ED Patient Safety Update 2017

RELIAS LEARNING

03/06/2017

Speaker

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Objectives

- Describe ECRI Institute's top 10 patient safety concerns.
- Discuss patient safety measures to keep at-risk patients from harming themselves when admitted.
- Explain new and revised standards, regulations, and laws put forth by CMS, TJC and the federal government.

Introduction and the Faces of Patient Safety

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Headlines About Patient Safety in Hospitals

How to Survive Your Hospital Stay

Hospitals aren't always safe havens, as hazards include surgical errors, infections and falls.

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The Faces We Should Remember

- Josie King died at 18 months as a result of a hospital error from severe dehydration and misused narcotics
- Condition H now allows families to call a RRT
- Sorrell King has started a foundation to improve patient safety in healthcare

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The Faces of Patient Safety

- Ben Kolb, a 7 year old scheduled for elective ear surgery
- The surgeon injected with Lidocaine around the ear to numb the area
- He went in a cardiac arrest and died
- Martin Memorial Hospitals does a full investigation
- He had accidentally been given concentrated Epi which was poured into a unmarked sterile container
- Many Epi medication errors in the ED

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Faces of Patient Safety

- Susan Sheridan
- She lost her son, Cal, from severe brain damage
- Failed to diagnosis and treat kernicterus or neonatal jaundice
- She co-founded Parents of Infants and Children with Kernicterus and lead patient initiative for WHO
- Her husband dies from spinal cancer after an x-ray was taken and they failed to communicate this to him timely

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Evidenced Based Study on Patient Harm

- IOM estimated that there are 98,000 patients a year who die from medical errors
- Study published in the Journal of Patient Safety in 2013 estimated that there are 400,000 premature deaths associated with preventable harm to patients
- Serious harm seems to be 10-20 fold more common that lethal harm
  - Use the IHI Global Trigger Tool
- Author said the epidemic of patient harm in hospitals must be taken more seriously to be curtailed

RELIAS LEARNING 9

400, 000 Preventable Deaths a Year

REVIEW ARTICLE

http://journals.lww.com/journalpatientsafety/Fulltext/2013/09000/A_New,_Evidence_based_Estimate_of_Patient_Harms.2.aspx

A New, Evidence-based Estimate of Patient Harms Associated with Hospital Care

John T. James, PhD

Objectives: Based on 1984 data developed from reviews of medical records of patients treated in New York hospitals, the Institute of Medicine estimated that up to 98,000 Americans die each year from medical errors. The basis of this estimate is nearly 3 decades old, herein, an updated estimate is developed from modern studies published from 2008 to 2011.

Methods: A literature review identified 4 limited studies that used primarily the Global Trigger Tool to flag specific evidence in medical records, such as medication stop orders or abnormal laboratory results, which point to an adverse event that may have harmed a patient. Ultimately, a physician must concur on the findings of an adverse event and then classify the severity of patient harm.

Results: Using a weighted average of the 4 studies, a lower limit of 210,000 deaths per year was associated with preventable harm in hospitals. Given limitations in the search capability of the Global Trigger Tool and the incompleteness of medical records on which the Tool depends, the true number of premature deaths associated with preventable harm to patients was estimated at more than 400,000 per year. Serious harm seems to be 10- to 20-fold more common than lethal harm.

Conclusions: The epidemic of patient harm in hospitals must be taken more seriously if it is to be curtailed. Fully engaging patients and their advocates during hospital care, systematically seeking the patients' voice in identifying harms, transparent accountability for harm, and intentional correction of root causes of harm will be necessary to accomplish this goal.

Key Words: patient harm, preventable adverse events, transparency, patient-centered care, Global Trigger Tool, medical errors

(*J Patient Saf* 2013;9: 122–128)

the national level. The amount of new knowledge generated each year by clinical research that applies directly to patient care can easily overwhelm the individual physician trying to optimize the care of his patients.[5] Furthermore, the lack of a well-integrated and comprehensive continuing education system in the health professions is a major contributing factor to knowledge and performance deficiencies at the individual and system level.[5] Guidelines for physicians to optimize patient care are quickly out of date and can be biased by those who write the guidelines.[1,2] At the system level, hospitals struggle with staffing issues, making suitable technology available for patient care, and executing effective handoffs between shifts and also between inpatient and outpatient care.[6] Increased production demands in cost-driven institutions may increase the risk of preventable adverse events (PAEs). The United States trails behind other developed nations in implementing electronic medical records for its citizens.[7] Hence, the information a physician needs to optimize care of a patient is often unavailable.

At the national level, our country is distinguished for its patchwork of medical care subsystems that can require patients to bounce around in a complex maze of providers as they seek effective and affordable care. Because of increased production demands, providers may be expected to give care in suboptimal working conditions, with decreased staff, and a shortage of physicians, which leads to fatigue and burnout. It should be no surprise that PAEs that harm patients are frighteningly common in this highly technical, rapidly changing, and poorly integrated industry. The picture is further complicated by a lack of transparency and limited accountability for errors that harm patients.[8,9]

There are at least 3 time-based categories of PAEs recog-

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2016 John Hopkins Study

- Study found that there are more than 250,000 deaths a year from medical errors
- Study suggests that medical errors are the third-leading cause of death in the US
  - Medical error is not reported as a cause of death on death certificates and authors think it should be
  - Deaths associated with ICD codes, such as human and system factors are not captured
  - Science of safety has matured and to describe how communication, breakdowns, diagnostic error, etc
  - Published in the May 3, 2016 BMJ *BMJ 2016;353:i2139*

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HUB EVENTS AT WORK JOHNS HOPKINS MAGAZINE JHU.EDU

HUB

JOHNS HOPKINS UNIVERSITY

Johns Hopkins study suggests medical errors are third-leading cause of death in U.S.

Physicians advocate for changes in how deaths are reported

Vanessa McMains / May 3

Analyzing medical death rate data over an eight-year period, Johns Hopkins patient safety experts have calculated that more than 250,000 deaths per year are due to medical error in the U.S. Their figure, published May 3 in *The BMJ*, surpasses the U.S. Centers for Disease Control and Prevention's third leading cause of death—respiratory disease, which kills close to 150,000 people per year.

16 comments

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The Johns Hopkins team says the CDC's way of collecting national health statistics fails to classify medical errors separately on

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HHS Report Reduction in Harm

- HHS announces that data shows a reduction in hospital induced harm on May 7, 2014
- QI and patient safety initiatives prevented 15,000 deaths in hospitals, avoided 560,000 patient injuries
  - It also reduced health care spending by $4 billion
  - Shows a 8% decrease in hospital readmissions
  - Reduced HAI from 145 to 132 per 1,000 discharges
- The public and private partnerships are working to help spread best practices
  - http://innovation.cms.gov/Files/reports/patient-safety-results.pdf

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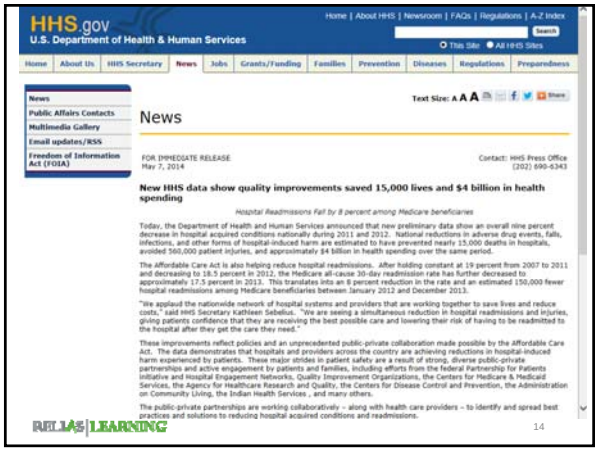

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News

FOR IMMEDIATE RELEASE
May 7, 2014

Contact: HHS Press Office
(202) 690-6343

New HHS data show quality improvements saved 15,000 lives and $4 billion in health spending

Hospital Readmissions Fall by 8 percent among Medicare beneficiaries

Today, the Department of Health and Human Services announced that new preliminary data show an overall nine percent decrease in hospital acquired conditions nationally during 2011 and 2012. National reductions in adverse drug events, falls, infections, and other forms of hospital-induced harm are estimated to have prevented nearly 15,000 deaths in hospitals, avoided 560,000 patient injuries, and approximately $4 billion in health spending over the same period.

The Affordable Care Act is also helping reduce hospital readmissions. After holding constant at 19 percent from 2007 to 2011 and decreasing to 18.5 percent in 2012, the Medicare all-cause 30-day readmission rate has further decreased to approximately 17.5 percent in 2013. This translates into an 8 percent reduction in the rate and an estimated 150,000 fewer hospital readmissions among Medicare beneficiaries between January 2012 and December 2013.

"We applaud the nationwide network of hospital systems and providers that are working together to save lives and reduce costs," said HHS Secretary Kathleen Sebelius. "We are seeing a simultaneous reduction in hospital readmissions and injuries, giving patients confidence that they are receiving the best possible care and lowering their risk of having to be readmitted to the hospital after they get the care they need."

These improvements reflect policies and an unprecedented public-private collaboration made possible by the Affordable Care Act. The data demonstrates that hospitals and providers across the country are achieving reductions in hospital-induced harm experienced by patients. These major strides in patient safety are a result of strong, diverse public-private partnerships and active engagement by patients and families, including efforts from the federal Partnership for Patients initiative and Hospital Engagement Networks, Quality Improvement Organizations, the Centers for Medicare & Medicaid Services, the Agency for Healthcare Research and Quality, the Centers for Disease Control and Prevention, the Administration on Community Living, the Indian Health Services , and many others.

The public-private partnerships are working collaboratively - along with health care providers – to identify and spread best practices and solutions to reducing hospital acquired conditions and readmissions.

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NPSF 8 Recommendation for Total Systems Safety

RELIAS LEARNING 15

Expert Panel NPSF

- 15 years after the IOM report, **patient safety concerns remain a serious public health issue**
- Expert panel of the National Patient Safety Foundation in 2015 convened to assess the state of patient safety and set the stage for the next 15 years
- The report can be downloaded at no cost
- 59 page document
- Every healthcare facility should read this
- The report made 8 recommendations

http://c.ymcdn.com/sites/www.npsf.org/resource/resmgr/PDF/Free_from_Harm.pdf

8 Recommendation for Total Systems Safety

- Make sure that the leaders establish and sustain a culture of safety
  - To improve patient safety requires an organizational culture
  - The hospital needs to prioritize safety
  - Culture changes need to be at the forefront
- Centralized and coordinated oversight of patient safety needs to be created
  - This will require coordination and oversight of safety organizations and national governing bodies

8 Recommendation for Total Systems Safety

- A common set of safety metrics need to be developed to reflect meaningful outcomes
  - We need to establish standard metrics across the care continuum and we need to identify and measure risks
- There needs to be increased funding for research in patient safety
- Safety needs to be addressed across the continuum
  - We need to evaluate care in many settings
  - Need better tools and processes to deliver care safely

8 Recommendation for Total Systems Safety

- The healthcare force needs to be supported
  - Work force safety, morale, and wellness are necessary to provide safe care
  - Staff need to be supported to reach full potential
- We need to partner with patients and families
  - Need to be actively engaged at all levels
- Technology needs to be safe and optimized to improve patient safety
  - Minimizing unintended consequences of health IT is critical

Measuring Patient Safety in the ED

- Article recommend developing performance indicators to measure patient safety in the ED
- Practical score card for measuring patient safety over time has been lacking
- Article proposes a frame work through 4 domains
  - How often are patients harmed
  - How often are appropriate interventions delivered
  - How well errors are identified and corrected
  - ED safety culture
- Am J Med Qual. 2014 Mar-Apr;29(2):99-104

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Measuring Patient Safety in the Emergency Department

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http://ajm.sagepub.com/content/29/2/99

Abstract

As a safety net for the health care system, quality and safety performance in emergency medicine (EM) is important for policy makers, insurers, researchers, health care providers, and patients. Developing performance indicators that are relevant, valid, feasible, and easy to measure has proven difficult. To monitor progress, patient safety should be measured objectively. Although conceptual frameworks and error taxonomies have been proposed, a practical scorecard for measuring patient safety over time in EM

ED Patient Safety Issues

- There are many patient safety issues
- Inpatient suicides, falls, medication errors, alarm fatigue, fatigue, wrong site surgery, restraint injuries, elopement, retained foreign objects, delay in diagnosis, infant abduction, misdiagnosis, communication errors, transfusion errors, surgical site infection, Heparin complications, Warfarin complications, critical lab results, skin tears, alarm fatigue, improper hand offs, MRI safety, infections like MRSA and VRE,

Enhanced AHRQ Network for Patient Safety

AHRQ Mergers Related to Patient Safety

- AHRQ has merged the following patient safety resources to provide one stop:
  - AHRQ Patient Safety Network (PSNet)
  - AHRQ Web M&M (morbidity and mortality rounds
- For more information go to psnet.ahrq.gov
- PSNet has weekly up dates on patient safety literature, news, tools and other resources
- Web M&M publishes analysis of medical errors and recommendations for improvement
- Has patient safety primers

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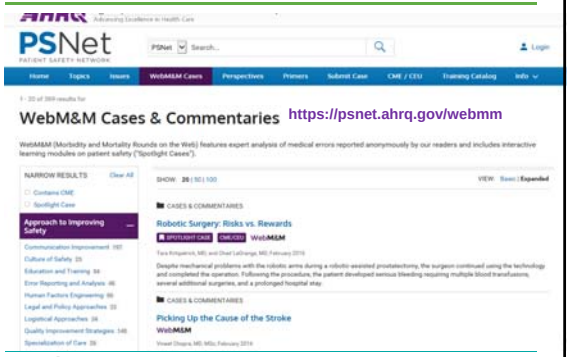
AHRQ Patient Safety Net



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IHI 6 Patient Safety New Year's Resolutions for 2017

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IHI 6 Patient Safety Resolutions

- IHI CEO, Derek Feeley, said the patient safety movement is at a critical turning point during 28th annual National Forum on QI in Healthcare
  - This is why we need a system of safety- we're not playing whack a mole for each ugly problem when it pops up
- He discusses things to tackle in 2017
- Learn from what goes right, as well as what goes wrong.
- Move from reactive and responsive to proactive and generative.

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IHI 6 Patient Safety Resolutions

- Invest in safety systems for learning, rather than just individual safety projects.
- Shift away from fear, blame and liability toward humility, trust and transparency.
- Stop feeling as though you have to keep individuals you serve safe and, instead, begin to co-produce safety with patients and their families.
- Understand that safety is more than just the avoidance of physical harm, but also the pursuit of dignity and equity.

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Top 10 Patient Safety Issues in by Becker's Infection Control and Clinical Quality 2017

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Top 10 Patient Safety Issues

- January 2017 article discusses top 10 patient safety issues by Becker's Infection Control and Clinical Quality

1. Medication errors
2. Diagnostic errors
3. Discharge practices to post acute or home care
   - Study found 20% had adverse event within 3 weeks
4. Workplace safety
   - Lifting injuries and needlestick injuries

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Top 10 Patient Safety Issues

- 5. Hospital facility safety
  - Legionnaire's disease
  - Several organizations construction and engineering industries formed a task force to create uniform guidelines for the heating, ventilation and air condition of operating rooms, sterile processing departments and endoscope procedure rooms to ensure patient safety
- 6. Reprocessing issues
  - Cleaning flexible scopes and culturing scopes
- 7. Sepsis
  - Half the patients who get sepsis die

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Top 10 Patient Safety Issues

- 8. Super superbugs
  - This is bacteria that cannot be treated using two or more antibiotics and continue to pose a threat to patients, and they appear to be getting stronger
  - Dangerous CRE case reported
- 9.The cyber-insecurity of medical devices
  - Hospira infusion pump could be remotely hacked
- 10. Going transparent with quality data
  - Hospitals that query patients about physician satisfaction should post the information

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Top Ten Patient Safety Issues

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ERCI Top 10 Patient Safety Issues

- ECRI Institute publishes list of top ten patient safety issues in the past two years
- ECRI is a PSO and the list is the result of patient safety event reports, research requests, and root-cause analyses (RCA) submitted to ECRI
- Also from knowledge gained through investigating incidents, observing and assessing hospital practices, and reviewing health-technology-related problem reports
- Mislabeled lab specimens and patient falls while toileting still remains a concern

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ECRI 2016 Top 10 Patient Safety Concerns

- ECRI publishes a list of the top ten patient safety concerns

1. Health IT configurations and organizational workflow that do not support each other
2. Patient identification errors
3. Inadequate management of behavioral health issues in non-behaviorial health settings
4. Inadequate cleaning of endoscopes
5. Inadequate test result reporting and follow up

ECRI Top 10 Patient Safety Concerns

ECRI 2016 Top 10 Patient Safety Concerns

6. Inadequate monitoring for respiratory depression in patients prescribed opioids
7. Medication errors related to pounds and kg
8. Unintentional retained objects despite correct counts
9. Inadequate antimicrobial stewardship
   - TJC implements January 1, 2017
   - CMS adds to IC Worksheet and Proposed CoPs
10. Failure to embrace a culture of safety

ERCI 2015 Top 10 Patient Safety Issues

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ERCI Top Patient Safety Issues

- Alarm hazards: inadequate alarm configuration policies and practices
  - Do you have a monitor watcher in the ED?
  - How do you make sure if a monitor goes off in the ED that someone goes in to assess the patient
  - Remember the issue of alarm fatigue where there are so many things that beep that staff may not hear the alarm
  - It is a Joint Commission (TJC) NPSG (National Patient Safety Goal) and as of 2016 must have P&P to manage alarms identified by the hospital
  - Discussed in detail later

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ERCI Top 10 Patient Safety Issues

- Data integrity: incorrect or missing data in EHRs and other health IT systems
  - Create an EHR that includes all of the required documentation elements
  - Technology can create safety risks if not designed appropriately or implemented correctly
  - Missed data so no allergy recorded and ED patient gets medication she is allergic to
  - Initially missed diagnosis of EBOLA in Texas ED was reported to be due to ED physician not being able to see ED triage nurses notes but later recanted
  - Outdated information being copied and pasted into chart

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ERCI Top Patient Safety Issues

- Managing patient violence
  - Major issue in the ED and with the Emergency Nurses Association (ENA) and American College of Emergency Physicians (ACEP)
  - Accounts for 900 deaths and 1.7 million non-fatal assaults every year
  - ENA has many excellent workplace violence resources along with a study of the problem and a violence position statement at www.ena.org/government/State/Pages/WVResources.aspx
  - ENA has workplace violence toolkit at www.ena.org/practice-research/Practice/ViolenceToolKit/Documents/toolkitpg1.htm
  - Staff need proper training to recognize : CPI, MOAB, etc.
  - TJC requires de-escalation training. See PC.01.01.01 EP 4 and 24

ACEP Violence in the ED Policy

Protection from Physical Violence in the Emergency Department Environment

Revised and approved by the ACEP Board of Directors June 2011 and April 2008
Reaffirmed by the ACEP Board of Directors October 2001 and October 1997
Originally approved by the ACEP Board of Directors January 1993

The American College of Emergency Physicians (ACEP) believes that optimal patient care can be achieved only when patients, health care workers, and all other persons in the emergency department (ED) are protected against violent acts occurring within the department. As such, ACEP advocates for increased awareness of violence against health care workers in the ED and for increased safety measures in all EDs. Further, ACEP encourages all states to enact legislation that provides a maximum category of offense and criminal penalty against individuals who commit violence against health care workers in the ED.

To ensure the security of the ED environment, the hospital has the following responsibilities:

- Provide a best-practices security system including adequate security personnel, sufficient training of personnel, physical barriers, surveillance equipment, and other security components.
- Coordinate the hospital security system with local law enforcement agencies.
- Develop written emergency department protocols for violent situations occurring in the ED to ensure the safety of patients and health care workers alike.
- Educate staff on preventing, recognizing, and dealing with potentially violent situations.
- Conduct ongoing assessments of the ED security system performance.
- Maximum criminal prosecution will be pursued against those individuals who commit violent acts against health care workers, when deemed appropriate, based on the circumstances of the incident.

Additionally, ACEP recognizes that the EMS system is an integral component of emergency care and supports and encourages efforts to protect EMS personnel against physical violence in the prehospital

ERCI Top Patient Safety Issues

- Mix-up of IV lines leading to misadministration of drugs and solutions
  - CMS now requires nurses to trace back or evaluate all IVs and tubes when getting out of report and to verify everything is current and consider labeling each infusion line
  - CMS requires the nurse to verify that the infusion rate is correct also and hospital should have a P&P
  - CMS has issued a tubing misconnection memo
  - TJC has issued a sentinel event alert
    - Case reported to ECRI was patient sent from the ED to the CCU and when arrived Heparin bag was empty because ED nurse mixed up the two IVs

Luer Misconnections Memo

- CMS issues memo March 8, 2013
- This has been a patient safety issues for many years
- Staff can connect two things together that do not belong together because the ends match
  - For example, a patient had the blood pressure cuff connected to the IV and died of an air embolism
  - New connectors being developed
- Luer connections easily link many medical components, accessories and delivery devices

Luer Misconnections Memo

DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
7500 Security Boulevard, Mail Stop C2-21-16
Baltimore, Maryland 21244-1850

CMS

Center for Clinical Standards and Quality/Survey & Certification Group

Ref: S&C: 13-14-ALL

DATE: March 8, 2013

TO: State Survey Agency Directors

FROM: Director
Survey and Certification Group

SUBJECT: Luer Misconnection Adverse Events

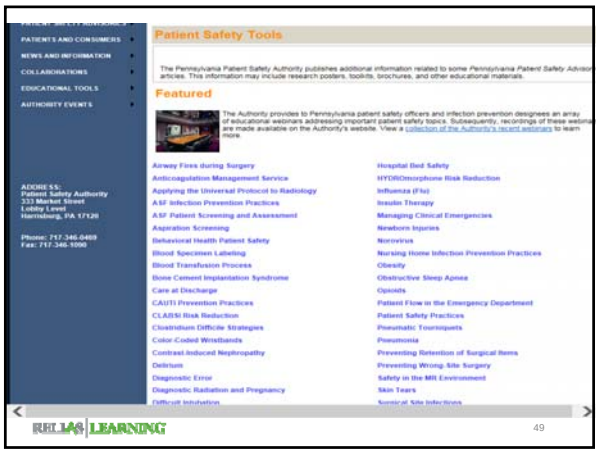
Memorandum Summary

- **Luer Misconnections continue to result in adverse events and deaths** – Luer connectors easily link many medical components, accessories, and delivery systems. Clinicians, in any type of provider or supplier setting, can mistakenly connect the wrong devices and deliver substances through the wrong route. Despite numerous alerts and warnings, a patient's blood pressure tubing was recently misconnected to an intravenous (IV) line in an ambulatory surgery center (ASC) resulting in a patient death.
- **Adverse Event Complaint Investigation:** During a complaint investigation for an adverse event involving delivery of an incorrect substance or utilization of an incorrect delivery route, surveyors must be alert to whether the event involved misconnection of a Luer device. If so, surveyors must determine whether the facility has taken actions to ensure systems are in place to prevent recurrence of this type of adverse event.
- **Facility Reporting to Food & Drug Administration (FDA):** Surveyors should encourage health care facilities to report problems with Luer misconnections to the FDA, even if no adverse event occurred.

PA Patient Safety Authority Article

Table. Tubing Misconnections Reported to the Pennsylvania Patient Safety Authority, January 2008 to September 2009

MISCONNECTION	NUMBER OF REPORTS
Secondary intravenous (IV) infusion connected to lower "Y" port of primary IV tubing set	8
Hemodialysis arterial and venous tubing lines reversed	5
G-tube and J-tube lines reversed	3
Incorrect tubing connection (no further explanation provided in reports)	3
Epidural and patient-controlled analgesia (PCA) tubing sets reversed	2
Nonhemodialysis arterial and venous tubing lines reversed	2
Cell saver tubing connected to cell saver reservoir	1
Feeding tube set connected to Broviac®	1
Feeding tube set connected to peripherally inserted central catheter (PICC) line	1
Feeding tube set connected to suction port	1
Imaging contrast tubing set connected to tracheostomy cuff	1
IV tubing set connected to dialysis catheter	1
IV tubing set connected to PICC line	1
IV tubing set connected to tracheostomy cuff	1
Knee irrigation connected to peripheral IV tubing	1
Miscommunication (arterial line noted in medical record as peripheral IV)	1
Oral medication delivered through peripheral IV line	1
Suction line connected to water seal	1
Suction and feeding tubing sets reversed	1
Total	**36**



ERCI Top Patient Safety Issues

- Care coordination events related to medication reconciliation
  - Get a list of all medications from every ED patient along with dose and frequency
  - Consult list if any medication is ordered in the ED
  - If patient is admitted then full reconciliation can occur
    - Discussed later under the section on medication reconciliation which is TJC NPSG.03.06.01 and CMS will be implementing also

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ERCI Top 10 Patient Safety Issues

Failure to conduct independent double checks independently

- CMS requires hospitals to have two practitioners check to make sure the blood is correct and one must be RN who is administering it
- CMS requires hospitals to have a list of high alert medication
- Hospital P&P must specify when independent double checks should occur
- So two nurses verify Heparin bolus amount and drip or the subq insulin is correct

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ERCI Top 10 Patient Safety Issues

Opioid-related events/monitor for respiratory depression

- Use and prescribing of opioids has significantly increases
- So has the number of adverse events and overdoses with the number of overdoses doubling from 2004 to 420,000 in 2011
- Commonly involved is Dilaudid (HydroMORPHONE), oxycodone, PCA opioid, and fentanyl patches
- CMS implemented detailed process for hospitals on June 6, 2015 and discussed in more detail later
- Must have P&P, must train staff, P&P must be approved by MEC, must include how to monitor patients (VS, Pulse Ox, ETCO2 etc) and how often

Medication and Safe Opioid Use

- CMS issues 32 page memo on medication administration and safe opioid use March 14, 2014 and effective June 6, 2014
  - Risk and patient safety need to review this besides nursing, pharmacy, MEC, and nurse educator
- Concerned about the number of patients with adverse events when taking opioids
- Must have a P&P
- Must train staff and include information that must be in the assessment
- Must document process
  - **Questions to hospitalscg@cms.hhs.gov**

CMS Memo Med & Safe Opioid Use

DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
7500 Security Boulevard, Mail Stop C2-21-16
Baltimore, Maryland 21244-1850

CMS
CENTERS FOR MEDICARE & MEDICAID SERVICES

Center for Clinical Standards and Quality/Survey & Certification Group

Ref: S&C: 14-15-Hospital

DATE: March 14, 2014

TO: State Survey Agency Directors

FROM: Director
Survey and Certification Group

SUBJECT: Requirements for Hospital Medication Administration, Particularly Intravenous (IV) Medications and Post-Operative Care of Patients Receiving IV Opioids

Memorandum Summary

- ***Medication Administration:*** We are updating our guidance for the hospital medication administration requirements to:
  - Make clear that the medication administration requirements under the nursing services condition of participation (CoP) are related to only some components of the overall hospital medication process, but that hospitals are expected, through this and the related requirements under the pharmaceutical services and quality assessment/performance improvement CoPs, to take a comprehensive approach to the medication process.
  - Update our guidance for IV medications and blood transfusions in general; and
  - Reflect the need for patient risk assessment and appropriate monitoring during and after medication administration, particularly for post-operative patients receiving IV opioid medications, in order to prevent adverse events.
- ***Immediate Post-operative Care:*** Clarification is also being made to the guidance for the surgical services CoP requirement for hospitals to have adequate provisions for immediate post-operative care, to emphasize the need for post-operative monitoring of patients

ERCI Top 10 Patient Safety Issues

Inadequate reprocessing of endoscopes and surgical instruments

- ED instruments are wiped down after use, soaked in an enzymatic solution and sent to central supply for processing

Inadequate patient handoffs related to patient transport

- Have good report process and consider bedside report and when transferring patient to their bed and discussed in detail later (safe handoffs)

Medication errors related to pounds and kilograms

- ENA initiative and always weigh in kg and not pounds

RELIAS | LEARNING 55

ERCI Top 10 Patient Safety Issues

- Patient identification errors
  - Found identification errors were frequent
  - Misidentification at registration that continues
  - Use two identifiers and follow P&Ps
- Inadequate management of behavioral health issues in non-behavioral health setting
  - Staff need to know what to do if behavior becomes threatening
- Inadequate test result reporting and follow-up
  - Problem when discharges patient before tests back

RELIAS | LEARNING 56

ERCI Top 10 Patient Safety Issues

- Medication errors related to pounds & kg.
  - Discussed later
  - Weigh children in kg and babies in grams
- Unintentional retained objects despite correct count
- Inadequate antimicrobial stewardship
  - CMS will require hospitals to have
  - Already in the CMS hospital infection control worksheet
- Failure to embrace a culture of safety
  - Previously discussed

RELIAS | LEARNING 57

ACEP and ENA on Patient Safety

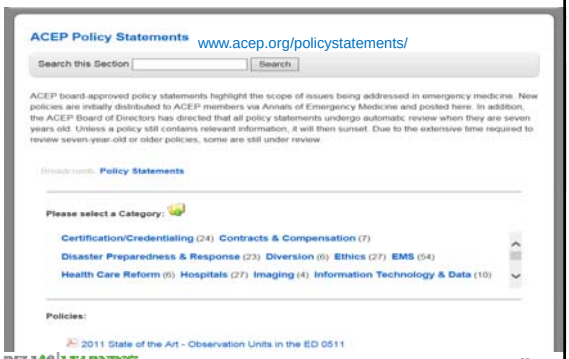
RELIAS LEARNING 58

ACEP and ENA Position Statements

- ED physicians and ED staff should always be aware of position statements by national association such as ACEP and ENA
  - American College of Emergency Physicians (ACEP) is www.acep.org
  - Emergency Nurses Association is www.ena.org
- CMS in the hospital Conditions of Participation (CoPs) states that hospitals must follow the acceptable standards of care and practice

RELIAS LEARNING 59

ACEP Policy Statements



RELIAS LEARNING 60

Policies:

- Advocating for Certified Emergency Nurses (CENs) in Departments of Emergency Medicine
  Support of Emergency Nurses Association (ENA) and the Board of Certification for Emergency Nursing (BCEN)
- Appropriate Interhospital Patient Transfer
  The optimal health and well-being of the patient should be the principal goal of patient transfer.
- Availability of Hospital Diagnostic and Therapeutic Services
  Supports policies that endorse consistent 7-days a week availability of hospital diagnostic and therapeutic services
- Boarding of Admitted and Intensive Care Patients in the Emergency Department
  Hospitals have the responsibility to provide quality patient care and optimize patient safety by ensuring the prompt transfer of patients admitted to inpatient units as soon as the treating emergency physician makes such a decision.
- Deferral of Care After Medical Screening of Emergency Department Patients
  The American College of Emergency Physicians (ACEP) believes that every patient who seeks care in the emergency department (ED) should receive appropriate and necessary medical care.
- Delivery of Care to Undocumented Persons
  Treatment of undocumented persons.
- ED Planning Resource Guidelines 2014
- Emergency Department Nurse Staffing
  Support for registered nurses who are trained and experienced in the practice of emergency nursing.
- Emergency Department Planning and Resource Guidelines
  Resources and planning needed to meet the emergency medical care needs of the individual and the

Example of ACEP Clinical Policy

American College of Emergency Physicians® Menu myACEP

Clinical & Practice Management

Reporting of Medical Errors

Reaffirmed and approved by the ACEPBoard of Directors April 2014
Revised and approved by the ACEP Board of Directors June 2008
Originally approved by the ACEP Board of Directors September 2001

The American College of Emergency Physicians (ACEP) supports a standardized system of medical error reporting for the purpose of aiding practitioners and institutions in efforts to improve patient safety. Such a system should:

- Define procedures to identify and report errors.
- Utilize a set of definitions and taxonomy of errors developed through consensus.
- Use a centralized data repository that processes and evaluates the data submitted and assures its integrity and confidentiality.
- Ensure that information submitted to reporting systems will be comprehensively analyzed to identify actions that would minimize the risk that reported events recur that reduce recurrence of errors. Reporting systems should facilitate the sharing of patient safety information among providers and health care organizations and foster confidential collaboration with other health care reporting systems.
- Support a non-punitive culture for reporting health care errors focusing on preventing and correcting systems failures rather than on individual or organizational culpability.
- Include statutory protection from liability to providers and institutions that report data to the system.
- Eliminate redundancy in reporting to multiple agencies or governmental bodies.
- Be adequately funded.

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Professional Organizations & Patient Safety

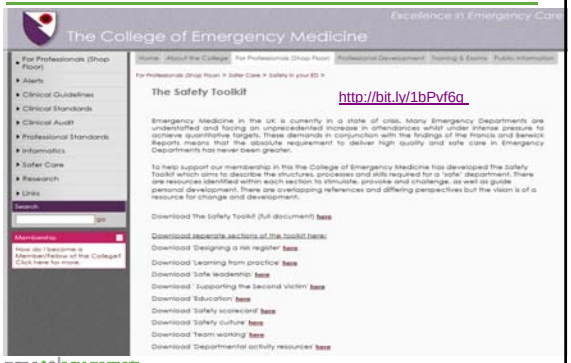
- There are many ED organizations with patient safety committees and they develop research based programs
- ACEP has the QIPS Committee (Quality Improvement and Patient Safety)
- ENA has a patient safety position statement
- The Society of Academic Emergency Medicine (SAEM) also has a patient safety committee
- Others include AHRQ (Patient Safety Tools), ISMP, and IOM Redesigning Work Environment of Nurses

ACEP Patient Safety Sections QIPS

www.acep.org/qipssection/

ACEP QIPS

Patient Safety Toolkit in the ED UK



http://bit.ly/1bPvf6q

ENA Position Statements

Home » About ENA » Position Statements » ENA Position Statements

ENA Position Statements

Access to Health Care (12/2010)	Position Statement
Advanced Practice in Emergency Nursing (2/2012)	Position Statement
Appropriate Credential Use/Title Protection For Nurses With Advanced Degrees (5/2013)	Position Statement
Care of Patients with Chronic/Persistent Pain in the Emergency Setting (1/2014)	Position Statement
Chemical Impairment of Emergency Nurses (07/2010)	Position Statement
Collaborative and Interdisciplinary Research (12/2010)	Position Statement
Communicable Diseases in the Emergency Department (05/2010)	Position Statement
Cultural Diversity in the Emergency Setting (5/2012)	Position Statement
Deceased Patients for Procedural Practice (7/2010)	Position Statement
Disaster and Emergency Preparedness for All Hazards (1/2014)	Position Statement
Education Recommendations: Trauma Nursing (7/2010)	Position Statement

ENA Patient Safety in the ED

- ENA has a two page position statement on patient safety in emergency health care
- Implemented December 20, 2010
- Patients have a right to emergency care that is free from injuries or accidents from medical care
  - National Healthcare report notes that 15% of patients are harmed from the process

ENA Patient Safety in the ED

- Patient safety program must focus on team work approach maintained within a culture of safety
- Culture of safety includes non-punitive environment
  - TJC and CMS Hospital CoP also requires
  - AHRQ Culture survey results show this is still a problem in hospitals
- Hospital must have a patient safety program in place
  - Including error reporting and improving processes
  - Non-punitive environment includes reporting of near misses

Position Statement

www.ena.org/about/position/position/Pages/Default.aspx

PATIENT SAFETY IN EMERGENCY HEALTH CARE

Patient safety is defined as freedom from accidental or preventable injuries produced by medical care. Emergency nurses have a unique opportunity to assess for risk of patient injury due to medical error and to prevent these events from occurring or recurring. Broad process and system improvements that include all members of the healthcare team are needed to address the specific complexity of the emergency care system. Patient safety programs in the emergency care setting must focus on a team based approach that is carefully developed, implemented, and maintained within a culture of safety. Improving the culture of safety within health care is an essential component of preventing or reducing errors and improving overall health care quality. Through the promotion of a culture of safety that incorporates non-punitive, respectful responses to disclosure and error reporting, health care organization leaders need to encourage and actively support emergency nurses in the delivery of safe patient care. Emergency nurses need to participate in error reporting, patient safety research, and ongoing patient safety education so that error and near-misses can be identified, trapped, and successfully mitigated.

It is the position of the Emergency Nurses Association that:

1. Patients have a right to emergency health care that is free from injuries produced by medical care.
2. Emergency nurses are a critical member of the emergency health care team, providing identification of potential or actual risk, communication of safety threats and prevention of patient harm. Emergency nurses must work to establish and implement practice guidelines and standards that support safe nursing practice and safe patient care.
3. Health care organization leaders must ensure a multidisciplinary teamwork approach to the improvement of faulty processes and systems to improve patient safety. Such programs should include error reporting systems and focus on improving work processes, organizational culture, and

RELIAS LEARNING 70

ENA Patient Safety in the ED

- ED need to respectfully coach and challenge each other
- Leaders should encourage organizational learning
  - We need to learn from our mistakes and share the knowledge
- ED nurses must implement practice guidelines and standards that support safe practice
  - CMS and TJC will cite ED staff for failure to follow a standard of care
  - Violation of a SOC can be used against a practitioner in the court room
- Source: http://www.ena.org/about/position/position/Pages/Default.aspx

RELIAS LEARNING 71

ENA Patient Safety in the ED

- ED nurses need to be involved in patient safety research
- Equipment used should be standardized and universally interchangeable with like pieces of equipment
  - Human factor engineering can help us redesign safer systems
  - National Center for Human Factors Engineering in Healthcare MedStar Institute for Innovation is working on these issues at www.MedicalHumanFactors.net
  - Source: http://www.ena.org/about/position/position/Pages/Default.aspx

RELIAS LEARNING 72

Nurse Can Not See Monitor When Sitting

RELIAS LEARNING 73

National Center for Human Factors

http://medicalhumanfactors.net/

RELIAS LEARNING 74

Teamwork, Patient Safety Culture, and AHRQ

RELIAS LEARNING 75

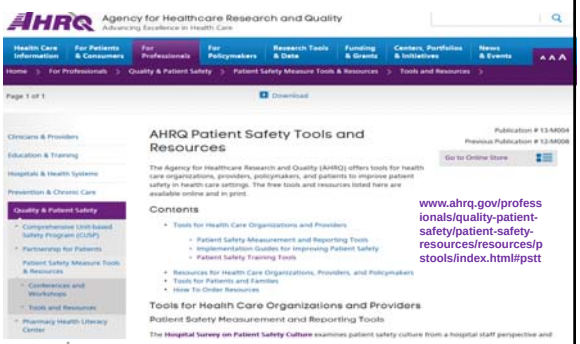
Teamwork and Patient Safety Culture

- There are many studies that show the importance of team work on patient safety culture
- Teamwork training provides safer healthcare
- Teamwork is a powerful solution to improve patient safety
- Evidenced based teamwork system will improve both teamwork and communication among ED staff
- Common ones include crew resource management (CRM) or AHRQ Team STEPPS
  - AHRQ has many excellent free resources on teamwork and other patient safety tools

AHRQ Teamwork Resources

http://teamstepps.ahrq.gov/

AHRQ Patient Safety Tools

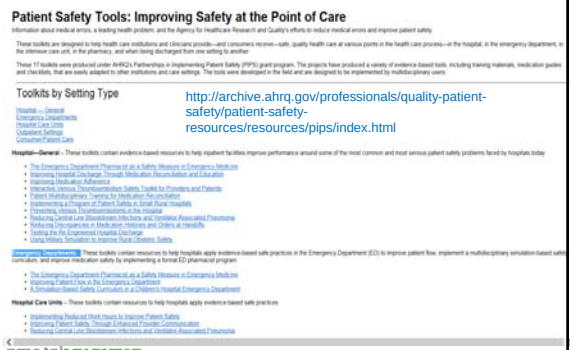


www.ahrq.gov/professionals/quality-patient-safety/patient-safety-resources/resources/pstools/index.html#pstt

AHRQ Patient Safety Tools

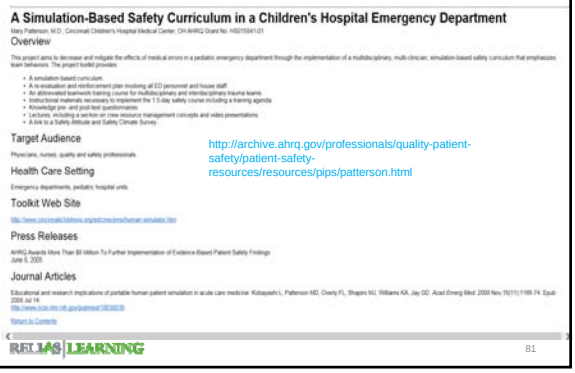
- ESI triage tool for emergency care
- Crowding and boarding, ED Simulation Peds
- Medication reconciliation and handoffs
- Hospital survey on patient safety culture
- CUSP toolkit, Falls toolkit
- Evidence for Patient Safety Practices
- Mistake proofing the design of healthcare processes
- Patient safety indicators

AHRQ ED Patient Safety Toolkits



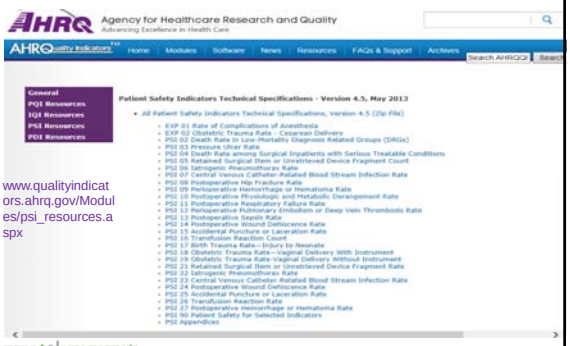
http://archive.ahrq.gov/professionals/quality-patient-safety/patient-safety-resources/resources/pips/index.html

Patient Safety and Simulation



http://archive.ahrq.gov/professionals/quality-patient-safety/patient-safety-resources/resources/pips/patterson.html

Patient Safety Indicators

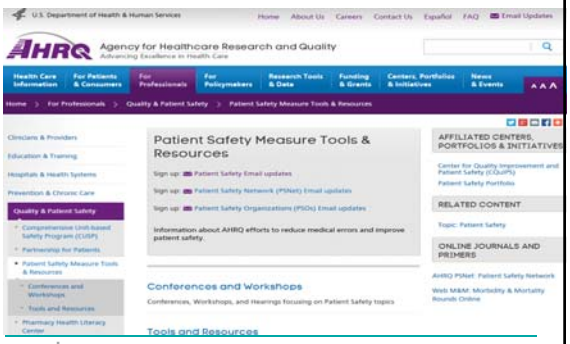


www.qualityindicators.ahrq.gov/Modules/psi_resources.aspx

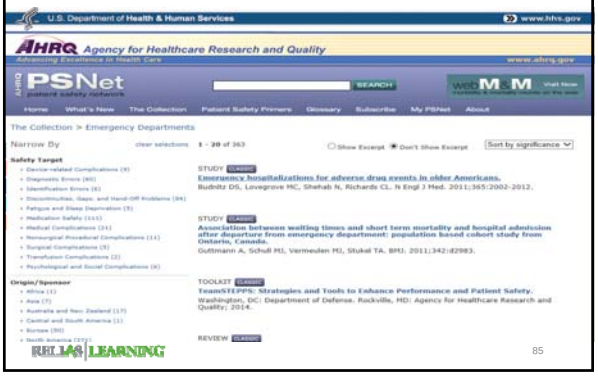
AHRQ Medical Errors and Patient Safety

- Can sign up to get emails on medical errors and patient safety
  - at www.ahrq.gov/qual/patientsafetyix.htm
  - Journals and primers on patient safety
  - Resources such as patient education material on patient safety
- Be sure to sign up to get the PSNet or patient safety network send to your email
  - Will send list of published research on quality and safety
  - You can do a search and locate articles of interest

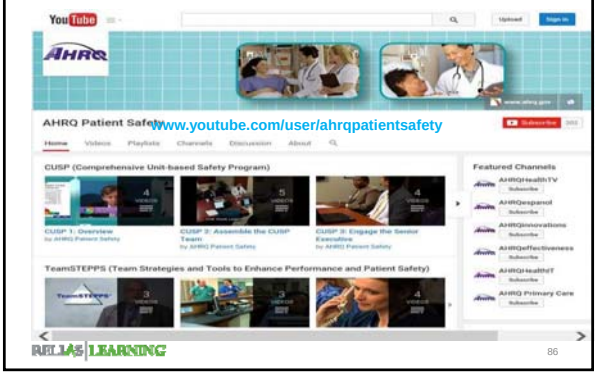
Sign Up for Patient Safety Resources



PS Net Patient Safety Articles



AHRQ Patient Safety Videos



IHI, Patient Safety Trigger Tools

RELIAS LEARNING 87

Use a Trigger Tools

- There are three trigger tools that could be used in the ED
- CMS in the hospital CoP manual and TJC say you can't just rely on incident reports
- Need another source to discover errors like medication errors
- In the hospital CoPs, there is a list of indicator drugs or IHI had trigger tools
  - August 11, 2010 Mayo Clinic publishes research that the global trigger tool is promising approach to measuring patient safety

Measuring Hospital Adverse Events: Assessing Inter-rater Reliability and Trigger Performance of the Global Trigger Tool

James M. Naessens; Thomas J. O'Byrne; Matthew G. Johnson; Monica B. Vansuch; Corey M. McGlone; Jeanne M. Huddleston

Posted: 08/11/2010; International Journal for Quality in Health Care, 2010;22(4):266-274. © 2010 Oxford University Press

Abstract and Introduction

Abstract

Objective. To determine the inter-rater reliability of the Institute for Healthcare Improvement's Global Trigger Tool (GTT) in a practice setting, and explore the value of individual triggers.
Design. Prospective assessment of application of the GTT to monthly random samples of hospitalized patients at four hospitals across three regions in the USA.
Setting. Mayo Clinic campuses are in Minnesota, Arizona and Florida.
Participants. A total of 1138 non-pediatric inpatients from all units across the hospital.
Intervention. GTT was applied to randomly selected medical records with independent assessments of two registered nurses with a physician review for confirmation.
Main Outcome Measure. The Cohen Kappa coefficient was used as a measure of inter-rater agreement. The positive predictive value was assessed for individual triggers.
Results. Good levels of reliability were obtained between independent nurse reviewers at the case-level for both the occurrence of any trigger and the identification of an adverse event. Nurse reviewer agreement for individual triggers was much more varied. Higher agreement appears to occur among triggers that are objective and consistently recorded in selected portions of the medical record. Individual triggers also varied on their yield to detect adverse events. Cases with adverse events had significantly more triggers identified (mean 4.7) than cases with no adverse events (mean 1.8).
Conclusions. The trigger methodology appears to be a promising approach to the measurement of patient

Trigger Tool Finds More Adverse Events

- Study found that an adverse event occurred in about one out of three admissions
- This is 10 times the number of previous estimates
- Found that trigger tool confirmed ten times more serious adverse events in hospitals
  - This compared to using the AHRQ 28 patient safety indicators
- Trigger tool has a much broader definition of adverse event
  - Global Trigger Tool Shows That Adverse Events In Hospitals May Be Ten Times Greater Than Previously Thought, Classen, David, Roger, Resar etc. Health Affairs, Vol 30, No.5, May 2011

Health Affairs Global Trigger Tool

AT THE INTERSECTION OF HEALTH, HEALTH CARE, AND POLICY

HealthAffairs

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'Global Trigger Tool' Shows That Adverse Events In Hospitals May Be Ten Times Greater Than Previously Measured

David C. Classen[1,*], Roger Resar[2], Frances Griffin[3], Frank Federico[4], Terri Frankel[5], Nancy Kimmel[6], John C. Whittington[7], Allan Frankel[8], Andrew Seger[9] and Brent C. James[10]

Author Affiliations

*Corresponding author

Abstract

Identification and measurement of adverse medical events is central to patient safety, forming a foundation for accountability, prioritizing problems to work on, generating ideas for safer care, and testing which interventions work. We compared three methods to detect adverse events in hospitalized patients using the same patient sample set

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This Article

doi:10.1377/hlthaff.2011.0190
Health Aff April 2011 vol. 30 no. 4 581-589

» Abstract
Full Text
PDF
A correction has been published
Appendix
Erratum

Classifications
Errors & Adverse Events

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Alert me when new responses are

http://content.healthaffairs.org/content/30/4/581.abstract

Trigger Tool

- Use to find errors since incident reports are filled out only in small % of cases
- IHI has 44 page global trigger tool at www.ihi.org
- Has separate sections like medication trigger
- PTT greater than 100 seconds if on Heparin-if evidence of bleeding, or INR greater than 6 if evidence of bleeding
- C-diff positive assay if history of antibiotic use
- Review 20 charts per month and no longer than 20 minutes

Trigger Tools

- Look for opportunities for improvement
- Separate trigger tool for measuring medication related harm at www.ihi.org/IHI/Topics/PatientSafety/SafetyGeneral/Literature/DevelopmentPediatricFocusedTriggerTool.htm
- See trigger tool to identify errors in pediatric hospitals at www.ihi.org/IHI/Topics/PatientSafety/SafetyGeneral/Literature/DevelopmentPediatricFocusedTriggerTool.htm
- Outpatient trigger tool has ED visit; look at reason for the visit and AE related to ED care

IHI.org | A resource from the Institute for Healthcare Improvement

Home > Topics > Patient Safety > Safety: General > Tools

Introduction to Trigger Tools for Identifying Adverse Events

The use of "triggers," or clues, to identify adverse events (AEs) is an effective method for measuring the overall level of harm from medical care in a health care organization. Traditional efforts to detect AEs have focused on voluntary reporting and tracking of errors. However, public health researchers have established that only 10 to 20 percent of errors are ever reported and, of those, 90 to 95 percent cause no harm to patients. Hospitals need a more effective way to identify events that do cause harm to patients, in order to select and test changes to reduce harm.

There are various Trigger Tools available on IHI.org, including:

- IHI Global Trigger Tool for Measuring Adverse Events (Danish, German, Swedish, and UK translations also available)
- Trigger Tool for Measuring Adverse Drug Events
- Trigger Tool for Measuring Adverse Drug Events in a Mental Health Setting
- Trigger Tool for Measuring Adverse Drug Events in the Nursing Home
- Surgical Trigger Tool for Measuring Peri-operative Adverse Events
- Intensive Care Unit Adverse Event Trigger Tool
- Pediatric Trigger Toolkit: Measuring Adverse Drug Events in the Children's Hospital
- Paediatric Trigger Tool for Measuring Adverse Events (UK version)
- Trigger Tool for Measuring Adverse Events in the Neonatal Intensive Care Unit
- Outpatient Adverse Event Trigger Tool

Related Information: Measures, Changes, Tools, Improvement Tip: Focus on Harm, Not Errors

Join the Discussion — Free Trigger Tools Listserv

Join a free listserv with other users of IHI Trigger Tools.

1. Send a completely blank email (no subject, signature, or text in message body) to: subscribe-triggertools@lis.ihi.org.
2. You will receive a confirmation message.
3. Post messages to the listserv by sending emails to

RELIAS LEARNING 94

ED Triggers in Global Trigger Tool

F. Emergency Department (ED) Module Triggers

Readmission to the ED within 48 Hours

Look for missed diagnoses, drug reactions, infections, or other reasons that events may have brought the patient back to the ED and then required admission.

Time in ED Greater than 6 Hours

Long ED stays in some cases can represent less than optimal care. Look for complications arising from the ED such as falls, hypotension, or procedure related complications.

RELIAS LEARNING 95

Trigger or Indicator Drugs

- Benadryl, Vitamin K, Digibind, and Romazicon
- Droperidol, Narcan, Zofran, Phenergan, Vistaril, and Reglan
- Platelet count less 50,000
- Glucose less than 50
- Over sedation and fall or lethargy

RELIAS LEARNING 96

Trigger Tool for Measuring Adverse Drug Events

Trigger Tool for Measuring Adverse Drug Events

The use of "triggers," or clues, to identify adverse drug events (ADEs) is an effective method for measuring the overall level of harm from medications in a health care organization. The Trigger Tool for Measuring Adverse Drug Events provides instructions for conducting a retrospective review of patient records using triggers to identify possible ADEs. This tool includes a list of known ADE triggers and instructions for collecting the data you need to measure the number of ADEs per 1,000 doses and the percentage of admissions with an ADE.

NOTE: You can use this tool in conjunction with the interactive Trigger Tool for Measuring ADEs in the Workspace area on IHI.org. Enter your detailed data from all of your ADE Patient Record Review Sheets into the interactive Trigger Tool for Measuring ADEs. The Tool will automatically calculate and graph two measures: ADEs per 1,000 Doses and Percent of Admissions with an ADE.

This tool contains:

- Background

RELIAS LEARNING 97

Trigger Tool for Measuring Adverse Drug Events

ADE Patient Record Review Sheet

Patient Identification Number _____

Admission Date _____ **Patient's Age** _____

Discharge Date _____ **Date** _____

(Two-day minimum hospital stay required)

T1	Diphenhydramine (Benadryl)	T10	PTT > 100 seconds
T2	Vitamin K (Aqua-mephyton)	T11	INR > 6
T3	Flumazenil (Romazicon)	T12	WBC < 3,000
T4	Anti-emetics (Inapsine, Zofran, Phenergan, Vistaril, Compazine, Reglan)	T13	Platelet Count < 50,000
		T14	Digoxin Level > 2
T5	Naloxone (Narcan)	T15	Rising Serum Creatinine
T6	Anti-diarrheals (diphenoxylate/Lomotil, loperamide/Imodium, Kaopectate)	T16	Over-sedation/lethargy/fall/hypotension
		T17	Rash
T7	Sodium Polystyrene (Kayexalate)	T18	Abrupt Cessation of Medication
T8	Serum glucose < 50	T19	Transferred to a Higher Level of Care
T9	C. difficile positive		

Triggers Found:	ADE Found?		Harm Category*	Description of ADE
	Yes	No		

RELIAS LEARNING 98

IHI Patient Safety Website

RELIAS LEARNING 99

Patients Identify Undocumented AE

- Trigger tools can help determine undocumented adverse events (AE) but what else?
- Do we really know the true adverse event rates for our ED patients?
- Telephone interviews with 201 patients after ED discharge
- Identified 10 AEs that had not been reported in their medical records
  - Source CJEM September 26, 2008

RELIAS LEARNING 100

Patient Safety Studies, Unanticipated Disclosures, Suicidal Patients

RELIAS LEARNING 101

Disclosure of Unanticipated Outcomes

- TJC requires that patients be informed when unanticipated outcomes under RI.01.02.01
  - EP21 Patient or surrogate decision maker is informed about unanticipated outcomes (UO) of care that related to reviewable sentinel events
  - EP 22 LIP must inform patient if not aware
- Also one of the 34 National Quality Forum Safe Practices for Better Healthcare
- NPSF says patient have a right to receive a truthful and compassionate explanation about the error and remedies available to the patient

RELIAS LEARNING 102

Patient Safety Studies

- Many studies showed that a large percentage of the errors that occur in healthcare are due to system error
- They are not due because of the negligence of a staff member or physician
- It is not a blame and train mentality
- Studies found that healthcare facilities needed a non-punitive environment
- A healthcare facility can not fix a problem it does not know exists

RELIAS LEARNING 103

Patient Safety

- Having a **non-punitive environment** would encourage reporting of errors and near misses
- Both the Joint Commission (TJC) and the Centers for Medicare and Medicaid Services (CMS) require a non-punitive environment
- However, many healthcare facilities have balanced this with the **Just Culture theory**
- A person who is reckless or does something intentional to harm a patient should be terminated from employment

RELIAS LEARNING 104

Reporting Medical Errors and Near Misses

- Staff need to feel comfortable in reporting medical errors and near misses
- Reporting system should facilitate the sharing of patient safety information
  - In fact, this is a TJC requirement
  - We need a learning environment so we can learn from our mistakes
  - Need to use a system analysis approach and fix the system to prevent medical errors in the future
- The entire hospital needs to be focused on patient safety if a culture of safety is to be established

RELIAS LEARNING 105

ACEP Reporting of Medical Errors

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Clinical & Practice Management

Reporting of Medical Errors

Reaffirmed and approved by the ACEPBoard of Directors April 2014

Revised and approved by the ACEP Board of Directors June 2008
Originally approved by the ACEP Board of Directors September 2001

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- Eliminate redundancy in reporting to multiple agencies or governmental bodies.
- Be adequately funded.

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RELIAS LEARNING 106

Safety Initiatives Any ED Can Do

- Article describes safety initiatives a hospital can take
  - Hospital in the study had a patient safety committee
  - This committee created a safety mission statement
  - Developed a non-punitive error reporting policy
  - Created information sheet of safety tips for patients and families
- Educated staff on the science of safety and how to disclose errors
- Developed a safety intranet site to share stories on patient safety
- Implemented senior safety walk abouts

RELIAS LEARNING 107

Downloaded from qshc.bmj.com on September 7, 2010 - Published by group.bmj.com

QSHC

Evaluation of the culture of safety: survey of clinicians and managers in an academic medical center

P J Pronovost, B Weast, C G Holzmueller, et al.

Qual Saf Health Care 2003 12: 405-410
doi: 10.1136/qhc.12.6.405

Updated information and services can be found at:
http://qshc.bmj.com/content/12/6/405.full.html

These include:

References This article cites 12 articles, 2 of which can be accessed free at:
http://qshc.bmj.com/content/12/6/405.full.html#ref-list-1

Article cited in:
http://qshc.bmj.com/content/12/6/405.full.html#related-urls

Email alerting service Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Notes

RELIAS LEARNING 108

Suicidal Patients

- Inpatient suicides is the 3rd most common sentinel event for hospitals (TJC) and 10th leading cause of death in the US
  - July 5, 2016 data of 12,561 SE and 8% of all sentinel events and has 972
- Don't let suicidal patient sit in ED lobby unattended
- If prevented from leaving then CMS seclusion standards apply
- Sitters or security with suicidal patients in the ED and have a safe room and be aware of policy
  - How to build a safe room Guidelines for the Built Environment of Behavioral Health Facilities at www.naphs.org and now on FGI website at www.fgiguidelines.org/beyond

RELIAS LEARNING 109

May 2015 **Edition 7.0**

www.fgiguidelines.org/pdfs/DesignGuideBH_7.0_1505_rev.pdf

Design Guide for the Built Environment of Behavioral Health Facilities

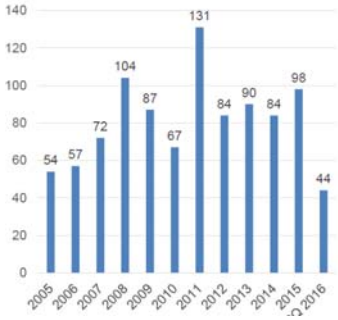
Now with Patient Safety Risk Assessment Tool

by James M. Hunt, AIA, NCARB
and David M. Sine, DrBE, CSP, ARM, CPHRM

RELIAS LEARNING 110

Patient Suicide

Suicide is the 10th leading cause of death in the United States and continues to be consistently among the most frequently reviewed Sentinel Events reviewed by The Joint Commission.



RELIAS LEARNING 111

Suicidal Patients

- A good assessment is mandatory
  - Provide training to ED nurses so they feel more comfortable about taking care of suicidal patients
  - Include suicide lethality scale
- Document if suicidal and if plan and document assessments
- Knowledge of state law on involuntary commitment if danger to himself or others
- It is imperative that the ED provide a safe environment to prevent suicidal patients from committing suicide

RELIAS LEARNING 112

Patient Suicide Risk

- TJC has a NPSG on this
- Goal 15, 15.01.01. states that the hospital identifies patients at risk for suicide
- Only 1 left of 2 standards
- **NPSG.15.01.01 has 3 EPs**
- This section only applies to psychiatric hospitals and patients being treated for emotional or behavioral disorders in general hospitals.
- See TJC Patient Flow Chapter in LD chapter and PC.01.01.01 EP 4 and EP 24.

RELIAS LEARNING 113

Patient Suicide Risk

1. Risk assessment must be conducted that includes factors that increase or decrease the risk for suicide
2. Need to address the immediate safety needs of a suicidal patient and the most appropriate setting
3. Must provide information to patients at risk for suicide when they leave the hospital such as a crisis prevention hotline

RELIAS LEARNING 114

Communication, Hand Offs, Patient Flow and Boarding

RELIAS | LEARNING 115

Communication

- Communication break downs are the leading system failure that contributes to error
- TJC sentinel event data support this which is why it became a NPSG
  - Left with notifying physicians of panic values and document
  - Most common root cause of sentinel events is communication and accounts for 70% of all errors
- A communication model (like SBAR or standard report sheet form, ticket to ride, hall pass, or report template) could help
  - Improving communication in the emergency department. Redfern E, Brown R, Vincent CA. Emerg Med J. 2009;26:658-661.

RELIAS | LEARNING 116

Communication Bedside Shift Report

- Important in giving report for ED nurses and physicians going off duty
  - TJC standard on handoff
  - NPSG.02.03.02
  - Bedside shift report improves patient safety and nurse accountability
  - Bedside shift report improves patient safety and nurse accountability. Baker SJ. J Emerg Nurs. 2010;36:355-358
  - Watch chasing zero by Dennis Quade at http://safetyleaders.org/Quaid/
- Good communication is also important for preventing lawsuits

RELIAS | LEARNING 117

Watch This Video Bedside Nurse Report

Heparin Mix Up Almost Killed Their Twins

Hand Offs

- Recent study examined handoff communications among ED physicians and found a number of communication errors
- There were errors in 13.1% and omissions in 45.1% of the handoffs
- Errors and omissions were associated with handoff time per patient and ED length of stay
- There were fewer errors with the use of written or electronic support materials
  - ED handoffs: observed practices and communication errors, Brandon Maughan, Lei Lei, Rita Cydulka, American Journal of Emergency Medicine, Volume 29, Issue 5, Pages 505-511, June 2011

ENA Safer Handoff Tool

Safer Handoff

PATIENT HANDOFF/ TRANSFER FORM

DATE OF TRANSFER: _____/_____/_____ TIME OF TRANSFER: _____:_____ AM PM

PATIENT INFORMATION

Last Name First Name MI

Street Address City

State/Province Zip/Postal Code

DOB ___/___/___ GENDER: M F

CONTACT PERSON/LEGAL GUARDIAN/DPOA

Last Name First Name

( ) Emergency Telephone NOTIFIED Yes No

Street, City, State/Province, Zip/Postal Code

Relationship to Patient

NAME OF FACILITY TRANSFERRING FROM

Facility Name Address City State/Province Zip/Postal Code

NAME OF RN/LPN/MD in Charge of Patient at Time of Transfer ( ) Telephone

REASON FOR TRANSFER

SECONDARY DIAGNOSIS

RELIAS LEARNING 121

ACUTE CHANGES FROM BASELINE ASSOCIATED WITH TRANSFER

VITAL SIGNS AT TRANSFER – TIME TAKEN: _____:_____ AM PM

BP: / TEMP: PULSE: RESP: SaO_2: ☐ O_2 Therapy

IMMUNIZATION STATUS ☐ Attached

T.S.T. (PPD)	Date:	Results:	Hepatitis A:	Date:	☐ UNK
Influenza	Date:	☐ UNK	Hepatitis B:	Date:	☐ UNK
Pneumococcal	Date:	☐ UNK	Measles, Mumps, Rubella	Date:	☐ UNK
Meningococcal	Date:	☐ UNK	Varicella	Date:	☐ UNK
D.T.P.	Date:	☐ UNK	Inactivated Poliovirus	Date:	☐ UNK
Tetanus	Date:	☐ UNK			

TB Test	Date	Type	Result	*Biochem*	Date	Result
Chest X-Ray	Date	Result		*Urinalysis*	Date	Result
C.B.C.	Date	Result		*Fasting Glucose*	Date	Result

ALLERGIES ☐ None ☐ UNK

Allergic To:	Reaction:	☐ UNK
Allergic To:	Reaction:	☐ UNK
Allergic To:	Reaction:	☐ UNK

ISOLATION/PRECAUTION

☐ None	☐ MRSA	Date:	Site:
☐ Contact	☐ VRE	Date:	Site:
☐ Droplet	☐ ESBL	Date:	Site:
☐ Airborne	☐ Other	Date:	
	☐ C.Diff.	Date:	

SKIN/WOUND CARE ☐ Intact ☐ Not Intact

Describe Decubitus/Wound (Size, Site, Drainage):

RELIAS LEARNING 122

Safer Sign Out Protocol ACEP EMPSF

FEATURED PROJECT

Safer Sign Out Protocol

The "Safer Sign Out" protocol provides simple but critical structure to the process of handing off ED patients during a shift change in the community hospital setting. See the process, download helpful documents, forms and tools.

www.acep.org/qipssection/

RELIAS LEARNING 123

Tools for Safer Sign Out for LIPs and Physicians

SAFER SIGN OUT

Safer Sign Out » | Getting Started » | Resources » | Innovation Partners » | Contact Us | EMPSF

search

Free Resources

Home » Emergency Department Patient Safety

http://safersignout.com/resources-new/

Thank You for Registering for Our Safer Signout Patient Safety Tools

Use these FREE tools to help launch & maintain a safer sign out process at your hospital

- Introduction to Safer Sign Out
  Educate your admin & clinical team on SSO
- 7 Minute Introduction Video from Citygate Films
- 47 Minute Video from Dr. Fuller to the Maryland Patient Safety Conference
  Panel presentation at the Maryland Patient Safety Conference detailing the SSO genesis, process and lessons learned. Serves as thorough introduction for ED leaders that want to learn more.
- Executive Summary
- Safer Sign Out Form
  Professionally designed sign out forms for optimal team support.

Innovation Partners

EMPSF teams up to bring you Safer Sign Out

EMPSF EMERGENCY MEDICINE PATIENT SAFETY FOUNDATION

Patient Safety

EMA

RELIAS LEARNING 124

Safer Sign Out Form

☐ Check if No Patients Signed Out Off-Going Clinician: _____ Receiving Clinician: _____ Date Shift Started_____

Patient Name/Age	Problem List & Key Issues	Pending Items	Disposition	Receiving Clinician's Notes
Room	Diagnosis/CC: Key Issues: Potential Safety Issues or Precautions?		Home_____ Admit_____ Transfer_____ ICU_____ TBD_____	☐ Rounded on Patient ☐ Communicated with nurse_____
Room	Diagnosis/CC: Key Issues: Potential Safety Issues or Precautions?		Home_____ Admit_____ Transfer_____ ICU_____ TBD_____	☐ Rounded on Patient ☐ Communicated with nurse_____
Room	Diagnosis/CC: Key Issues: Potential Safety Issues or Precautions?		Home_____ Admit_____ Transfer_____ ICU_____ TBD_____	☐ Rounded on Patient ☐ Communicated with nurse_____
Room	Diagnosis/CC: Key Issues: Potential Safety Issues or Precautions?		Home_____ Admit_____ Transfer_____ ICU_____ TBD_____	☐ Rounded on Patient ☐ Communicated with nurse_____

This form is a Quality Assurance Tool and is NOT part of the medical record

RELIAS LEARNING 125

Hall Pass or Ticket to Ride

Ticket to Ride

PATIENT HAND OFF

Date: Room #:
Time:

S Situation
Type Test ☐ X-ray ☐ CT ☐ US ☐ Cardiology ☐ MRI
Mode of Transportation ☐ Cart ☐ Wheelchair ☐ Ambulatory
Multiple Tests Ordered ☐ Yes ☐ No

B Background
Allergies ☐ Yes (See band) ☐ No
DNR ☐ Yes ☐ No
Precautions ☐ Fall ☐ Suicide ☐ Seizure
Isolation ☐ Contact ☐ Airborne ☐ Droplet
Impairment ☐ Speech ☐ Vision ☐ Hearing ☐ None

A Assessment
Mental Status ☐ Oriented ☐ Disoriented
Mobility ☐ Self ☐ Assist Staff 1 ☐ Assist Staff 2
☐ Total
Equipment ☐ O2 ____ liters ☐ Intubated
☐ IV started
Restraints ☐ Yes ☐ No ☐ Labs drawn
NPO ☐ Yes ☐ No
Catheter inserted ☐ Yes ☐ No Cath & Fill ☐ Yes ☐No
Department notified patient ready ☐ Yes ☐ No

R Recommendation
Assistive device/Help needed for transfer:

Other comments:

RN Name:
Contact Number

Return Trip:

RELIAS LEARNING 126

Communication

- Have a culture where staff feel comfortable in asking questions and clarifying orders
- Hospitals accredited by TJC must do a culture survey which asks this question
- AHRQ has a survey that hospitals can use and can benchmark against other hospitals
- Can confirm communications by asking patient to repeat back information
- Study: The Emergency Medical Services Safety Attitudes Questionnaire. Patterson PD, Huang DT, Fairbanks RJ, Wang HE. Am J Med Qual. 2010;25:109-115.

www.ahrq.gov/qual/patientsafetyculture/

Holding Admitted Patients in the ED

- Delays lead to overcrowding and boarding in the ED, ambulance unloading to ED cart or diversion, and patients who LWBS
- Holding patients in the ED causes delays in patient care
  - ENA and ACEP position statements
- Places patients at risk for poor outcomes
- Prolongs pain and suffering

Holding Patients in the ED Boarding

- Result in patient dissatisfaction
- Decreased staff productivity and frustration and violence
- Increased potential for errors and studies have confirmed increased mortality and morbidity
- GAO, CDC, and ACEP have issued reports on the effects of overcrowding
- TJC has standard in LD chapter called the Patient Flow standard and a Patient Flow Tracer

TJC Patient Flow Tracer

- Patient flow standard is LD.04.03.11
  - Patients can not get into the ED rooms when patients wait in ED for an inpatient bed
- LD has responsibility to evaluate and manage patient flow and take action to implement plans to improve
  - If patient flow problems are identified during survey will interview hospital leaders about their shared accountability with MS
- Will look at all of the standards on patient flow

TJC Amendsa Patient Flow Standards

The Joint Commission www.jointcommission.org/standards_information/prepublication_standards.aspx

Standards Revisions to Address
Patient Flow Through the Emergency Department

Hospital Accreditation Program

Standard LD.04.03.11

The hospital manages the flow of patients throughout the hospital.

Element of Performance for LD.04.03.11

1. The hospital has processes that support the flow of patients throughout the hospital.
2. The hospital plans for the care of admitted patients who are in temporary bed locations, such as the post anesthesia care unit or the emergency department.
3. The hospital plans for care to patients placed in overflow locations.
4. Criteria guide decisions to initiate ambulance diversion.
5. The hospital measures ~~the following~~ components of the patient flow process:
   - The available supply of patient beds
   - ~~The efficiency of areas where patients receive care, treatment, and services~~

Patient Safety Brief

EMERGENCY MEDICINE PATIENT SAFETY FOUNDATION

www.empsf.org

The Joint Commission New Patient Flow Standards

By: Sue Dill Calloway RN MSN JD CPHRM
Chief Learning Officer
Emergency Medicine Patient Safety Foundation
July 2012

The Joint Commission is an organization that accredits about 82% of the hospitals in the United States. Any hospital accredited by the Joint Commission must be in compliance with all of their standards. The Joint Commission has standards on patient flow to prevent overcrowding and boarding of patients in the emergency department and in other temporary locations.

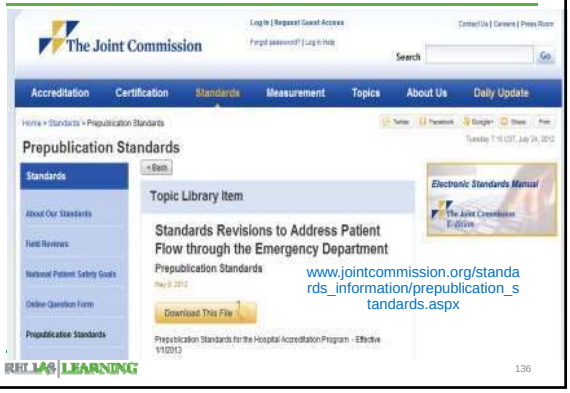
TJaC Patient Flow Standards

- TJC has revised their standards on patient flow effective January 1, 2013 and 2 changes in 2014
  - Not called JCAHO anymore
- LD.04.03.11 EP 6 went into effect January 1, 2014 regarding setting a 4 hour window as the goal for boarding of patients in the ED before they get to their bed
- LD.04.03.11 EP 9 went into effect January 1, 2014 regarding boarding of behavioral health patients in the ED

LD.04.03.11 Patient Flow

- Standard: The hospital must manages the flow of patients throughout the hospital
- Managing patient flow is very important
- Patient flow tracer added and many changes over the years
- Needed to prevent overcrowding that leads to patient safety and quality issues
- Hospital needs to use indicators to monitor process including admitting, assessment, and treatment, patient transfer and discharge

TJC Final Pt Flow Changes



www.jointcommission.org/standards_information/prepublication_standards.aspx

TJC Issues R3 Report

- Published December 19, 2012 and is 5 pages
  - Provides rationale, requirements, and references used
- Can be downloaded off TJC website at www.jointcommission.org/r3_report_issue4/
- Discusses LD.04.03.11 and PC.01.01.01
  - LD.04.03.11: The hospital manages the flow of patients throughout the hospital (Revises EP 5, 7, and 8)
  - PC.01.01.01: The hospital accepts the patient for care, treatment, and services based on its ability to meet the patient's needs (EP 4 and 24)
- LD EP 6 (4 hour time frame) and 9 (boarding behavioral health patients) amended Jan 1, 2014

R3 Report Patient Flow Thru the ED

www.jointcommission.org/r3_report_issue4/

Patient Flow Standard LD.04.03.11

- EP1. Must have processes that support the efficient flow of patients throughout the hospital
- EP2. The hospital plans for care of admitted patients who are in temporary-bed locations, such as the PACU and the emergency department (ED)
- EP3. The hospital plans for care to those patients who are placed in overflow locations
- EP4. Criteria guide decisions to initiate ambulance diversion

RELIAS LEARNING 139

Patient Flow Standard

- EP5. The hospital measures and sets goals for mitigating and managing the boarding of patients who come through the ED
  - Boarding is the practice of holding patients in the ED or a temporary location after the decision to admit or transfer has been made.
  - It is recommended that hospital set goals with attention to best practices and its goals and boarding should not go over 4 hours in the interest of patient safety and quality of care

RELIAS LEARNING 140

LD.04.03.11 Boarding and the 4 Hour Rule

- EP6 EP
- The hospital must measure and set goals for mitigating and managing the boarding of patients who come through the ED
- It is recommended that patients not be boarded more than 4 hours
- This is important for safety and quality of care

RELIAS LEARNING 141

LD.04.03.11 Review Measurement Data

- EP 7 Requires the staffs or individuals who manage the patient flow processes must review the measurement results
- This is done to assess if the goals made were achieved
- Data required was discussed in EP 5

RELIAS LEARNING 142

LD.04.03.11 Data Guides Improvements

- EP8 Requires leaders to take action to improve patient flow when the goals were not achieved
- Leaders who must take action involve the board, medical staff, along with the CEO and senior leadership staff
- References PI.03.01.01, EP 4, which states that the hospital takes action when it does not achieve or sustain planned improvement

RELIAS LEARNING 143

LD.04.03.11 Boarding of Psych Patients

- EP 9 States that the hospital determines if it has a population at risk for boarding due to behavioral health emergencies
- Hospital leaders must communicate with the behavioral health providers to improve coordination and make sure this population is appropriately served
- There is a shortage of behavioral health beds in this country leading to times where these patients have camped out in the ED sometimes for days

RELIAS LEARNING 144

Boarding of Behavioral Health Patients PC

- Hospitals should also be familiar with two sections of PC.01.01.01 under EP4 and EP24
- EP 4 Hospitals that do not primarily provide psychiatric or substance abuse services must have a written plan that defines how the patient will be cared for which includes the referral process for patient who are emotional ill, or who suffer from substance abuse or alcoholism
  - This means that hospitals that do not have a behavioral health unit or substance abuse unit, how do you care for the patient until you transfer them out?

RELIAS LEARNING 145

Boarding of Behavioral Health Patients PC

- PC.01.01.01 EP 24
- EP 24 requires boarded patients with an emotional illness, alcoholism or substance abuse be provided a safe and monitored location that is free of items that the patients could use to harm themselves or others
- Hospitals often use sitters and have a special safe room
- EP24 requires orientation and training to both clinical and non-clinical staff that care for these patients

RELIAS LEARNING 146

Boarding of Behavioral Health Patients PC

- PC.01.01.01 EP 24 (Continued)
- This includes medication protocols and de-escalation techniques
- Assessments and reassessments must be conducted in a manner that is consistent with the patient's needs
- Free guide on how to create a safe room called the Design Guide for the Built Environment of Behavior Health Facilities, at https://www.naphs.org/index

RELIAS LEARNING 147

Examples of Compliance

- LD should be aware of data to show if overcrowding has occurred
- Are patients camped out in the ED for hours awaiting a bed?
- If so what plans did leadership put in place to help resolve issue
- Was staff provided appropriate cross training?
- Evidence of minutes of patient flow committee
- Do pull to full

RELIAS LEARNING 148

Patient Flow Tracer TJC LD.04.03.11

- Look at patient flow and back flow issues
- Evaluate process issues leading to back flow
- Identify temporary holding area such as are patients held in the emergency department or waits for surgery or critical care units
- Treatment delays, medical errors and unsafe practices can thrive in presence of patient congestion
- TJC hospitals are expected to identify and correct patient flow issues

RELIAS LEARNING 149

Patient Flow Tracer TJC LD.04.03.11

- Look at how the hospital plans for staffing and trains staff about differences in emergent and hospital care
- What you have done to improve and plan for diversion
- Look at past data collection
- How do you identify problems and implement improvements
- LD needs to share accountability with MS

RELIAS LEARNING 150

Triggers Indicative of Patient Flow Problems

- Delay in blood draws or x-rays
- Delay in communication such as reporting handoff from one area to another
- Delay in discharge due to discharge processes
- Delay in OR scheduling
- Hospital process that stop flow of patient in ED such as work up in ED or housekeeping protocols
- Misuse of ED for direct admits

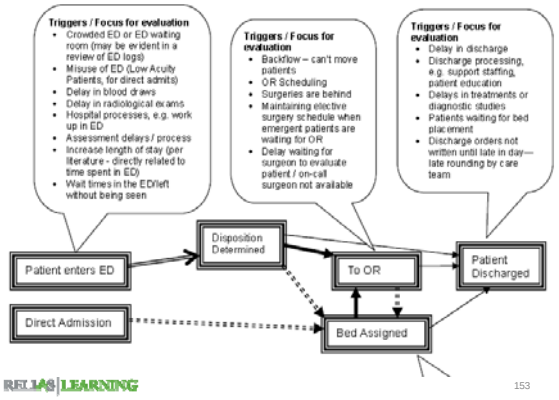
RELIAS | LEARNING 151

Triggers Indicative of Patient Flow Problems

- Increase length of stay in the ED
- Insufficient support and ancillary staffing
- Misuse of ED for low acuity patients and direct admits
- Patients experiencing delays with transfers
- Indicators such as MI get ASA and beta blockers on arrival and fibrinolytic with 30 minutes and PCI within 90 minutes
- Pneumonia patients blood cultures and antibiotics timely?

RELIAS | LEARNING 152

Patient Flow Triggers



RELIAS | LEARNING 153

Patient Flow Tracer

- Look at back flow issues and identify temporary holding area
- How does the hospital plans for staffing and train staff about differences in emergent and hospital care
- What you have done to improve, plan for diversion, and what data has been collected
- How you identify problems and implement improvements
- ACEP has good resources at http://www.acep.org/crowding/

RELIAS | LEARNING 154

Patient Flow Patient Safety Brief www.empsf.org

EMPSF EMERGENCY MEDICINE PATIENT SAFETY FOUNDATION

The Joint Commission New Patient Flow Standards

By: Sue Dill Calloway RN MSN JD CPHRM
Chief Learning Officer
Emergency Medicine Patient Safety Foundation
July 2012

The Joint Commission is an organization that accredits about 82% of the hospitals in the United States. Any hospital accredited by the Joint Commission must be in compliance with all of their standards. The Joint Commission has standards on patient flow to prevent overcrowding and boarding of patients in the emergency department and in other temporary locations.

RELIAS | LEARNING 155

ACEP Crowding Boarding Resources

Emergency Medicine Crowding and Boarding

www.acep.org/crowding/

Search Crowding: Search

As emergency departments throughout the country deal with the problems of crowding, boarding, and ambulance diversion, solutions have been sought. The resources on this page provide information, resources and examples of a variety of approaches to assist emergency physicians in addressing the crowding problems by working with hospital administrators, local stakeholders, policy makers and the public. Some ACEP chapters have sought relief through state legislative and regulatory action. These additional crowding resources are available in ACEP's Advocacy area.

Emergency Department Crowding: High-Impact Solutions
This comprehensive 2008 report from the ACEP Boarding Task Force includes low and no-cost solutions to the practice of boarding patients in the emergency department. ACEP members get free CME.

ACEP's Suggested Boarding Solutions Generate National Support
May 30, 2008

Crowding Case Studies
Submit your case study for publication on ACEP.org.

RELIAS | LEARNING 156

ACEP Crowding Boarding Resources

American College of Emergency Physicians® Menu myACEP

Clinical & Practice Management

ARE YOU PREPARED? Life + Disability + Health

Emergency Medicine Crowding and Boarding

Search this Section Search

As emergency departments throughout the country deal with the problems of crowding, boarding, and ambulance diversion, solutions have been sought. The resources on this page provide information, resources and examples of a variety of approaches to assist emergency physicians in addressing the crowding problems by working with hospital administrators, local stakeholders, policy makers and the public. Some ACEP chapters have sought relief through state legislative and regulatory action. These additional crowding resources are available in ACEP's Advocacy area.

ACEP Sends Comments to The Joint Commission on Patient Flow NEW
ACEP supports the proposed definition, including the 4 hour timeframe, opinions among members are varied.
Jan. 19, 2012

Associations Join Forces to Reduce ED Crowding
ACEP, ENA and seven other associations have signed a consensus statement that proposes standardized emergency department metrics to help reduce crowding and boarding in emergency departments.

RELIAS LEARNING 157

Consensus Statement: Definitions for Consistent Emergency Department Metrics NEW

Emergency Department Crowding: High-Impact Solutions
This comprehensive 2008 report from the ACEP Boarding Task Force includes low and no-cost solutions to the practice of boarding patients in the emergency department.

ACEP's Suggested Boarding Solutions Generate National Support
May 30, 2008

Crowding Case Studies
Submit your case study for publication on ACEP.org.

Related ACEP Policy Statements

Boarding

- Boarding of Admitted and Intensive Care Patients in the Emergency Department
- Boarding of Pediatric Patients in the Emergency Department
- Definition of Boarded Patient
- Health Care System Surge Capacity Recognition, Preparedness, and Response
- Responsibility for Admitted Patients
- Writing Admission and Transition Orders

Diversion

- Ambulance Diversion
  PREP for above policy:
  Guidelines for Ambulance Diversion
- Crowding
- Emergency Ambulance Destination

Information Papers

- Publishing Wait Times for Emergency Department Care, June 2012
- Optimizing ED Front End Operations, February 2010
- Approaching Full Capacity in the Emergency Department, October 2006

RELIAS LEARNING 158

ACEP Boarding of Patients in the ED

Boarding of Admitted and Intensive Care Patients in the Emergency Department

Approved April 2011

Revised and approved by the ACEP Board of Directors January 2007; April 2008; and April 2011

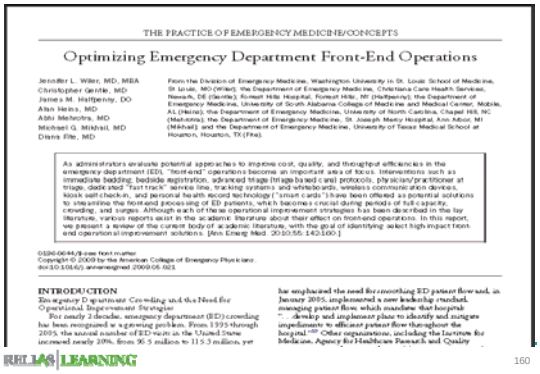
Originally approved by the ACEP Board of Directors October 2000

Optimal utilization of the emergency department (ED) includes the timely evaluation, management, and stabilization of all patients. Boarding of admitted patients in the ED contributes to lower quality of care, reduced timeliness of care, and reduced patient satisfaction. The ED should not be utilized as an extension of the intensive care and other inpatient units for admitted patients, because this practice adversely affects patient safety, quality, and access to care. ED leadership, hospital administrators, EMS directors, community leaders, state and federal officials, hospital regulators and accrediting bodies should work together to resolve this problem. ED boarding is a hospital-wide problem and the most effective care of admitted patients is provided in an inpatient unit. ED crowding is a direct result of diminished bed and resource capacity created by boarding. In order for the ED to continue to provide quality patient care and access to that care, the American College of Emergency Physicians (ACEP) believes that:

- Hospitals have the responsibility to provide quality patient care and optimize patient safety by ensuring the prompt transfer of patients admitted to inpatient units as soon as the treating emergency physician makes such a decision. If such a transfer cannot be promptly effected for whatever reason, the hospital must provide the supplemental nursing staff necessary to care for these inpatients boarded in the ED.
- In the event that the number of patients needing evaluation or treatment in an ED is equal to or exceeds the EDs treatment space capacity, admitted patients should be promptly distributed to inpatient units regardless of inpatient bed availability.
- Hospitals should have staffing plans in place that can mobilize sufficient health care and support personnel to meet increased patient needs.
- Hospitals should develop appropriate mechanisms to facilitate availability of inpatient beds.
- Emergency physicians should work with their hospital administration and medical staff to monitor and improve the use of inpatient resources.

RELIAS LEARNING 159

ACEP Resources Crowding and Boarding



THE PRACTICE OF EMERGENCY MEDICINE/CONCEPTS

Optimizing Emergency Department Front-End Operations

Jennifer L. Wiler, MD, MBA
Christopher Gentile, MD
James M. Halfpenny, DO
Allen Heins, MD
Abhi Mehotra, MD
Michael G. Mikhail, MD
Diana Rite, MD

From the Division of Emergency Medicine, Washington University in St. Louis School of Medicine, St Louis, MO (Wiler); the Department of Emergency Medicine, Christiana Care Health Services, Newark, DE (Gentile); Forest Hills Hospital, Forest Hills, NY (Halfpenny); the Department of Emergency Medicine, University of South Alabama College of Medicine and Medical Center, Mobile, AL (Heins); the Department of Emergency Medicine, University of North Carolina, Chapel Hill, NC (Mehotra); the Department of Emergency Medicine, St. Joseph Mercy Hospital, Ann Arbor, MI (Mikhail); and the Department of Emergency Medicine, University of Texas Medical School at Houston, Houston, TX (Rite).

As administrators evaluate potential approaches to improve cost, quality, and throughput efficiencies in the emergency department (ED), "front-end" operations become an important area of focus. Interventions such as immediate bedding, bedside registration, advanced triage (triage based on set protocols, physician/practitioner at triage, dedicated "fast track" service line, tracking systems and whiteboards, wireless communication devices, kiosk self-check-in, and personal health record technology ("smart cards") have been offered as potential solutions to streamline the front-end processing of ED patients, which becomes crucial during periods of full capacity, crowding, and surges. Although each of these operational improvement strategies has been described in the lay literature, various reports exist in the academic literature about their effect on front-end operations. In this report, we present a review of the current body of academic literature, with the goal of identifying select high impact front-end operational improvement solutions. [Ann Emerg Med. 2010;55:142-160.]

0196-0644/$-see front matter
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doi:10.1016/j.annemergmed.2009.05.021

INTRODUCTION

Emergency Department Crowding and the Need for Operational Improvement Strategies

For nearly 2 decades, emergency department (ED) crowding has been recognized as a growing problem. From 1995 through 2005, the annual number of ED visits in the United States increased nearly 20%, from 90.5 million to 115.3 million, yet

has emphasized the need for smoothing ED patient flow and, in January 2005, implemented a new leadership standard, managing patient flow, which mandates that hospitals "... develop and implement plans to identify and mitigate impediments to efficient patient flow throughout the hospital."[100] Other organizations, including the Institute for Medicine, Agency for Healthcare Research and Quality

RELIAS | LEARNING 160

ACEP TASK FORCE REPORT ON BOARDING

Emergency Department Crowding: High-Impact Solutions

http://www.acep.org/crowding/

APRIL 2008

RELIAS | LEARNING 161

Ideas to Reduce Crowding Boarding

- Diversion of ambulances when no beds or not enough staff
- Direct admits do not go through the ED
- Initial orders can be done on admitted patients who are stable and detailed orders can be written upstairs
- Bedside registration to allow rapid intake of patient into the system
- Tracking systems and white boards
- Triage based protocols/standing orders or protocols

RELIAS | LEARNING 162

Ideas to Reduce Crowding Boarding

- Standardized pathways for specific disease conditions
- Addition of physician or physician extender to triage assessment
- Urgent care and fast track
- Immediate bedding (pull to full)
- Adequate staffing
- Consolidate all boarders in one area or over flow unit

Ideas to Reduce Crowding Boarding

- Stat clean process when empty bed needs cleaned
- Hospital in-house protocol when operating at full capacity to get see if inpatients can be discharged or elective surgeries cancelled etc
- Discharge holding areas for patients to be discharged
- Sending one patient to each unit to care for until regular bed available
- Expand the size of the ED
- Examine reasons for delays

Urgent Matters Crowding and Boarding

www.urgentmatters.org/

Alarm Fatigue

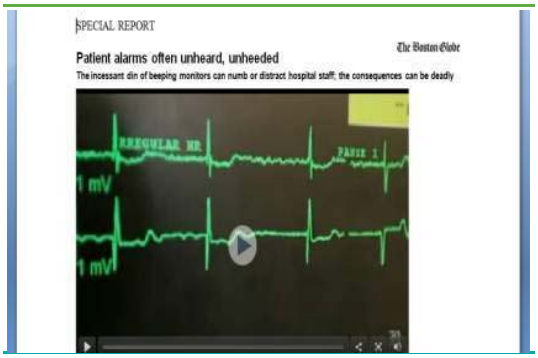
RELIAS | LEARNING 166

Alarm Fatigue

- Recent risk management issue
- Brought to light by several articles in the press including Boston Globe article
- Hospital staff fails to hear a cardiac monitor and patient was found flat lined for more than two hours
- With increased use of alarms they are either ignored or just not heard
- Staff have forgotten to turn them back on
- Staff can tune out the alarm noise

RELIAS | LEARNING 167

Patient Alarms Often Unheard or Unheeded



RELIAS | LEARNING 168

Alarm Fatigue

- ECRI Institute issues a report and finds 216 deaths from 2005 to mid 2010 in which problems with monitor alarms occurred
- ECRI published top hazards for 2015and alarm hazards makes the top ten list AGAIN
- Staff overwhelmed by sheer number of alarms
- Staff improperly modified the alarm settings
- Staff become desensitized to alarms leading to slow response time
  - CMS cited hospital under staffing when staff did not respond timely and hospital gets monitor watchers

RELIAS | LEARNING 169

Alarm Fatigue

- Alarm settings not restored to their normal levels
- Alarms not properly relayed to ancillary notification systems
  - Paging systems, wireless phones, etc.
- ECRI makes recommendations
  - Establish protocols for alarm system settings
  - Ensure adequate staffing
  - Establish alarm response protocols and ensure each alarm will be recognized
  - Assign one person responsible for addressing the alarm

RELIAS | LEARNING 170

Alarm Problems in the ED

EMPSF EMERGENCY MEDICINE PATIENT SAFETY FOUNDATION

www.empsf.org

Addressing Alarm Problems in the Emergency Department

By Kathryn M Pelczarski
Director, Applied Solutions Group, ECRI Institute
September 2012

Stand for a few moments in the middle of your emergency department (ED) to just listen and observe. How many alarms do you hear? Can you distinguish where each alarm is coming from and whether it's a physiologic monitor or ventilator or infusion pump alarm? Does each alarm connote the level of urgency needed for the nurse to respond promptly and appropriately? Do you observe the nurses scurrying to respond? Or do the alarms continue to perpetuate while no one responds?

Device alarms should provide an effective safety net to alert caregivers to critical changes in patient conditions or safety-related problems with devices. Does this statement hold true in your organization? Do device alarms provide an effective safety net in your ED?

Unfortunately, as many experts agree, there are serious problems with both the design and use of clinical alarms. In fact, ECRI Institute identified alarm hazards as Number 1 in its Top Ten Technology Hazards in 2012.[1] Many medical devices such as physiologic monitors, ventilators, and infusion pumps rely on alarms to help protect patients, but there are times when alarms actually contribute to the occurrence of adverse events. The reality is that alarm events frequently occur, and the consequences of these events are often serious. Alarm events are those accidents waiting to happen, the results of a perfect storm in a error-prone system.

Most EDs are plagued by a myriad of alarm problems, such as:

RELIAS | LEARNING 171

TJC Sentinel Event Alert 50 Alarm Safety

The Joint Commission
Sentinel Event Alert

A complimentary publication of The Joint Commission

Issue 50, April 8, 2013

Medical device alarm safety in hospitals

Published for Joint Commission accredited organizations and interested health care professionals, *Sentinel Event Alert* identifies specific types of sentinel events, describes their common underlying causes, and suggests steps to prevent occurrences in the future.

Accredited organizations should consider information in an Alert when designing or redesigning relevant processes and consider implementing relevant suggestions contained in the Alert or reasonable alternatives.

Please route this issue to appropriate staff within your organization. *Sentinel Event Alert* may only be reproduced in its entirety and credited to The Joint Commission. To receive by email, or to view past issues, visit www.jointcommission.org.

Many medical devices have alarm systems; among them are bedside physiologic monitors that include ECG (electrocardiogram) machines, pulse oximetry devices, and monitors of blood pressure and other parameters; bedside telemetry; central station monitors; infusion pumps; and ventilators. These alarm-equipped devices are essential to providing safe care to patients in many health care settings; clinicians depend on these devices for information they need to deliver appropriate care and to guide treatment decisions. However, these devices present a multitude of challenges and opportunities for health care organizations when their alarms create similar sounds, when their default settings are not changed, and when there is a failure to respond to their alarm signals.

The number of alarm signals per patient per day can reach several hundred depending on the unit within the hospital, translating to thousands of alarm signals on every unit and tens of thousands of alarm signals throughout the hospital every day. It is estimated that between 85 and 99 percent of alarm signals do not require clinical intervention, such as when alarm conditions are set too tight; default settings are not adjusted for the individual patient or for the patient population; ECG electrodes have dried out, or sensors are mispositioned.[1] As a result, clinicians become desensitized or immune to the sounds, and are overwhelmed by information – in short, they suffer from "alarm fatigue." In response to this constant barrage of noise, clinicians may turn down the volume of the alarm, turn it off, or adjust the alarm settings outside the limits that are safe and appropriate for the patient – all of which can have serious, often fatal, consequences.[2] One such example occurred in the summer of 2010. According to a *Boston Globe* article, a 60-year-old man died in the intensive care unit of a hospital – not from the injury he suffered to his head from a fallen tree branch – but from a system failure that resulted in delayed response to an alarm signal that indicated significant changes in his condition.[3] These changes – that set off alarms – included rapidly increasing heart rate and falling blood oxygen levels. Staff responded only after one hour, when a critical alarm condition signaled that the patient had stopped breathing –

RELIAS LEARNING 172

Excellent Resource Extension Healthcare

Is your hospital ready for the January 1, 2016 alarm safety compliance deadline?

103 6 42 29

http://go.extensionhealthcare.com/joint-commission-alarm-safety-compliance-deadline

The countdown has begun

Find Your Question in our Knowledge Base | How To Get Started

- Defining the Scope of TJC's NPSG on Clinical Alarms
- Leveraging Alarm Safety Middleware to Reduce Clinical Interruptions
- Regulatory Directives Related to Alarm Safety
- Best Practices for Alarm Safety and Clinical Systems Integration
- Deployment and Maintenance of an Alarm Safety System
- Quantifying the Value of an Alarm Safety System
- Staying Ahead Of The Curve - The Future Of Alarm Safety
- Additional Alarm Safety Resources

RELIAS LEARNING 173

AAMI

We take care of alarms so you can take care of patients. ▸ VIEW OUR ALARM MANAGEMENT WHITE PAPER

COVIDIEN™ covidien.com/RMS

AAMI Home | About HTSI | Safety Initiatives | Events | Resources | Donations | Libraries

AAMI FOUNDATION HTSI
Healthcare Technology Safety Institute

www.aami.org/htsi/alarms/

HTSI Links
- About HTSI
- HTSI National Council
- Clinical Alarms
- Infusion Systems
- Interoperability
- Reprocessing
- Safety Innovations
- Get Involved
- Make a Donation
- Donors
- Upcoming Events
- Join HTSI LinkedIn
- HTSI Libraries

Related Links

Clinical Alarms

Medical device alarms provide essential warnings to alert caregivers of changes in a patient's condition. When alarms work well, the environment of care is enhanced. When alarms don't work well, they pull caregivers away from other duties and other patients — or worse, train caregivers to ignore the alarm sounds altogether. Alarms that are ignored can and have resulted in patient deaths.

Experts agree that resolving problems with medical device alarms requires an interdisciplinary effort and buy-in from a wide array of players at the highest levels.

What's New

- **National Coalition for Alarm Management**
  The Coalition is a group of thought-leaders in the alarm management field who are driving improvement in alarm management nationwide, and seeking standardization where possible. Members come from all aspects of alarm management—the clinical community, industry, device regulators, hospital accreditors, and professional societies. Learn more
- **Pioneering Spirit Award**
  The American Association of Critical-Care Nurses' (AACN) bestowed the GE Healthcare-AACN Pioneering Spirit Award upon HTSI for its efforts to advance high acuity and critical care nursing regionally and nationally. Read more about this award
- **VHA Patient Safety Assessment Tool (PSAT)**
  The PSAT application is only available to VHA staff that have been granted permission by NCPS. However, non-

RELIAS LEARNING 174

Clinical Alarms Best Practices Library AAMI

Foundation Library: Clinical Alarms

www.aami.org/thefoundation/content.aspx?ItemNumber=1730&navItemNumber=674

AAMI Resources

- Alarm Parameter Inventory
- Alarm Summit Publication, 2011
- Alarm System Vocabulary according to industry accepted standards; IEC 60601-1:2006+A1:2012.
- Cvach, Maria, MS, RN, Monitor Alarm Fatigue: An Integrative Review. *Biomedical Instrumentation & Technology* July/August 201 268-277.
- Taming the Alarm Problem, Lane Desborough, Medtronic Diabetes

Alarms Best Practices Literature Review

Documents in this library were reviewed and recommended by the Alarm Best Practices workgroup to identify areas for potential resea and to share best practice strategies to reduce alarm fatigue, increase patient safety and encourage the delivery of high quality healthcare.

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- David Y., Clark T. National Clinical Alarms Surveys – 5 years Comparison of Issues, Improvements and Priorities. Clincial alarms_IFMBE_Proceedings_20111229.
- Edworthy J. Designing Effective Alarm Sounds. BI&T, 2011;45(4):290-294.
- Edworthy J, Hellier E. Fewer but better auditory alarms will improve patient safety. Qual Saf Health Care 2005; 14(3): 212-15.
- Gorges, M., Markewitz, BA., Westenskow, DR. Improving alarm performance in the medical intensive care unit using delays and clinical context. Anesth Analg 2009; 108 (5): 1546-52.
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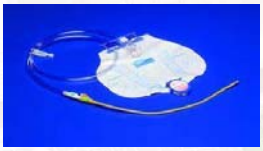
RELIAS LEARNING 175

CaUTI Changes, Verbal Orders, and R&S



RELIAS LEARNING 176

Changes in 2017 CAUTI NPSG.07.06.01

- TJC has five changes to catheter-associated urinary tract infections effective January 1, 2017
- Implement evidence-based practices to prevent indwelling CAUTI (EP1)
  - Discusses located in the Compendium on Strategies to Prevent HAI in Acute Care Hospitals, CDC, and TJC resources
- Staff and LIPs must be educated in the use of indwelling catheters and the importance of prevention
  - Training required in orientation and annual and if added to person's job description
  - Ongoing education and competence assessment occur at intervals established by the hospital

RELIAS LEARNING 177

Educate Patients

- Educate patients and families on preventing CAUTI and symptoms of a UTI (EP2)
  - Reference SHEA's FAQs on CAUTI
  - Has a document that hospitals can use to meet this standard
  - It is a one page resource
  - *See FAQs about "Catheter-associated Urinary Tract infection" at https://www.cdc.gov/hai/pdfs/uti/CA-UTI_tagged.pdf*

RELIAS LEARNING 178

FAQs
(frequently asked questions)

about
"Catheter-Associated Urinary Tract Infection"

What is "catheter-associated urinary tract infection"?

A urinary tract infection (also called "UTI") is an infection in the urinary system, which includes the bladder (which stores the urine) and the kidneys (which filter the blood to make urine). Germs (for example, bacteria or yeasts) do not normally live in these areas; but if germs are introduced, an infection can occur.

If you have a urinary catheter, germs can travel along the catheter and cause an infection in your bladder or your kidney; in that case it is called a catheter-associated urinary tract infection (or "CA-UTI").

What is a urinary catheter?

A urinary catheter is a thin tube placed in the bladder to drain urine. Urine drains through the tube into a bag that collects the urine. A urinary catheter may be used:

- If you are not able to urinate on your own
- To measure the amount of urine that you make, for example, during intensive care
- During and after some types of surgery
- During some tests of the kidneys and bladder

People with urinary catheters have a much higher chance of getting a urinary tract infection than people who don't have a catheter.

How do I get a catheter-associated urinary tract infection (CA-UTI)?

If germs enter the urinary tract, they may cause an infection. Many of the germs that cause a catheter-associated urinary tract infection are common germs found in your intestines that do not usually cause an infection there. Germs can enter the urinary tract when the catheter is being put in or while the catheter remains in the bladder.

What are the symptoms of a urinary tract infection?

Some of the common symptoms of a urinary tract infection are:

Catheter insertion

- Catheters are put in only when necessary and they are removed as soon as possible.
- Only properly trained persons insert catheters using sterile ("clean") technique.
- The skin in the area where the catheter will be inserted is cleaned before inserting the catheter.
- Other methods to drain the urine are sometimes used, such as
- External catheters in men (these look like condoms and are placed over the penis rather than into the penis)
- Putting a temporary catheter in to drain the urine and removing it right away. This is called intermittent urethral catheterization.

Catheter care

- Healthcare providers clean their hands by washing them with soap and water or using an alcohol-based hand rub before and after touching your catheter.

  If you do not see your providers clean their hands, please ask them to do so.
- Avoid disconnecting the catheter and drain tube. This helps to prevent germs from getting into the catheter tube.
- The catheter is secured to the leg to prevent pulling on the catheter.
- Avoid twisting or kinking the catheter.
- Keep the bag lower than the bladder to prevent urine from backflowing to the bladder.
- Empty the bag regularly. The drainage spout should not touch anything while emptying the bag.

What can I do to help prevent catheter-associated urinary tract infections if I have a catheter?

RELIAS LEARNING 179

Teach Patients Symptoms of a UTI

- If you are not able to urinate on your own
- To measure the amount of urine that you make, for example, during intensive care
- During and after some types of surgery
- During some tests of the kidneys and bladder

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What are the symptoms of a urinary tract infection?

Some of the common symptoms of a urinary tract infection are:

- Burning or pain in the lower abdomen (that is, below the stomach)
- Fever
- Bloody urine may be a sign of infection, but is also caused by other problems
- Burning during urination or an increase in the frequency of urination after the catheter is removed.

Sometimes people with catheter-associated urinary tract infections do not have these symptoms of infection.

Can catheter-associated urinary tract infections be treated?

Yes, most catheter-associated urinary tract infections can be treated with antibiotics and removal or change of the catheter. Your doctor will determine which antibiotic is best for you.

What are some of the things that hospitals are doing to prevent catheter-associated urinary tract infections?

To prevent urinary tract infections, doctors and nurses take the following actions.

- Healthcare providers clean their hands by washing them with soap and water or using an alcohol-based hand rub before and after touching your catheter.

  If you do not see your providers clean their hands, please ask them to do so.
- Avoid disconnecting the catheter and drain tube. This helps to prevent germs from getting into the catheter tube.
- The catheter is secured to the leg to prevent pulling on the catheter.
- Avoid twisting or kinking the catheter.
- Keep the bag lower than the bladder to prevent urine from backflowing to the bladder.
- Empty the bag regularly. The drainage spout should not touch anything while emptying the bag.

What can I do to help prevent catheter-associated urinary tract infections if I have a catheter?

- Always clean your hands before and after doing catheter care.
- Always keep your urine bag below the level of your bladder.
- Do not tug or pull on the tubing.
- Do not twist or kink the catheter tubing.
- Ask your healthcare provider each day if you still need the catheter.

What do I need to do when I go home from the hospital?

- If you will be going home with a catheter, your doctor or nurse should explain everything you need to know about taking care of the catheter. Make sure you understand how to care for it before you leave the hospital.
- If you develop any of the symptoms of a urinary tract infection, such as burning or pain in the lower abdomen, fever, or an increase in the frequency of urination, contact your doctor or nurse immediately.
- Before you go home, make sure you know who to contact if you have questions or problems after you get home.

If you have questions, please ask your doctor or nurse.

RELIAS LEARNING 180

Changes to CAUTI

- Develop evidence-based written criteria for insertion of an indwelling catheter (EP3)
  - Critically ill patients who need accurate output measured
  - Patients with urinary retention or bladder outlet obstruction
- Patients who require prolonged immobilization
  - Such as pelvis fracture, unstable thoracic or lumbar spine

RELIAS | LEARNING 181

Changes to CAUTI EP3 Con't

- Use in OR for certain procedures such as urologic surgery on contiguous structures of the genitourinary tract
  - Must be removed in PACU
  - Or who need intra-operative monitoring of urinary output or patients who get large volume infusions in OR or who receive diuretics
- Neurogenic bladder
- End of life care

RELIAS | LEARNING 182

Changes to CAUTI

- Follow written evidenced based procedures on inserting and maintaining foley catheter **(EP4)**
  - Limiting use and duration
  - Performing hand hygiene prior to catheter insertion or maintenance care
  - Using aseptic techniques for site preparation, equipment, and supplies
  - Securing catheters for unobstructed urine flow and drainage
  - Maintaining the sterility of the urine collection system
  - Replacing the urine collection system when required
  - Collecting urine samples

RELIAS | LEARNING 183

2017 Changes to CAUTI

- Measure and monitor CAUTI prevention processes and outcomes in high-volume areas by using best practices or evidence based guidelines **(EP5)**
  - Consistent method to document use, insertion and maintenance
  - Monitor compliance with evidenced based or best practice
  - Evaluate the effectiveness of prevention efforts
    - Surveillance may be targeted to area with a high volume of patients with foley catheters
- Note; CAUTI CMS 2015 IPPS SIR (standard infection ratio) to include reporting to NHSN patients outside the ICU: medical, surgical, and added as a HAC and outcome measure in 2017/2018

Verbal Orders

- Common problematic standard with CMS and TJC
- Should not be a common practice
- Physician is not allowed to give if standing in nursing station absent an emergency
- May take if needed and physician not in the department
- Nurse needs to write it down and **read** it back
- Nurse needs to sign name, date and **time**
- Physician must sign name, date and **time** also

Verbal Orders

- Physician must sign off the VO (including date and time) within time specified by state law
  - Most states say 24 or 48 hours
  - If state does **not** say then it use to 48 hours and now what your P&P says so many picked 30 days if no state law
- CMS will allow PA or NP to sign off VO for the physician if state and hospital allows and within their scope of practice
- Any physician on the case can sign off the VO for any other doctor including ED doctors signing for each other when relieving them (June 7, 2013)

Verbal Orders

- Have a P&P on who can accept VO in your facility
  - Must be qualified staff
  - Policy may allow pharmacist for pharmacy orders, dietician for dietary orders, nurses, etc.
- Include in P&P when will not take VO
  - Such as many hospitals do not take a VO for chemotherapy
  - CMS 407-408 and 454 and 457
  - TJC RC.02.03.07. PC.02.02.07 and PC.01.01.01

RELIAS LEARNING 187

Restraints #1 Problematic CMS Standard

- Many changes were made to both TJC and CMS Restraint and Seclusion standards
- CMS Hospital CoPs has 50 pages of restraint standards from Tag 0154-0214
- TJC has 10 standards in PC chapter (deemed status)
- Need to rewrite policies and procedures, order sheet and documentation sheet to comply
- Need to train all staff in accordance with requirements
- Physicians must be trained on R&S P&P

RELIAS LEARNING 188

Restraint Patient Safety Brief www.empsf.org

EMPSF EMERGENCY MEDICINE PATIENT SAFETY FOUNDATION

Restraint and Seclusion Patient Safety Briefing
Emergency Medicine Patient Safety Foundation

Written by: Sue Dill Calloway RN MSN JD CPHRM
Michael Gerardi, MD, FAAP, FACEP
John (Jack) Kelly DO, FACEP, FAAEM

March 2012
Revised July 16, 2012

Introduction

Restraint and seclusion is a very important patient safety issue. Appropriately applied restraints can protect patients from harming

RELIAS LEARNING 189

Emergency Medicine Pt Safety Foundation

Emergency Physicians Insurance eXchange

EPIX Patient Safety Briefs
(Previously known as EPIX Email Alerts)

Restraint and Seclusion

Written by Sue Dill Calloway RN MSN JD

Restraint and seclusion (R&S) are both a patient safety and risk management issue. Appropriately applied restraints can protect patients from harming themselves or others; however, unnecessary restraints and improper monitoring have resulted in injuries and deaths.

The Center for Medicare and Medicaid (CMS) rewrote the hospital regulations on restraint in 1996 (and have amended them many times since) after the Hartford Courant investigative report documented 142 deaths from restraints used between 1988 and 1996. And of course, medical malpractice or wrongful death actions have been filed due to injury or death from the use of restraints or seclusion. Hospitals can also be fined in many states by the state agency for restraint deaths. Restraints also increase the risk of delirium by four fold. (1)

Restraint and seclusion are the most common reasons why hospitals are cited by CMS. The January 28, 2016 deficiency report shows that 1,634 hospitals were cited by CMS. (2) CMS has 50 pages of hospital restraint standards found in the CMS Hospital Conditions of Participation (CoPs) manual in tag numbers 154 to 214. (3)

There are basically 21 rules to understanding and complying with the CMS standards. The four accreditation organizations also have restraint and seclusion standards which are closely cross

Restraint Worksheet

- Revised CMS restraint worksheet is available off the internet at
- R&S reports are to the regional office not the state agency
- List of regional offices (to put in your P&P) at www.cms.hhs.gov/RegionalOffices/01_overview.asp
- Must still notify regional office by phone the next business day and document this in medical record
- Patient dies in restraint, within 24 hours of being in a restraint or 7 day rule if death caused by R&S
  - Except if patient dies in **wrist restraints** as long as the restraint does not cause the death

Reporting Deaths Unless 2 Soft Wrist Restraints

DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
7500 Security Boulevard, Mail Stop C2-21-16
Baltimore, Maryland 21244-1850

CMS
CENTERS FOR MEDICARE & MEDICAID SERVICES

Center for Clinical Standards and Quality/Survey & Certification Group

Ref: S&C: 14-27-Hospital-CAH/DPU

DATE: May 9, 2014

TO: State Survey Agency Directors

FROM: Director
Survey and Certification Group

SUBJECT: Hospital Restraint/Seclusion Deaths to be Reported Using the Centers for Medicare and Medicaid Services (CMS) Form CMS-10455, Report of a Hospital Death Associated with Restraint or Seclusion

Memorandum Summary

- ***Hospital Restraint/Seclusion Deaths to be Reported Using Form CMS-10455:*** Hospitals must use Form CMS-10455 to report those deaths associated with restraint and/or seclusion that are required by 42 CFR §482.13(g) to be reported directly to their Centers for Medicare & Medicaid Services (CMS) Regional Office (RO). This requirement also applies to rehabilitation or psychiatric distinct part units (DPUs) in Critical Access Hospitals (CAHs).
- ***RO to Provide Submission Instructions:*** CMS ROs must provide hospitals with instructions for submitting the form to the RO by fax and/or e-mail, based on RO preference.

CENTERS FOR MEDICARE & MEDICAID SERVICES OMB No. 0938-1219

REPORT OF A HOSPITAL DEATH ASSOCIATED WITH RESTRAINT OR SECLUSION

A. Hospital Information:
Hospital Name | CCN
Address
City | State | Zip Code
Person Filing the Report | Filer's Phone Number

B. Patient Information:
Name | Date of Birth
Primary Diagnosis(es)
Medical Record Number | Date of Admission | Date of Death
Cause of Death

www.cms.gov/Medicare/CMS-Forms/CMS-Forms/Downloads/CMS10455.pdf

C. Restraint Information *(check only one)*:
☐ While in Restraint, Seclusion, or Both
☐ Within 24 Hours of Removal of Restraint, Seclusion, or Both
☐ Within 1 Week, Where Restraints, Seclusion or Both Contributed to the Patient's Death

Type *(check all that apply)*:
☐ Physical Restraint ☐ Seclusion ☐ Drug Used as a Restraint

If Physical Restraint(s), Type *(check all that apply)*:
☐ 01 Side Rails
☐ 02 Two Point, Soft Wrist
☐ 03 Two Point, Hard Wrist
☐ 04 Four Point, Soft Restraints
☐ 05 Four Point, Hard Restraints
☐ 06 Forced Medication Holds
☐ 07 Therapeutic Holds
☐ 08 Take-downs
☐ 09 Other Physical Holds (specify): _____
☐ 10 Enclosed Beds
☐ 11 Vest Restraints
☐ 12 Elbow Immobilizers
☐ 13 Law Enforcement Restraints

If Drug Used as Restraint:
Drug Name | Dosage

Form CMS-10455 (11/13) 1

Restraint Death

- An exception is if the patient in the ED dies and only used two soft wrist restraints
  - Instead the hospital could just keep an internal log
  - The log would include the patient's name, date of birth, date of death, attending physician, primary diagnosis, and medical record number
  - Name of practitioner responsible for patient could be used in lieu of attending if under care on non-physician practitioner
  - CMS could request to review the log at anytime
  - Published in FR May 16, 2012 and effective July 16, 2012

Restraint and Seclusion

- Patient has a right to be free from unnecessary R&S
- Leadership has responsibility to create culture that supports right to be free from R&S
- Should not considered as part of routine part of fall prevention
- If use protocol you still need an order
- Know the CMS definition of restraint and seclusion
- Know if drug used as a restraint

RELIAS LEARNING 196

Restraint and Seclusion

- CMS calls it violent and or self destructive as opposed to TJC who calls it behavioral health
- CMS calls it non violent/non self destructive and TJC calls it non behavioral health patient
- Know what restraints do not include such as forensic restraints, orthopedically prescribed devices, holding for medical test, surgical dressings, or postural supports
- Mitt is restraint if boxing glove style
- CMS proposed changes from LIP to LP so PA can assess and order

RELIAS LEARNING 197

Restraint and Seclusion

- Know what it does include such as freedom splints, and all 4 side rails if patient can not lower them
- Try or consider and document less restrictive interventions and alternatives
- Document the assessment
- Need order from physician or LIP
- If LIP gives order notify doctor ASAP
- Amend plan of care
- Consider debriefing although not required by CMS on V/SD patients

RELIAS LEARNING 198

Restraint and Seclusion

- End at the earliest time
- Do PI
- Use as directed
- If V/SD need one hour face to face
- Time limited orders for V/SD patients
- Need P&P on R&S
- Educate staff and document this
- Follow any stricter state law, and
- Report restraint deaths as required

ACEP Position on Restraints 2014

Use of Patient Restraints

Revisedand approved by the ACEP Board of Directors with the same title April 2014, April 2001, June 2000, January 1996

Reaffirmed by the ACEP Board of Directors October 2007

Originally approved by the ACEP Boardof Directors January 1991

www.acep.org/Clinical---Practice-Management/Use-of-Patient-Restraints/

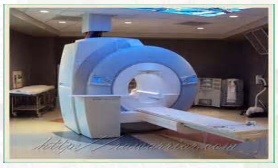
The AmericanCollege of Emergency Physicians (ACEP) supports the careful and appropriate useof patient restraints or seclusion. ACEP recognizes that patient restraintinvolves issues of civil rights and liberties, including the right to refusecare, freedom from imprisonment, and freedom of association. However, there arecircumstances when the use of restraints is in the best interest of thepatient, staff, or the public.

Patient restraintshould be considered when a careful assessment establishes that the patient has danger to self or others by virtue of a medical or psychiatric condition andwhen verbal de-escalation is not successful.

ACEP endorses thefollowing principles regarding patient restraints:

- Restraints should be instituted onlyafter verbal de-escalation has been attempted.
- Restraint of patients should beindividualized and employed in a manner that makes all reasonable attempts tomaintain the patients' privacy and dignity.
- The method of restraint should be theleast restrictive necessary for the protection of the patient and others.
- Staff should be properly trained in theappropriate use and application of restraints and in the monitoring of patientsin restraint and seclusion.
- Protocols to ensure patient safetyshould be developed to address observation and treatment during the period ofrestraint and periodic assessment as to the need and means of continuing ordiscontinuing restraint.
- The use of restraints should becarefully documented, including the reasons for and means of restraint,alternatives to restraint, and the periodic assessment of the restrainedpatient.
- ACEP opposes any requirement by hospitalrepresentatives or medical staff that emergency physicians provide inpatientrestraint or seclusion orders. Patient restraint or seclusion requirescomprehensive patient assessment, and the emergency physician's principal legaland ethical responsibility is to patients who present to be seen and treated inthe emergency department.
- The use of restraints should conform toapplicable laws, rules, regulations, and accreditation

Grievances, MRI Safety, Fatigue, and AMA



Grievances and Complaints

- Every ED practitioner should be aware that CMS has grievance standards
  - CMS standards start at tag 118 and complete copy of the hospital CoP can be downloaded off the CMS website
  - TJC has also but calls them complaints under RI.01.07.01
  - CMS has BFCC QIO in which patients can report grievances to and include their name and information in patient rights to patients

Location of CMS Hospital CoP Manuals

Email questions to hospitalscg@cms.hhs.gov

CMS Hospital CoP Manuals new address
www.cms.hhs.gov/manuals/downloads/som107_Appendixtoc.pdf

Grievances and Complaints

- Patients have the right to file a grievance
- ED must investigate
- If meets definition of grievance then CMS requires the patient be given information in writing as to what was done and when it was done
- Must provide in writing the name of person at the hospital that patient can contact with a complaint
- Make sure know P&P
- Must investigate timely and can not resolve in 7 days must send the patient a letter

Grievances and Complaints

- If patient is not competent then give information to surrogate decision maker
- A written complaint is always a grievance
- Billing issues are not generally a grievance unless a quality of care issue
- Information on a patient satisfaction survey is not a grievance unless patient asks for resolution
- Staff should know the definition of what constitutes a grievance
- Should document process in case CMS shows up

RELIAS LEARNING 205

Grievance Process A-0118

- **Definition:** A patient grievance is a formal or informal written or verbal complaint
  - When the verbal complaint about patient care is not resolved at the time of the complaint by **staff present**
  - By a patient, or a patient's representative,
  - Regarding the patient's care, abuse, or neglect, issues related to the hospital's compliance with the CMS CoP
  - Or a Medicare beneficiary billing complaint related to rights and limitations provided by 42 CFR 489.

RELIAS LEARNING 206

Have a Policy to Hit All the Elements

POLICY
All internal and external customer (patient, physician, staff or visitors) complaints and problems will be addressed at the time of the occurrence in an effort to resolve the customer complaint or grievance and or review and improve the process. All patient and or family complaints received must be responded to promptly. Patients have a right to complain without any fear of reprisal. Any patient or patient's representative who expresses an issue or grievance is assured that this process is welcome and not fear that there would be any retaliation for initiating this action

Patients are informed to contact the Nursing Service Supervisor while in the hospital. Patients are also informed of their ability to contact the New York State Department of Health and the telephone number is provided to them at their request.

Any individual who believes his or her rights granted by the Health Insurance Portability and Accountability Act (HIPAA) Privacy regulations or any other state or federal laws dealing with privacy and confidentiality of health information have been violated may file a compliant regarding the alleged privacy violation to the Hospital's Privacy Officer (716)298-2047. The Privacy Officer will investigate alleged privacy violations and complaints made by patients or other individuals regarding alleged breaches of privacy

DEFINITION
Patient Grievance – (as defined by Centers for Medicare & Medicaid Services, ref. 482.13(a)(2)) – is a written or verbal complaint (when the verbal complaint about patient care is not resolved at the time of the complaint by staff present) by a patient, or the patient's representative, regarding the patient's care, abuse or neglect, issues related to the hospital's compliance with the CMS Hospital Conditions of Participation (COP)

- **Staff Present** – includes any hospital staff present at the time of the complaint or who can quickly be at the patient's location (i.e. nursing supervisor, nursing administration, etc.)
- If a verbal patient care complaint cannot be resolved at the time of the complaint by staff present, is postponed for later resolution, is referred to other staff for later resolution, requires investigation, and/or requires further actions for resolution, then the complaint is a grievance for the purposes of these requirements. A complaint is considered resolved when the patient is satisfied with the actions taken on their behalf.
- Billing issues are not usually considered grievances for the purposes of these requirements. However, a Medicare beneficiary billing complaint related to rights and limitations provided by 42 CFR 489 are considered a grievance.
- A written complaint is considered a grievance, whether from an inpatient, outpatient, released/discharged patient or their representative regarding the patient care provided, abuse or neglect, or the hospital's compliance with the COP.
- Information obtained with patient satisfaction surveys does not usually meet the definition of a grievance. If an identified patient writes or attaches a written complaint on the survey and requests resolution, then the complaint meets the definition of a grievance.

RELIAS LEARNING 207

MRI Guidelines

- Have patients completely undress and in hospital gown
- Use MRI screening form for all patients
- Consider doing FMEA on MRI safety
- Appoint a safety officer to make sure P&P in place
- Make sure consistent with ACR MRI recommendations
- Provide ear plugs to patients
- Note: CMS rewrites all of the radiology standards for hospitals July 2015 and TJC new standards effective July 1, 2015

RELIAS | LEARNING 208

MRI Guidelines

- Audit compliance with MRI safety P&Ps
- Show staff multiple pictures of objects pulled into MRI machine
- Carefully screen all patients for magnetic objects in their hair or body
- Have ferromagnetic detector
- Know what devices are harmful
- Divide MRI into 4 zones
- Know the 5 G line of safety

RELIAS | LEARNING 209

MRI Guidelines

- Do not bring anything of metal into the MRI room as it can become a missile
- Be aware of what can cause patient burns during MRI such as nitro patches or staples or touching the inside wall (bore) of the MRI scanner
- Be aware that the magnetic field can affect the operation and reliability of medical devices such as PCA pumps, ventilators, monitors
  - FDA just approved first MRI safe pacemaker
- Injury can occur from dislodging implants such as cochlear implant, cerebral aneurysm clips etc.

RELIAS | LEARNING 210

MRI Safety

- Consider a yearly seminar on MRI safety and include in orientation for new staff
- Have MRI safe equipment such as a special wheelchair
- Cases where oxygen tank brought in room and killed child, Guard came in and bullets came out of gun,
- TJC Sentinel Event Alert on MRI safety
- Careful about ED nurses carrying metal objects like scissors, and stethoscopes
- Patients have received burns from patches like nitro patch
- Nurse take metal IV cart to MRI door and flew across room into the MRI machine

MRI Safety

- Make sure ED staff aware of P&P on MRI safety
- Recent case of sand bag as they may contain metal shots
- ACR has Updated 2013 white paper on MRI safety full of ideas and tips at www.acr.org and make sure incorporated into your P&P
- Generally no patients with implanted pacemakers, ICD, vagus nerve stimulator, permanent eyeliner, cochlear implants, deep brain stimulators, insulin pumps, surgical pins and screws, aneurism clips, piercings, prosthetics, etc.
- Ice pack to skin staples during exam, problem with tattoos use same ice pack

ACR Safe MRI Position Statement

JOURNAL OF MAGNETIC RESONANCE IMAGING 37:501–530 (2013)

Special Communication

ACR Guidance Document on MR Safe Practices: 2013

Expert Panel on MR Safety: Emanuel Kanal, MD,[1*] A. James Barkovich, MD,[2] Charlotte Bell, MD,[3] James P. Borgstede, MD,[4] William G. Bradley Jr, MD, PhD,[5] Jerry W. Froelich, MD,[6] J. Rod Gimbel, MD,[7] John W. Gosbee, MD,[8] Ellisa Kuhni-Karpinski, RT,[1] Paul A. Larson, MD,[9] James W. Lester Jr, MD,[10] John Nyenhuis, PhD,[11] Daniel Joe Schaefer, PhD,[12] Elizabeth A. Sebek, RN, BSN,[1] Jeffrey Weinreb, MD,[13] Bruce L. Wilkoff, MD,[14] Terry O. Woods, PhD,[15] Leonard Lucey, JD,[16] and Dina Hernandez, BSRT[16]

Because there are many potential risks in the MR environment and reports of adverse incidents involving patients, equipment and personnel, the need for a guidance document on MR safe practices emerged. Initially published in 2002, the ACR MR Safe Practices Guidelines have been used by many institutions as a tool to develop responsible practices in clinical and research MR environments. As the MR industry changes the document is reviewed, modified and updated. The most recent version will reflect these changes.

Key Words: MR safety; MR; MR safe practices
J. Magn. Reson. Imaging 2013;37:501–530.
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[2]Department of Radiology and Biomedical Imaging, University of California, San Francisco, California, USA.
[3]Milford Anesthesia Associates, Milford, Connecticut, USA.

THERE ARE POTENTIAL risks in the MR environment, not only for the patient (1,2) but also for the accompanying family members, attending health care professionals, and others who find themselves only occasionally or rarely in the magnetic fields of MR scanners, such as security or housekeeping personnel, firefighters, police, etc. (3–6). There have been reports in the medical literature and print-media detailing Magnetic Resonance Imaging (MRI) adverse incidents involving patients, equipment and personnel that spotlighted the need for a safety review by an expert panel. To this end, the American College of Radiology originally formed the Blue Ribbon Panel on MR Safety. First constituted in 2001, the panel was charged with reviewing existing MR safe practices and guidelines (5–8) and issuing new ones as appropriate for MR examinations. Published initially in 2002 (4), the ACR MR Safe Practice Guidelines established de facto industry standards for safe and responsible

www.acr.org/SecondaryMainMenuCategories/quality_safety/RadSafety.aspx

MRI Safety

- Purchase only MRI compatible sandbags that are labeled for MRI Use
- Confirm they are ferromagnetic before allowing in MRI room
- Revise MRI screening checklist to include this
- Make sure magnetic objects are not hidden under blankets or sheets by patients
- May need to transfer to MRI compatible transport equipment including MRI safe cart
- Make sure ED staff are educated and include knowledge of policy and procedure

Hospital Fined $50,000

Published: Jan. 22, 2010
Updated: 7:13 p.m.

Hoag fined in MRI accident

By COURTNEY PERKES
THE ORANGE COUNTY REGISTER
cperkes@ocregister.com

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Story
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ARTICLE

Hoag Hospital has been fined $50,000 by the state Department of Public Health after an MRI patient on a metal gurney was magnetically pulled into the imaging machine, the hospital said Friday.

In a memo to staff, Dr. Richard Afable, chief executive officer of Hoag Memorial Hospital Presbyterian, described the scenario and policy changes to prevent future incidents. He was in Los Angeles on Friday and could not be reached for comment.

Afable said that last January a woman was taken into an MRI room on a metal gurney that was not compatible with the machine. The powerful magnet in the MRI pulled the gurney into the machine and the patient's leg was trapped for about three minutes. She was taken to the emergency room and spent three days in the hospital for treatment of fractures in her lower leg and foot.

Hoag failed to follow its policy of not allowing gurneys that are not MRI safe in the hallways outside the testing room, Afable said. The hospital has adopted new procedures including a checklist that must be done before entering the MRI room and installation of a camera for

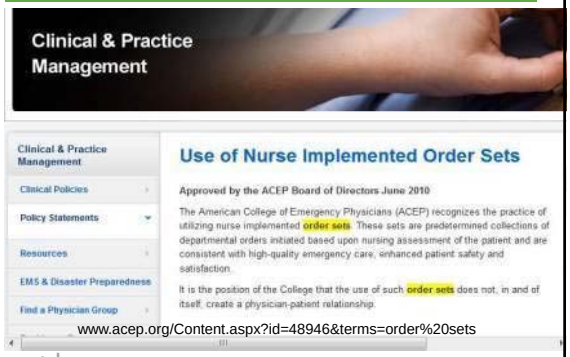
Hospital Fined $50,000 Jan 2010

- Hoag Hospital in California fined by state Dept of Public Health after patient was taken to MRI on a metal gurney
- Patient was pulled into the imaging machine breaking her lower leg
- Leg was trapped for three minutes
- Spent 3 days in the hospital
- Had adopted new procedure and checklist before entering MRI room
- Has installed cameras for monitoring

Protocols

- Advanced triage protocols or triage based protocols are one approach to optimize ED front end operations
- Make sure approved by MS, order entered into the medical record, and consistent with scope of practice and state law
- Decreases patient length of stay
- Standardized pathways for specific conditions or complaints
  - Ordering x-rays for things like ankle injury, oral analgesic for pain or fever, institute elopement precautions for suicidal patients, EKG for chest pain patient, rapid strep protocol, urine for dysuria etc.

ACEP Position Nurse Implemented Orders



www.acep.org/Content.aspx?id=48946&terms=order%20sets

Standing Orders

- CMS issued standing orders
  - Includes order sets, preprinted orders, electronic orders, and protocols
- Primarily located in tag 457 but also in 405, 406, and 450
- Make sure all standing orders approved by the Medical Staff (MEC)
- If medications then must be approved by nursing and pharmacy leadership
- Must educate staff on all standing orders

Standing Orders 457

- Must make sure P&P reflects these requirements
- Must be consistent with national recognized standards and standards of care
- Must be well-defined clinical situations with evidence to support standardized treatments
- Can be initiated as emergency response
- Document in order sheet and practitioner must then sign, date and time the standing order
  - if electronic make sure entire order is present
- Must be medically appropriate

Standing Orders 457

- Make sure there is periodic and regular review of the orders and protocols to determine the continued usefulness and safety
- P&P must address how it is developed, approved, monitored, initiated by staff and signed off or authenticated
- Make sure new ED physicians and staff are trained on existing protocols
- Audit to make sure they are dated, timed, and authenticated both by the person taking the order and the practitioner

EMPSF Patient Safety Brief

EMPSF EMERGENCY MEDICINE PATIENT SAFETY FOUNDATION

Patient Safety Brief
Emergency Medicine Patient Safety Foundation

CMS Requirements on Order Sets, Protocols, Preprinted Orders, and Standing Orders

Sue Dill Calloway RN MSN JD

There are three separate tag numbers that hospitals must review in order to understand the Center for Medicare and Medicaid Services (CMS) requirements for standing orders, protocols, and order sets. Additionally, CMS included information on this topic in the changes to the hospital CoPs which was published in the Federal Register and which became effective July 16, 2012. Any hospital that accepts Medicare or Medicaid reimbursement must follow the conditions of participation (CoPs) and they must be followed for all patients seen in the hospital.

Patients Who Leave Without Being Seen (LWBS)

- ED should track these for QI
- More recently refer to them as left before or after medical screening and AMA (2.8% in 2010 data)
- Good indicator of the quality of your ED
- If large number then look for opportunities for improvement including how to decrease wait times
- Document on the chart when it is first discovered that the patient left before screening
- Call patient three times and document times

RELIAS LEARNING 223

Left Before Medical Screening Examine

- TJC and CMS (EMTALA) requires the medical record be maintained on these patients
  - Even if just a patient name or if LBMS before being triaged
- Exponential rise in lawsuits after 2 hour waits
  - How does rate compare with the average rate of LWBS at 2% and AMA at 1.3% in 2009
  - Left before 1.7% or 1,928 and left after medical screen is 1.1% or 1,289 patient and Left AMA rate is 1.2% or 1,381 patients in 2010
  - AMA recommendations addressed in the EMTALA interpretive guidelines

RELIAS LEARNING 224

Refusal of Treatment

- Both CMS and TJC in the patient rights section allows a competent patient to refuse treatment
- However, they must be informed of the risks and benefits
- The risks and benefits should be clearly documented and the patient should sign the form
- The patient must be competent to make an informed decision to refuse care and not under the influence of drugs or alcohol

RELIAS LEARNING 225

Refusal of Treatment

- Patients can refuse part of care without being made to sign out AMA
  - Example is patient having a heart attack and will allow all tests except ABG's but pulse ox is allowed
- If patient wants to refuse a part of something then an informed signed refusal is done and patient is given treatment
- High number of patients return if sign out AMA
- CMS does not want to see ED with high AMA rate

RELIAS LEARNING 226

Patients Leaving AMA

- EMTALA requires that a medical screening exam be done on any patient who comes to the ED
  - Too many AMA may be EMTALA violation
- If the patient is in an emergency medical condition, then the patient must be stabilized
- There must be documentation of the exam that was done
- Documentation of the treatment refused

RELIAS LEARNING 227

Patients Leaving AMA

- An attempt to obtain written AMA form signed if the patient refuses all treatment
- Patient can not be intoxicated or mentally incompetent
  - only competent patients are eligible to sign out AMA
- CMS says hospitals should be very concerned about patients leaving AMA
- Can still give prescription or other call or call to check on patient

RELIAS LEARNING 228

Know How to Fill Out Your AMA Form

AGAINST MEDICAL ADVICE/REFUSED TREATMENT/ EXAM/MEDICAL SCREENING CONSENT

Select One Option

☐ Against Medical Advice
I am leaving Bellin at my own insistence and against the advice of the health care organization's providers and the attending physician.

1. Risks and potential complications of leaving may include but are not limited to: _____
2. I accept risks/consequences of my decision to leave and release all health care providers from any adverse medical condition caused by my refusal of medical care.
3. Benefits of continuing care include: _____
4. Family/other involved in discussions and decision to dissuade leaving. If no, explain: _____
5. I have received discharge instructions and understand that I may return at any time for care.

☐ Against Medical Advice – **Pediatric Patients Only**
I have been provided information on the risks associated with sleeping in the same bed as my child and have been advised to have my child sleep alone in the bed or crib provided. Even though I fully understand these risks, I intend to sleep in the same bed as my child while in the hospital.

☐ Refused Treatment/Examination
I have been offered, and refuse to consent to _____

Patients Leaving AMA EMTALA

- First, offer the patient further medical exam and treatment as needed to stabilize their condition
- Second, inform the patient of the risks of withdrawal prior to receiving such exam and treatment (be specific such as you could die, infection, death, etc.)
- Third, takes all reasonable steps to ensure written informed consent. This should contain a description of the risks discussed and that it was refused

Patients Leaving AMA

- If the patient leaves without notifying the staff, document that the person has been there, and what time the hospital discovered the patient had left
- Retain all triage or other records
- The burden is on the hospital to show that is has taken all the appropriate steps to discourage the patient from leaving

AGAINST MEDICAL ADVICE (AMA FORM)

This is to certify that I, _____,
a patient at _____(fill in name
of your hospital), am refusing at my own insistence and without the authority
of and against the advice of my attending physician(s)
_____, request to leave against
medical advice.

The medical risks/benefits have been explained to me by a member of the
medical staff and I understand those risks.

I hereby release the medical center, its administration, personnel, and my
attending and/or resident physician(s) from any responsibility for all
consequences, which may result by my leaving under these circumstances.

MEDICAL RISKS

_____Death _____Additional pain and/or suffering

_____Risks to unborn fetus _____Permanent disability/disfigurement

_____Other:_____
_____
_____

ED Pharmacist in the ED

- Some of larger EDs are placing a pharmacist in the ED
  - Pharmacist in the ED is not there to dispense pills
  - There to work as troubleshooters and consultants to ED physicians and staff
- Help with medications during code, review medication orders, and watch for patient allergies
- Help prevent IV errors which are common in the ED
- 1 to 3% of hospitals have a pharmacist in the ED in 2007 when pharmacy residency program was started
- Rochester Democrat and Chronicle, Oct. 16, 2007

ED Pharmacist

- American Society of Health System Pharmacist (ASHP) started the Emergency Department Pharmacy Mentorship Program in 2007
- Initially, 50 hospitals applied for the 10 slots so expanded to 20
- Supported by a grant from AHRQ
- ARHQ has many resources on the use of the pharmacist in the ED
  - http://www.emergencypharmacist.org/index.html
- Many article show a reduction in medication errors

Principal Investigator/Program Director (Last, First, Middle): Fairbanks, Rollin Jonathan

The ED Pharmacist as a safety measure in Emergency Medicine

AHRQ U18 HS15818 "Partnerships in Implementing Patient Safety"

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Research Nurses: Karen Dewar, RN; Heather Martin, MS, RN
Research Assistant: Lindsey Clark, BS

ABSTRACT

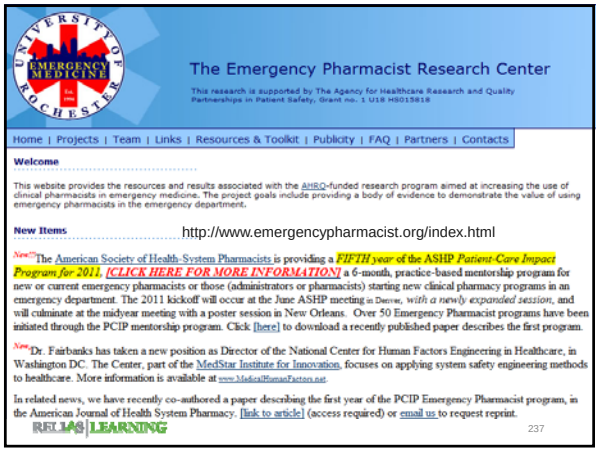
BACKGROUND: The Emergency Department (ED) is a unique environment in medicine, and many safety mechanisms used in other hospital settings cannot be applied in the ED. For example, clinical pharmacists have traditionally provided extra layers of protection to hospital inpatients by cross-checking provider orders for appropriate dosing, contraindications, and interactions. Because medications in the ED must be accessed immediately and are often one-time doses, the use of central pharmacy services would introduce an unacceptable delay to the administration of medication. Although some hospitals have programs in place in which a pharmacist responds to the ED for cardiac arrests or trauma team activations, few have reported programs which involve a clinical pharmacist assigned exclusively to the emergency department. Nonetheless, published reports have asserted that ED-based pharmacists can increase patient safety. Although this concept appears logical, no study has attempted to show that these programs reduce potential adverse drug events in the ED.

PROJECT SUMMARY: We propose to implement and optimize an ED Pharmacist (EDP) program as a safe

RULAS LEARNING 235

ED Pharmacist Research Center AHRQ

RULAS LEARNING 236



RULAS LEARNING 237

Pa Patient Safety Authority ED Medications

www.patientsafetyauthority.org/ADVISORIES/Advisory/Library/2011/mar8(1)/Pages/01.aspx

RELIAS LEARNING 238

PATIENT SAFETY/CONCEPTS

Confusion About Epinephrine Dosing Leading to Iatrogenic Overdose: A Life-Threatening Problem With a Potential Solution

Manreet Kanwar, MD
Charlene B. Irvin, MD
John J. Frank, MD
Kathryn Weber, PharmD
Howard Rosman, MD

From the Division of Cardiology, Department of Medicine (Kanwar, Frank, Rosman), Department of Emergency Medicine (Irvin), and Department of Pharmacy (Weber), St. John Hospital and Medical Center, Detroit, MI.

Epinephrine is indicated for various medical emergencies, including cardiac arrest and anaphylaxis, but the dose and route of administration are different for each indication. For anaphylaxis, it is given intramuscularly at a low dose, whereas for cardiac arrest a higher dose is required intravenously. We encountered a patient with suspected anaphylaxis who developed transient severe systolic dysfunction because of inappropriately received cardiac arrest dose, ie, larger dose given as an intravenous push. Three additional patients who experienced potentially lethal cardiac complications after receiving inappropriately higher doses intravenously were also identified. These iatrogenic errors resulted from underlying confusion by physicians about proper dosing of epinephrine for anaphylaxis. The risk of error was amplified by the need for rapid decisionmaking in critically ill anaphylactic patients. An e-mail survey of local hospitals in southeast Michigan revealed that 6 of 7 hospitals did not stock prefilled intramuscular dose syringes for emergency use in anaphylaxis. At our institution, we have introduced prefilled and appropriately labeled intramuscularly dosed epinephrine syringes in crash carts, which are easily distinguished from intravenously dosed epinephrine syringes. In this Concepts article, we describe the clinical problem of inadvertent epinephrine overdose and propose a potential solution. Epinephrine must be clearly packaged and labeled to avoid inappropriate usage and unnecessary, potentially lethal complications in patients with anaphylaxis. [Ann Emerg Med. 2010;55:341-344.]

RELIAS LEARNING 239

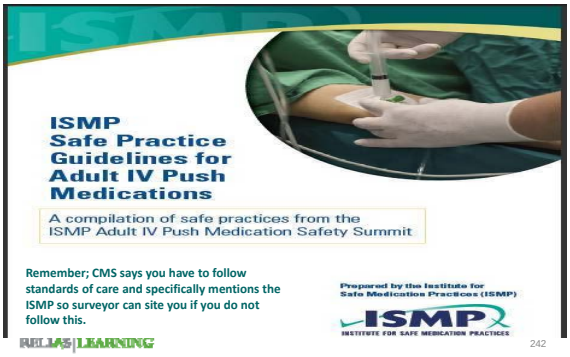
Figure. Clearly labeled prefilled syringes containing (upper box) 0.3 mg of 1:10,000 concentration IM dose in an autoinjector labeled "for anaphylaxis use only." Lower box contains 1 mg of 1:10,000 concentration IV dose labeled "for cardiac arrest use only."

RELIAS LEARNING 240

ISMP IV Push Medications Guidelines

- ISMP has published a 26 page document called "ISMP Safe Practice Guidelines for Adult IV Push Medications
- The document is organized into factors that increase the risk of IV push medications in adults,
  - Current practices with IV injectible medications
  - Developing consensus guidelines for adult IV push medication and
  - Safe practice guidelines
  - About 90% of all hospitalized patients have some form of infusion therapy

IV Push Medicine Guidelines



IV Push Medications Guidelines

- Provide IV push medications in a ready to administer form
- Use only commercially available or pharmacy prepared prefilled syringes of IV solutions to flush and lock vascular access devices
- If available in a single dose vial then need to buy in single dose vial
- Aseptic technique should be used when preparing and administering IV medication
  - This includes hand hygiene before and after administration

IV Push Medications Guidelines

- The diaphragm on the vial should be disinfected even if newly opened
  - The top should be cleaned using friction and a sterile 70% isopropyl alcohol, ethyl alcohol, iodophor, or other approved antiseptic swab for at least ten seconds to it dr
- Medication from a glass vial should be with a filter needle unless the specific drug precludes this
- Medication should only be diluted when recommended by the manufacturer or in accordance with evidence based practice or approved hospital policies

RELIAS LEARNING 244

IV Push Medications Guidelines

- If IV push medication needs to be diluted or reconstituted these should be performed in a clean, uncluttered, and separate location
- Medication should not be withdrawn from a commercially available, cartridge type syringe into another syringe for administration
- It is also important that medication not be drawn up into the commercially prepared and prefilled 0.9% saline flushes
  - This are to flush an IV line and are not approved to use to dilute medication

RELIAS LEARNING 245

New Emerging Patient Safety and Risk

- Septic patients are severely under treated
- Patient are bleeding into the perispinal space
  - Hospitals are trying to reduce PE and DVT in post operative patients
  - Patients are increasingly being put on anticoagulants
  - Consider if severe back pain and no injury and look at medication list
- There is an increased incidence of perispinal abscesses
  - Use to be from drug addicts but now from community MRSA

RELIAS LEARNING 246

Infection Control

- Infection control is very important now
- CMS had 12 pages of infection control standards in the CMS Hospital CoP manual and has IC final Worksheet
- TJC has 12 pages of standards in the IC or Infection Prevention and Control Chapter
- Hand hygiene is big issue and compliance is still an issue in many EDs
  - Must follow CDC guidelines or WHO guidelines
- Use sepsis bundle

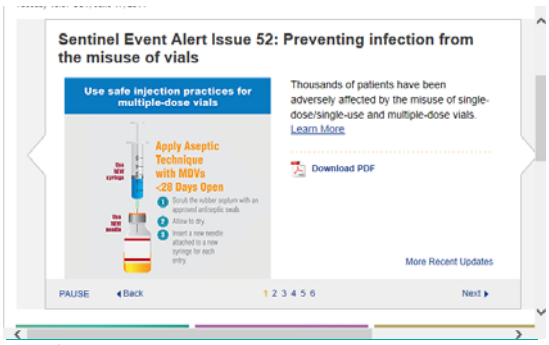
RELIAS LEARNING 247

Infection Control

- Need policies and protocols to prevent catheter associated urinary tract infections
- Need to use the central line bundle to reduce catheter associated infections
- Clean glucometers between use
- Clean carts off between use
- Hospital needs a good infection control plan and program including safe injection practices
- Infection preventionist needs to have frequent contact with nursing

RELIAS LEARNING 248

SEA 52 Safe Injection Practices

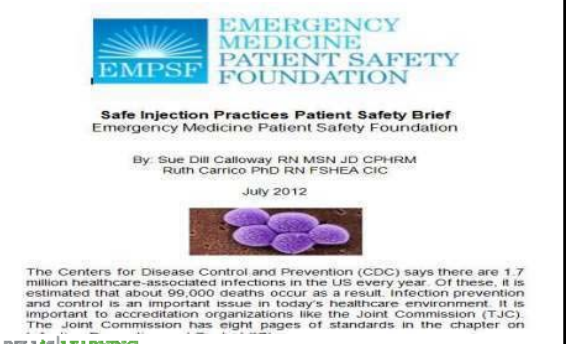


RELIAS LEARNING 249

Video on Preventing HAI

RELIAS LEARNING 250

Safe Injection Practices in the ED



RELIAS LEARNING 251

Nursing Linked to Safety

- AHRQ has published 3 volume, 51 chapter handbook for nurses and available at no charge
- Has chapter on staffing levels and outcomes and effect of fatigue on patient safety
  - Discusses **staff nurse fatigue** and patient safety study
- Patient Safety and Quality: An Evidence-Based Handbook for Nurses, 2008
  - AHRQ website at www.ahrq.gov/qual/nurseshdbk
- Also important IOM study and AHRQ did comprehensive evidence based report

RELIAS LEARNING 252

Chapter 40. The Effects of Fatigue and Sleepiness on Nurse Performance and Patient Safety

Ann E. Rogers

Background

Although the words "fatigue" and "sleepiness" are often used interchangeably, they are distinct phenomena. Sleepiness refers to a tendency to fall asleep, whereas fatigue refers to an overwhelming sense of tiredness, lack of energy, and a feeling of exhaustion associated with impaired physical and/or cognitive functioning.[1] Sleepiness and fatigue often coexist as a consequence of sleep deprivation.

Even though fatigue can be due to a variety of causes (e.g., illness, a vigorous workout, or a period of prolonged concentration), this chapter will focus on the effects of fatigue associated with insufficient sleep (see Key Terms and Definitions). The impact of extended work shifts and the relationship of these work schedules to nurse and patient safety will also be explored. Several practices that show demonstrable potential for reducing the adverse effects of fatigue on patient safety will be reviewed at the end of the chapter.

Insufficient Sleep

Studies suggest that average sleep durations have decreased from 9 hours in 1910 to as little as 6.9 hours on workdays in 2002.[2-5] Objective measurements, however, suggest that mean sleep times may actually be somewhat lower than are typically reported in surveys. For example, 273 randomly selected middle-aged residents of San Diego (40 to 64 years) reported sleeping approximately 7 hours, an amount that appeared to correspond to their time in bed. Mean sleep times obtained from wrist actigraphy, however, revealed that participants slept on average 6.22 hours, approximately 43 minutes less than their subjective reports.[7]

Sleeping longer on weekends and nonworkdays is also common,[4,6] suggesting that individuals are obtaining insufficient sleep on workdays, then attempting to "catch up" on weekends. Americans slept on average 36 minutes more on weekends in 2002,[4] which is somewhat longer than the 23 minutes reported by British adults.[6] American nurses who participated in a recent survey, however, obtained on average 84 minutes more sleep on nonworkdays than work days (8.2 hours on nonworkdays compared to 6.8 hours on workdays),[8]

RELIAS LEARNING 253

Fatigue

- Nurses working nights and rotating shifts rarely obtain optimal amounts of sleep
- Insufficient sleep has variety of adverse effects
- Associated with cognitive problems, mood alterations, reduced job performance, increased safety risks and physiological changes
- Reviewed several hundred studies and none showed any positive effects from insufficient sleep
- Growing body of evidence linked to metabolism and can contribute to obesity

RELIAS LEARNING 254

Nursing Linked to Safety & Fatigue

- Limits to number of hours worked to prevent fatigue
- No mandatory overtime and don't let a nurse do a double and then double back
- Never work over **12 hours** or **60 hours** in one week (or will have 3 times the error)
- Also showed medication error rate linked to staffing
- Redesigning the work force
  - See Keeping Patients Safe: Transforming the Work Environment of Nurses 2004 by IOM
  - www.nap.edu/openbook/0309090679/html/23/html

RELIAS LEARNING 255

TJC Issues SEA 48

www.jointcommission.org/sentinel_event.aspx

RELIAS LEARNING 256

10 Reasons Your ED May not be as Safe

RELIAS LEARNING 257

10 Reasons Your ED May Not Be as Safe

- Article called "Ten Reasons Your ED May Not Be As Safe As You Think It Is" at http://www.thesullivangroup.com/
- Risk Factor Analysis
  - John Ritter came the ED with chest pain
  - No one asked about a family history
  - If they had he would have told them that his father died of a thoracic aortic dissection and likely doctor would have ordered a CT scan and discovered it (clinical decision support system can help)

RELIAS LEARNING 258

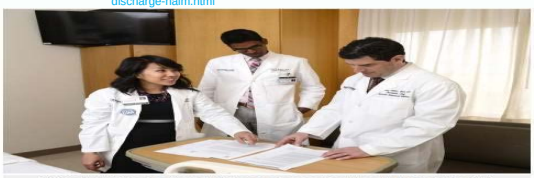
10 Reasons Your ED May Not Be as Safe

- Patients in severe pain are not getting their pain meds within one hour
- The ED sent patients home with abnormal vital signs
  - Be sure to repeat any abnormal vital signs and reassess patient
  - Studies show association between discharging patients with abnormal vital signs and morbidity and mortality
- ED is not taking full advantage of the power of discharge instructions
  - Patient riding his motorcycle gets something in his eye
  - ED doctor diagnosis as corneal abrasion and applied eye patch

2016 Study Finds 1 in 5 Discharged Abn VS

1 in 5 are discharged from hospital with unstable vital signs, and experience higher readmission and death rates

Aug 09, 2016 www.utsouthwestern.edu/newsroom/news-releases/year-2016/august/vital-signs-discharge-halm.html



Dr. Oanh Nguyen (left), Dr. Anil Makam (center), and Dr. Ethan A. Halm (right) of UT Southwestern's Center for Patient-Centered Outcomes Research.

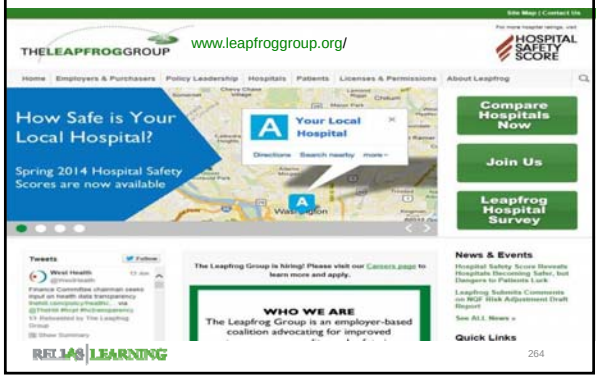
DALLAS — August 9, 2016 — Twenty percent of people hospitalized are released before all vital signs are stable, a pattern that is associated with an increased risk of death and hospital readmission, a new study by UT Southwestern Medical Center researchers shows.

10 Reasons Your ED May Not Be as Safe

  - Patient gets back on the motorcycle to drive home
  - Hits and kills a mother and three children
  - No warning about impaired vision
- Analysis of immunization status of febrile children is inadequate
- Also has new emerging patient safety and risk issues
- Evaluation of the immunization status is a critical part of the history
  - Some children are poorly immunized
  - Could fail to recognize a life threatening infection

National Patient Safety Foundation

Leapfrog Group for Patient Safety



The End! Questions???

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- Email questions to CMS at hospitalscg@cms.hhs.gov

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THANK YOU

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