Office of Health Care Quality
2017
Update on Hospital-reported Adverse Events

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Office of Health Care Quality

- The agency within the Department of Health and Mental Hygiene charged with licensing, certifying, and monitoring the quality of care in Maryland’s 18,000 health care facilities and community-based programs.
- Licensing authorizes a provider to do business in the state. Certification authorizes a facility to participate in Medicare and Medicaid programs.
- Office of Health Care Quality surveys these facilities and programs for compliance with State and federal regulations, which set forth minimum standards for care delivery.
- Educate providers, consumers, and other stakeholders.
Facilities and Programs

• Nursing Homes
• Intermediate Care Fac. for Individuals with Int. Dis.
• Forensic Residential Centers
• Assisted Living Programs
• Adult Medical Day Care Centers
• Dev. Dis., Day Habilitation Services
• Dev. Dis., Family and Individual Support Services
• Dev. Dis., Group Homes
• Dev. Dis., Intensive Treatment Programs
• Dev. Dis., Respite Services
• Hospitals
• Transplant Centers
• Freestanding Medical Facilities
• Health Maintenance Organizations
• Correctional Health Facilities
• Residential Treatment Centers
• Physician Office Laboratories
• Point-of-Care Laboratories
• Federal Waived Laboratories
• Independent Reference Laboratories
• Hospital Laboratories
• Cholesterol Testing Sites

• Tissue Banks
• Cytology Proficiency Sites
• Public Health Testing
• Forensic Laboratories
• Employer Drug Testing
• Birthing Centers
• Comprehensive Outpatient Rehabilitation Facilities
• Cosmetic Surgery Centers
• Freestanding Ambulatory Surgical Centers
• Freestanding Renal Dialysis Centers
• Home Health Agencies
• Hospices
• Hospice Houses
• Major Medical Equipment
• Outpatient Physical Therapy
• Portable X-ray Providers
• Residential Services Agencies
• Surgical Abortion Facilities
• Group Homes for Adults w/ Mental Illness
• Mental Health Vocational Programs
• Ambulatory Detoxification Programs
• Nurse Referral Agencies
• Health Care Staff Agencies

• Mobile Treatment Services
• Outpatient Mental Health Centers
• Psychiatric Rehabilitation Programs, Adults
• Psychiatric Rehabilitation Services, Minors
• Psychiatric Day Treatment, Partial Hospitalization
• Residential Rehabilitation Programs
• Residential Crisis Services
• Respite Care Services
• Therapeutic Group Homes
• Therapeutic Nursery Programs
• Opioid Maintenance Therapy Programs
• Outpatient Treatment Programs
• Residential Programs
• Education Programs
• Residential Detoxification Treatment Programs
• Correctional Substance Abuse Programs
Objectives

At the conclusion of this presentation, the participants will:

• Have an understanding of data regarding reported events for FY16,
• Understand the context of trends and meaningful single events, and
• Identify some better practices in analyzing and responding to adverse events.
Overview of Patient Safety Regulations

• COMAR 10.07.06, Maryland Patient Safety Program
• Enacted in March, 2004
• Requires mandatory hospital reporting of Level 1 adverse events (those that cause death or serious disability, defined as lasting seven days or still present on discharge).
• Requires disclosure to patient/family.
• Also requires submission of RCA within 60 days of reporting.
• Over 3100 adverse events reported since 3/2004.
State of the State

• Nationwide decrease in hospital-acquired conditions (HACs) of 21% between 2010 and 2015.  

• 2015 report by CMS showed Maryland had reduced potentially preventable readmissions by a higher percentage than any other State, and decreased MHACs by 26%.  http://www.hscrc.state.md.us/documents/md-maphs/CMS-and-NEJM-find-successes-in-Year-1-of-Maryland-hospital-system-111215.pdf

However; one person per week dies in a Maryland hospital of a preventable adverse event.
FY 2016 Events

• 190 Level 1 events affecting 217 patients.
  – 13% decrease from FY15’s 252 total events
• Thirty delays in treatment, with 76% mortality.
  – Continues trend from FY15.
• Twenty three surgical events including 13 RFBs.
  – Back to baseline after FY15’s spike to 36.
• Four airway events with 90% mortality.
  – Less than half FY15’s 11.
• Fifty eight falls with 8.6% mortality.
• Forty seven HAPU reports affecting 75 patients.
Average FY16 L1 Reports per Hospital by Bed Size

- **>300**: FY16: 5, FY15: 5, FY14: 5
- **200-299**: FY16: 6, FY15: 6, FY14: 6
- **100-199**: FY16: 4, FY15: 4, FY14: 4
- **<100**: FY16: 1, FY15: 1, FY14: 1
Adverse Event Reports per Hospital Bed

Size

% of Hospitals

% of L1

>300

200-299

100-199

<100
Three Years of Level 1 Reports

- Staff to Patient Abuse or Sexual Assault
- Suicides or Serious Attempts
- Airway Events
- Maternal/Child
- Medication Errors
- Delays in Treatment
- Misdiagnosis
- Surgery-related Events
- Falls
- HAPUs
- Restraint/Seclusion Injuries
FY16 Events

FY15

- Falls
- HAPUs
- Surgical Events
- Delays in Treatment
- All Others

Falls: 20%
HAPUs: 30%
Surgical Events: 14%
Delays in Treatment: 14%
All Others: 22%
Percentage of Patients Affected by Adverse Events per Age

Events per Age

- % L1
- % of Admissions per HCUP

Age groups:
- <1
- 1 to 17
- 18 to 44
- 45 to 64
- 65 to 84
- >85
Age and Adverse Event Prevalence

- Airway Events
- Falls
- Delays
- HAPU
- ADEs
- Suicide
- All Surgical Events

- >85
- 65-84
- 45-64

Maryland Patient Safety Center
Delays: Significant Contributing and Correlative Factors

- Language or sensory deficits—1
- Failure to follow up on symptoms—8
- Monitors—13
- Hand-offs—6
- Diagnostics—9
- Critical thinking—9
- ED care—5
Case Study- Delay in Treatment

• 70 year old was transferred from OSH directly to MS Tele on Saturday evening with epistaxis and atrial flutter. His right nares had been packed at previous facility. He was placed on the cardiac monitor. Throughout the night, he had several episodes of hematemesis. At around 12 noon, he was found unresponsive and pulseless and a code was initiated.

• During intubation, a large amount of bloody emesis was noted in airway/lungs, indicative of aspiration. He was transferred to ICU. His condition deteriorated due to refractory hypotension and acidosis, and he had suffered encephalopathy post arrest. The next day, his family requested DNR and comfort measures, he was terminally extubated and expired on Monday.

• Following the code, multiple issues were identified; and a preliminary investigation identified problems with communication and medical and nursing management of the patient throughout the night and morning prior to the arrest.
Telemetry Delay in Treatment

- Patient had fallen early in the night and the hospitalist did not come to see him. The same hospitalist was notified when the patient started having hematemesis and again did not come examine him.
- Charge nurse on nights cared for patient and gave report to on-coming RN in AM but did not give thorough report to oncoming charge nurse. The assigned day nurse was pulled to another unit, so charge picked up this patient but did not know how sick he was. CN was not carrying the emergency beeper because it was common for charge nurses to leave their beepers at the nursing station. So she did not get the call from the lab at 1055 with a panic value bicarb. When the lab called the unit an hour later, another nurse took the message and forgot to pass it on.
- Also unit clerk had not faxed assignments and phone numbers to tele so they did not know who to call at 1200 when patient dropped his heart rate. They called the unit clerk who took a message and forgot to pass it on.
- Day shift hospitalist had not come to examine patient for hematemesis, which he had been told about, so when patient arrested, he said he knew nothing about him.
Root Causes

Sharp End:

• Inadequate exchange of critical info by CN, RNs, and MDs.
• Lack of follow up of symptoms by MD.
• Lack of follow-up by lab for communication of critical lab values.
• Lack of follow-up by tele for communication of critical tele findings.
• “It was only a nose bleed!”

Latent Causes:

• Lack of systems of accountability in medicine, nursing, lab, and tele.
• No standardized expectations for hand-offs between nursing or medical staff.
• Hospital culture not focused on safe systems.
Patient brought in by spouse with 10/10 chest pain. Initial EKG showed AMI, nonSTEMI.
ED MD reviewed EKG but was focused on STEMI.
Since there was no ST elevation on EKG, he was triaged as an ESI 3 and sent to the lobby.
2 hours later, had medical exam in main ED. Rec’d one nitro tablet SL.
Assisted to BR by RN after another hour. Again complained of 10/10 CP.
RN did another EKG. Patient very anxious and in pain so he was left sitting on the side of the ED stretcher while RN left to show MD the new EKG.
Patient arrested and fell off the stretcher. He lived about 24 hours after ROSC.
Root Causes

Sharp End:
- RN just off orientation.
- MD reviewed EKG without enquiring about CP or other symptoms.
- Focus on STEMI by MD meant CP protocol started but not completed.
- Patient not placed on monitor, no O2, no NTG, no ASA, no morphine.
- Staffing down; new ED NM had alienated staff, resulting in more sick calls.

Latent Causes:
- No one had addressed reasons for poor staffing.
- No process for enhanced supervision/assistance to new nurses.
- QA only looked at STEMIIs, not on care of non-STEMI AMI patients. Only reviewed door to cath lab time, not overall care.
- Management unaware of case until OHCQ showed up with a complaint.
Epic EPIC Problems

- 70 y/o patient sent from OSH for abdominal and back pain. Outside images were uploaded but another patient's images were mixed in so it looked like patient had a leaking aneurysm. Went to OR for endovascular repair with graft placement. F/U a month later showed her symptoms had resolved and she had a CT which showed no aneurysmal dilation. Concerned that patient's images had been mixed up, radiology did audit and found that another patient's films had been uploaded to her file. The patient who had surgery had normal vasculature.
- Incoming films had to be converted to the PACS system and then put into EPIC which created a new MR number.
- Hospital had no policy for double checks or QA on human-dependent process.
- Area for film processing was very cramped, with multiple distractions and staff doing the processing had to answer phones.
More Epic EPIC

• Elderly, confused patient called an ambo and checked out of SNF. No acute medical problems but she refused to go back to SNF. Admitted to OBS unit while state guardianship process evolved. After 20 days on OBS, EPIC discharged her from the system.

• After 4 days of re-writing the orders every day, resident accidently re-entered a med written on the wrong EMR by another resident.

• Order had been D/C immediately but not “cancelled due to error,” so it showed up on the list of active orders.

• Patient arrested and suffered an anoxic injury after getting a dose of 160 mgs of methadone
Root Causes for FY16 Events

- Training
- Supervision
- Policies
- Personnel
- EMR
- Critical Thinking
- Complacency
- Communication
- Chain of Command
- Assessments
FY16 Corrective Actions

- Referral to FDA
- Process Improvement
- Personnel
- Peer Review
- Formal Training
- Equip Mods
- Enviro Changes
- Discipline
- Data Tracking
- Changes in Policy

The bar chart shows the frequency of corrective actions taken in FY16, with Data Tracking and Changes in Policy being the most frequent.

[Bar chart showing frequencies of different corrective actions]
FY16 Summary

• Too many delays and surgical events.
• Culture change seems out of reach for many hospitals.
  – Where are our systems of accountability?
  – Why do we continue to discount the evidence of our monitoring equipment and our early warning systems just because the patient is talking and alert?
  – Why do we continue to expect bedside nurses to keep all of the other disciplines in line?
Maryland Hospital Safety Program

Tool Kit

The tools section contains the regulatory language and tools hospitals can use to report and review adverse events, including short forms for pressure ulcers and falls, requests to downgrade events, an event reporting form, and a sample RCA evaluation.

- 10.07.06.pdf
- Initial report of an adverse event.pdf
- Master RCA evaluation tool with sample.pdf
- Request for classification change.pdf
- Safety algorithm.pdf
- Short form for reviewing patient falls.pdf
- Short RCA for HAPU revised.pdf

Reports and Alerts

Information regarding trends, best practices, and lessons learned obtained from the review of reported events and root cause analyses are disseminated to hospitals and to the public via the Patient Safety Program's Annual Report. The patient safety program also releases periodic Clinical Alerts and/or Clinical Observations on topics of interest.
Resources

• http://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Internet-Only-Manuals-IOMs-Items/CMS1201984.html?DLPage=1&DLSort=0&DLSortDir=ascending Go to the Appendices (pdf) and click on Appendix A for the Hospital A-Tags.


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