TOP 10 Patient Safety Concerns

for Healthcare Organizations

2016

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WANT MORE?

This executive brief summarizes ECRI Institute's Top 10 list of patient safety concerns for 2016. *HRC* and PSO members can access the full report, which discusses each topic in more detail, by logging in at https://www.ecri.org.

Additionally, page 14 of this brief lists ECRI Institute resources that provide more in-depth guidance for each topic.

TEN VERY REAL PROBLEMS

Healthcare is striving to become an industry of high-reliability organizations. Part of being a high-reliability industry means staying vigilant and identifying problems proactively. That's one function of patient safety organizations (PSOs), such as ECRI Institute PSO, and one of the reasons we produce this annual Top 10 list of patient safety concerns.

The Patient Safety and Quality Improvement Act provides a forum for healthcare organizations to share information on adverse events and near misses, while protecting the reported patient safety work product from legal discovery. Like other PSOs, we are charged with the responsibility of analyzing the data and sharing our findings and lessons learned. This report is one of the ways we do that.

Since 2009, when ECRI Institute PSO began collecting patient safety events, we and our partner PSOs have received more than 1.2 million event reports. That means that the 10 patient safety concerns on this list are very real. They are causing harm—often serious harm—to real people.

Fortunately, for all of the patient safety concerns on this year's list, more can be done. This report offers perspectives from some of our experts, as well as links to further guidance on addressing these issues.

This list can help you to proactively identify problems and strategies. As we all strive to evolve into a high-reliability industry, our Top 10 list is here to support you on your journey.

Sincerely,

William M. Marella, MBA, MMI
Executive Director, PSO Operations and Analytics
ECRI Institute's Patient Safety, Risk, and Quality Group

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How the Concerns Were Identified

In selecting this year's list, ECRI Institute relied both on data regarding events and concerns and on expert judgment. As a result, the list underscores that "these are real things that are happening," says Catherine Pusey, RN, MBA, associate director, ECRI Institute PSO. "They're happening at a serious level, our members are asking questions around these topics, and we're seeing them in many different manifestations."

The process synthesized data from these varied sources:

- Routine review of events in the PSO database, which contained more than 1.2 million events at the end of 2015
- PSO members' root-cause analyses and research requests
- Topics reflected in *HRC Alerts*
- Voting by a panel of experts from inside and outside ECRI Institute

But this is not an exercise in simple tabulation. "The list is not meant to be a formulaic algorithm that necessarily picks out the things that are most frequent and most severe," says Bill Marella, MBA, MMI, executive director, PSO operations and analytics, noting that most organizations already know what their high-frequency, high-severity challenges are. Instead, he says, "We're trying to pick out the things that are relatively novel or that are not necessarily new but are manifesting themselves in a new way because of changes in the healthcare system."

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How to Use This List

Use this list as a starting point for conducting patient safety discussions and setting priorities. This list is not meant to dictate which issues an organization should address. Rather, it serves as a catalyst for discussion about the top patient safety issues faced by the organization, says Pusey.

Determine whether your organization is facing similar issues and whether the concerns should be targeted for improvement. "This list is an opportunity for organizations to take stock and see whether these issues are things that they are facing and whether they have processes and systems in place to address them," says Marella.

Develop strategies to address concerns. The full report on the top 10 patient safety concerns discusses key strategies for each issue, and other ECRI Institute resources provide more in-depth guidance on individual topics. See page 14 for more information.

Consider applications across care settings. Although not all patient safety concerns on this list apply to all healthcare organizations, many are relevant to a range of settings across the continuum of care. "People relying on our services move fluidly between settings throughout their lives, which makes us interdependent in meeting each individual's healthcare needs," says Victor Lane Rose, NHA, MBA, CPASRM, operations manager for ECRI Institute's aging services risk management program. "By identifying and learning about patient safety issues from each other and applying solutions, we can better fulfill our organizations' missions and our duty-of-care obligations to those we serve."

This brief includes simple patient safety risk maps for each topic, illustrating broadly estimated likelihood and patient harm scores. *Healthcare Risk Control* (*HRC*) and ECRI Institute PSO members can use the "Patient Safety Risk Score Calculator" available in the electronic version of the full report to tabulate scores for these and other issues, based on their settings and populations.

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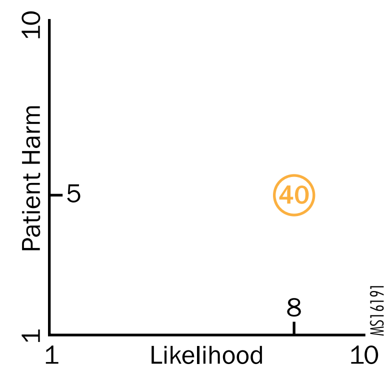
1. Health IT Configurations and Organizational Workflow That Do Not Support Each Other

When a health information technology (IT) system is implemented, organizations need to tailor the configuration to the workflow and vice versa. But often, "**after the implementation, people continue to do things the same way and really don't adjust the health IT system or their workflow,**" says Robert C. Giannini, NHA, CHTS-IM/CP, patient safety analyst and consultant, ECRI Institute.

When health IT configuration and workflow clash, communication suffers. For example, not having up-to-date information about a patient's allergies, weight, medications, tests, treatments, or code status can lead to errors or delays in care.

Organizations should involve frontline staff in planning and configuring health IT and testing its integration with workflow. Other strategies include watching for workarounds and incorporating ways to indicate the contribution of health IT issues in event-reporting systems.



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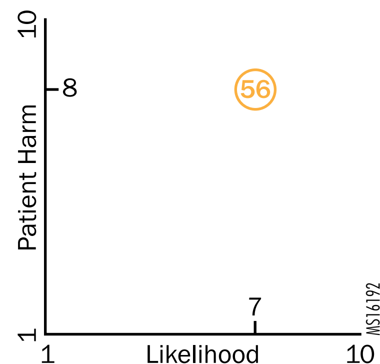
2. Patient Identification Errors

During routine reviews of reported events, ECRI Institute analysts discovered that patient identification issues were frequent. And serious consequences were evident; in fact, ECRI Institute PSO is publishing a Deep Dive examining the topic in depth later this year.

Patient identification errors have "broad implications," says Stephanie Uses, PharmD, MJ, JD, patient safety analyst and consultant, ECRI Institute. **"Let's say you have a misidentification at registration,"** says Uses. **"That can continue through their stay and even affect their postacute care."**

Organizations can improve staff members' use of two identifiers, such as by investigating and addressing reasons staff do not follow policies, and by actively involving patients. And although they are not a panacea, potential adjunct strategies include bar coding and alerts that flag mismatches between orders and the problem list.



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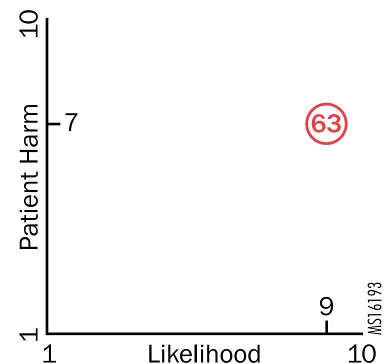
3. Inadequate Management of Behavioral Health Issues in Non-Behavioral-Health Settings

Hospital patients may behave aggressively due to psychiatric disorders, reactions to their treatment, or other reasons. **“These behaviors can be frightening or frustrating for the staff, especially if they are ill-equipped to handle them,”** says Nancy Napolitano, PCHA, patient safety analyst and consultant, ECRI Institute. These circumstances can lead to injury or even death of patients or staff—as many recent media reports have shown.

All staff need to be trained to work with patients with behavioral health needs and participate in frequent drills. Some hospitals have created behavioral emergency response teams that staff can call when a patient’s behavior becomes agitated or threatening. “It is so important to be proactive versus reactive to behavioral health needs,” says Napolitano.



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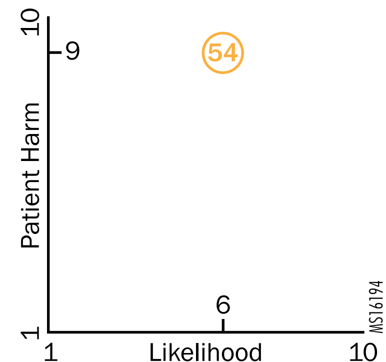
4. Inadequate Cleaning and Disinfection of Flexible Endoscopes

A series of deaths due to carbapenem-resistant Enterobacteriaceae (CRE) infections has highlighted the importance of effectively cleaning and disinfecting flexible endoscopes—a problem that has been on ECRI Institute's radar for years.

To be clinically effective, endoscopes—particularly duodenoscopes—have become complex and intricate. But that intricacy can hinder cleaning. **"These scopes have been designed to do a special job in the hands of the physician, but they haven't necessarily been designed to be easily cleaned and disinfected,"** says James Davis, MSN, RN, CCRN, CIC, HEM, senior infection prevention analyst, ECRI Institute.

Organizations should follow recommended steps to address risks related to duodenoscopes (see page 14), remain alert for recalls, and review reprocessing procedures for all endoscopes.



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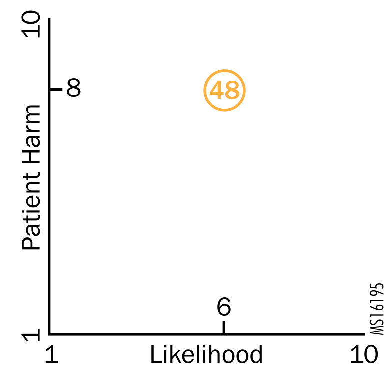
5. Inadequate Test-Result Reporting and Follow-up

Failing to report and follow up on significant test results can result in harm to patients and deterioration of their medical conditions. The many challenges to effective, timely reporting and follow-up include discharge before results are available, inadequate communication among providers, inability to communicate results to patients' primary care providers, inaccurate or missing patient contact information, and patient failure to make follow-up appointments. "**There are so many holes in that system it is striking,**" says Elizabeth A. Drozd, MS, MT (ASCP) SBB, CPPS, patient safety analyst, ECRI Institute.

A key improvement strategy is to "**analyze the whole test-result reporting and follow-up system,**" says Drozd. Organizations should also engage patients in monitoring their test results and taking appropriate actions, such as scheduling follow-up appointments.



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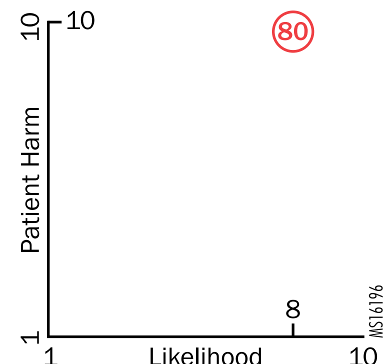
6. Inadequate Monitoring for Respiratory Depression in Patients Prescribed Opioids

Patients receiving opioids are at risk for respiratory depression, which, if it goes unnoticed, can lead to brain injury or death. In some reported events, staff avoided formally assessing patients' sedation levels because they appeared to be sleeping, but in reality, they were experiencing respiratory depression.

A tool such as a sedation scale should be used to assess level of sedation and trigger intervention as needed. **"It's recommended to be a nurse-driven protocol," says Uses. "If the patient is in trouble, the nurse can administer the rescue medications and then call the physician."** And for all adult, non-ambulatory postoperative patients on parenteral opioids, the Anesthesia Patient Safety Foundation recommends considering continuous electronic monitoring of oxygenation with pulse oximetry, as well as considering continuous electronic monitoring of ventilation when supplemental oxygen is needed.



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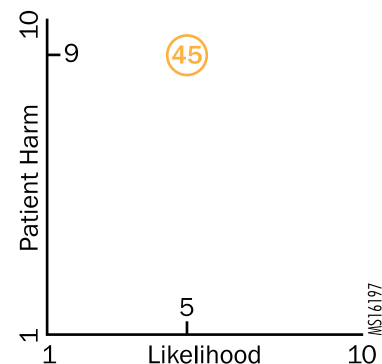
7. Medication Errors Related to Pounds and Kilograms

Medication errors involving mix-ups between pounds and kilograms have not only been seen in the PSO database, but have also been experienced first-hand: Sheila Rossi, MHA, patient safety analyst, ECRI Institute, encountered this issue in the care of her son. The 30 lb weight of her 2-year-old son was recorded as 30 kg (equivalent to 66 lb). Fortunately, Rossi and her husband trusted their instincts and administered only part of the dose.

One of the most effective strategies to reduce the risk of such errors is to "**get rid of scales that measure in pounds,**" says Rossi. "**If you can get rid of that mix-up at the very first step in the process, pounds are never introduced into the equation.**" Clinical decision support—such as functions that compare entered weight with expected weight—may also be of aid.



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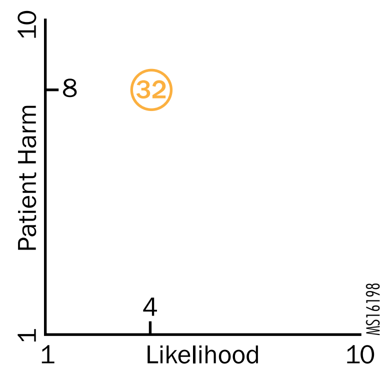
8. Unintentionally Retained Objects despite Correct Count

With unintentionally retained objects, “**the problem is the enormous amount of harm that can result,**” such as perforation, infection, pain, damage to other body parts, and death, says Gail Horvath, MSN, RN, CNOR, CRCST, patient safety analyst, ECRI Institute.

Counting surgical items is an important preventive measure. However, “**counting is a human process that’s very prone to error, especially in a busy environment where multiple things are happening simultaneously,**” Horvath notes.

Organizations need to ensure that a good evidence-based process for preventing retained objects is in place and that staff can follow it. A culture that creates team accountability and empowers nurses to speak up is a central component. Because counting is so error-prone, a systems and human factors approach can aid process evaluation and improvement.



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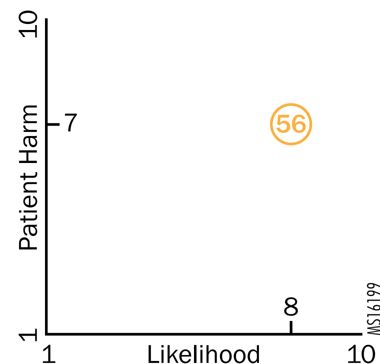
9. Inadequate Antimicrobial Stewardship

Illnesses and deaths from antibiotic-resistant organisms are a nationwide concern, and new, sometimes deadly drug-resistant infections continue to emerge. **"Action is needed now to avoid an antibiotic apocalypse,"** says Sharon Bradley, RN, CIC, senior infection prevention analyst, ECRI Institute. **"It sounds dramatic, but people need to understand that that's where we're headed."**



Challenges include unnecessary treatment of asymptomatic colonization, patient and family pressure to prescribe antibiotics, and overuse of broad-spectrum drugs.

Healthcare organizations need to educate providers and consumers, such as by spurring physicians' use of national treatment guidelines and informing patients and the public about antimicrobial stewardship. Other key strategies include implementing the core elements for antibiotic stewardship, as outlined by the Centers for Disease Control and Prevention, and working with care partners to better coordinate the care of patients with infectious diseases.

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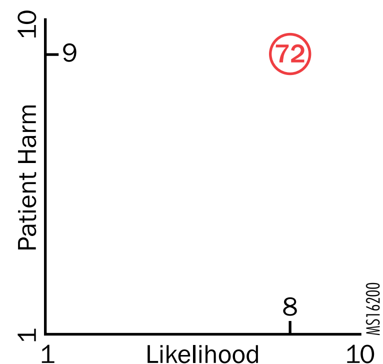
10. Failure to Embrace a Culture of Safety

Last but far from least, "embracing a culture of safety is the foundation for mitigating any of the concerns on the Top 10 list," says Mary Beth Mitchell, MSN, RN, CPHQ, CCM, SSBB, patient safety analyst and consultant, ECRI Institute. In fact, she says, "if the organization does not embrace a culture of safety, it will be difficult to address *any* of the issues that the organization may face."

Healthcare organizations must have a culture of safety that both spans the entire organization and permeates each department. Additionally, leaders' commitment to a culture of safety has to be sincere, visible, and backed with resources. **"No matter how much an employee wants to embrace this, if leadership doesn't embrace this, it's not going to happen,"** says Mitchell.



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ECRI INSTITUTE RESOURCES FOR ADDRESSING THE TOP 10 PATIENT SAFETY CONCERNS

This executive brief summarizes ECRI Institute's Top 10 list of patient safety concerns for 2016. *HRC* and PSO members can access the full report, which discusses each topic in more detail, by logging in at https://www.ecri.org.

The following ECRI Institute resources provide more in-depth guidance on specific topics. Resources marked with asterisks are publicly available; others are benefits of ECRI Institute membership programs but may be available for purchase separately. Log in at https://www.ecri.org to access resources available through your membership. Contact client services at (610) 825-6000, ext. 5891, or clientservices@ecri.org for information on purchasing resources that are not part of your membership.

1. Health IT Configurations and Organizational Workflow That Do Not Support Each Other

Healthcare Risk Control

- Electronic Health Records

ECRI Institute PSO

- *Deep Dive: Health Information Technology*

Partnership for Health IT Patient Safety

- Partnering for Success: A Call to Action*
- Health IT Safe Practices: Toolkit for the Safe Use of Copy and Paste*

Health Devices

- The Basics of EMR Integration
- 2016 Top 10 Health Technology Hazards**

2. Patient Identification Errors

Healthcare Risk Control

- Patient Identification

ECRI Institute PSO

- *Deep Dive: Patient Identification* (forthcoming in 2016)

Partnership for Health IT Patient Safety

- Safe-practice recommendations for patient identification (anticipated in 2016)

3. Inadequate Management of Behavioral Health Issues in Non-Behavioral-Health Settings

Healthcare Risk Control

- Patient Violence
- Suicide Risk Assessment and Prevention in the Acute Care General Hospital Setting
- Mental Health in Aging Services

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ECRI Institute PSO

- ▷ Managing Behavioral Health Needs of Adult Medical Inpatients (*PSO Navigator*)
- ▷ Assessing and Managing the Behavioral Health Needs of the Medical Patient (webinar)

4. Inadequate Cleaning and Disinfection of Flexible Endoscopes

Healthcare Risk Control

- ▷ Reprocessing of Flexible Endoscopes
- ▷ Endoscope Reprocessing: The Importance of Being Proactive*

ECRI Institute PSO

- ▷ Sterile Processing Department's Role in Patient Safety* (*PSO Navigator*)

Health Devices

- ▷ Tracking Scopes: Best Practices for Identifying Endoscopes during Cleaning and Patient Use (webinar)
- ▷ 2016 Top 10 Health Technology Hazards**

CRE and Duodenoscope Resource Center

- ▷ Links to ECRI Institute and other expert resources*

5. Inadequate Test-Result Reporting and Follow-up

Healthcare Risk Control

- ▷ Test Tracking and Follow-Up

ECRI Institute PSO

- ▷ *Deep Dive: Laboratory Events*

Physician Practice Risk Management

- ▷ Test Tracking and Follow-Up Toolkit

6. Inadequate Monitoring for Respiratory Depression in Patients Prescribed Opioids

Healthcare Risk Control

- ▷ Pain Medication and PRN Orders
- ▷ Patient-Controlled Analgesia
- ▷ Infusion Pumps

ECRI Institute PSO

- ▷ Pain Relief: How to Keep Opioid Administration Safe (*PSO Navigator*)
- ▷ Preventing Opioid-Induced Respiratory Depression (webinar slides)
- ▷ Patient Risk Factors for Opioid-Induced Respiratory Depression (research response)

Health Devices

- ▷ 2016 Top 10 Health Technology Hazards**

7. Medication Errors Related to Pounds and Kilograms

Healthcare Risk Control

- ▷ Medication Safety
- ▷ High-Alert Medications

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ECRI Institute PSO

- ▷ Medication Safety: Inaccurate Patient Weight Can Cause Dosing Errors* (*PSO Navigator*)
- ▷ Weigh In: Wrong Patient Weights Cause Dosing Errors (*Patient Safety E-lert*)

8. Unintentionally Retained Objects despite Correct Count

Healthcare Risk Control

- ▷ Unintentionally Retained Surgical Items

ECRI Institute PSO

- ▷ Adjunct Technologies for Retained Surgical Items (research response)

9. Inadequate Antimicrobial Stewardship

Healthcare Risk Control

- ▷ Overview of Infection Prevention and Control
- ▷ High-Profile Healthcare-Associated Infections

10. Failure to Embrace a Culture of Safety

Healthcare Risk Control

- ▷ Culture of Safety*

INsight Assessment Services

- ▷ Patient Safety Culture in Hospitals
- ▷ Patient Safety Culture in Medical Offices
- ▷ Patient Safety Culture in Nursing Homes

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* Publicly available without login.
** Publicly available with e-mail submission.

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