



EHSSSENTIALS 2018

Environmental, Health & Safety Symposium for Healthcare

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**The University of Texas
MD Anderson Cancer Center**

Houston, Texas



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CMS: Challenges in the Physical Environment

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About CIHQ

- Formed in 1999
- Headquartered in McKinney, TX
- Member-based organization comprised of over 425 hospitals across the United States
- Originally a small consulting firm helping hospitals with accreditation and certification compliance
- Virtual company – small storefront!



Four Divisions...One Organization



What We're Going to Cover

Top CMS Challenges in the Physical Environment

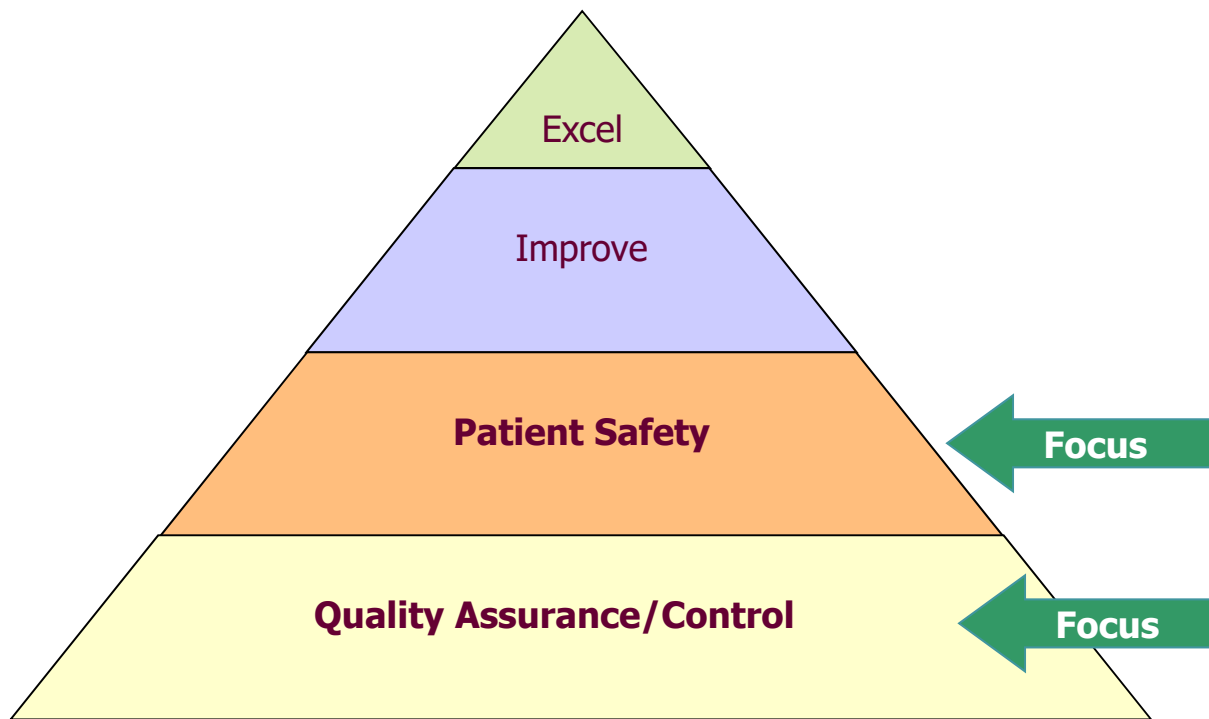
- Why the Focus on the Physical Environment
- Compliance to the NFPA Life Safety Code
- Generator Testing
- Environmental Controls
- Safe Environment for Behavioral Health Patients
- Legionella & Waterborne Pathogens
- Alternate Equipment Management Programs
- Miscellaneous Issues



Physical Environment

What's Driving the Focus

Focus of Accreditation/Certification Process



How AOs are Graded

DISPARITY RATE

- CMS conducts validation surveys on a sample of accreditation surveys each year by each AO
- If CMS identifies a condition-level deficiency that was not identified by the AO then that is considered a disparity
 - The higher the disparity rate, the worse the performance of the AO
 - CMS has set a threshold of 20% as the maximum allowed disparity between CMS and AO's
 - Congress holds CMS to keeping the disparity rate below 20%

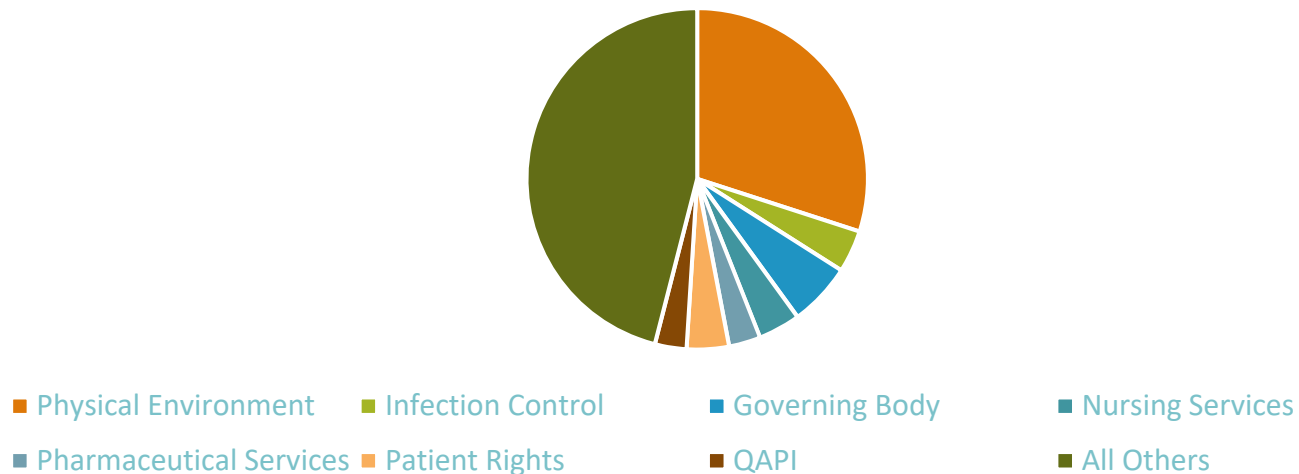
Disparity Rate

- Overall Disparity Rate for Acute Care Hospitals

Fiscal Year	Disparity Rate	Benchmark
FY-2012	44%	20%
FY-2013	46%	20%
FY-2014	38%	20%
FY-2015	39%	20%

Where the Disparity is Coming From

COP Cited with Condition Level Deficiencies Missed by AO's



Bottom Line

80% of deficiencies identified during a survey are based on observations in the environment

Bottom Line

90% of deficiencies identified during an accreditation survey cross-walk directly to a Medicare COP

Bottom Line

Two most common COP Condition Level Deficiencies

- 1. Physical Environment**
- 2. Infection Control**

Physical Environment

Compliance to NFPA Life Safety Code

Life Safety System Testing

Top Deficiencies/Issues

- Testing records poorly organized – unable to determine compliance
- Testing not performed at required intervals
- Testing records have inadequate documentation
 - Lack of inventory of devices
 - Pass/Fail documentation for each device tested
 - Corrective action and retest for failed devices
 - Testing does not address NFPA procedural requirements
 - Test records do not contain all required information



Interim Life Safety Measures

Top Deficiencies/Issues

- Lack of a criteria-based approach to determine if ILSMs are necessary and which ILSMs to deploy
- No evidence that an assessment for ILSM need was performed when a deficiency to the life safety code was discovered
- ILSMs not implemented as indicated by the results of the needs assessment

Likely to result in a condition-level deficiency

Building Tour

Top Deficiencies/Issues

- Blocking access to gas shut-off valves, electrical panels, fire pull stations, fire extinguishers
- Above ceiling smoke/fire penetrations
- Stuff on sprinkler lines
- Doors propped open, doors not self-closing/latching when required
- Inappropriate type/use of power strips
- Chutes do not close, latch, and clear at termination point
- Blocking of corridors with equipment
- Etc.

Use of Waivers

Waivers to the Life Safety Code

- If a deficiency to the LSC cannot be corrected within 60 days, hospital must obtain a waiver from CMS
 - Time Limited Waiver
 - Permanent Waiver
 - Other option is to seek an equivalency
- Accrediting organizations can no longer approve waivers.
 - Can recommend to CMS, but cannot approve

Physical Environment

Generator Testing

Generator Testing

Top Deficiencies/Issues

- Testing records poorly organized – unable to determine compliance
- Testing not performed at required intervals
- Testing records have inadequate documentation
 - Run times
 - Transfer switches
 - Corrective action and retest for failed tests
 - Test records do not contain all required information



Emergency Power Systems

The hospital must implement emergency and standby power systems based on the emergency plan, and in the policies and procedures

- (1) Emergency generator location. The generator must be located in accordance with the location requirements found in the Health Care Facilities Code (NFPA 99 and Tentative Interim Amendments TIA 12-2, TIA 12-3, TIA 12-4, TIA 12-5, and TIA 12-6), Life Safety Code (NFPA 101 and Tentative Interim Amendments TIA 12-1, TIA 12-2, TIA 12-3, and TIA 12-4), and NFPA 110, when a new structure is built or when an existing structure or building is renovated.

Emergency Power Systems

NFPA 110-2010 Standard for Emergency and Standby Power Systems

- 7.2.3* The rooms, shelters, or separate buildings housing Level 1 or Level 2 EPSS equipment shall be designed and located to minimize the damage from flooding, including that caused by the following:
 - 1) Flooding resulting from fire fighting
 - 2) Sewer water backup
 - 3) Similar disasters or occurrences
- A.7.2.3 EPSS equipment should be located above known previous flooding elevations where possible

Emergency Power Systems

NFPA 110-2010 Standard for Emergency and Standby Power Systems

- 7.2.4* Minimizing the possibility of damage resulting from interruptions of the emergency source shall be a design consideration for EPSS equipment.
 - A.7.2.4 When installing the EPSS equipment and related auxiliaries, environmental considerations should be given, particularly with regard to the installation of the fuel tanks and exhaust lines, or the EPS building, or both.
 - To protect against disruption of power in the facility, it is recommended that the transfer switch be located as close to the load as possible.
 - For natural conditions, EPSS design should consider the “100-year storm” flooding level or the flooding level predicted by the Sea, Lake, and Overland Surges from Hurricanes (SLOSH) models for a Class 4 hurricane.

Emergency Power Systems

The hospital must implement emergency and standby power systems based on the emergency plan, and in the policies and procedures

- (2) Emergency generator inspection and testing. The hospital must implement the emergency power system inspection, testing, and maintenance requirements found in the Health Care Facilities Code, NFPA 110, and Life Safety Code.
- (3) Emergency generator fuel. Hospitals that maintain an onsite fuel source to power emergency generators must have a plan for how it will keep emergency power systems operational during the emergency, unless it evacuates.

Physical Environment

Environmental Controls

Air Balance

Top Deficiencies/Issues

- Air balance of key areas is incorrect
 - Clean utility rooms (positive)
 - Soiled utility rooms (negative)
 - Operating rooms/procedure suites (positive)
 - Bronchoscopy rooms (negative)
 - Endoscopy rooms (non-regulated)
 - Decontamination areas (negative)
 - Disinfection /sterilization areas (positive)
 - Sterile storage areas (positive)

Temperature/Humidity

Top Deficiencies/Issues

- Not following most restrictive guidance
 - ASHRAE 170-2008/2013
 - State regulations
- Not monitoring/documented at least daily
 - Operating rooms
 - Procedure rooms that perform surgery
 - Sterile storage rooms
 - SPD decontamination
 - SPD sterile processing
- No documentation of actions taken if out of parameters



Physical Environment

Safe Environment for Behavioral
Health Patients

Basic Expectation

- Intention is that each patient receives care in an environment that a reasonable person would consider to be safe.
 - Hospital staff should follow current standards of practice for patient environmental safety, infection control, and security.
 - In order to provide care in a safe setting, hospitals must identify patients at risk for intentional harm to self or others, identify environmental safety risks for such patients, and provide education and training for staff and volunteers.

Areas of Focus

- Focus is on patients at risk of suicide (or other forms of self-harm) or exhibit violent behaviors toward others in both inpatient and outpatient locations of hospitals.
- Focus for a ligature “resistant” or ligature “free” environment is that of psychiatric units of acute care hospitals and psychiatric hospitals.
 - Does not apply to non-psychiatric units of acute care hospitals that provide care to those at risk of harm to self or others, e.g., emergency departments, intensive care units, medical-surgical units, and other inpatient and outpatient locations.

What is a Ligature Risk?

- A ligature risk (point) is defined as anything which could be used to attach a cord, rope, or other material for the purpose of hanging or strangulation.
 - Ligature risks include but are not limited to, hand rails, door knobs, door hinges, shower curtains, exposed plumbing/pipes, soap and paper towel dispensers on walls, power cords on medical equipment or call bell cords, and light fixtures or projections from ceilings, etc.
 - Ligature points include shower rails, coat hooks, pipes, and radiators, bedsteads, window and door frames, ceiling fittings, handles, hinges, and closures
 - Most common ligature point are doors, hooks/handles, windows, belts or sheets/towels, and shoelaces.

Non-Psychiatric Care Areas

- Must identify patients with psychiatric conditions at risk for intentional harm to self or others and mitigate environmental safety risks
 - Psychiatric patients requiring medical care in a non-psychiatric setting (medical inpatient units, ED, ICU, etc.) must be protected when demonstrating suicidal ideation or harm to others.
 - The protection would be that of utilizing safety measures such as 1:1 monitoring with continuous visual observation, removal of sharp objects from the room/area, or removal of equipment that can be used as a weapon.

Correcting Environmental Risk

- Deficiencies are expected to be corrected within 60 days of receipt of your survey report
 - Shorter time frames may be required depending on severity of a particular finding
 - CMS does recognize that correcting ligature risk may take longer to do so
 - The CMS Regional Office or your Accreditor are permitted to grant longer time frames
 - Ligature risks are not eligible for life safety code (LSC) waivers as they are not LSC deficiencies.

Physical Environment

Legionella & Waterborne Pathogens

Basic Expectations

- Conduct a facility risk assessment to identify where Legionella and other opportunistic waterborne pathogens (e.g., Pseudomonas, Acinetobacter, Burkholderia, Stenotrophomonas, nontuberculous mycobacteria, and fungi) could grow and spread in the facility water system.
- Implement a water management program that considers the ASHRAE industry standard and the CDC toolkit, and includes control measures such as physical controls, temperature management, disinfectant level control, visual inspections, and environmental testing for pathogens.
- Specify testing protocols and acceptable ranges for control measures, and document the results of testing and corrective actions taken when control limits are not maintained.

Physical Environment

Alternate Equipment Management Plans

Basic Requirements

§482.41 - Alternate Equipment Maintenance Program

- Hospitals electing to adjust facility or medical equipment maintenance must develop policies and procedures and maintain documentation supporting their Alternate Equipment Management (AEM) program. They must adhere strictly to the AEM activities and/or frequencies they establish.
- According to CMS, “hospitals that choose to employ alternate maintenance activities and/or schedules must develop, implement, and maintain a documented AEM program to minimize risks to patients and others in the hospital associated with the use of facility or medical equipment.”
 - The AEM program must be based on generally accepted standards of practice for facility or medical equipment maintenance.

AEM Program

Top Deficiencies/Issues

- Lack of a formal process to conduct an assessment to determine eligibility for an AEM
- Equipment subjected to an AEM without first undergoing an appropriate risk assessment
 - Includes rental and leased equipment
- Equipment inventory does not specify equipment subject to an AEM
- Non-permitted equipment placed into an AEM programs
 - Third-party vendors

Physical Environment

Other Hot Button Areas

Security Risk Assessment

- Infant Security
 - National Center for Missing and Exploited Children
 - http://www.missingkids.com/en_US/publications/NC05assessment.pdf
- Cyber Security



DOT Training

- Department of Transportation Training Requirements
- Hazmat Employee
 - Loads, unloads, or handles hazmat
 - Prepares hazmat for transportation
 - Signs waste manifests
- Training required within 90 days of hire and 3 years thereafter
- Training Records
 - The hazmat employee's name;
 - The completion date of the most recent training;
 - Training materials used (copy, description, or location);
 - The name and address of the hazmat trainer; and
 - Certification that the hazmat employee has been trained and tested

Eye Wash Stations

- ANSI Z358.1-2014
- Plumbed vs. Non-plumbed
- Weekly Inspections
- Annual Inspections



Cylinder Storage

- Less than 300 cubic feet
- 300 – 3,000 cubic feet
- 3,000 – 30,000 cubic feet
 - E-Cylinder = 23 cubic feet
 - H-Cylinder = 244 cubic feet
- Full vs. Empty/In-Use



That's Enough

Thanks for listening.

Any Questions?



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