Patient Issues in the Emergency Department: Safety and Boarding

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Speaker

- Sue Dill Calloway RN, Esq. CPHRM
- AD, BA, BSN, MSN, JD
- President of the Patient Safety and Education Consulting
- Board Member for the Emergency Medicine Patient Safety Foundation (www.empsf.org)
- 5447 Fawnbrook Lane
- Dublin, Ohio 43017
- 614 791-1468
- sdill1@columbus.rr.com
ED Patient Safety Issues

- There are many patient safety issues
- Inpatient suicides, medication shortages, 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.

The Faces We Should Remember

- 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
Josie King

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

ENA Patient Safety in the ED

- 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
- ENA has a two page position statement on patient safety in emergency health care
- Patients have a right to emergency care that is free from injuries
  - National Healthcare report notes that 15% of patients are harmed from the process
ENA Position Statements

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

ACEP Position Statements

ACEP Policy Statements

Search Policy Statements:  Search

ACEP board-approved policy statements highlight the scope of issues being addressed in emergency medicine. New policies are initially distributed to ACEP members via Annals of Emergency Medicine and posted here. In addition, the ACEP Board of Directors has directed that all policy statements undergo automatic review when they are seven years old. Unless a policy still contains relevant information, it will then sunset. Due to the extensive time required to review seven-year-old or older policies, some are still under review.

Sort by:  None  ACEP Members

Physician Reporting of Potentially Impaired Driver
Reporting of potentially impaired drivers should be individualized

Recording Devices in the Emergency Department
Avoiding risks to privacy and confidentiality of patients and staff

2011 Policy Compendium
This Compendium contains ACEP policies as of December 31, 2010. Subsequent

www.acep.org/policystatements/
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

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
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 courtroom
- Source: http://www.ena.org/about/position/position/Pages/Default.aspx

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
Nurse Can Not See Monitor When Sitting

National Center for Human Factors

http://medicalhumanfa
ctors.net/
Teamwork and Patient Safety Culture

- There are many studies that show the importance of teamwork 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 TeamSTEPPS
  - AHRQ has many excellent free resources on teamwork and other patient safety tools

AHRQ Teamwork Resources

http://teamstepps.ahrq.gov/
AHRQ Patient Safety Tools

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 sent 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 Email Updates

http://www.ahrq.gov/qual/patientsafetyix.htm
Use a Trigger Tools

- There are three trigger tools that could be used in the ED
- CMS and TJC say you can’t just rely on incident reports
  - CMS amends Tag 508 on May 20, 2011
- 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 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


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 1136 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

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CMS Amends Tag 508

DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
7500 Security Boulevard, Mail Stop 22-G
Baltimore, MD 21244-5022

Center for Medicaid, CHIP, and Survey & Certification/Survey & Certification Group

DATE: May 13, 2011
FROM: State Survey Agency Directors
TO: Director Survey and Certification Group

SUBJECT: State Operations Manual (SOM) Hospital Appendix A Update

""""In the attached SOM Transmittal, the reference to 404.24 in 482.24 for Tag A 1104. The change is highlighted in yellow color."

Memorandum Summary

SOM Hospital Appendix A Updated

- Revisions have been made to reflect regulation changes governing orders for rehabilitation (42 CFR 482.56) and respiratory care services (42 CFR 482.57)
- Clarifications have been made for provisions related to
  - Planning requirements related to blood transfusions and intravenous medications (42 CFR 482.300(c)(3))
  - Immediate reporting of medication administration errors, adverse events, and
    inconsistencies (42 CFR 482.258(b)(6))

Background

The final FY 2011 Inpatient Prospective Payment System (IPPS) rule was published on August 16, 2010 (75 FR 50042) and effective on October 1, 2010. The FY 2011 IPPS final rule contained revisions to the Hospital Conditions of Participation (COOP) governing rehabilitation and respiratory care services. SC-11-04-ALL summarized these changes, which are now being incorporated into Appendix A of the SOM.

In addition, we are clarifying our guidance related to training requirements for personnel
Trigger Tool Finds More Adverse Events

- Recent 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

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

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 http://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
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.
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
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
Disclosure of Unanticipated Outcomes

- TJC requires now 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

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
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

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
Safety Initiatives Any ED Can Do

- Recent 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
Suicidal Patients

- Inpatient suicides is the 5th most common sentinel event for hospitals (TJC)
  - March 2012 data of 8,634 SE and 11.8% of all sentinel events and has 620

- 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 2012 at www.naphs.org
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

Patient Suicide Risk

- TJC has a 2013 NPSG on this
- Goal 15, 15.01.01. states that the hospital identifies patients at risk for suicide
- Only 1 left of 2 standards in 2013
- 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.
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

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
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
  - Watch chasing zero by Dennis Quade at http://safetyleaders.org/Quaid/

- Good communication is also important for preventing lawsuits

Heparin Mix Up Almost Killed Their Twins

http://safetyleaders.org/Quaid/
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
Hall Pass or Ticket to Ride

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

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
  - Place 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 in 2013 is LD.04.03.11
  - Final changes in 2013 and 2014
- Patients can not get into the ED rooms and 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 Amends Patient Flow Standards

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 2013 & 2014 Changes

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.
TJC 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 goes 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 goes 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 in 2008 surveys and modified in 2012 and 2013
- 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 2013 & 2014

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) go into effect 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
Patient Flow Standard

- EP6. Measurement results are provided to those individuals who manage patient flow processes

- After 1-1-2014
  - 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

LD.04.03.11  Boarding and the 4 Hour Rule

- EP 6 Measurement results are provided to those who manage patient flow (2012 and 2013 standard)


- 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
**LD.04.03.11 Review Measurement Data**

- EP7 Measurement results regarding patient flow processes are reported to leaders (2012)
- EP7 effective January 1, 2013
- 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

**LD.04.03.11 Data Guides Improvements**

- EP8 revision was effective January 1, 2013
  - 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
LD.04.03.11  Boarding of Psych Patients

- EP9 is new and is effective January 1, 2014
- 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

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?
Boarding of Behavioral Health Patients PC

- PC.01.01.01 EP 24 (new)

- 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

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

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

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
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

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
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?
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/

Patient Flow Patient Safety Brief  www.empsf.org

The Joint Commission New Patient Flow Standards
By: Sue Dill Calloway RN MSN JD CPHRM
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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.
ACEP Crowding Boarding Resources

Emergency Medicine Crowding and Boarding

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

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.

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

Information Papers
- Optimizing ED Front End Operations, February 2010
- Approaching Full Capacity in the Emergency Department, October 2006
- Meeting the Challenge of Emergency Department Overcrowding/Boarding, Report from a Roundtable Discussion, 2005
- Emergency Department Crowding, March 2004
- Emergency Department Operations Management, March 2004

Comprehensive Guides
- Perfecting Patient Flow: America's Safety Net Hospitals and Emergency Department Crowding, 2005
- Responding to Emergency Department Crowding: A Guide Book for Chapters, August 2003

Reference Articles
- Crowding and Surge Capacity Resources for Emergency Departments, April 2007
  This paper includes 63 references to articles on ED Crowding and Quality of Care as well as Surge Capacity.

Online Resources
- Managing Non-emergency Care in the Emergency Department
### 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 2000, and April 1997.**

Original 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 boarding 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 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.

### ACEP Resources Crowding and Boarding

**Optimizing Emergency Department Front-End Operations**

- **Jennifer L. Wilkerson, MD, MSc**
- **Christopher Healtne, MD**
- **Jason M. McDermott, DO**
- **Alan Marcovitz, MD**
- **Ashish Mehta, MD**
- **Michael G. Mitroff, MD**
- **Dennis Price, MD**

Flemish the Division of Emergency Medicine, Washington University in St. Louis School of Medicine, St Louis, MO; (2010), the Department of Emergency Medicine, Virginia Commonwealth University, Richmond, VA (2006); and the Department of Emergency Medicine, University of North Carolina School of Medicine, Chapel Hill, NC (2001), are interested in improving front-end processes and outcomes in emergency departments.

As administrators evaluate potential approaches to improve cost, quality, and throughput efficiencies in the emergency department (ED), "front-end" operations become at the crux of the improvements such as immediate triage, bedside registration, advanced triage (trauma-based care), pre-notifications, physician assistance at intake (a "fast track" window line), triaging, and dispatchers, wireless communication devices, knock and check, and person at health record technology ("smart card") have been offered as potential solutions by improving the readiness processes of ED patients, which becomes evident during periods of increased acuity.

For example, by creating a process where low acuity patients are identified and treated, the ED is more prepared to handle the increased acuity and is therefore more likely to achieve and maintain the target number of attending patients per hour. This approach can be achieved by focusing on interventions that target patient flow and resource allocation, rather than focusing on discrete interventions that may not have the desired overall impact. In this way, various reports exist in the academic literature about their effect on front-end operations. In this report, we focused on a review of the current body of academic literature, with the goal of identifying select high-impact next-generation improvement solutions. [J Emerg Med. 2003;35:143-160.]
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
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
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
Patient Alarms Often Unheard or Unheeded

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 2012 and 2013 and alarm hazards makes the top ten list
- 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
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

Alarm Management Proposed 2014 Goal

Proposed 2014 National Patient Safety Goal on Alarm Management

Critical Access Hospital (CAH) and Hospital (HAP) Accreditation Progra

NPSG.06.01.01

1. CAH: Improve the safety of clinical alarm systems.
   
   **Rationale:**
   2. Alarms are intended to alert caregivers of potential patient problems, but if they are not properly managed, they can compromise patient safety. This is a multi-faceted problem: In some situations, individual alarms are difficult to detect. At the same time, many patient care areas have numerous alarms and the resulting noise tends to desensitize staff and cause them to ignore alarms or even disable them. Other issues associated with effective alarm management include too many devices with alarms, default settings that are not at an actionable level, and alarm limits that are too narrow.
   3. There is a general agreement that this is an important safety issue. Universal solutions have yet to be identified, but it is important for a critical access hospital to understand its own situation and to develop a systematic, coordinated approach to alarms. This NPSG focuses on managing alarms that are identified as direct threats to patient safety. As alarm management solutions evolve, this NPSG will be updated to reflect best practices.
   4. *Footnote: Additional information on alarm safety can be found on the AAMI website.*