

EMERGENCY MANAGEMENT STANDARDS

Overview, Challenges & Solutions



F H E A
46th Annual Meeting & Trade Show



Florida Healthcare Engineers Association October 29, 2008

**Garry M. Walsh, President
Health Technology Systems &
Hospital Policy Net**



Improving the Environment of Care Since 1988

- 1.6 million miles, 44 states, 600+ EC surveys
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HPNI EMP Solution Pack: 44 Documents - 900 Pages

EMP Support Plans

Emergency Management Plan
Emergency Operations Plan
HVA Automatic Calculation Tool
Bioterrorism Preparedness Plan
 GAO Bioterrorism Study
IC Mass Casualty & Surge Capacity Plan
Bomb Threat Response Plan
Patient Evacuation Plan
Chemical Hazard Response Plan
Emergency Loss of BMT Systems Plan
Emergency Sheltering Plan
Earthquake Guide Plan
Tornado Guide Plan
Hurricane Preparedness Plan

Engineering Policies

Wall Mount Safety Station
Emergency Code Identifier Matrix Form
NIMS Training Overview
NIMS Compliance Matrix Form
Utility Equipment Failure Policy
Utility Systems Emergency Matrix
Utility Failure Matrix Form
Emergency Water Policy
Emergency Steam Generation Policy
Emergency Medical Vacuum Policy

Policies and Training Tools

Quality Measurement PI Dashboard
Elevator Failure Policy
Sample EMP Orientation Packet
Sample EMP Safety Post Test Summary
Administrative Coverage Policy
Nursing Administrative Coverage Policy
Nursing Administrative Staffing
Nursing Staff Levels Policy
Nursing Roles and Responsibilities Policy
HR Flexible Staffing Guidelines Policy
Surgical Services Emergency Policy
Perioperative Services Emergency Policy
Patient Transfer and Handoff Policy
Pharmacy Emergency Drug Policy
Pharmacy Water and Power Outage
Pyxis Downtime Policy
Emergency Care of Radiation Accident
Radiation Hazard Emergency Response
Respiratory Therapy Contingency
Emergency Credentialing Policy
Department Disaster Preparation Form
IT Disaster Recovery Planning Policy
HICS Volume IV



What to leave in... What to leave out?

Bob Seger

- 1 HEICS III / HICS IV
- 2 Facility Director Management Role(s)
- 3 Key Emergency Management Documents
- 4 Strategy to Address Six (6) Critical Areas
 - Standards
 - Plan
 - Drill / Event
 - EMP PI Dashboard
 - EC Committee Reporting



Emergency Management Program Overview

2008 - 2009

8 EC Programs (7 EC + 1 PI) = 249 EP's

8 new EMP standards & 66 EP's added

25% of EC Chapter is now EMP related

Full EMP compliance will be scored January 1, 2009

ACRONYMS

EMP: Emergency Management Plan

EOP: Emergency Operations Plan

HVA: Hazardous Vulnerability Assessment

EOC: Emergency Operations Center

NIMS: National Incident Management System

HICS: Hospital Incident Command System

JAS: Job Action Sheets

IMT: Incident Management Team



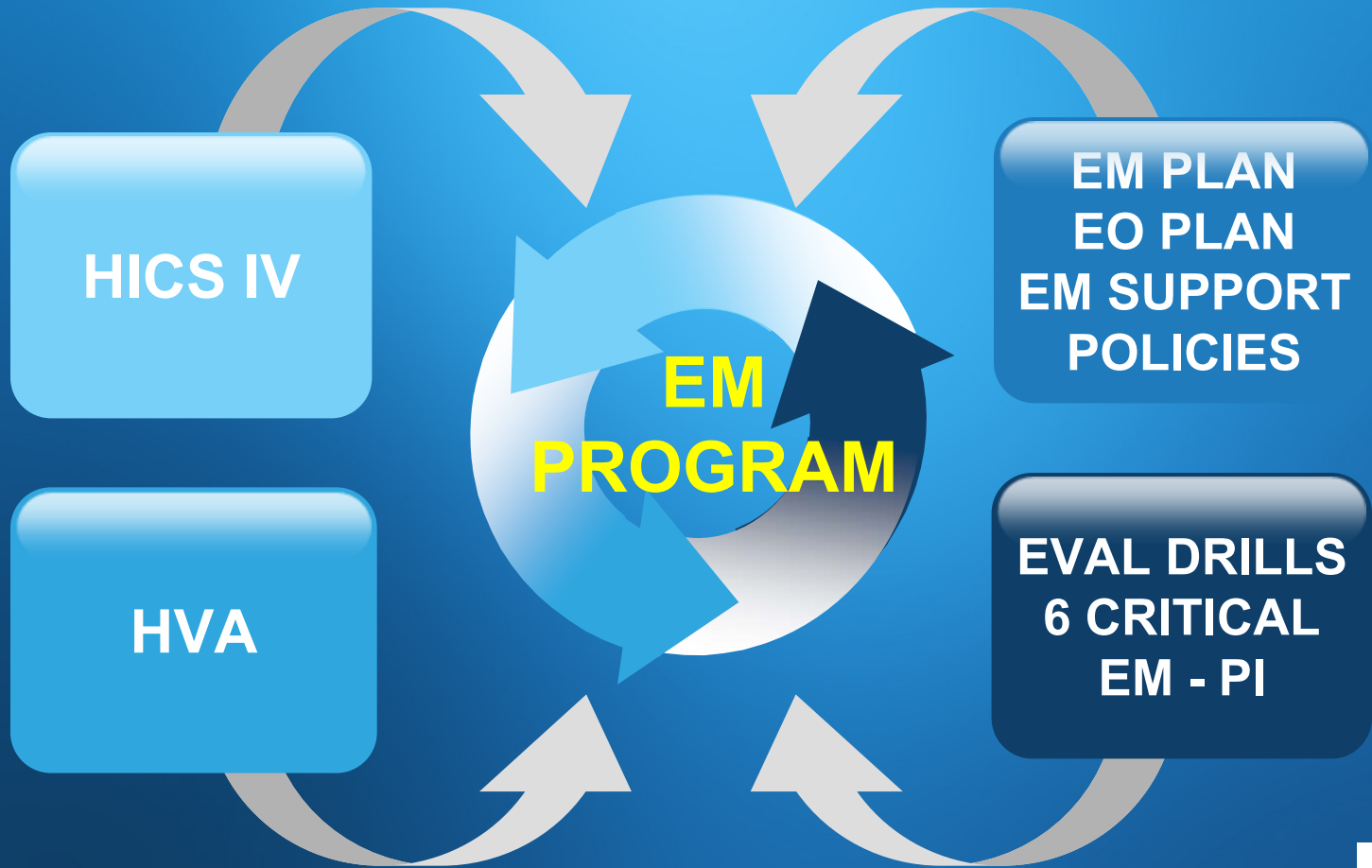


One more acronym... aptly coined by the residents and business owners of New Orleans.





EM PROGRAM COMPONENTS





EVOLUTION OF HEICS III TO HICS IV

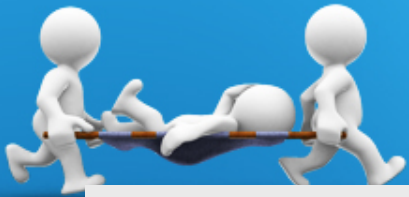
**1991: HEICS I, developed by Orange County, CA
EMS**

1992-1993: HEICS II released

**1998: HEICS III revisions completed. In use until
2006**

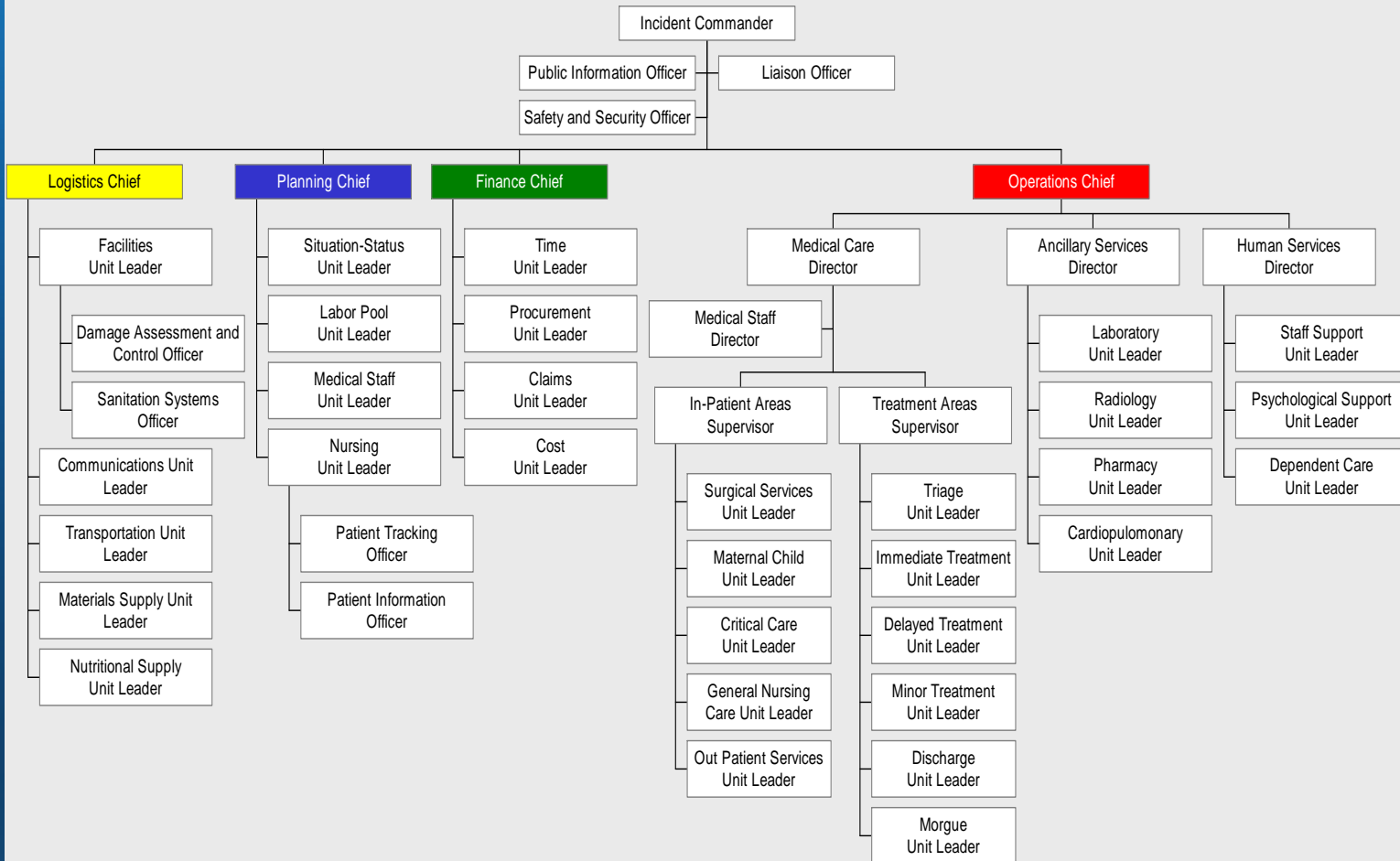
August 2006: HICS IV revisions complete

- The “E” was dropped as the HICS IV model is applicable to non-emergent as well as emergent incidents.
- Insures NIMS compliance
- Incident Management Team (IMT) chart updated
- Expanded Job Action Sheets (Total 78 JAS & New Sect.)
- Hazard-specific planning & operational guidance



HEICS III OLD MODEL ORG. CHART

Hospital Emergency Incident Command System HEICS





HICS IV NEW MODEL ORG. CHART





NEW HICS IV ROLES = 13 NEWLY REQUIRED JAS's

- (1) Incident Consultant – (Medical/Technical Specialist)**
- (1) Information Technology Leader**
- (2) Staff Mental Health Unit Leader**
- (1) Morgue Unit Leader**
- (1) Discharge Unit Leader**
- (1) Decedent / Expectant Unit Leader**
- (1) Isolation Unit Leader**
- (1) Contaminated / Infectious Treatment Leader**
- + (4) Infectious / Contamination-related Unit Leaders**

Take away message:

Increased emphasis on response and control of infectious- and contamination- related impact.



HICS IV: NEW INCIDENT CONSULTANT

Included in the Administration Section to provide expert clinical and technical advice to the Incident Commander as needed.

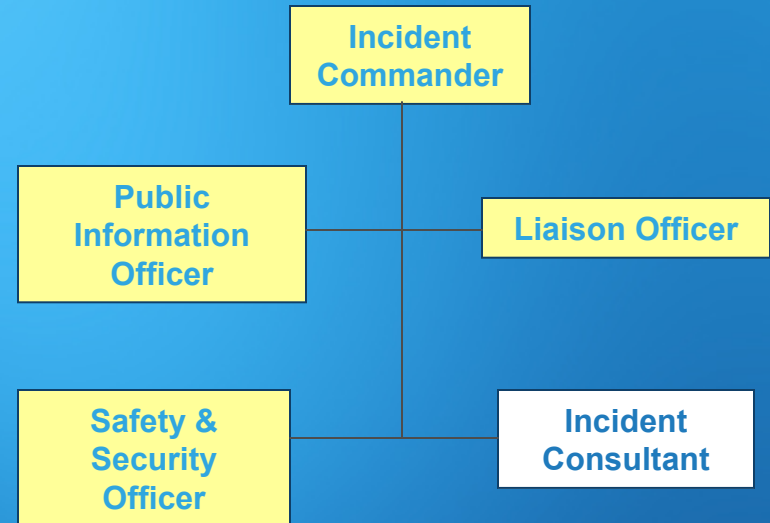
The major rationale includes:

- (1) the Incident Commander often requires immediate clinical and/or technical expertise in emergencies;
- (2) existing members of the Administration Section are usually unable to provide this expertise, since they are rarely content experts in emergencies, disaster medicine, or even emergency management (e.g., the Incident Commander is typically a hospital administrator in the US).

The Incident Consultant should be viewed as:

- (1) an optional position, which is activated by the Incident Commander as needed (or by pre-determined criteria);
- (2) a flexible position, which is filled by the type of expert according to the type of event.

Incident Consultants should have not only vertical knowledge in their area of expertise, but also core competency in hospital emergency management.





Examples of Types of Incident Consultants in Emergencies

TYPE OF HOSPITAL EMERGENCY	TYPE OF INCIDENT CONSULTANT
Chemical emergency	Toxicologist, occupational health physician, emergency physician
Biological emergency	Infectious disease specialist, hospital epidemiologist, infection control officer
Radiation or nuclear emergency	Radiation safety officer, nuclear medicine physician, radiation therapy physician
Trauma/burn emergency	Trauma surgeon, burn surgeon, emergency physician
Emergencies with significant mental health needs	Psychiatrist, psychologist
Emergencies with significant numbers of pediatric patients	Pediatric emergency physician, pediatric intensive care specialist
Emergency with special emergency management considerations	Emergency physician
Emergency with significant facility legal exposure*	Attorney



Characteristics & Advantages of HICS IV

CHARACTERISTICS	ADVANTAGES
Modular organization based on functions required in emergency response	Logical management structure Applicability to variety of healthcare organizations*
Fixed organizational hierarchy	Predictable chain of command
Communication occurs up and down the chains of command	Clear reporting channels
Each position supervises ≤ 7 other positions	Realistic span of control
Job action sheets define responsibilities of each position	Defined responsibilities Accountability of position function
Job action sheets prioritize actions of each position	Prioritized response
Job action sheets show prioritized actions as checklists	Improved documentation Improved cost recovery
Responsibilities, actions in emergencies parallel routine duties	Minimal disruption of existing hospital departments
Standardized terminology	Improved internal and external communication Facilitation of external assistance
Flexible activation of individual sections or branches of organization	Customized emergency response (minimal to full) to different types and magnitudes of emergencies Cost-effective emergency response
One individual may assume \geq one position	Emergency response possible with minimum number of responders



Facility Directors = Facility Unit Leader



**LOGISTICS
CHIEF**

**FACILITIES
UNIT LEADER**

**DAMAGE ASSESS
& CONTROL**

**SANITATION
SYSTEMS**

MISSION

Organize, manage and support building systems, equipment and supplies. Ensure proper cleaning and disinfection of hospital environment.

**Electrical - Fuel – Water –
Med Gas – Waste Disposal**

REPORT TO
Logistics Chief



FACILITY DIRECTOR TO MANAGE THESE OFFICERS DURING EVENT

DAMAGE ASSESSMENT & CONTROL OFFICER

MISSION

Provide sufficient information regarding the operational status of the facility for the purpose of decision/policy making, including those regarding full or partial evacuation.

Identify safe areas where patients and staff can be moved if needed.

Manage fire suppression, search and rescue and damage mitigation activities.

SANITATION SYSTEMS OFFICER

MISSION

Evaluate and monitor the patency of existing sewage and sanitation systems.

Enact pre-established alternate methods of waste disposal if necessary.



If Facility Director is Also Safety Officer

MISSION

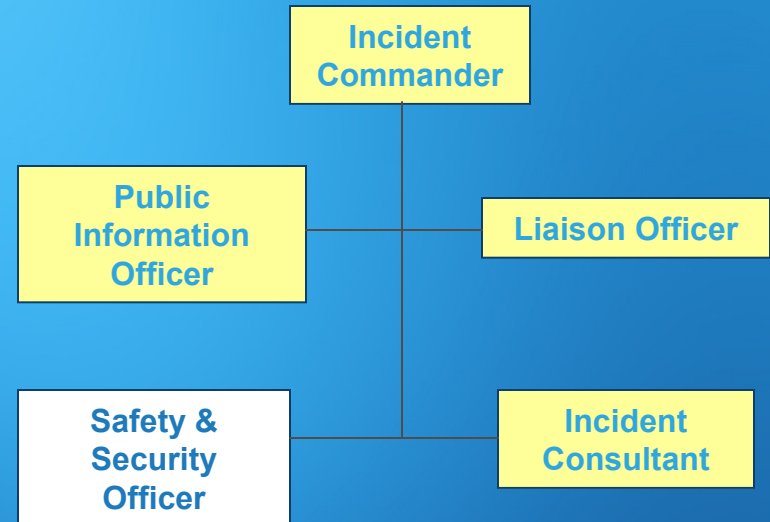
- Ensure safety of staff, patients, and visitors, monitor and correct hazardous conditions. **Have authority to halt any operation that poses immediate threat to life and health.**

DUTIES

- Determine safety risks of the incident to personnel, the hospital facility, and the environment.
- Initiate corrective/protective actions for safety issues.

REPORT TO

Incident Commander





KEY EMERGENCY MANAGEMENT DOCUMENTS

Hazardous Vulnerability Analysis (HVA)

Conduct annually.**

Identify potential emergencies that could affect the need for services – or ability to provide those services.

Prioritize HVA findings.

- Focus on Top 3

Identify role in relation with communitywide EM program.

All hazards command structure within the organization that links to communitywide EM structure.

Emergency Management Plan (EMP)

Written and describes the process for disaster readiness and emergency management.

Specific procedures that describe mitigation, preparedness, response and recovery strategies, actions and responsibilities for each high priority emergency identified in HVA.

Notifying, identifying and assigning staff to cover essential functions.

** Must be updated to reflect any new high priority emergency identified in the annual HVA.



KEY EMERGENCY MANAGEMENT DOCUMENTS

Job Action Sheets (JAS)

Job Action Sheet, or JAS, is a tool for defining and performing a specific emergency response functional role.

The JAS is designed to be customized by Section Chief or Unit Leader. But hospitals are encouraged to maintain the prescribed format as a means of ensuring the standardization benefit of NIMS.

The JAS should be kept with the Incident Command identification (vest) for the position, along with needed administrative items.

Emergency Operations Plan (EOP)

The “response” plan that an entity (organization, jurisdiction, State, etc.) maintains for responding to any hazard event.

Provides action guidance for management and emergency response personnel during the response phase.

An all-hazards document that specifies actions to be taken in the event of an emergency or disaster event.



JOB ACTION SHEET FORMAT

Date: _____ Start: _____ End: _____ Position Assigned to: _____ Initial: _____

Position Reports to: Incident Commander Signature: _____

Hospital Command Center (HCC) Location: _____ Telephone: _____

Fax: _____ Other Contact Info: _____ Radio Title: _____

OLD HEICS III

- Immediate (0 – 2 Hours)
- Intermediate (2 – 12 Hours)
- Extended (Beyond 12 Hours)



NEW JOB ACTION SHEET REQ.

NEW HICS IV

Immediate (0 – 2 Hours)

Intermediate (2 – 12 Hours)

Extended (Beyond 12 Hours)

**Demobilization/System
Recovery Actions Sect.**

**Modify and list supporting
EMP Tools on each JAS →**

SUPPORTING DOCUMENTS / TOOLS

- Incident Action Plan
- HICS Form 204 – Branch Assignment Sheet
- HICS Form 207 – Organization Chart
- HICS Form 213 – Incident Message Form
- HICS Form 214 – Operational Log
- HICS Form 257 – Resource Accounting Record
- Hospital emergency operations plan
- Hospital organization chart
- Hospital telephone directory
- Radio/satellite phone



HICS IV: NEW JAS REQUIREMENT

Demobilization/System Recovery	Time	Initial
<p>Assess the plan developed by the Demobilization Unit Leader and approved by the Planning Section Chief for the gradual demobilization of the HCC and emergency operations according to the progression of the incident and facility/hospital status. Demobilize positions in the HCC and return personnel to their normal jobs as appropriate until the incident is resolved and there is a return to normal operations.</p> <ul style="list-style-type: none"> • Briefing staff, administration, and Board of Directors • Approve announcement of "ALL CLEAR" when incident is no longer a critical safety threat or can be managed using normal hospital operations • Ensure outside agencies are aware of status change • Declare hospital/facility safety 		
<p>Ensure demobilization of the HCC and restocking of supplies, as appropriate including:</p> <ul style="list-style-type: none"> • Return of borrowed equipment to appropriate location • Replacement of broken or lost items • Cleaning of HCC and facility • Restock of HCC supplies and equipment; • Environmental clean-up as warranted 		
<p>Ensure that after-action activities are coordinated and completed including:</p> <ul style="list-style-type: none"> • Collection of all HCC documentation by the Planning Section Chief • Coordination and submission of response and recovery costs, and reimbursement documentation by the Finance/Administration and Planning Section Chiefs 		



6 CRITICAL AREAS OF EM PROGRAM





Evaluate Performance of all 6 Critical Areas

During Drill / Event

Capture PI and Report

**Conduct Drill
Or Actual Event**

**Keep Log of
Events Activities
(In Sequence)**

**Abstract 6
Critical Areas
(Accomplishments
& Imp. Needed)**

**Transpose to
EMP – PI Dash
& Report to
EC Committee**

**Analyze Strengths &
Opportunities**



EM PROGRAM PI DASHBOARD

GENERAL

Quality Measures																						
Environment of Care - Emergency Management Plan (EMP)																						
Reporting Period:																						
Emergency Management Plan	TYPE	Fun	Dim	PY	Target	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Qtr 1	Qtr 2	Qtr 3	Qtr 4	YTD
EMP Program-specific opportunities for improvement opportunities identified during EC Safety Rounds / unit inspections. Data source: Unit managers and EC Safety Rounds data collection tools.	P	EC	G, E	New Measure	100%																	
EMP-program specific opportunities for improvement identified during the assessment of the effectiveness of EMP related orientation, education and training activities. Data source: Education Department and during EC Safety Rounds.	P	EC	G, E	New Measure	100%																	
Conduct one (1) Hazard Vulnerability Analysis and address improvement opportunities, if noted.	P	EC	G, E	1																		
Drills will be held minimally 2 times per calendar year, in accordance with the EMP	V	EC	G	2																		
Department Code 44 status forms completed and received by the Command Center	V	EC	G		100%																	



EM PROGRAM PI MEASURES

GENERAL

INSPECTION-BASED PI

EMP Program-specific opportunities for improvement opportunities identified during EC Safety Rounds / Unit Inspections. Data source: Unit managers and EC Safety Rounds data collection tools.

STAFF KNOWLEDGE-BASED PI

EMP-program specific opportunities for improvement identified during the assessment of the effectiveness of EMP related orientation, education and training activities. Data source: Education Department and during EC Safety Rounds.

RISK ASSESSMENT –BASED PI

Conduct one (1) Hazard Vulnerability Analysis and address improvement opportunities, if noted.

SUDDEN ILLNESS / INJURY-BASED PI

Department Code 44 status forms completed and received by the Command Center.





EM PROGRAM PI DASHBOARD

POST-DRILL / EVENT

Quality Measures																						
Environment of Care - Emergency Management Plan (EMP)																						
Reporting Period:																						
Emergency Management Plan	TYPE	Fun	Dim	PY	Target	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Qtr 1	Qtr 2	Qtr 3	Qtr 4	YTD
Number of corrective action plans developed and corrective action taken on identified action items generated from the facility emergency exercises, in accordance with the EMP FACILITY EXERCISE EVALUATION FORM in the following areas. NOTE: List User Errors – Problems and/or Failures where applicable.	P	EC	G	As Noted																		
COMMUNICATIONS		EC																				
RESOURCES & ASSETS		EC																				
SAFETY & SECURITY		EC																				
STAFF RESPONSIBILITIES		EC																				
UTILITIES MANAGEMENT		EC																				
PATIENT / CLINICAL SUPPORT ACTIVITIES		EC																				



EM PROGRAM PI MEASURES POST-DRILL / EVENT

TOTAL POST-CRITIQUE ACTION ITEMS

Number of corrective action plans developed and corrective action taken on identified action items generated from the facility emergency exercises, in accordance with the EMP FACILITY EXERCISE EVALUATION FORM in the following areas.

NOTE: List User Errors – Problems and/or Failures where applicable.

BROKEN DOWN INTO 6 CORE FUNCTIONS OF EM PROGRAM

COMMUNICATIONS

RESOURCES & ASSETS

SAFETY & SECURITY

STAFF RESPONSIBILITIES

UTILITIES MANAGEMENT

PATIENT / CLINICAL SUPPORT ACTIVITIES



SELF-EVALUATION PROBE LIST FOR ALL 6 CRITICAL AREAS

FACILITY EXERCISE EVALUATION FORM

Evaluator:	Start Time:			
Area/ Location/ Activity Observed:	Stop Time:			
Drill Type/ CODE:	Incident Commander(s) Observed:			
Any question with an answer other than "yes" should include comments supporting the observation. The measurement of compliant "STAFF RESPONSIBILITIES" is interwoven throughout the exercise observation categories in this evaluation form. If more space is needed, please write on the back of this form. All forms should be returned to the Safety Officer within 72 hours of the exercise.				
	N/A	Yes	No	Comments
RESPONSE COMMUNICATION: In the event that community infrastructure is damaged and/or a hospital's power or facilities experience debilitation, communication pathways, whether dependent on fiber optic cables, electricity, satellite, or other conduits, are likely to fail. Hospitals must develop a plan to maintain communication pathways both within the hospital and to critical community resources.				
Did the IC designate a communications officer/ center?				
Were internal hospital communications effective?				
Did the PIO Officer establish a Media Center?				
Did the Operations Officer establish an Information Center?				
Did the Liaison Officer maintain communication with community resources & agencies?				
Did the IC initiate the Disaster Call List?				
Did the 800 MHz system work properly?				
Did the HAM Frequency radio work properly?				
Did the truncated telephone system work properly?				
Were logs of activities and communication kept?				
Were staff members kept informed about there specific operation roles and about the general situation?				
RESPONSE RESOURCES AND ASSETS: A solid understanding of the scope and availability of a hospital's resources and assets is as important, and perhaps more important, during an emergency than during times of normal operation. Materials and supplies, vendor and community services, as well as state and federal programs, are some of the essential resources that hospitals must know how to access in times of crisis in order to ensure patient safety and sustain care, treatment, and services.				
Were needed supplies & equipment identified and made available timely?				
What Emergency Operations Kits or Internal Resources were not available or need modification to be more effective?				



POST-DRILL / EVENT SUMMARY FORMAT

SIX (6) CRITICAL AREAS OF EMP PROGRAM	ACCOMPLISHMENTS	OPPORTUNITIES FOR IMPROVEMENT
COMMUNICATIONS		
RESOURCES & ASSETS		
SAFETY & SECURITY		
STAFF RESPONSIBILITIES		
UTILITIES MANAGEMENT		
PATIENT / CLINICAL SUPPORT ACTIVITIES		



SAMPLE EVENT SUMMARY & PI ACTION PLAN

Capture and Report to EC Committee

Report in Annual Appraisal

EVENT ANALYSIS SUMMARY

SIX (6) CRITICAL AREAS OF EMP PROGRAM	ACCOMPLISHMENTS	OPPORTUNITIES FOR IMPROVEMENT
COMMUNICATIONS	<ul style="list-style-type: none"> Sequence of events accurately documented internal and external timelines; Notification to retail establishments did not significantly interrupt operations. 	<ul style="list-style-type: none"> Timelines of notification of water contamination event by the City of _____ might be able to be improved; Initially missed the PDQ Ambulatory Center for notification of the water advisory and distribution of bottled water; Command Aware signal cold spots-confirm if areas other than Media Room make an Internet connection impossible.
RESOURCES & ASSETS	<ul style="list-style-type: none"> Appropriate allocation of water and signage resources within main hospital during the incident and during recovery. 	
SAFETY & SECURITY		
STAFF RESPONSIBILITIES	<ul style="list-style-type: none"> Employees from several different departments functioned in new shared roles to meet the needs of the patients and staff 	<ul style="list-style-type: none"> Command Aware software program was not used in this incident. Need additional personnel trained from the off-shifts to improve real time data entries; Improve shifting of primary roles to ICC roles
UTILITIES MANAGEMENT	<ul style="list-style-type: none"> Timely coordination with clinical area (Dialysis) and Support Services (Central Supply Services) to assure filter changes post event. 	
PATIENT / CLINICAL SUPPORT ACTIVITIES	<ul style="list-style-type: none"> Medical Staff participated in change of treatments (Dialysis) and agreed to alternative treatment locations and strategies to handle emergent patient needs. Actions did not impact patient satisfaction 	



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**Garry Walsh
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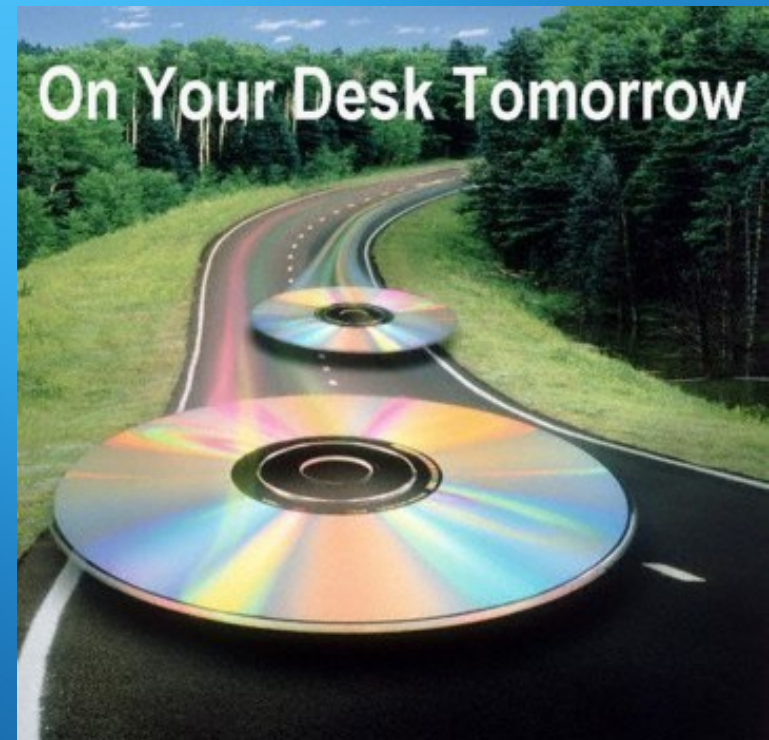
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