

National Emergency Management Summit

Providence Saint Joseph Medical Center

Strategies for Complying with
Joint Commission's 2008
Revised Emergency
Management Standards



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Implementing Emergency Management Plans to Meet All Standards

- Objectives:
 - Demonstrate best practices related to required risk assessments and developing management plans
 - Overview of emergency preparedness plans, tools, and equipment
 - Provide networking opportunities among facilities on challenges and strategies for excellence in emergency preparedness

Implementing Emergency Management Plans to Meet All Standards

- Clarify and implement JCAHO compliance Standards
- Document in detail how this is accomplished
- Keep it simple
- Share the information
- Acknowledge what you are good at and be honest with your short falls

Providence

Saint Joseph Medical Center

- Providence Health & Services began over 150 years ago and operates in Alaska, California, Washington, Oregon and Montana. It is sponsored by the Sisters of Providence.
- Founded in 1943, Providence Saint Joseph Medical Center is the San Fernando Valley's largest hospital.



Our Community

- Burbank is located in Los Angeles County, California
- 17.14 sq. miles, Population:102,400
- City Government,
- K-12 Unified School District
- Bob Hope Airport
- Motion Picture and Television Studios
 - Walt Disney Studios & International Headquarters
 - ABC West Coast Headquarters
 - NBC Universal Studios and Theme Park
 - Warner Brothers Studio

Why is Los Angeles County Involved

- Los Angeles County is a direct recipient of funding from the National Hospital Preparedness Program (NHPP)
- The EMS Agency serves as the Medical and Health Disaster Coordinator for the County
- This funding was provided to each state and 3 other municipalities – New York, Washington DC, and Chicago

The Challenge

- Developing the capabilities to respond to acts of terrorism
- Increasing Hospital Surge Capacity
 - GOAL: Coordination and Collaboration between hospitals and other healthcare entities
 - Over 100 acute care hospitals, 4,000 square miles, 10 million population

Layers of Participation

- Basic Level

- Participating hospitals received PPE for 1st Receivers and training on decontamination procedures

- Expanded Level

- Participating hospitals received funding for decontamination showers
 - “turn key”
 - 50 victims/hour
 - warm water

Disaster Resource Center Level

- Goal #1

Enhance hospital surge capacity by maintaining caches of supplies, equipment and pharmaceuticals at each DRC hospital

- Mobile Tent Hospitals
- Ventilators
- ChemPacks: A nationwide project for the “forward” placement of nerve agent antidotes.

Disaster Resource Center Level

- Goal #2

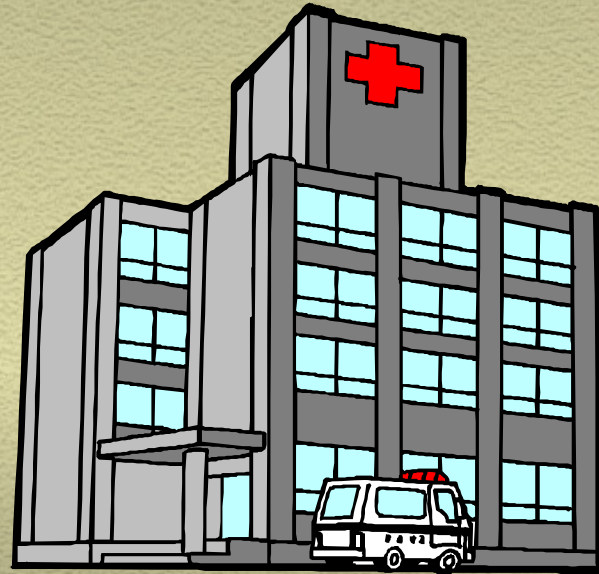
Establish a forum for regional collaboration, planning and training.

- The PSJMC DRC Umbrella includes:

- 10 area hospitals
- 4 EMS provider agencies
- 4 Community Clinics

A Regional Plan

- Host regional DRC meetings to:
 - Share information, plans and training opportunities
 - Provide chain of command and contact information
 - Exercise our plans in table-top and during full function drills



Trauma Surge Level

- Goal #1
 - Plan, implement and coordinate activities to enhance surge capacity in trauma centers and the development of a trauma surge capacity plan in coordination with other LA County trauma centers
- Goal #2
 - Purchase, store and maintain equipment to ensure a constant state of readiness
- Goal #3
 - Implement security to decrease vulnerability to terrorist attacks

Community Relationships

- Burbank Disaster Council
 - Host quarterly meetings
 - Provide education and training opportunities
 - Provide expert speakers
 - Safety/Disaster Fairs
- MOU Agreements
 - Schools
 - Key businesses
 - Studios
- Vendor Contacts
 - Personal interaction
- Local government and business relationships
 - Know your leaders by name

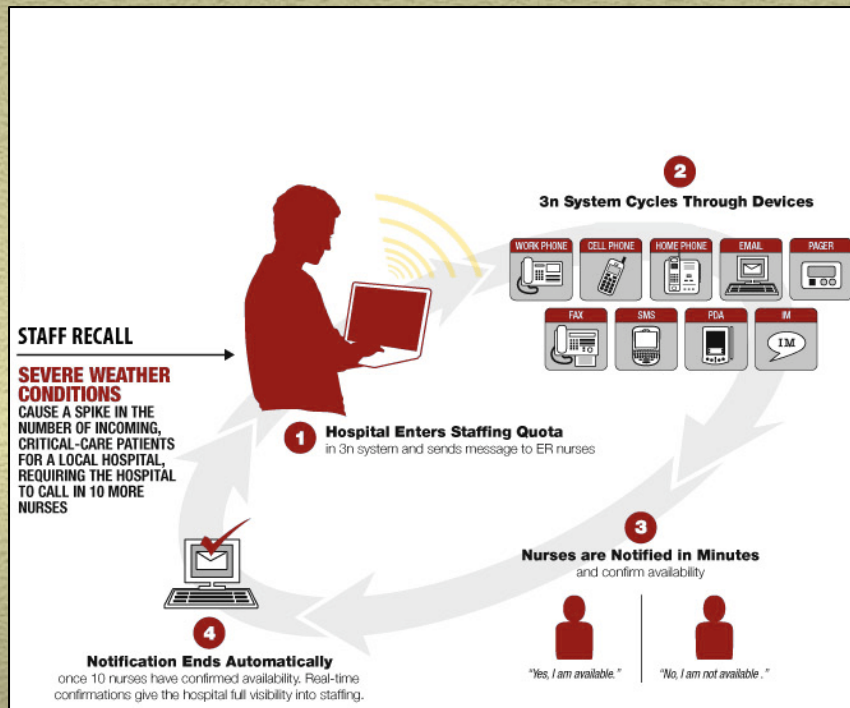
JCAHO Revised EM Standards- 2008

- Communication EC.4.13
- Resources and assets EC.4.14
- Safety and security EC.4.15
- Staff Responsibilities EC.4.16
- Utilities EC.4.17
- Patient Clinical and Support Activities
EC.4.18

Communications

E.C. 4.13

Mass Emergency Notification



- Allows Mass Communication with staff in minutes on any device or email, including mass polling.
- All leadership enrolled, 10,000 staff when completed.
- Meets JCAHO staff recall requirements
- Internet based
- Secure infrastructure with redundancy at every level for uninterrupted availability

Radios



- 100 two-way radios (reserved)
 - Multi-unit and individual unit chargers
 - Spare batteries for each radio (NiMH, Li Ion)
- Ham Radio
 - 2M, 220, 440, and High Frequency (HF)
- Portable Handheld Ham Radios

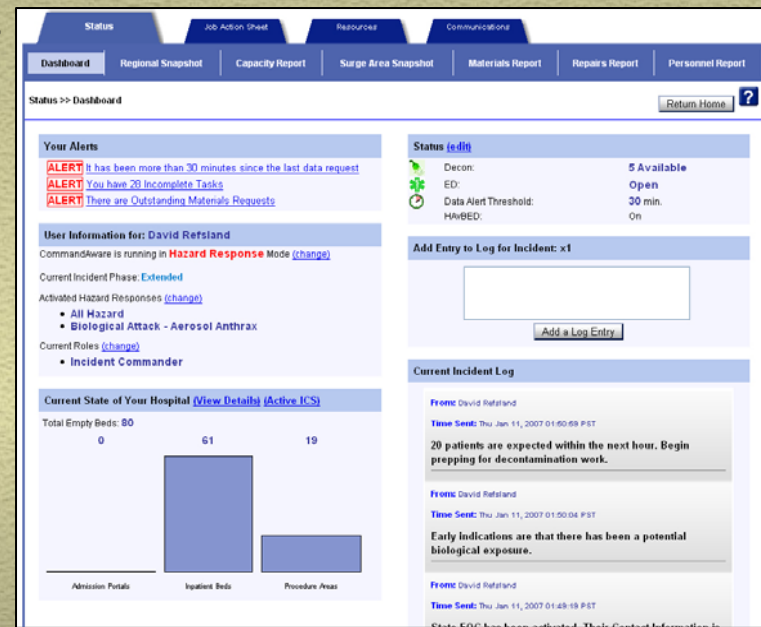
Cellular Phone Cache

- 24 cell phones with direct connect feature
- Activated < an hour by dialing “800” number
- Numbers are preserved (not recycled)
- All phones pre-programmed with key numbers and HICS roles
- Spare batteries for each phone
- All hospital and umbrella hospitals and clinics have a phone for communicating with us



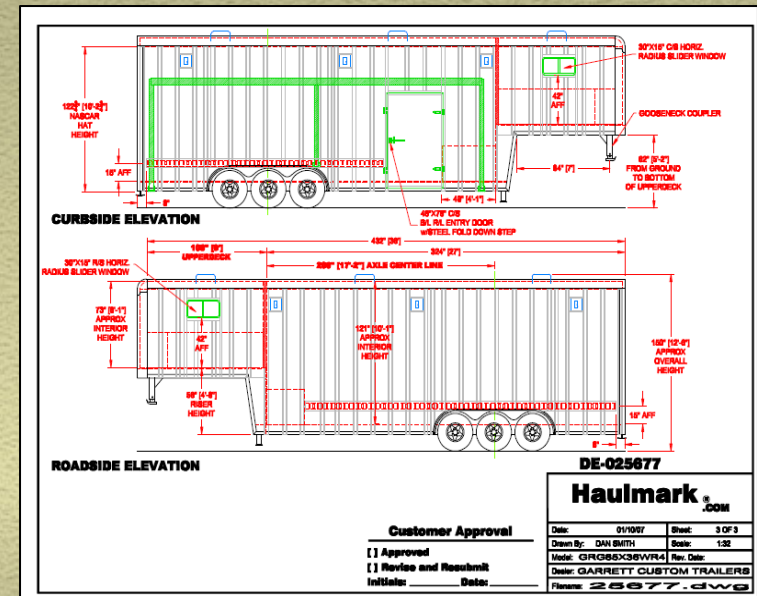
Incident Command Structure-based Software Tool

- HICS IV and NIMS Compliance
- Real time HICS role assignments and tracking
 - Automated through mass notification software
- Real-time resource tracking at the hospital and regional levels
- Custom dashboard views by role
- Records and tracks hospital performance for the post-incident audit process



Mobile Communications Trailer

- 36' Mobile Command Center Custom Trailer
 - Satellite connections - 16 IP addressable internal connections for voice and data
 - Self contained – portable generator
 - Separate Communications Room
 - Storage for 8 carts
 - Collapsible tables, write on walls



Satellite Phone Equipment

- Talk to a single person or multiple individuals
- Cost effective alternative to land-based systems
- Supports multiple, separate talk groups
- Communicate via telephone or two-way radio



Mass Notification System – Real Time Notification!



DESKTOPS



DISPLAYS



WIRELESS



TELEPHONE

- Alerts are received in seconds, not minutes.
 - Reducing the risk of employees taking incorrect action, or putting themselves in danger.
 - To all personnel in a building or the campus.
 - Verifiable and auditable for proof of communication.
- Alerts display text, voice, videos, photos and images.
 - Building diagrams, evacuation routes and mustering locations.
 - Persistent instructions for easy review.

Government Emergency Telecommunications Service (GETS) and Wireless Priority Service (WPS)

- GETS: Provides the means to get landline-based National Security/Emergency Preparedness (NS/EP) calls through.
- WPS: Provides the means to get your wireless (cell-based) NS/EP calls through.
 - The Department of Homeland Security National Communications Center must approve all applicants for the GETS and WPS services.
 - Each facility or organization must establish who their Point of Contact (POC) will be.

Additional Means of Communication

- ReddiNet and HEAR Radio
- Fax machines
- Pay phones
- Direct Inward/Outward Dial (DID/DOD) lines
 - Phone lines independent of the hospital phone switch

Dedicated HCC Communications Room

- Partner with local amateur radio services
- Separate/adjacent to HCC



Resources and Assets

E.C. 4.14

Resources and Assets

- Food = 7 days
- Water = 5 days
- Linen = 3 Changes + Disposable
- Diesel, Gasoline, and Propane Fuels = 4 days
- Medical Supplies Cache
- Sewer = Kitty Litter = 5 days
- Oxygen = NOK & 2 Six-Packs
- Pharmaceutical Cache

Department Disaster Barrels

- Clipboards
- Gloves
- Pry Bars
- 12 hour light sticks
- Whistles
- Hard hats
- Shovels
- Push brooms
- Masking and duct tape
- Stretchers
- Mylar Blankets
- Goggles
- 5 gallon water containers
- Aqua Blox water boxes
- Emergency Lanterns
- Hand held flashlights
- First Aid kit
- AM/FM radio



Automatic Disposable Resuscitators



- 50 Adult
- 20 Pediatric
- 10 resuscitators per/case
 - Includes manifold, regulators, and tubing
- Stored inside of a hardened weatherproof case

Med/Surg Cache



Equipment Transportation



Portable Hospital

- 10 Gurney-height or 10 cot-height beds
- 18' x 24' shelter with detachable 10' x 10' ante-room
- Both shelters set up in under 10 minutes with a blower
- Converts to negative pressure
- Propane-fed heating unit
 - Maintain propane cache
- 6500 watt generator
- Florescent overhead lights



Portable Hospital Beds



- Gurney-height beds
 - Regular bed height
 - O2 tank, chart, and IV pole holders
 - 300-450 lb capacity



- Cot-height Simpler Life Beds
 - 300-450 lb capacity
 - Sit 18" off ground
 - IV pole holder

Evacuation Chairs



- For vertical stairwell evacuation
- Collapsible
- Approximately 35 lbs
- 500 lb maximum load capacity
- Equipped with IV poles, O2 tank holder, head support, and protective storage cover

Evacuation Sled Devices



- For horizontal floor and vertical stairwell evacuation of patients
- Collapsible
- 500 – 800 (Bariatric) lb maximum load capacity
- Hold IV solutions, medical chart, O2 tanks, etc. inside with patient

Safety and Security

E.C. 4.15

CCTV System

- Can never have too many cameras
- Digital recorders with >30 day storage
- HDTV
- 4 Monitors
- Cover all critical infrastructure
- Purchased with Homeland Security funding



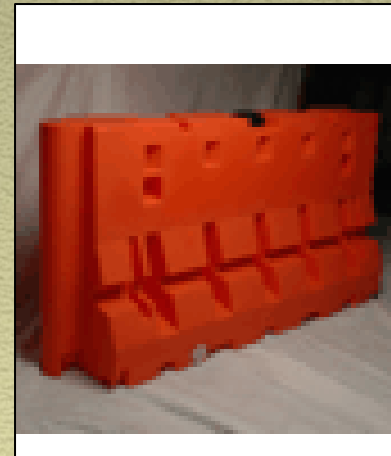
Easy-up Barricades

- Set-up by 1 person in 2 minutes or less
- Two flashing strobe lights per barricade
- Dimensions: 10.5'L x 5.5'H x 22"D
- 24 lbs
- Ballast with Sandbags
- Zip-tie multiple units together
- Stored in a compact carrying bag



Vehicular Barricades

- Vehicular and/or pedestrian access control purposes
- Water or sand-filled
- Weigh up to 1800 lbs when filled with sand or water (100 lbs dry weight)
- Reinforced with steel cross beams
- Easy set-up
- Supplement heavier barricades with smaller and lighter folding barricades.



Mass Decontamination Trailer

- Rapid set up
- 50 victims per/hour
- 3 ambulatory, 1 non-ambulatory lane
- Folding benches
- Soap-induced lines
- Heated water- temperature controlled
- Air-heated bays
- Self-contained water supply



Mass Decontamination Trailer



- 1-1/2", pressure regulated water supply line for indefinite water feed
- 2800 gallon water containment capacity
- 13 KW diesel generator
- Privacy shelters for both Hot & Cold sides
 - Maintained in a deployed state

Portable Deluge Shower / Barricades



- Four 11 gpm nozzles
 - Very low pressure
 - High volume
- Fed by a pressure-regulated 1-1/2" line
- On/off control valve
- Deluges 10' x 12' area
- Great for Mass Gross Decon purposes

Technical Decon Shower



- Unique quick-connects for fast assembly
- Three shower heads plus an independent hand-held sprayer for thorough decontamination
- Tough construction for frequent training and use.
- Vinyl bag for storage and transport
- Shower Specifications
 - Augmented with a portable soap & water sprayer

RRPAS Vest Kit



- RRPAS vest converts from a duffel bag to a vest-mounted PAPR :
 - 3 FR-57 Cartridges
 - Lithium battery
 - Hair net and inner gloves
 - Laminated instruction sheet
 - Clothing cutting device & Airflow monitoring tube.
 - Tyvek-F suit with outer gloves, over-boots, and roll of Chem-tape
 - Pre-tabbed Chem-tape strips



PPE/RRPAS Vest Kits

- 47-Rapid Response Powered Air-Respirator Systems (RRPAS)
- Vest-mounted PAPR with cinching strap
- Vest has 2 large cargo pockets
- Pocket w/Velcro securing strap for PAPR battery
- Can be decon'd
- Vest secures loose suit material, prevents snagging or tearing of suit



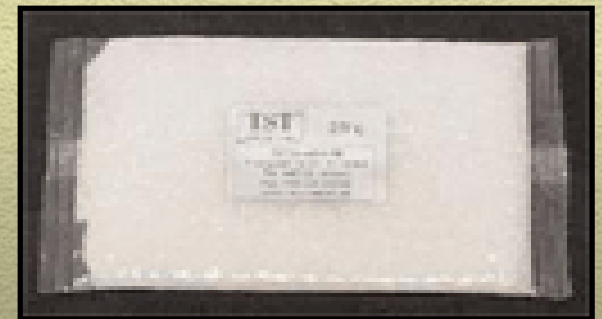
Decon Communication Equipment

- Haz-Amp Voice Amplifier:
 - A belt or chest mounted voice amplifier attached to a throat microphone.
 - Can be decon'd
- Tri-Com Voice Amplifier with Two-Way Radio Interface:
 - Haz-Amp with attached two-way radio interface and Push-to-talk (PTT) button, earpiece, and throat microphone



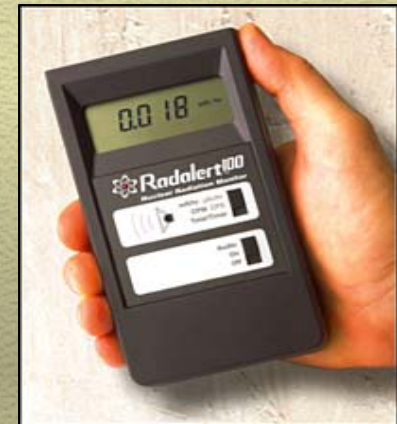
Decon Cooling Vests

- No ice water or refrigeration required to activate
- 21 Phase Change Material packs
 - converts from a solid crystal to a liquid as it absorbs body heat
 - Packs are inert, non-toxic, and non-carcinogenic
- Cool effect lasts for approx. 4 hrs
- Lay flat to recharge



Radiation Monitors - RadAlert 100's and Mass Screening Portal

- Radalert 100's
 - Personal dosimeters or area monitors w/digital readout
 - X-ray, gamma, beta, alpha (CPM, mR/hr)
 - Can be reset and reused
 - 9-volt battery operated
 - Only weighs 8 ounce
- Mass Screening Portal
 - Portable
 - Set-up between Warm and Cold zones for mass screening post-decon



Isolation Anteroom with Negative/ Positive Pressure HEPA Filtration Units



Convert standard patient rooms to negative pressure isolation



Staff Roles and Responsibilities

E.C. 4.16

Staff Roles and Responsibilities

- Use internet based program for management, implementation and tracking of HICS.
 - HICS roles
 - Assigned, Tracked and Timed
 - Staff trained 3 deep in critical HCC positions
- Training
 - Annual Safety and Skills Fairs
 - Orientations for new employees/ licensed independent contractors
 - Department posters:
 - Bioterrorism Response, National Threat Levels, Utility Shut Off, Basic Staff Response to Codes

16 CBT Modules

- Pre-donning Safety
- PPE Donning, Doffing & Technical Decontamination
- Decon Corridor Set-up: Hot & Cold Zones
- Decon Set-up: Support Zone
- Decon: Ambulatory
- Decon: Non-ambulatory & Special Needs
- Chemical Agent: ID, Decon, Casualty Mgmt
- Bacterial Agent: ID, Casualty Mgmt.
- Viruses & Toxins: ID, Casualty Mgmt
- Radiological & Nuclear: ID, Decon, Casualty Mgmt
- Explosives: ID, Casualty Mgmt
- Decon: Critical Thinking
- Chempack Deployment: Use of Mark 1 Auto-injectors
- Decon: Set-up, Utilization of Mass Decon Trailer
- Decon: Team Communication
- HEICS (HICS)

Providence Saint Joseph Medical Center

Weapons of Mass Destruction



Explosive Devices



Improvised
Explosive
Devices

Manufactured
Explosive
Devices

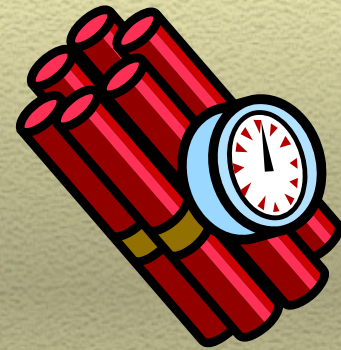
Incendiary Devices
(Fire-Bombs)

Objectives

- Identify and differentiate between the different types of explosives and explosive devices.
- Identify the 4 mechanisms of blast injuries, and the types of injuries associated with being exposed to each mechanism of the blast.
- Identify how to manage the treatment and care of victims exposed to blasts from explosive devices.

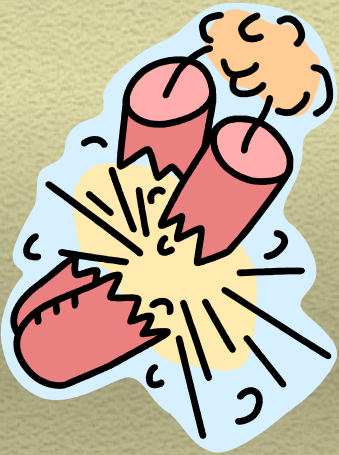
Improvised Explosive Devices (IED's)

- Improvised Explosive Devices (IED's) are bombs made in small quantities, or the use of a device outside of its intended purpose.
- May contain either HE or LE explosives.
 - Example of an IED: A commercial aircraft being converted into and utilized as a guided missile.
 - Categories of IED's include:
 - Packaged IED's
 - Vehicle-Borne IED's
 - Suicide Bomb IED's



Mechanisms of a Blast Injury

- Primary Mechanism:
- Characteristics:
 - Unique to High-Order (HE) Explosives.
 - Results from the impact of the over-pressurization wave with body surfaces.

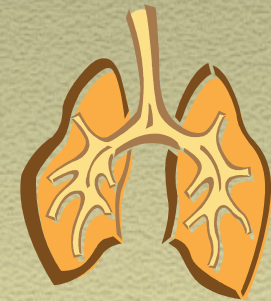


Injuries Associated with a Blast

- **Primary Mechanism:**

- Affects the gas filled structures of the body.

- Examples: Lungs, GI Tract, Middle Ear.



- **Types of injuries include:**

- **“Blast lung”**.

- Rupture of the tympanic membrane and middle ear damage.

- Rupture of the eye.

- Concussion without physical signs of head trauma.

- Abdominal hemorrhage or perforation.



Medical Management of Victims

- **Considerations:**
 - **Expect an “upside-down” triage** –The most severely injured will arrive after the less injured, who bypass EMS triage and transport themselves to the hospital.
 - Immediately consider all unusual explosions to be potentially terrorist-related.
 - Suspect the possibility that the explosive device contained biological, chemical, or radiological agents.
 - Wounds could be grossly contaminated with such agents and may require decontamination prior to treatment.
 - Consider the possibility that the victims were exposed to inhaled toxins and/or poisons from these agents.
 - Blast injuries should be considered for any victim exposed to an explosive force.



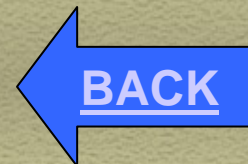
Question # 8

- 8. Victims of a bombing incident may present with which of the following types of injuries:**
- A. Amputations and Eye and Ear perforations or penetrations.**
 - B. Concussion without physical signs of head trauma and Blast Lung.**
 - C. Small to large bruising or hemorrhages, lacerations of organs, rupture of the testicles, and mesenteric injuries.**
 - D. All of the above.**

There is a Better
Answer!



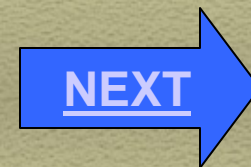
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You are Correct!



Please continue...



Additional Training

- Support CME training
- Practical hands-on training
- Department specific training and competencies
 - Automatic, disposable resuscitators
 - Mark 1-Autoinjectors (Nerve agent antidotes)
- Department specific disaster training
 - Evacuation equipment
 - Surge Training (portable hospitals, ChemPacks, etc.)

Personnel Identification

- Identifying staff and personnel during an event
 - HICS vests
 - ID badges

HICS

SERIOUS EMERGENCY SITUATIONS occur when least expected, requiring personnel to perform with the utmost of efficiency and professionalism. HICS is an industry recognized organizational chart that clearly defines a chain of command to assist hospitals in managing their staff in the event of disaster.

HICS 401 SERIES

- White cloth vest with color coded binding
- Nighttime reflective circles on front and back
- Includes black title on front and back
- Two front lower patch pockets
- Webbing for name tag
- Optional: one color hospital logo at additional charge

Sizes: Universal

HICS 402 SERIES

- White cloth vest with color coded binding
- Horizontal night time reflective stripes front and back
- One right lower patch pocket
- Webbing for name tag
- Includes black title on front and back

Sizes: Universal

HICS 403 SERIES

- White cloth vest with color coded binding
- Includes black title on front and back
- One right lower patch pocket
- Webbing for name tag

Sizes: Universal

Reflexite (800) 338-9480 MLKISHIGO.COM

Disaster Fair



Utilities Management

E.C. 4.17

Utilities Management EC.4.17

- Lighting:
 - Portable battery-operated flashlights, lanterns, and light sticks from departmental disaster barrels
 - Portable light sets with generators
 - Prism lights (inflatable lights w/generators)
 - Light sets from local movie and/or television studios
 - Light sets from local rental companies

Portable Lighting Cache

- Various-sized floodlights
 - 250w
 - 500w
 - 1000w



Lights-Inflatable Lights



- Stands 15' high
 - 2000w Generator or 110v powered
 - Additional power supply
 - 3 minutes to full illumination
 - Illuminates approximately 2.5 acres
 - 1 person set-up
 - Withstands 25 mph winds
 - Weatherproof

Medical Gases Cache

- Medical gasses:
 - Vendors for re-supply
 - Reallocate from in-house resources
 - Triage those currently on medical gasses
 - Utilize supplies from medical center's emergency cache of O₂.
 - NOK kit (81 “E” Cylinders w/ tubing, masks, regulators)
 - 12 “H” Tanks



Alternate Water Supplies

- 30,000 gallon tank of potable water
- Aqua-blocks and/or 5-gallon containers of water in all departments
 - Cache of water specific to size of department
- 3 months supply of bottled water
 - Rotated through Dietary services



Alternate Electricity and Fuel Supplies

- Flexibility / Versatility
 - Various sized generators
 - Portable
 - Fuel caches to match generator types!
 - 30,000 gallons diesel
 - Self-priming siphon pumps
 - Vehicles on property (alternate fuel supply)



Clinical and Support Activities

E.C. 4.18

Clinical and Support Activities

EC.4.18

- Plan for critical activities during an emergency
- Plan for clinical services for vulnerable patients
- Plan for patient hygiene, sanitation, and mental health needs
- Plan for mortuary needs
- Plan or tracking of patients clinical information

Critical Activities

- HICS
- Define use of space, i.e. mass casualty triage, immediate, delayed, minor, expectant
- Identify decontamination areas, i.e. hot, warm, cold, and support zones
- Identify internal and external alternate care sites (Surge Plan)

Vulnerable Patients

- Plan for clinical services for vulnerable patients:
 - Working with local community, county, and state agencies on development of alternate care sites
 - Working with Home Health Care services
 - Maintain a list of the most frail/dependent patients
 - Help patients develop a neighborhood support system
 - Educate patients on emergency preparedness at home
 - Work with community dialysis centers

Patient Hygiene and Sanitation

- Portable hand washing stations
- Portable “porta-potties”
- Caches of hand sanitizing gel and soap
- Cache of kitty-litter



Patient Mental Health Needs

- Staff training:
 - “Preparing for the Psychological Consequences of a Terrorist Incident or Other Public Health Emergency”
- Privacy kits
- Privacy screens
- Spiritual Care and Clinical Social Work support

Mortuary Needs

- Mass fatality planning:
 - Cache of body bags
 - Overflow morgue space
 - Work with local Coroner's Office
 - Plan for John, Jane, and Baby Doe
 - Plan for security and chain of evidence

Tracking of Patients Clinical Information

- Begin in triage
 - Triage tag
 - Patient Id number
- Track patients through treatment to discharge
- Maintain patient privacy - adhere to HIPAA laws
- Sharing information with other healthcare and law enforcement agencies, per HIPAA

Personnel Surge Packs

- Customizable/stackable
- Each kits contains 20
 - Cots
 - Blankets & pillows
 - Personal kits
 - Toothpaste/toothbrush
 - Personal hygiene wipes
 - Disposable scrubs



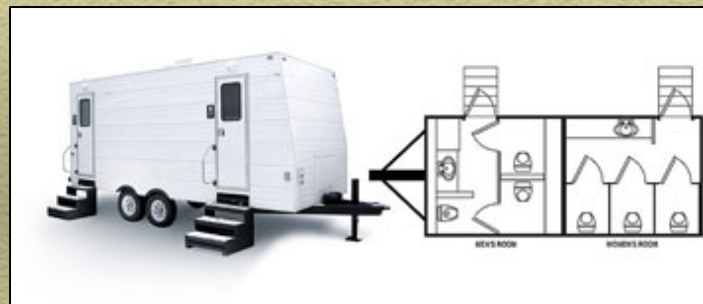
Additional Personnel Supplies

- Disposable towels and linens
- Disposable stethoscopes
- Privacy screens



Other Support Activities

- Two large barbeques for preparing food
 - Propane cache for BBQ's
 - Maintain 7 days food
- Signed MOU's for onsite placement of two 6-unit "Honeywagons."



Future

- Virtual HCC and response
 - Mass notification and automated role assignment
 - Blackberry response and tracking
 - Internal notification done with instructions
 - Patients
 - Visitors
 - Staff
 - Physicians
- Portable response
- 7 days

Questions

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