critical Care (level III)
- 4 Medical Critical Care
- 7 Medical/Surgical Critical Care

It is not surprising that the CLABSI rate has not changed dramatically as CLABSI prevention has been a top initiative in the District for many years reflecting sustained attention and prevention of CLABSI. It should be noted that this year includes a few new unit types including Long Term Acute Care, where patients may need a central line for longer periods of time, and Trauma Critical Care, where patients may need emergent line placements, both of which could have higher CLABSI rates. In addition, some facilities did not report central line days for multiple months due to resources, however they notified the District of Columbia Department of Health Center for Policy, Planning and Epidemiology that they did not have a reported CLABSI during that time. This could also cause the CLABSI rate to be falsely higher, as it is likely that the denominator is larger than the reported 88,414 central line days.

#### **Additional Resources**

- Beyond the bundle: reducing the risk of central line-associated bloodstream infections. *Pa Patient Saf Advis* 2010 Mar 18;7(Suppl 1):1-9. Available at [http://patientsafetyauthority.org/ADVISORIES/AdvisoryLibrary/2010/mar18\\_7\(suppl1\)/Pages/01.aspx](http://patientsafetyauthority.org/ADVISORIES/AdvisoryLibrary/2010/mar18_7(suppl1)/Pages/01.aspx).
- Institute for Healthcare Improvement (IHI). Prevent central line infections. Getting started kit. Updated how-to guide [online]. 2008 Jun. Available at <http://www.ihl.org/IHI/Programs/Campaign/CentralLineInfection.htm>.
- The Society for Healthcare Epidemiology of America/Infectious Diseases Society of America “Compendium of Strategies to Prevent Healthcare-Associated Infections” for practical recommendations about implementation of CLABSI prevention efforts. Available at <http://www.shea-online.org/about/compendium.cfm>.

## **Guidance and Recommendations**

The Department 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 the most preventable events with high impact to patient safety. As required by the Act, the information is de-identified and anonymous with regard to the facility, provider, and patient. Root causes/contributing factors and preventive strategies identified by healthcare facilities and providers are shared. Finally, recommended best practices are provided to further assist facilities and providers in improving healthcare delivery in the District.

### **Surgical Events**

The rate of surgical procedures is increasing annually. In 2006, the Centers for Disease Control and Prevention reported that 46 million inpatient surgeries in the United States were performed,<sup>6</sup> and 53.3 million procedures in ambulatory surgery centers were completed.<sup>7</sup> In a 2008 report, the Agency for Healthcare Research and Quality (AHRQ) stated that 1 of every 10 patients who died within 90 days of surgery did so because of a preventable error and that two-thirds of the deaths occurred prior to hospital discharge. The study was based on a nationwide sample of more than 161,000 patients age 18 to 64 in employer-based health plans who underwent surgery between 2001 and 2002. The authors used AHRQ's Patient Safety Indicators to identify medical errors.<sup>8</sup>

In FY 2011 the District facilities reported surgery performed on the wrong body part and unintended retention of a foreign object in a patient after surgery or other procedure. These accounted for 7% of events reported and are preventable.

### **Unintended Retention of a Foreign Object in a Patient after Surgery**

Unintended retention of a foreign object in a patient after surgery is defined by NQF as any medical or surgical item intentionally placed by the provider(s) that are unintentionally left in place. The NQF definition of after surgery is "the operation ends after all incisions or procedural access routes have been closed in their entirety, devices have been removed and, if relevant, final surgical counts have concluded and the patient has been taken from the operating/procedure room."<sup>9</sup> Note however that The Joint Commission defines after surgery as "completion of skin closure based on the premise that a failure to identify and correct an unintended retention of a foreign object prior to that point in the procedure represents a significant system failure, which requires analysis and redesign. It also places the

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<sup>6</sup> DeFrances CJ, Lucas CA, Buie VC, Golosinskiy A, 2006 National Hospital Discharge Survey, National Health Statistics Reports, no 5, Hyattsville, MD: National Center for Health Statistics; 2008. Available from Internet:

<http://www.cdc.gov/nchs/data/nhsr/nhsr005.pdf>.

<sup>7</sup> Cullen KA, Hall MJ, Golosinskiy A, Ambulatory Surgery in the United States, 2006, National Health Statistics Reports, no 11, Hyattsville, MD: National Center for Health Statistics; 2009. Available from Internet:

<http://www.cdc.gov/nchs/data/nhsr/nhsr011.pdf>.

<sup>8</sup> New AHRQ Study Finds Surgical Errors Cost Nearly \$1.5 Billion Annually. *Press Release*, July 28, 2008. Agency for Healthcare Research and Quality, Rockville, MD. Available from Internet: <http://www.ahrq.gov/news/press/pr2008/surgerrpr.htm>

<sup>9</sup> NoThing Left Behind®: A National Surgical Patient-Safety Project to Prevent Retained Surgical Items. Available from Internet: <http://nothingleftbehind.org/>

patient at additional risk by virtue of extending the surgical procedure and time under anesthesia”.<sup>10</sup> Both organizations exclude objects intentionally implanted as part of a planned intervention and objects present prior to surgery that were intentionally retained, as well as when a clinical judgment is made to leave the object in the patient based on an assessment of the relative risks of leaving it in versus removing it. It would therefore not be considered an unintentionally retained foreign object.

In October 2008, the Centers for Medicare & Medicaid Services (CMS) ceased payment for costs associated with several preventable serious adverse events, including unintentional retention of foreign objects after surgery.<sup>11</sup> Other third party payers have followed the CMS policy including state Medicaid agencies and private payers. Nearly 50% of the states in the U.S. have developed policies that discourage hospitals from billing for preventable serious adverse events which indicates a decreasing tolerance for preventable harm.<sup>12</sup>

### **Prevention of a Retained Foreign Object**

To prevent the unintended retention of foreign objects after surgery, there needs to be awareness by organizational leaders and operating room and other procedural area teams that these events are reflective of system problems and rarely the result of a single individual’s error. It is faulty systems that cause humans to err. The strategies for prevention need to include changes in culture and an understanding of human factors as they relate to clinical practice in these areas.

In surgery the practice of a formal count of sponge, sharp, instrument, needle, and miscellaneous items at predetermined points in a surgical procedure have long been relied on by surgeons and operating teams to reduce the risk of a retained foreign object. Surgical counts are failure-prone processes that are unaffected by disciplinary interventions and traditional education.<sup>13</sup> In as many as 88% of cases where there were retained objects after surgery, there was not a discrepancy in the counts. In most instances proper procedures were followed.

Strategies to mitigate the occurrence of unintentional retention of objects include:

- **Team approach** – When all care providers collaborate and function as a team, communication is improved and better patient outcomes are achieved.
- **Use of a Count White Board** – When information is not available for the entire team to see, confirm or discuss there is an increased risk for the unintentional retention of objects. Use of a white board to record surgical counts enforces adherence to a standardized counting procedure and eliminates independent practices regarding counts, thus increasing the accuracy of the

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<sup>10</sup> Sentinel Event - Retained foreign object after surgery. Available from Internet:

<http://www.jointcommission.org/about/JointCommissionFaq.aspx?CategoryId=11>

<sup>11</sup> CMS, CMS Improves Patient Safety for Medicare and Medicaid by Addressing Never Events, Baltimore, MD: CMS; 2008. Available from Internet:

[https://www.cms.gov/apps/media/press/factsheet.asp?Counter=3224&intNumPerPage=10.](https://www.cms.gov/apps/media/press/factsheet.asp?Counter=3224&intNumPerPage=10)

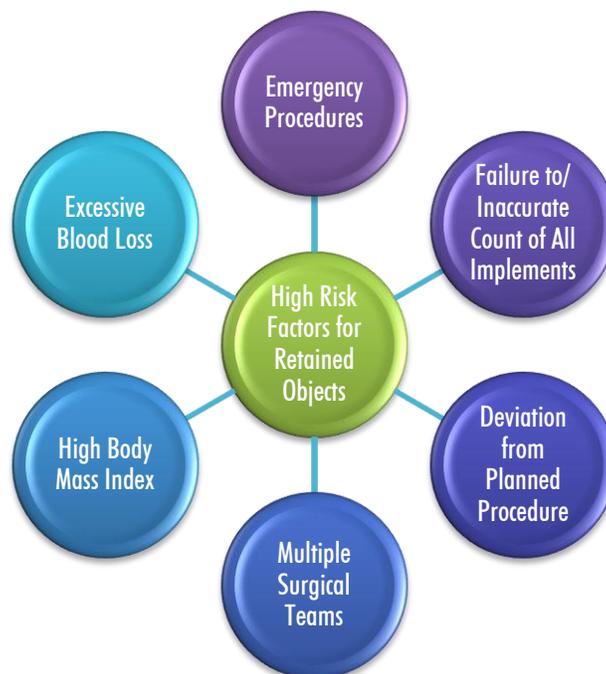
<sup>12</sup> MSNBC Analysis, Medical Mistake Billing Policies. Available from Internet: [www.msnbc.msn.com/id/26140511.](http://www.msnbc.msn.com/id/26140511)

<sup>13</sup> Steelman, V., Cullen, J., 2011. Designing a Safer Process to Prevent Retained Surgical Sponges: A Healthcare Failure Mode and Effect Analysis. AORN Journal, August, 2011, 94:(2). doi: 10.1016/j.aorn.2010.09.034

count. It also provides a common reference point for the entire team to identify a problem or discrepancy, thus heightening team accountability.<sup>14</sup>

- **Uses of adjunctive technology** — Radiographic examinations do not always provide evidence of retained sponges which account for 48% to 69% of retained surgical items. In 2010 the Association of Perioperative Registered Nurses (AORN) released a revision to their Recommended Practices (RP) for the prevention of retained surgical items that included consideration of use of adjunctive technology in conjunction with established count processes. Newer technologies, such as RFID sponges and RF sponges have decreased the potential for retained sponges.
- **Recognizing patients at high risk for retention** — It is important for staff in surgical and other procedural areas to be aware of predisposing factors that place patients at greater risk of unintentional retention of objects after surgery. (see Figure 9)
- **Consideration of human factors that may affect the count** – Because the counting process is largely dependent on human performance and when there are counts and subsequent counts, the potential that they will not match is substantial. This is representative of the inherent potential for human error in the counting process.<sup>15</sup>

**Figure 9. Predisposing Factors for Retained Foreign Objects**



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<sup>14</sup> Edel, E., 2010. Increasing Patient Safety and Surgical Team Communication by Using a Count/Time Out Board. AORN Journal 92:4. October 2010. DOI: 10.1016/j.aorn.2010.03.013

<sup>15</sup> Gibbs V, Coakley FD, Reines HD. Preventable errors in the operating room: retained foreign bodies after surgery—Part 1. Curr Probl Surg 2007 May;44(5):281-337.

## CAPs Submitted for Retained Foreign Object Events

There was one CAP submitted for the retained foreign object events reported. The CAP addressed reinforcing an existing policy. In most retained foreign object cases, a review of the event shows the policy was followed and it is important to recognize that more often there is a need to review the actual process. Once a good evidence-based process is developed, a policy may need to be revised to match the practice.

## Additional Resources

- NoThing Left Behind®: A National Surgical Patient-Safety Project to Prevent Retained Surgical Items. Available at <http://nothingsleftbehind.org/>
- Perioperative Standards and Recommended Practices, 2011 Edition
- Stanton, C., 2010. Counts: a team approach. OR Connections, February, 2010. Available at <http://www.aorn.org/News/February2010News/COUNTS>
- Pennsylvania Patient Safety Authority, 2009. Beyond the Count: Preventing the Retention of Foreign Objects Pa Patient Safety Advisory 2009 Jun;6(2):39-45. Available at [http://patientsafetyauthority.org/ADVISORIES/AdvisoryLibrary/2009/Jun6\(2\)/Pages/39.aspx](http://patientsafetyauthority.org/ADVISORIES/AdvisoryLibrary/2009/Jun6(2)/Pages/39.aspx)

## Surgery Performed on the Wrong Body Part

The National Quality Forum (NQF) includes wrong-site surgery events on its list of Serious Reportable Events.<sup>16</sup> The NQF defines surgery as having occurred when “skin or mucous membranes and connective tissue is incised or the procedure is carried out using an instrument that is introduced through a natural body orifice.” Thus, incomplete (for example, if the surgeon or nurse realized the error after incision but before completion), as well as complete, procedures can qualify as wrong-site surgeries. The District of Columbia reported three wrong-site surgery events for FY 2011 which accounted for 3% of reported events.

The Joint Commission considers wrong-site surgery as a general phrase referring to several types of surgical errors, including the wrong patient, the wrong procedure, the wrong side of the body, and/or the wrong part of an anatomic structure. From January 1, 2011 to September 30, 2011, the Joint Commission received 115 sentinel events that were wrong-site surgeries, which represents 13.1% of all sentinel events received (Figure 10).<sup>17</sup>

As with the unintended retention of objects in surgery, wrong-site surgery is publicly reported and all related services, defined as all services provided in the operating room when the error occurs, are considered not medically necessary and therefore will not be covered by CMS. This policy has also been adopted by Cigna and other payers will most likely follow suit.<sup>18</sup>

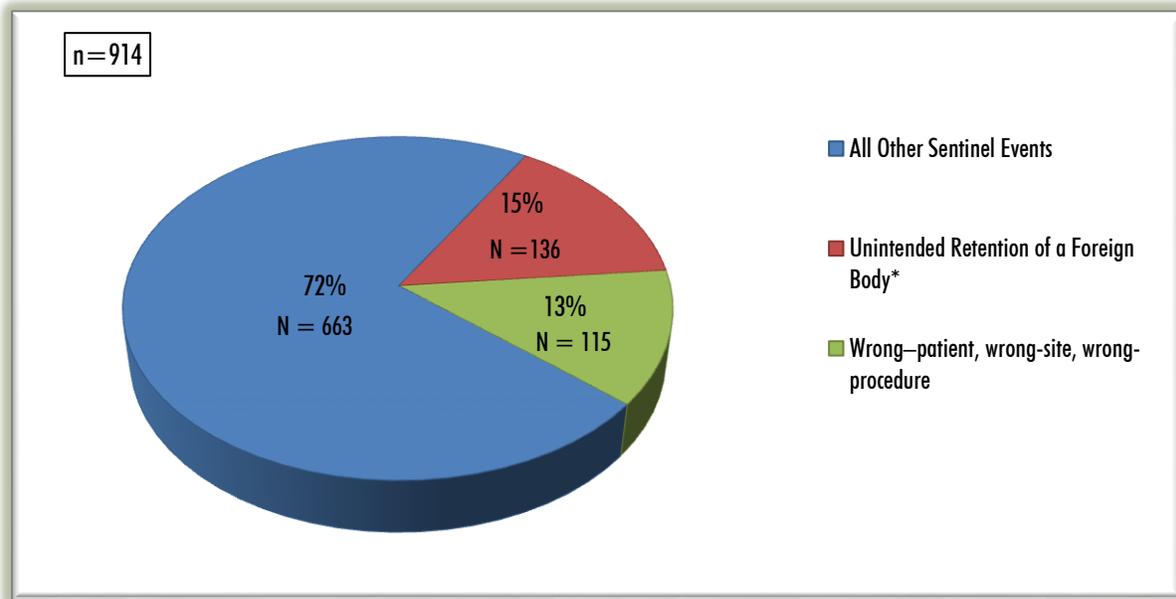
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<sup>16</sup> NQF-endorsed serious reportable events in healthcare: 2006 update. Washington (DC): National Quality Forum (NQF); 2006 Oct 15. 18 p. Also available from Internet: <http://www.qualityforum.org/pdf/news/txSREReportAppeals10-15-06.pdf>.

<sup>17</sup> The Joint Commission, 2011. Summary Data of Sentinel Events Reviewed by The Joint Commission. Available from Internet: [http://www.jointcommission.org/assets/1/18/3Q2011\\_SE\\_Stats\\_Summary.pdf](http://www.jointcommission.org/assets/1/18/3Q2011_SE_Stats_Summary.pdf)

<sup>18</sup> National Quality Forum Updates Endorsement of Serious Medical Events in Healthcare, Available from Internet: <http://www.qualityforum.org/pdf/news/prSeriousReportableEvents10-15-06.pdf>

**Figure 10. Wrong-Site Surgeries Reported to the Joint Commission in 2011**



\* Data extracted from The Joint Commission sentinel event statistics<sup>19,20</sup>

### Prevention of Wrong- Site Surgery

Nationally, occurrences of wrong-site surgery have actually increased despite the current efforts to reduce it. This is thought to be primarily associated with an increase in reporting.<sup>21</sup> Wrong-site surgery is preventable when “all salient information is in agreement and all members of the OR team assume a personal responsibility to have first-hand knowledge that the right person is getting the right procedure at the right location. Careful attention is required at each of the many steps leading up to surgery in order to prevent wrong-site surgery. Starting with the patient being scheduled for surgery, there are numerous opportunities to make sure that the correct procedure is being performed on the correct patient, with the time out being the final opportunity to verify that information”.<sup>22</sup>

Strategies to reduce the potential for the occurrence of wrong-site surgery include use of a robust approach to carrying out the elements of the Universal Protocol. This includes the following strategies:

<sup>19</sup> Other sentinel events include: Abduction, Anesthesia Related Event, Criminal Event, Delay in Treatment, Dialysis Related Event, Elopement, Fall, Fire, Infant Discharged to Wrong Family, Infection Related Event, Inpatient Drug Overdose, Maternal Death, Med Equipment Related, Medication Error, Op/Post op Complication, Other Unanticipated Report, Perinatal Death or Injury, Radiation Overdose, Restraint Related, Self-Inflicted Injury, Severe Neonatal Hyperbilirubinemia, Suicide, Transfer Related Event, Transfusion Error, Utility System, and Ventilator Death.

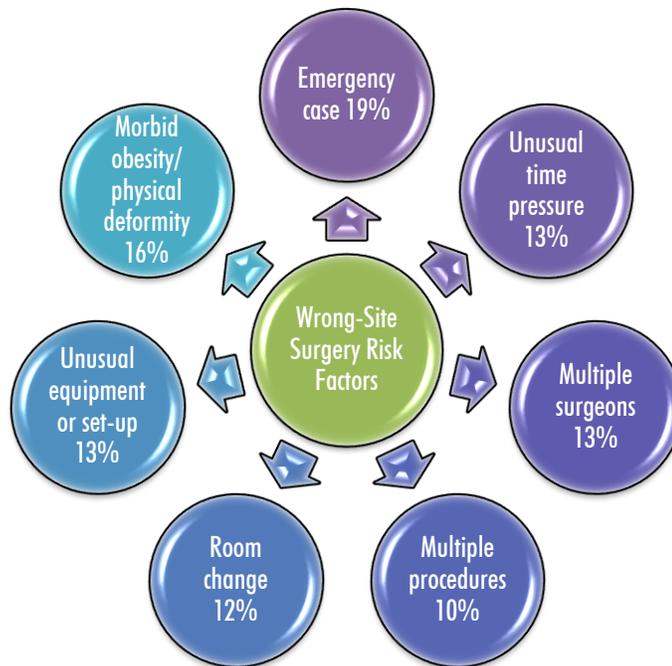
<sup>20</sup> The Joint Commission, 2011. Summary Data of Sentinel Events Reviewed by The Joint Commission. Available from Internet: [http://www.jointcommission.org/assets/1/18/3Q2011\\_SE\\_Stats\\_Summary.pdf](http://www.jointcommission.org/assets/1/18/3Q2011_SE_Stats_Summary.pdf)

<sup>21</sup> Hoyes, W., DiStrito, C., 2011. America’s Secret Pandemic: Preventable Medical Errors. Park East Press Inc., NY, NY

<sup>22</sup> Wrong-Site Surgery Prevention, 2008. ECRI Institute, Health Care Improvement Foundation, 2008, p 10.

- **Use of a Standardized Checklist** — The use of checklists has been found to significantly reduce surgical morbidity and mortality. In a study reported in *The New England Journal of Medicine* use of a checklist reduced postoperative complication rates by 36% on average, and death rates fell by a similar amount.<sup>23</sup> This checklist should include all critical issues that must be reviewed in all three phases of surgical intervention: 1) at time of scheduling; 2) prior to induction of anesthesia; and 3) prior to skin incision.
- **Team approach** — When all care providers collaborate and function as a team, communication is improved and better patient outcomes are achieved.
- **Operating Room Briefings** — Evidence suggests that conducting a preoperative discussion just prior to skin incision at the time of the surgical “time out” to briefly review the names and roles of all team members, the operative plan, the familiarity with the procedure, and potential issues for the patient significantly reduces the risk for wrong-site surgery and improves collaboration among OR personnel.<sup>24</sup>
- **Surgical Site Marking** — Develop a standard process that ensures it will be visible after the patient is positioned, prepped, and sterile draping is completed. In cases where site marking is refused or anatomically impossible, develop an alternative site marking process.
- **Scheduling Process** — Establish a scheduling process, paper or electronic, where accurate information about the patient or the surgical procedure is put in the record.
- **Recognizing risk factors for wrong-site surgery** — It is important for staff in surgical and other procedural areas to be aware of predisposing factors that place patients at greater risk to be the victim of a wrong-site surgery (Figure 11).

**Figure 11. Risk Factors for Wrong-Site Surgery**



<sup>23</sup> Haynes et al, 2009. A Surgical Safety Checklist to Reduce Morbidity and Mortality in a Global Population. *N Engl J Med* 2009; 360:491-499. Available from Internet: <http://www.nejm.org/doi/full/10.1056/NEJMsa0810119>.

<sup>24</sup> DeFontes J, Surbida S. Preoperative safety briefing project. *Permanente J* 2004; 8:21–27.

## CAPs Submitted for Wrong-Site Surgery Events

There were no CAPs or RCAs submitted for the events related to wrong-site surgery. This is an event that is preventable and in order to prevent future occurrences it is important to complete a root cause analysis in order to learn from consequences. This enables the healthcare providers to be able to take a step back and gain knowledge from near-misses and adverse events and develop corrective action plans as a means of prevention of future occurrences of these events.

## Additional Resources

- Performance of the correct procedure at the correct body site. Second wrong site surgery summit—February 23, 2007. Available at [https://www.qmo.amedd.army.mil/ptsafety/universalprotocol/files/References/TJCSynopsis\\_WSS\\_II.pdf](https://www.qmo.amedd.army.mil/ptsafety/universalprotocol/files/References/TJCSynopsis_WSS_II.pdf)
- Croteau RJ. Wrong-site surgery: the evidence base. Paper presented at: New York State Patient Safety Conference; May 21-22, 2007; Albany, NY. Available at [http://www.health.ny.gov/professionals/patients/patient\\_safety/conference/2007/docs/wrong\\_site\\_surgery-the\\_evidence\\_base.pdf](http://www.health.ny.gov/professionals/patients/patient_safety/conference/2007/docs/wrong_site_surgery-the_evidence_base.pdf)
- WHO Surgical Safety Checklist and Implementation Manual. World Health Organization. Available at [http://www.who.int/patientsafety/safesurgery/ss\\_checklist/en/index.html](http://www.who.int/patientsafety/safesurgery/ss_checklist/en/index.html)
- Pennsylvania Patient Safety Reporting System. Quarterly update on the preventing wrong-site surgery project: digging deeper. PA Patient Saf Advis. 2010;7(1):26-31. Available at [http://patientsafetyauthority.org/ADVISORIES/AdvisoryLibrary/2010/Mar7\(1\)/Pages/26.aspx](http://patientsafetyauthority.org/ADVISORIES/AdvisoryLibrary/2010/Mar7(1)/Pages/26.aspx)
- AORN position statement on correct site surgery. In: Perioperative Standards and Recommended Practices. Denver, CO: AORN, Inc; 2010:708.
- ECRI Institute. Correct Site Surgery Prevention, 2008. ECRI Institute - Health Care Improvement Foundation. Available at [https://www.ecri.org/Documents/Patient\\_Safety\\_Center/Wrong\\_Site\\_Surgery\\_Prevention.pdf](https://www.ecri.org/Documents/Patient_Safety_Center/Wrong_Site_Surgery_Prevention.pdf)

## Stage III & IV Pressure Ulcers Acquired after Admission to a Healthcare Facility

Stage III and IV pressure ulcers are considered Serious Reportable Events and have been added to the list of hospital-acquired conditions whose treatment will no longer be reimbursed by Medicare. Stage III and IV pressure ulcers include pressure ulcers with full thickness tissue loss and full thickness tissue loss with exposed muscle, tendon, or bone. The Department received 34 reports of stage III or IV pressure ulcers up from 31 reports last year. This was the most frequently reported NQF event in FY 2010 and continues to be in FY 2011.

## Prevention of Pressure Ulcers

Prevention of pressure ulcers starts with assessment and identification of those at risk and then implementing strategies to address that risk. The 5 Million Lives Campaign identifies six key strategies:<sup>25</sup>

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<sup>25</sup> Duncan, RN, K.D. Preventing Pressure Ulcers: The Goal Is Zero. The Joint Commission Journal on Quality and Patient Safety. 2007 Oct;33(10):605-610. Available from Internet: <http://www.jcrinc.com/Preventing-Pressure-Ulcers-The-Goal-Is-Zero/>

- Perform pressure ulcer assessments on admission for all patients
- Conduct daily reassessment of pressure ulcer risk
- Conduct daily skin inspections
- Manage moisture (e.g. with incontinent patients)
- Provide optimal nutrition and hydration
- Reduce pressure (e.g. type of bed, turning and positioning every 2 hours)

Also, a number of clinical practice guidelines have been developed in the area of pressure ulcer prevention and treatment. The following is a summary of the National Quality Forum's Safe Practices for Pressure Ulcer Prevention:<sup>26</sup>

- Evaluate each patient on admission and regularly thereafter for the risk of developing pressure ulcers.
- Implement explicit organizational policies regarding the prevention of pressure ulcers, including the following:
  - Identify individuals at risk of developing pressure ulcers
  - Document the pressure ulcer risk assessment and prevention plan
  - Assess and periodically reassess each patient's risk, and act on the assessment
  - Perform quarterly prevalence studies to evaluate the effectiveness of the pressure ulcer prevention program
- Performance improvement initiatives should include the following elements:
  - Education regarding the pertinent pressure ulcer frequency and severity
  - Skill building in use of pressure ulcer prevention interventions
  - Implementation of process improvement interventions
  - Measurement of process or outcome indicators
  - Reporting of performance outcomes

### **CAPs Submitted for Pressure Ulcers**

CAPs submitted with these reports were among the most robust action plans submitted over FY 2011. They address pressure ulcers of various types including but not limited to: bed sores such as sacral or heel ulcers; tracheostomy related ulcers; and ulcers from casts. Some of the strategies put into place by facilities included the following:

- **Assessment**
  - Develop and implement a high risk assessment tool
- **Communication**
  - Pilot a face-to-face handoff report on transfer from in order to view the patient's wound
  - Include in morning report discussion of patients with and at high risk for pressure ulcers
  - Escalate any wound or skin-related concern, especially during the off-shifts

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<sup>26</sup> National Quality Forum (NQF). Safe practices for better healthcare 2006 update [online]. 2006 [cited 2011 Nov 30]. Available from Internet: [http://www.qualityforum.org/Publications/2007/03/Safe\\_Practices\\_for\\_Better\\_Healthcare%E2%80%932006\\_Update.aspx](http://www.qualityforum.org/Publications/2007/03/Safe_Practices_for_Better_Healthcare%E2%80%932006_Update.aspx).

- Develop an alert in the electronic medical record, based on patient’s risk score, for a wound care consult
- **Education**
  - Initiate pressure ulcer assessment, prevention, and treatment re-education campaign
  - Utilize skin care education module developed and implemented which includes case examples with active learning
  - Educate specifically on pressure ulcers and casts including a review of diapering, monitoring cast edges, positioning, skin care, and when a physician should be notified
  - Review and in-service of post-op tracheostomy care, related to pressure ulcers and tracheostomies, for nursing staff including traveler and agency nurses
  - Educate staff and implement updated pressure ulcer prevention protocol
- **Equipment**
  - Investigate vendor support for devices unique to specific cases and patient populations
  - Review specialty bed rentals for best options
  - Encourage the importance of the wound care specialist aiding in the selection of the tracheostomy tube type prior to surgery
  - Review current tracheostomy inventory and make appropriate changes
- **Treatment**
  - Create and pilot an algorithm which can be initiated by nurses and includes interventions such as collaboration with nutrition services and wound care
  - Review current wound care treatment options and nutritional plans
  - Trial of foam dressing on all vented tracheostomy patients
  - Consider best rectal tube options for fecal incontinence
- **Measure and Monitor**
  - Conduct a monthly prevalence study on pressure ulcers, submitting data to a national database, benchmarking with other hospitals, and developing action plans at unit level based on results.
  - Conduct a gap analysis on nurse practice guidelines and order set for high risk patients

### **Additional Resources**

- The Institute for Healthcare Improvement (IHI). Available at <http://www.ihl.org/explore/PressureUlcers/Pages/default.aspx>
- Pennsylvania Patient Safety Reporting System. Pressure Ulcers: New Staging, Reporting, and Risk Reduction Strategies. PA PSRS Patient Saf Advis 2008 Dec;5(4):118-21. Available at [http://patientsafetyauthority.org/ADVISORIES/AdvisoryLibrary/2008/Dec5\(4\)/Pages/118.aspx](http://patientsafetyauthority.org/ADVISORIES/AdvisoryLibrary/2008/Dec5(4)/Pages/118.aspx)
- National Guideline Clearinghouse. Available at [www.guideline.gov](http://www.guideline.gov)
- National Pressure Ulcer Advisory Panel (NPUAP) provides a list of pressure ulcer prevention points. Available at [http://www.npuap.org/PU\\_Prev\\_Points.pdf](http://www.npuap.org/PU_Prev_Points.pdf)

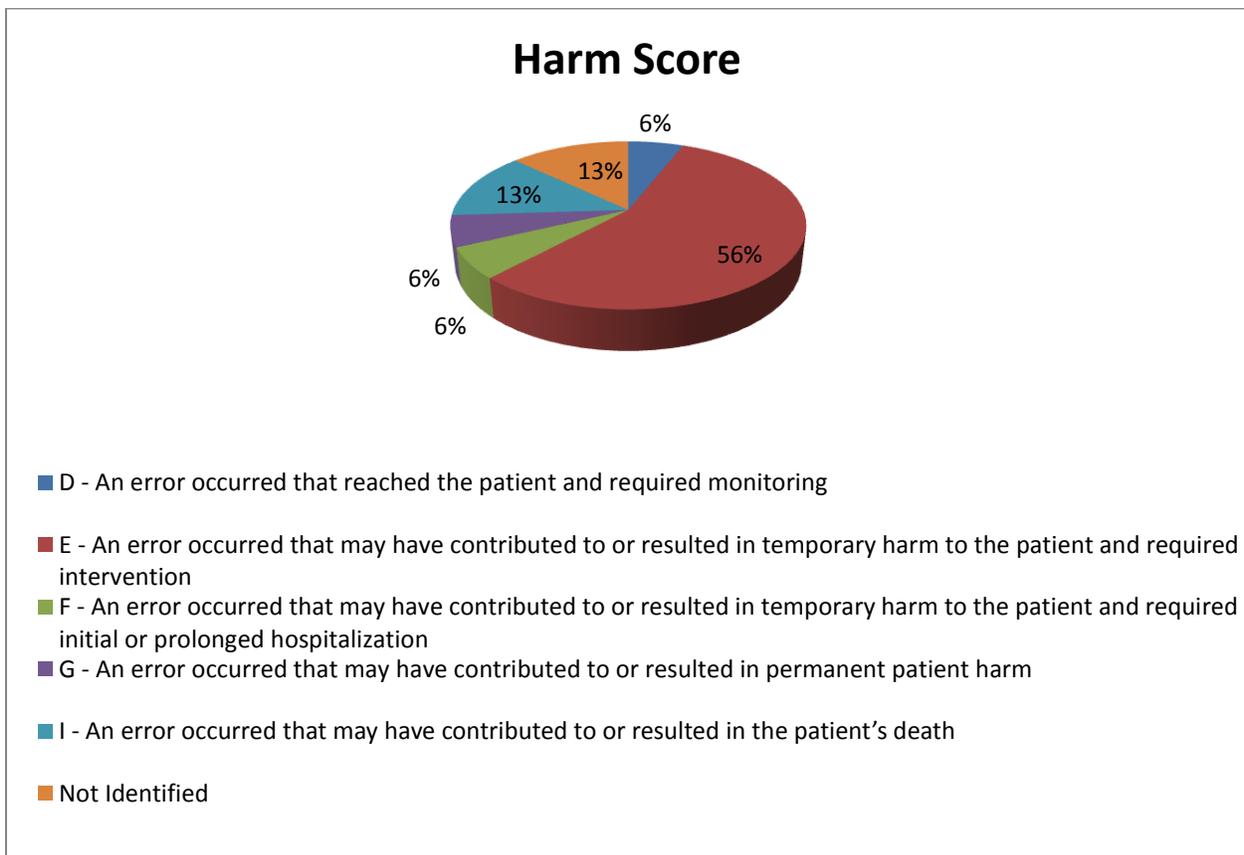
### **Patient Death or Serious Disability Associated with a Fall**

The Centers for Disease Control and Prevention (CDC) estimates that one in three U.S. adults age 65 or older falls each year. Falls are even more common in older adults across healthcare settings. The CDC classifies falls as the leading cause of injury deaths and the most frequent cause of nonfatal injuries

among older adults. Individuals are at greater risk for falling in healthcare institutions than in the community.<sup>27</sup>

During the current reporting period, District facilities reported 18 falls-related events. The level of harm reported, ranging from an event that required monitoring (harm score D) to one that may have contributed to patient death (harm score I), which is shown in Figure 12. Frequency of Harm Score for Fall Events. The falls reports indicated that the majority of the falls (56%) were given a harm score of “E”. This means the event resulted in temporary harm that required treatment or intervention. (See Figure 4 for all harm score descriptions.) This data represents all 18 falls reports, paper and electronic, during FY 2011. Thirteen percent of the events submitted on falls reported that the patient ultimately died. What can we learn from these events?

**Figure 12. Frequency of Harm Score for Fall Events (FY 2011)**



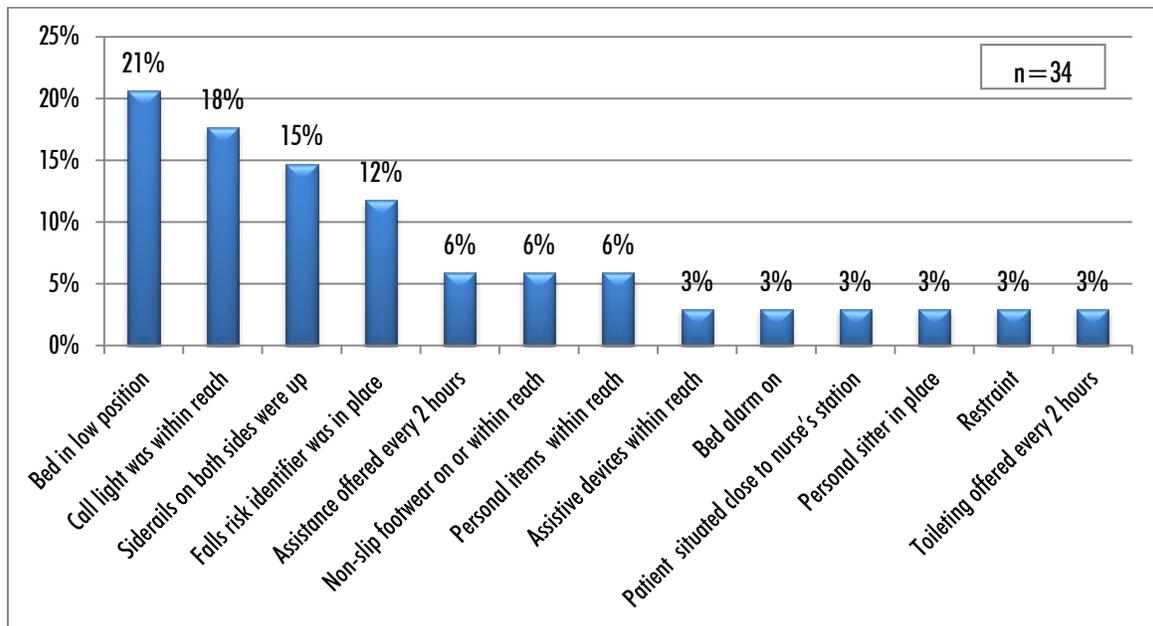
<sup>27</sup> Centers for Disease Control and Prevention. Falls among older adults; an overview [online]. 2011 Sep 16 [cited 2011 Nov 23]. Available from Internet: <http://www.cdc.gov/homeandrecreationalsafety/falls/adultfalls.html>.

## Prevention of Falls

Falls prevention starts with the falls risk assessment and should be followed through by initiating the preventive strategies discussed in each facility's falls protocol. Protocols should have different strategies for each level of falls risk: high, moderate, and low.

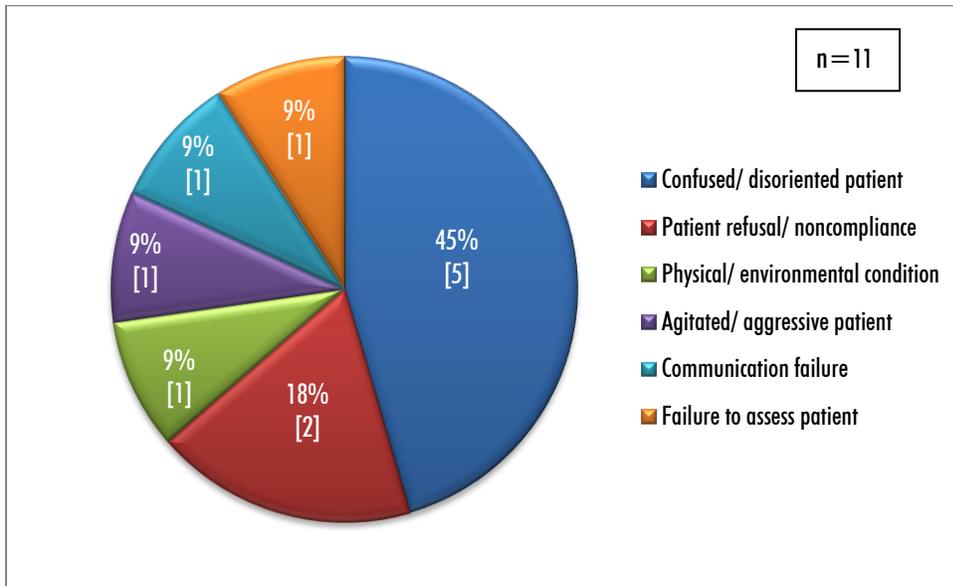
The following graph, Figure 13. Frequency of Falls Interventions, represents the falls interventions put into place. The District reported 34 interventions within the 18 falls events and revealed the most common interventions used were: placing the bed in the lowest position; ensuring the call light was within reach and the patient understood how to use; having both siderails on the bed raised; and ensuring the falls risk identifier was in place. These first four categories make up 66% of the interventions used within the falls events reported.

**Figure 13. Frequency of Falls Interventions (FY 2011)**



In addition to these falls prevention strategies, the District reported 6 types of contributing factors within the falls events submitted, see Figure 14. Half of the categories were considered patient characteristics and a confused or disoriented patient topped the list (45%) as the most commonly reported factor contributing to patient falls. Patient refusal or noncompliance, physical/environmental condition or design, agitated or aggressive patient, communication failure, and failure to assess the patient make up the other 55% of the reported contributing factors.

**Figure 14. Contributing Factors within Falls Events**



The key components of a falls reduction program are aimed at addressing the persistent problem of falls in healthcare facilities include assessment for falls risk, action-based interventions, post-falls assessment and data collection, and use of falls reduction program tools.<sup>28</sup> When developing or revising fall prevention policies and protocols, it is important to consider that the risk factors for falls are complex and that no single type of intervention will succeed in eliminating the risk of falling.

A falls prevention collaborative in Pennsylvania, that included 15 hospitals, identified five main categories of potential failure modes including communication, initiation of interventions, education, assessment, and documentation. The participants of the program identified goals that may be applicable to facility's falls prevention programs:<sup>29</sup>

- Improve falls risk assessment
  - Review and modify to appropriate length
- Incorporate a medication review to identify patients at high risk for falling
  - Include a list of high-risk medications in patient assessments
  - Use as an ongoing reference as medications change throughout the patient's stay
- Provide visual cues or identifiers for patients at high falls risk
  - Identify high-risk patients on whiteboards in the nurses' station
  - Clip a color-coded visual identifier to wheelchairs and stretchers to identify high-risk patients in transport
- Incorporate a multidisciplinary approach to care planning related to falls prevention

<sup>28</sup> ECRI Institute. Falls. *Healthc Risk Control* 2005 Sep;2:Safety and Security 2:4-6.

<sup>29</sup> Failure mode and effects analysis: falls prevention. Plymouth Meeting (PA): Partnership for Patient Care; 2007.

- Develop a care plan and a formalized methodology for physical and occupational therapy
- Ensure falls risk is well communicated within the healthcare team
  - Implement “ticket to ride” to identify falls risk during transports
  - Promote SBAR (Situation, Background, Assessment, Recommendation) communication among team members
- Address patients’ personal needs
  - Select and initiate customized interventions (e.g., delirium reduction strategies such as word games)
- Ensure that falls prevention equipment is readily available and working properly
- Provide effective patient education
  - Develop laminated cards to display in patient’s rooms
  - Create handouts to share with family regarding falls risk and precautions
- Raise staff awareness about falls prevention efforts and provide staff education

### **CAPs Submitted for Falls Events**

The following are examples of corrective action plans submitted for falls events:

- Review all falls for tracking and trending of occurrence
- Use of fall debriefing form to learn from the event
- Assess best practices of other institutions and adopt those procedures
- Patient specific treatment (e.g. physical therapy for balance)
- Patient specific education (e.g. call bell use)
- Use of positive reinforcement techniques to encourage patients to call for assistance
- Task force to develop new falls guidelines and prevention tool
- Review and update fall prevention/management policy
- Re-evaluation of bed alarm criteria
- Documentation of staff training on the new fall protocol

### **Additional Resources**

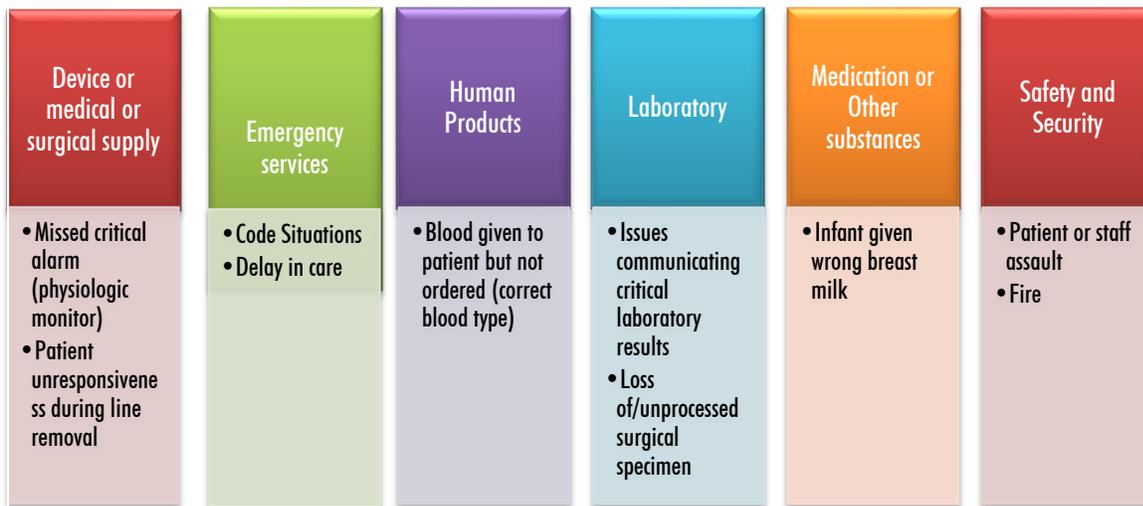
- The Agency for Healthcare Research and Quality’s (AHRQ) Quality Tools. Available at [http://www.innovations.ahrq.gov/innovations\\_qualitytools.aspx?categoryID=54554&taxonomyID=56546](http://www.innovations.ahrq.gov/innovations_qualitytools.aspx?categoryID=54554&taxonomyID=56546)
- The Institute for Healthcare Improvement (IHI). Available at <http://www.ihl.org/explore/falls/Pages/default.aspx>
- The National Guideline Clearinghouse. Available at <http://www.guideline.gov/>
- Institute for Clinical Systems Improvement Health Care Protocol: Prevention of Falls (Acute Care). Available at [http://www.icsi.org/falls\\_acute\\_care\\_prevention\\_of\\_protocol/falls\\_acute\\_care\\_prevention\\_of\\_protocol\\_24255.html](http://www.icsi.org/falls_acute_care_prevention_of_protocol/falls_acute_care_prevention_of_protocol_24255.html)
- Premier Safety Institute. Available at [http://www.premierinc.com/safety/topics/falls/interventions\\_and\\_preventions.jsp](http://www.premierinc.com/safety/topics/falls/interventions_and_preventions.jsp)
- Healthcare Association of New Jersey’s Fall Management Guideline. Available at [http://www.hcanj.org/docs/hcanjbp\\_fallmgmt6.pdf](http://www.hcanj.org/docs/hcanjbp_fallmgmt6.pdf)

## "Other" Event – (not NQF or CLABSI)

Of the 112 events there were 13 (12%) submitted as "other" making it the third most reported event category, after pressure ulcers and falls. The harm scores ranged from E to I with the majority being level E (38%) (see Table 4 for definitions). These other events were reported by acute care hospitals, rehabilitation hospitals, long term acute care facilities, and psychiatric hospitals.

The event category "other" was further analyzed using narratives provided within the reports. The types of "other" events reported are listed in Figure 15. 'Other' Event Types. Event themes that appear more than once were code situations, delay in care and communicating critical laboratory results, patient identification issues, and assault or violence. Most of the events were appropriately entered in the "other" event category; however, physical assault has its own NQF category and events involving breast milk can be reported in the medication error category.

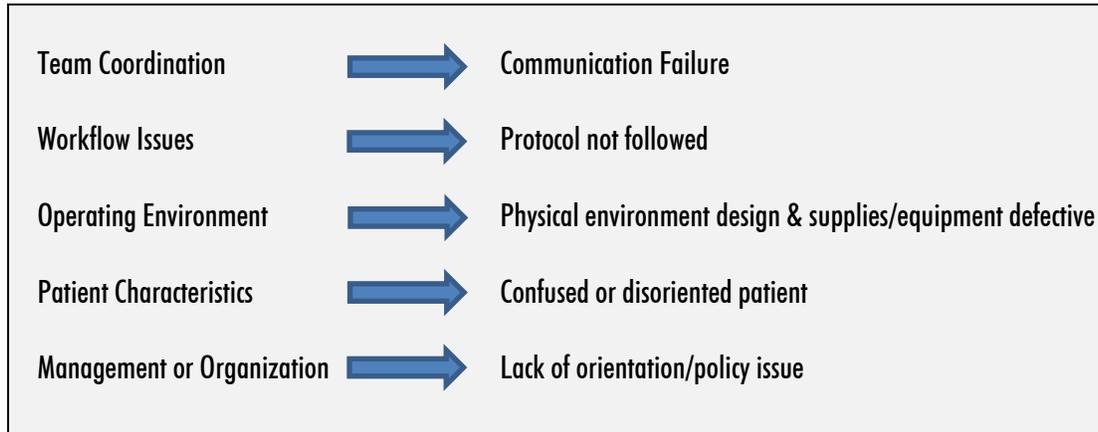
**Figure 15. 'Other' Event Types (FY 2011)**



## Prevention of "Other" Events

Although "other" events occurred in various settings and at various points of care, the factors that contributed to a break in the process or standard of care were similar. Contributing factors were reported within six categories ranging from issues among healthcare providers and between patient and healthcare provider to the environment in which providers and staff operate; see Figure 16. "Top Contributing Factor per Category" for a breakdown.

**Figure 16. Top Contributing Factors per Category (FY 2011)**



Not surprisingly, communication failure was the most frequently reported issue; it plays a role in almost every event. Communication is a broad topic, and to truly address the problem, facilities need to ask themselves why they are having communication issues. It has been shown that simply re-educating staff does not produce sustainable results.

The next most commonly reported contributing factors were confused or disoriented patient, failure to follow protocol, and failure to assess patient. Again, it would be useful for facilities to question why protocols are not followed or patients were not appropriately assessed and attempt to address those barriers.

Collecting and analyzing information about adverse events is a powerful step toward improving patient safety in healthcare facilities, and reviewing “other” events is a way to understand serious issues that are not easily categorized. Although various methods are used to identify safety issues, a good internal reporting system that provides useful data can help all responsible parties—such as senior leadership, risk management representatives, and patient safety officers—become aware of major hazards. Facilities should routinely review “other” events and dive deeper into the event details to determine what lessons can be learned and further disseminated.

## **Conclusion**

Medical facilities and providers in the District continue to take important steps in reducing the number of adverse events by submitting adverse event reports under the Medical Malpractice Amendment Act of 2006. The focus of the District's Patient Safety Reporting Program is to analyze events to better understand how and why adverse events occur. Dissemination of lessons learned and best practices will facilitate system changes that consistently promote the delivery of safe patient care. 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. In 2012, the District will have continued opportunities to benefit from custom feedback to support this objective. The vision for the reporting system is to provide a tool for quality improvement and education. The delivery of safe patient care is the ongoing goal of the program, and 2012 will usher in the next phase of this important effort.

### **Technical Credits**

This report was prepared for the District of Columbia Department of Health by ECRI Institute, a nonprofit organization that 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 40 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.