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WELCOME

Jackson Health System (JHS) is committed to promoting a safe environment and providing quality care. ZeroChaos and each department are responsible for ensuring that their employees receive annual clinical education/training as mandated by JHS, regulatory and accrediting agencies.

The Department of Education and Development offers a standard curriculum of annual clinical education requirements to meet the needs of JHS employees. The mandatory curriculum can be completed by one of the following:

- Jackson Education Network (JEN) - *JHS Employee only*
- Annual Mandatory Clinical Education Self-Study - *Contracted Employees*

Your department will provide the area-specific requirements to complete your Annual Mandatory Education. If you have any questions about this packet or your annual mandatory requirements please contact:

Name: JEN Administrators (Jim Nicholson & Alphonso Williams)

Phone Number: 305-585-7864 or 305-585-8876

E-mail: JHS-JEN-ADMINISTRATORS@jhsmiami.org
OBJECTIVES

JEN PREREQUISITE COURSE:

Upon completion, the participant will be able to:

• Understand principles of Emergency Management & the JHS Incident Command System
• Recognize the behavioral effects on staff and patients as a result of disasters
• Recognize signs & symptoms of different biological, chemical, and nuclear threats
• Understand the appropriate use of Personal Protective Equipment
• Gain knowledge regarding handling contaminated items & chain of custody for evidence processing

JHS Hospital Incident Command System (HICS)

• An established framework used to designate responsibilities & reporting relationships for both leaders and staff members during an emergency
• Helps us identify who is in charge during an emergency and the individuals who will carry out the decisions of the individual in charge
• Designed to enable effective and efficient domestic incident management by integrating a combination of facilities, equipment, personnel, procedures, and communications

JHS HICS

(For specific names of the people in these roles please refer to facilities specific HICS organization Charts)
Key HICS Positions

- Incident Commander
  - Sets objectives, devises strategies/priorities, and maintains overall responsibility for managing the incident. Typically the most senior person on duty at time of incident (i.e. CEO’s or designee such as COO, CMO, CNO or AIC) acts as initial incident commander until this responsibility is appropriately transferred to another designated person

- Operations Chief
  - Conducts tactical operation and carries out the plan using defined objectives directing all needed resources toward the process of patient care through cleanup. All Medical/Nursing Services issues related to patient care ultimately report to this person

Key HICS Positions

- Planning Chief
  - Collects and evaluates information for decision support, maintains resource status information, prepares documents (e.g. incident action plans), and maintains documentation for incident reports

- Logistics Chief
  - Provides support resources and other essential services to meet the operational objectives as set by the incident commander

- Finance Chief
  - Monitors the utilization of financial assets necessary to carry out the hospital's medical mission by overseeing the acquisition of supplies & services, and supervising the documentation of relevant expenditures

- How are duties assigned? There is a Job Action Sheet for each position

Activation of the JHS Emergency Operations Plan (Authority to Declare a Disaster)

- System Chief Executive Officer (CEO) or Designee (e.g. System Chief Operating Officer, System Chief Medical Officer, System Chief Medical Administrative Officer) has the authority to activate the emergency operations plan.

- Facility Specific (JMH, Holtz Children, Behavioral Health, Rehabilitation Hospital, JNMC and JSCH) CEO or Designees (Facility COO, Facility CMO, Facility CNO or Facility AIC (Administrator In charge) has the authority to activate emergency operation plan for their respective facilities.

- Employees can be notified of the disaster plan activation by various means including their Supervisors, Page Operators, Pagers, Communicator Mass Notification System and/or JHS Employee Hotline (305-585-8000) or mass e-mail

- Follow your department-specific disaster response plan for your individual assignments when the emergency is declared
Key Issues In Hospital Disaster Management

- Hospital surge capacity for patients, staff, equipment, supplies and space
- Patient tracking
- Providing care with scarce medical resources
- Providing comprehensive support for responding staff
- Internal/external communications
- Safety and security of the staff, patients, visitors and facility
- Credentialing of volunteer professionals (see JHS Policy #384)

Actions/Precautions to Protect Staff

- Campus Security
- Infrastructure Protection
  - Shutters, hurricane resistant windows
- Respiratory Fit-Testing
- Specific Training on Appropriate PPE
- Medical Employee Surveillance
- Training on Evacuation Equipment
  - Evacusled, Supersled and Evacuation Chairs

Hospital & Disaster Risk Management Activities

- JHS conducts an annual review of its department-specific and/or facility-specific risks, hazards, & potential emergencies as identified in its hazards vulnerability analyses (HVA) and risk assessments (RA)
- The risks and vulnerabilities are monitored by: daily reviews of Security Services Department and Risk Management Department incident reports, bi-monthly/quarterly performance measures, and periodic planned and unplanned emergency preparedness exercises/drills as required by The Joint Commission and the State
- Where risks or vulnerabilities are identified, the current programs and processes are evaluated. Where risks and vulnerabilities are not appropriately handled, new programs, processes, procedures, or trainings are developed/implemented, and results are monitored
- The findings/results of these reviews/exercises are reported & documented in the minutes of either the Emergency Management Planning Committee and/or the Environment of Care Executive Committee
- Refer to JHS Administrative Policies: #251 on HVA’s & #253 on RA’s
Employee Participation in Disaster Preparedness

Jackson Health System’s three hospital campuses currently conduct and will continue to conduct at least 2 exercises per year

- One of which is designed to (1) include an influx of patients and (2) escalate to a point where the hospital must function without assistance from the outside community
- JHS will also participate in at least one communitywide exercise annually, to test both its Emergency Operations Plan (EOP) and its coordination of activities with external agencies and partners in the management of a large-scale disaster (Full-Scale exercise)

Participation in Corrective Action

- JHS utilizes the Homeland Security Exercise and Evaluation Program (HSEEP) guidelines for the documentation of all exercises and actual incidents
- The HSEEP After Action Report and Improvement Planning Tool (AARIPT) is the primary document for evaluation, utilizing a multidisciplinary approach to the evaluation of exercises and actual incidents, including the evaluation of performance in the areas of:
  1. Communications
  2. Resource Mobilization and Asset Allocation
  3. Safety and Security
  4. Staff Roles and Responsibilities
  5. Utilities
  6. Patient Clinical and Support Care Activities

Integration of Corrective Action

- The AARIPT also includes an improvement plan matrix for the identification of deficiencies and opportunities for improvement
- Findings outlined in the AARIPT are communicated to the identified responsible persons and departments, as well as to the larger Emergency Management Planning Committee and/or Environment of Care Committee
Types of Communications (including situational awareness & notification of employees) During a Disaster

- Phones: cell, land-based, satellite
- Communicator Mass Rapid Notification System
- 800 MHz/MED Radios
- Pagers/Disaster Pagers
- Overhead paging systems
- Dispatcher
- Email
- JHS Intranet Portal
- HAM Radio
- Runners
- Department/Hospital Meetings/Departments’ Call Lists

Principles of Triage & Allocation of Scarce Resources During Pandemic Influenza

- Do the greatest good for greatest number of people
- Treat as many as possible who have a chance of survival
- Use resources wisely
- Implement latest version of Florida Department of Health Scarce Resources Guidelines (see link below for the latest draft version dated April 5, 2011), after consultation with clinical/administrative/ethics Leadership

Levels of Triage for Mass Casualty Incidents

Patients are color coded for treatment:

- **Red**: Immediate/Life Threatening/Critical
  - These patients will need immediate care
- **Yellow**: Delayed/Relatively Stable
  - These patients’ treatment can be delayed until “Red” patients are addressed
- **Green**: Minor/Walking Wounded
  - These patients’ treatment can be delayed until “red” and “Yellow” patients are addressed
- **Black**: Deceased/Expectant
  - These patients are either expired or so severely ill/injured, that devoting resources to them will compromise the treatment of “Red” patients

Mass Casualty Incidents

Jackson Main Campus:

- Triage area moved to “Portico” area outside main ED
  - “Red” (adult & pediatric trauma patients) - Managed in Trauma Center
  - “Red” (adult & pediatric non-trauma patients) – Managed in Adult & Pediatric Emergency Department
  - “Yellow” (adult patients) - Managed in the Emergency Department
  - “Green” (adult patients) - Managed in the ACC
  - “Yellow” & “Green” (pediatric patients) - Managed in Pediatric Emergency Department

Jackson North & Jackson South:

- Red/Yellow/Green adult & pediatric patients - Managed in the Emergency Department

Hospital Surge Capacity Planning Benchmarks

- Surge Capacity: amount of extra patients to be accommodated. Equals to 20% above hospital bed capacity, as follows:
  - 20% of these extra patients will be “Red” or Critically Ill or injured
  - 30% of these extra patients will be “Yellow” or moderately ill or injured
  - 50% of these extra patients will be “Green” or mildly ill or injured (so called “walking wounded”)
As a general rule “Chemically” contaminated patients are “Decontaminated” first before management of their specific injuries. For chemically contaminated patients requiring cardiopulmonary resuscitation, physician judgment is required as to the decontamination occurring before, after or simultaneously with resuscitation. Poison Information Center (1-800-222-1212 or 305-585-8417) can be consulted if time permits.

As a general rule “Life and Limb Threatening Injuries” in patients contaminated with “Radiological/Nuclear Material” are managed first and then “Decontamination” is provided.

**Personal Protective Equipment**

- Gloves
- Gowns
- Masks
- Face Shield/Goggles
- Surgical/procedure mask
- Fit tested N95 respirator
- PAPR (training required)
- Hoods
- Boots
- Leg Coverings

**Natural Disasters**

- Hurricanes
- Tornadoes
- Floods
- Earthquakes
- Fire
- Pandemic/Epidemic
Review the following available via the intranet:

- Emergency Operations Plan
- Hurricane Response Plan
- Employee Emergency Preparedness (EAP) Toolkit
- MCI Protocol

**Biological Threat Agents**

- Biological agents may be:
  - Bacteria
  - Viruses
  - Toxins
- They are naturally occurring and/or can be bioengineered as Weapons of Mass Destruction

**CDC “Category A” Agents**

Easily disseminated and/or potential of public health impact, public panic, or social disruption:

- Anthrax (Bacillus anthracis)
- Botulism (Clostridium botulinum toxin)
- Plague (Yersinia pestis)
- Smallpox (Variola major)
- Tularemia (Francisella tularensis)
- Viral Hemorrhagic Fevers (Filoviruses [e.g., Ebola, Marburg] and Arenaviruses [e.g., Lassa, Machupo])
## Infection Control Precautions

<table>
<thead>
<tr>
<th>Precautions</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard Precautions</strong></td>
<td>Used for all care for patients with biological and/or infectious scenarios</td>
</tr>
<tr>
<td></td>
<td>• Hand hygiene, gloves, gown, mask, eye protection and/or face shield whenever direct contact or a splash with an infectious agent is anticipated</td>
</tr>
<tr>
<td></td>
<td>• Hand hygiene after direct contact or after glove removal is required</td>
</tr>
<tr>
<td><strong>Contact Precautions</strong> (in addition to Standard Precautions)</td>
<td>Protection from microorganisms transmitted by direct or indirect contact &amp; from radioactive contamination</td>
</tr>
<tr>
<td></td>
<td>• Hand hygiene, gloves and gown upon room entry</td>
</tr>
<tr>
<td></td>
<td>• Hand hygiene after direct contact or after glove removal is required</td>
</tr>
<tr>
<td></td>
<td>• Private room for patient</td>
</tr>
<tr>
<td><strong>Droplet Precautions</strong> (in addition to Standard Precautions)</td>
<td>Protection from droplets from coughing or sneezing</td>
</tr>
<tr>
<td></td>
<td>• Surgical/procedure mask when within 3 feet of patient</td>
</tr>
<tr>
<td></td>
<td>• Private room for patient</td>
</tr>
<tr>
<td><strong>Airborne Precautions</strong> (in addition to Standard Precautions)</td>
<td>Protection from tiny droplets that remain suspended in the air for prolonged periods of time</td>
</tr>
<tr>
<td></td>
<td>• Respiratory protection with fit tested N 95 respirator or PAPR</td>
</tr>
<tr>
<td></td>
<td>• Airborne Infection Isolation Room for patient</td>
</tr>
</tbody>
</table>

### Bacteria: Anthrax

- **Cutaneous Standard & Contact Precautions**
- **Gastrointestinal Standard Precautions**
- **Inhalational Standard Precautions**
## HOSPITAL DISASTER PREPAREDNESS MID-LEVEL TRAINING

### Anthrax

<table>
<thead>
<tr>
<th>Incubation Period</th>
<th>Usually 1 – 7 days (range 1 – &gt;30 days)</th>
</tr>
</thead>
</table>
| Signs & Symptoms    | Cutaneous Anthrax: Painless, swollen area covered by black eschar  
  Inhalational Anthrax: chest pain, fever, malaise, cough and shortness of breath. Widened mediastinum on Chest X-ray |
| Infection Control   | Standard Precautions. Add Contact precautions for “Cutaneous Anthrax” |
| Treatment and Prophylaxis | Appropriate antibiotic(s) for ill and significantly exposed persons. Check CDC guidelines for Vaccination for Prophylaxis |

### Smallpox

<table>
<thead>
<tr>
<th>What is it?</th>
<th>Infection caused by the variola virus. Any case must be considered to result from an act of terrorism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incubation Period</td>
<td>7-17 days (may be less with weaponized form)</td>
</tr>
<tr>
<td>Signs/Symptoms</td>
<td>Fever, rigors, vomiting, headache, skin macules/papules/pustules (all in same stage of development and evolution)</td>
</tr>
<tr>
<td>Effects</td>
<td>May result in multi-organ system failure, vascular damage</td>
</tr>
<tr>
<td>Treatment and Prevention</td>
<td>Supportive therapy (Experimental antiviral drug therapy?), Vaccination</td>
</tr>
<tr>
<td>Infection Control</td>
<td></td>
</tr>
</tbody>
</table>
  - Airborne Infection Isolation & Contact Precautions in CDC Type C Isolation Facility  
  - Vaccination of staff (if not already done) |
Smallpox – Differential Diagnosis

- Smallpox
- Deep, hard lesions
- Round and well circumcised
- Confluent or umblicated
- Monomorphic and synchronous lesions
- Centrifugal distribution (commencing on face)
- Palms and soles often affected
- Chickenpox
- Superficial
- Not well circumcised
- Rarely confluent or umblicated
- Lesions at all stages of development
- Centripetal distribution (commencing on trunk)
- Palms and soles spared

Viral Hemorrhagic Fevers (Please also see JEN Module: EVD: Ebola Education Module for JHS clinical Employees)

<table>
<thead>
<tr>
<th>What is it?</th>
<th>Various viral infections that cause damage to the vascular system and many other organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incubation Period</td>
<td>3 – 5 days (range of 3 – 21 days)</td>
</tr>
<tr>
<td>Signs/Symptoms</td>
<td>Fever, confusion, vomiting, diarrhea and mottled/blotchy skin. Internal, cutaneous and gastrointestinal bleeding</td>
</tr>
<tr>
<td>Treatment</td>
<td>Supportive. Check CDC guidelines for latest information.</td>
</tr>
<tr>
<td>Infection Control</td>
<td>Use hospital approved PPE and Infection Control protocols for Ebola</td>
</tr>
<tr>
<td>Types of most concern</td>
<td>Lassa, Ebola and Marburg virus infections (high expected mortality rates)</td>
</tr>
</tbody>
</table>
### Botulism

<table>
<thead>
<tr>
<th>What is it?</th>
<th>Disease caused by a toxin that is produced by a ubiquitous bacteria, <em>Clostridia botulinum</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Incubation Period</td>
<td>24 - 72 hours for either ingestion or inhalation</td>
</tr>
<tr>
<td>Signs/Symptoms</td>
<td>Weakness, malaise, dizziness, difficulty swallowing, blurred vision</td>
</tr>
<tr>
<td>Effects</td>
<td>Descending paralysis beginning with cranial nerve dysfunction</td>
</tr>
<tr>
<td>Treatment</td>
<td>Supportive therapy, Mechanical Ventilation as needed and antitoxin</td>
</tr>
<tr>
<td>Infection Control</td>
<td>Standard Precautions</td>
</tr>
</tbody>
</table>

### Chemical Agents

- Industrial
- Chemicals
- Choking Agents
- Blood Agents
- Warfare Agents
- Blister Agents
- Nerve Agents

County Health Department, County Emergency Operations Center, Law Enforcement, and/or Poison Information Centers will help identify chemical agent.
### Industrial Chemicals

<table>
<thead>
<tr>
<th></th>
<th>Choking Agents</th>
<th>Blood Agents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Examples</strong></td>
<td>Chlorine, Phosgene</td>
<td>Hydrogen Cyanide</td>
</tr>
<tr>
<td><strong>Characteristics</strong></td>
<td>Bleach, mown hay smell, greenish / yellowish gas</td>
<td>Bitter almonds odor, colorless gas</td>
</tr>
<tr>
<td><strong>Symptoms</strong></td>
<td>Coughing, choking, tightness in chest</td>
<td>Gasping for air, red eyes, lips, skin</td>
</tr>
<tr>
<td><strong>Effects</strong></td>
<td>Pulmonary edema, inflamed body tissues</td>
<td>Asphyxiation</td>
</tr>
<tr>
<td><strong>Decontamination</strong></td>
<td>Aeration, Soap &amp; Water</td>
<td>Aeration, Soap &amp; Water</td>
</tr>
<tr>
<td><strong>Treatment</strong></td>
<td>Supportive care</td>
<td>Cyanide Kit / Hydroxocobalamin</td>
</tr>
</tbody>
</table>

### Blister Agent

<table>
<thead>
<tr>
<th>What is it?</th>
<th>Mustard agent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Characteristics</strong></td>
<td>Smells like garlic or mustard; oily liquid that may be clear or brownish in color</td>
</tr>
<tr>
<td><strong>Incubation Period</strong></td>
<td>4 – 24 hours</td>
</tr>
<tr>
<td><strong>Signs/Symptoms</strong></td>
<td>Skin, eye, throat irritation; red skin with blister formation; burning/tearing eyes; coughing</td>
</tr>
<tr>
<td><strong>Effects</strong></td>
<td>Systemically toxic similar to radiation</td>
</tr>
<tr>
<td><strong>Treatment</strong></td>
<td>Supportive care</td>
</tr>
<tr>
<td><strong>Decontamination</strong></td>
<td>Pinch or blot the agent off of the skin; DO NOT wipe or rub</td>
</tr>
</tbody>
</table>
Nerve Agent

<table>
<thead>
<tr>
<th>What is it?</th>
<th>Organophosphates that disrupt the mechanism by which nerves transfer messages to organs. The disruption is caused by blocking acetylcholinesterase, an enzyme that normally relaxes the activity of acetylcholine which is a neurotransmitter.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examples</td>
<td>Sarin (GB), Tabun (GA), Sonman (GD), Vesicants (V-Agents), G-Agents</td>
</tr>
<tr>
<td>Characteristics</td>
<td>Fruity or sulfur odor; normally liquid; may be clear or brownish in color; can vaporize</td>
</tr>
<tr>
<td>Signs/Symptoms</td>
<td>Pinpoint pupils, salivation, twitching, convulsions, difficulty breathing, diarrhea, vomiting</td>
</tr>
<tr>
<td>Effect</td>
<td>Constant muscle stimulation / twitching</td>
</tr>
<tr>
<td>Treatment</td>
<td>Aeration, Decontamination, Antidotes needed immediately: atropine - 2-PAM Cl (MARK 1 Kits), Diazepam</td>
</tr>
<tr>
<td>Special Note</td>
<td>Similar to heroin overdose but heroin overdose does not cause excessive salivation</td>
</tr>
</tbody>
</table>

Radiation Principles

- Radiation cannot be detected by the human senses. A radiological survey conducted with specialized equipment is the only way to confirm the presence of radiation.
- If a terrorist event involves the use of radioactive material, both patient exposure and contamination must be assessed.
- The time, distance, and shielding are very important radiation protection principles.

Radiation Exposure

Radiation exposure occurs when a person is near a radiation source. People exposed to a radiation source can suffer radiation illness if their dose is high enough, but they do not become radioactive.

For example, an x-ray machine is a source of radiation exposure but a person does not become radioactive or pose a risk to others following a chest x-ray.
Radiation Contamination and “Decontamination”

- External radiation contamination occurs when loose particles of radioactive material are deposited on surfaces, skin, or clothing
- Internal radiation contamination occurs when radioactive particles are inhaled, ingested, or lodged in an open wound
- Contaminated patients should be decontaminated as soon as possible without delaying critical care
- Patients who are exposed to radiation but are not contaminated with radioactive material, do not need to be decontaminated

Chemical/Radiological Decontamination

- Decontamination Team available at JMH, JNMC, and JSCH
- Notify Radiation Control Center for any suspected radiation/nuclear emergencies at 305-243-6360 (UM)
- Notify Poison Control Center for chemical, radiological and nuclear emergencies at 1-800-222-1222 or 305-585-8417
  - Decon Response Team available for chemical decontamination and can be accessed by calling our Poison Information Center at 305-585-8417
  - Decon Response Team to use appropriate PPE for chemically contaminated patients/staff
  - Decon Response Team can also assist in decontamination of Radiological/Nuclear contaminated patients after consultation with our Radiation Control Center leadership
- All contaminated patients are directed to decontamination area:
  - JMH: Outside Ryder Trauma Entrance Bay & Free Standing Decontamination area behind Trauma Center
  - JNMC: Outside Labor and Delivery Entrance Bay
  - JSCH: Outside Old Emergency Room Entrance
- Protect self, from Radiological/Nuclear contamination by standard precautions, including gowns, gloves, cap, mask, and shoe covers, digital dosimeter or film badge. Refer to MSDS on unit
- All patient items to be placed in bag and labeled appropriately
- Offer reassurance to patients
- Refer to ECC Policy #114B for specific role information (triage nurse, treatment nurse, etc.)
Symptoms of Radiation Exposure

- Nausea, vomiting, diarrhea, changes in mental status, skin injury

Radiation Protection
- Time
- Distance
- Shielding

Behavioral Effects of Disaster

- Irritability/Anger
- Sadness
- Fatigue
- Loss of appetite
- Headache or nausea
- Inability to sleep
- Nightmares
- Hyperactivity
- Lack of concentration
- Mental confusion, slowness of thinking

How do you deal with these effects?

- Family Support Centers for patients/families during disasters
  - JMH: DTC 259
  - JNMC: Auditorium 2nd Floor
- Social Services and Pastoral Care for patients/families
- Work-Life Services for employees
- Mental Health Hospital
  - Mental Health Emergency Department
  - Inpatient Mental Health Consultation Services
  - Mental Health Support to Trauma, ECC, and ACC

TIPS:

- Talk about it
- Remove yourself from immediate area and rest
- Pay attention to your health
- Stress reduction activities
- Prepare for possible future emergencies
- If needed, get professional help
HOSPITAL DISASTER PREPAREDNESS MID-LEVEL TRAINING

Hazardous Material Spill

- Chemotherapy/Mercury spills:
  - Use specific spill kits by trained staff
- Minor Spills:
  - Small spills that can be cleaned by trained personnel using PPE
  - Handled locally by the staff involved
- Major Spills:
  - Larger spills beyond training and PPE of hospital staff
  - Immediate danger to physical or health effects
  - Refer to: JHS Policy #263 for more information

Patient Evacuation and Relocation

- Refer to Hospital Policy # 270 (Environment of Care Section of Hospital Policies) for “Patient Evacuation and Relocation”
- Evacuations will be handled in cooperation with the local fire department and county EOC
- JHS will utilize horizontal, vertical, and out-of-building evacuation procedures with appropriate equipment, as needed
  - Evacusled, Supersled, Medsled and Evacuation Chairs
- Each area has a department/unit-specific horizontal and vertical evacuation plan
- Time permitted, a fall risk assessment and fall prevention will be conducted prior to an evacuation, as per JHS policy 400.095

Fall Prevention Measures

- During hospital evacuation or reduction in lighting, if time permits, nursing staff will actively institute Fall Prevention measures for staff and patients

Special Considerations

- As needed, JHS works with county agencies to help place special needs populations:
  - Pediatrics
  - Geriatrics
  - Chronically disabled
  - Pregnant patients
  - Mentally challenged
- In case of cooling system failure, the engineering department will help arrange for back up systems
Key System Resources Locations

- Jackson Memorial Hospital (JMH):
  - Ryder Trauma, T113
  - Emergency Department, closet adjacent to 1095T
  - Emergency Department Alcove
    - Wheelchairs
    - Stretcher
  - Hospital Command Center at West Wing, WW124
  - Emergency Department, ET1044
  - Decontamination equipment/supplies trailer located inside our free standing “Decon” area behind the Ryder Trauma Center
  - Poison Information Center
  - Radiation Safety Department
  - Logistic Emergency Supply Carts
  - Pharmacy Emergency Medication Supplies
  - Hospital ChemPak
  - JMH Hospital Incident Command Center

- Jackson North Medical Center (JNMC)
  - Emergency Management Equipment

- Trailer on NE corner of building

- Old Bed Storage Room
  - Medical Supply carts located in Central Supply

- Jackson South Community Hospital (JSCH)
  - Decontamination Room 1, 2, 3, near the old OR across from Bio Med
  - Decontamination Trailer next to Oxygen tank North of the Emergency Room
HOSPITAL DISASTER PREPAREDNESS MID-LEVEL TRAINING

Key System Resources (informational)

- JHS Disaster-related Policies
- Information on JHS Intranet Portal
- Just in Time Training
- Just in Time scenario-specific informational pamphlets
- Center for Disease Control, http://cdc.gov
- American College of Surgeons Disaster Management and Emergency Preparedness Program www.facs.org/trauma/disaster
- American Association of Poison Control Centers www.aapcc.org

Revised 2016
MEETING THE NEEDS OF PATIENT AND FAMILY

Objective

• To provide knowledge enhancement in the integration of effective communication, cultural competence, and patient-family-centered care into the care delivery system at the end of life in compliance with regulatory agencies and Florida statutes

Definitions

• “Death: is the permanent cessation of functioning of the organism as a whole” (Bernat, Culver & Gert, 1981)
  – 2,515,458 US deaths in 2010 (CDC, 2014)
  – 57 million global deaths in 2008 (WHO, 2014)
• End-of-life care: provides physical, mental, and emotional comfort, as well as social support, to people who are living with and dying of advanced illness
• Advance directives: legal documents that allow the patient to make his wishes known about end-of-life care ahead of time
• Surrogate: any competent adult expressly designated by a patient to make healthcare decisions on behalf of the patient upon the patient’s incapacity
• Proxy: a competent adult authorized by court to make healthcare decisions for an individual if that individual has not expressly designated a surrogate
• “Palliative care: an approach that improves the quality of life of patients and their families facing the problems of life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual”-WHO(2009)

Legislative Findings & Intent (2012 Florida Statutes)

• Every competent adult has the fundamental right of self-determination regarding decisions pertaining to his or her own health, including the right to choose or refuse medical treatment
• All health care organizations should establish a procedure to allow a person to plan for incapacity by executing a document or orally designating another person to direct the course of his or her medical treatment upon his or her incapacity to ensure that such right is not lost or diminished by virtue of later physical or mental incapacity
END-OF-LIFE CARE

Legislative Findings & Intent (2012 Florida Statutes)

- The administration of life-prolonging medical procedures may result in only a precarious and burdensome existence
- The need for all health care professionals to rapidly increase their understanding of end-of-life and palliative care
- It encourages educational institutions to implement curricula to train healthcare professionals about end-of-life care, including pain management and palliative care

What do we ask patients at point of entry?

- Do you have an Advance Directive?
  - If a patient has lost their capacity to make healthcare decisions whether temporary or permanent, a proxy or healthcare surrogate is determined or activated

What form do we use to activate healthcare surrogate or proxy?

HEALTH CARE SURROGATE / PROXY PHYSICIANS STATEMENT

I am an attending physician for ________________________________
(Patient)

In my professional opinion, this patient is presently unable to make informed health care decisions and he/she would benefit from the activation of his/her Health Care Surrogate or the appointment of a Health Care Proxy.

Physician ________________________________ Date ________________

Physician ID# ________________________________

I am an attending physician for ________________________________
(Patient)

In my professional opinion, this patient is presently able to make informed health care decisions.

Physician ________________________________ Date ________________

Physician ID# ________________________________

Jackson 212
Health Care Surrogate / Proxy PHYSICIAN’S STATEMENT
C-639B Rev. 6/2009
END-OF-LIFE CARE

Why Palliative Care?

Offers an opportunity to discuss and plan for end-of-life care

Assures that:

- physical and mental suffering will be carefully attended to
- preferences for withholding and withdrawing life-sustaining interventions will be honored
- personal goals of the dying person will be addressed
- dignity of the dying person will be a priority
- health care providers will not abandon the dying person
- burden to family and others will be addressed
- advance directives for care will be respected regardless of the location of care
- organizational mechanisms are in place to evaluate the availability and quality of end-of-life, palliative, and hospice care services, including the evaluation of administrative and regulatory barriers
- necessary health care services will be provided and that relevant reimbursement policies are available
- goals expressed will be accomplished in a culturally appropriate manner

What are the related JHS policies?

End of Life Care (JHS Policy 400.058)

- It is the policy of JHS to assist those patients who are facing end-of-life conditions to proceed through the death process with comfort, dignity and respect.
- All efforts will be made to identify, address and positively respond to the patient’s needs, related to all primary and secondary diagnoses and symptoms, and those of their families/significant others as they relate to psychological, social, emotional and spiritual issues.

Withholding, Withdrawing & Forgoing Life Sustaining Treatment

(JHS Policy 400.015)

- It is the policy of the Public Health Trust (PHT) to create an environment in which dying patients can choose a peaceful, comfortable and dignified death
- To respect the rights of all patients to make decisions concerning their care, and to involve patients and their families or authorized representatives, as appropriate, in treatment and care decisions
- Every competent patient has the right to determine which treatment options he or she will accept or refuse, including life-sustaining procedures and treatment
Organizational Goal

- To improve effective communication, cultural competence, and patient-family-centered care into the care delivery system at the end of life.

What can we do to address patient communication needs during end-of-life care?

- Check patient’s medical record for preferred language, any sensory or communication impairments, or any identified communication needs.
- Arrange for language services if patient’s and surrogate’s language is not English.
- Appropriate auxiliary aids available.
- Provide alternative and/or additional communication resources for patients or surrogate’s with communication impairments.

What can we do to monitor changes in patient’s communication status during end-of-life care?

- Determine any new or more severe communication impairments and contact the Speech Services department
- Anticipate the communication needs of patient who is expected to develop communication impairments from scheduled treatments
- Note any changes in medical record and communicate to staff

How can we involve the patient’s surrogate decision-maker and family in end-of-life care?

- Remind the patient of his or her right to designate a surrogate decision maker.
- Ask the patient of any family members/ friends he or she prefers to participate in end-of-life care.
- Consider patient’s cultural beliefs in decision making.
- Educate the patient and surrogate about the dying process.
- Allow family to participate in end-of-life care.
- Adapt existing hospital procedures to better involve the surrogate and family in care decisions.
- Provide communication assistance to surrogate and family members as needed.
- Encourage the surrogate and family opportunities to ask questions.
END-OF-LIFE CARE

How can we address patient mobility needs during end-of-life care?

• Assess if patient needs mobility assistance.
• Keep call light within patient’s reach.
• Observe fall precautions (Remember: Fall prevention protocol policy & Morse Scale).
• Document any need for assistance in MIRACLE-EHR Patient Assessment and communicate to the staff.

How can we identify patient cultural, religious, or spiritual beliefs and practices at the end of life?

• Ask if there are any cultural, religious, or spiritual beliefs or practices that may ease his or her care at the end of life
• Consult JHS Pastoral Care as appropriate once end of life stage is identified
• Make sure that staff are aware of any garments, religious items, or rituals important to the patient during end-of-life care
• If needed, provide an area where the patient and family can pray
• Document any end-of-life cultural, religious, or spiritual needs on the medical record and communicate to the staff

How can we ensure that the patient has access to his or her chosen support system?

• Explain the purpose of the patient’s support system, including limitations
• Allow patient access to the support person at all times
• Ask the patient the degree of involvement of the support person
• Make the staff aware of the chosen support person
• Document the information in the medical record
References


Revised 2016
RESTRAINTS EDUCATION PROGRAM

Program Goals

• Prevent, reduce and eliminate use of restraints
• Initiate restraint only when other less restrictive measures have been found to be ineffective
• Discontinue restraint as early as possible
• Protect the patient’s rights, dignity, and well-being
• Inform/educate patient, family/significant other, and/or authorized representative
• Identify causes of aggression/threatening behaviors in patients
• Recognize how staff behaviors can affect patient’s behavior

Definitions

• Restraint:
  – The direct application of physical force or chemical control to a patient, without the patient’s permission that restricts freedom of movement. The force may be human, mechanical, chemical, or a combination of all
• Physical Restraint:
  – Any manual method that restricts the patient’s freedom of movement or normal access to his/her body. It can be material or equipment, attached to or adjacent to the patient’s body and that the patient cannot easily remove
• Chemical Restraint:
  – A drug or medication used to manage the patient’s behavior or restrict the patient’s freedom of movement that is not a standard treatment or dosage administered for the patient’s condition
• Seclusion:
  – The involuntary confinement of a person alone in a room or area where patient is physically prevented from leaving. Seclusion may only be used for management of violent or self-destructive behavior

Important Information About Restraints

• Only personnel trained and with demonstrated competency in restraint procedure can apply restraints
• Restraints will only be used when necessary, following assessment of patient and use of alternative interventions
• In the absence of patient’s authorized practitioner, an RN can initiate restraint use based on assessment of patient. Order is to be obtained during emergency application or immediately after restraint is applied. Notify authorized practitioner immediately after application
• Notify family/significant other/authorized representative of restraint episode as soon as possible, as appropriate
RESTRAINTS EDUCATION PROGRAM

Important Information About Restraints

- Orders for medical surgical restraints are limited to one calendar day before renewal is required. An RN is to obtain order immediately. If patient is in danger of interrupting medical care or harming himself/herself or others, a competent RN (received training) may initiate restraint.

- Orders for restraint must include clinical justification, type of restraint, and time limited (one calendar day for medical-surgical restraints).

- All monitoring/observations/assessments are documented in the electronic health record or Restraint Flowsheet during downtime.

- There are no “trial releases”…once restraint is discontinued a new order is required.

- Temporary, directly supervised release for purposes of caring for patient’s needs is not considered a discontinuation of restraint/ seclusion as long as patient remains under direct staff supervision.

- Evaluation of the plan of care is made upon initiation of any restraint and after changes are made.

- RN trained in procedure may discontinue restraint whenever condition of patient indicates it is no longer needed.

(4) SIDE-RAILS: RESTRAINT OR NOT?

NO (no order needed)

- Four or full side rails to prevent the patient from rolling out of bed (safety)
- Patient actively seizing or having involuntary movements
- Seizure Precautions
- Post-op patient recovering from anesthesia
- Patient on a gurney
- 3 side rails up where patient may freely exit

YES

- Raising all four side rails to prevent the patient from voluntarily getting out of bed- not following redirection
Underlying Causes of Agitation, Anxiety or Threatening Behaviors in Patients

- Physical
  - Pain
  - Unmet needs like hunger, thirst, temperature, elimination
- Psychological
  - Change in routine
  - Increased stimulation
  - Lack of sleep
  - Unfamiliarity
  - Fear
  - Loneliness
RESTRAINTS EDUCATION PROGRAM

• Medical
  – Drug/ETOH Intoxication
  – Electrolyte imbalance
  – Specific disease states
    • (Medical & Psychiatric)
  – Hypoglycemia
  – Delirium
  – Traumatic Brain Injury
• Cognitive
  – Alzheimer’s
  – Dementia(s)
  – Psychosis

Alternatives/Least Restrictive Interventions
• Decrease stimuli
• Family involvement
• Redirection/reorient
• Distraction/diversional activities
• Relaxation/exercise
• Offer PRN medication
• Meeting physical/comfort needs
• Relocating room closer to nurses’ station
• Raising 2 siderails
• Camouflaging equipment as appropriate
• Explain procedures
• Encourage verbalization of feelings
• Prepare patient in advance
• Allow questions
• Offer choices
• De-escalation techniques
• Setting limits
Considerations During Restraints

- **Complications**
  - Suffocation
  - Physical Exhaustion
    - Cardiac arrest
    - Decrease oxygen perfusion
  - Respiratory Arrest
  - Fractures, sprains, etc.
  - Skin breakdown
  - Laceration, abrasions
  - Falls
  - Urinary Tract Infections
• **Interventions**
  – Monitor vital signs
  – Mental status
  – Respiratory assessment
  – Circulation checks
  – Range of motion
  – Skin precautions
  – Maintain hydration
  – Sedation scales as appropriate
  – Toilet/hygiene
  – Proper fit & selection of device
  – Assess need for continuation

**Restrains for Violent or Self-destructive Patients, (Including “Baker Act” Patients) In Non-Behavioral Health Settings**

• Trained personnel on restraint procedure can intervene under RN supervision and apply restraints in emergency situation in which patient is becoming increasingly combative, aggressive, or violent and may injure himself/herself or others, prior to obtaining a physician’s order

• Use of Alternatives/Least Restrictive Interventions

• Notification OF ATTENDING PHYSICIAN immediately

• Authorized practitioner will conduct and document a face-to-face assessment within 1 hour of initial restraint order including both a physical and behavioral assessment of patient’s condition warranting the restraint and must be time limited

• If restraints are removed prior to arrival of authorized practitioner, he/she will still evaluate patient’s condition within 1 hour

• Time limits of orders for restraint for violent or self-destructive behaviors are limited to:
  - 4 hours for patients ages 18 and older
  - 2 hours for children and adolescents ages 9 -17
  - 1 hour for children under age 9

• Patients will be monitored by qualified staff with documentation every **15 minutes**

• **Every hour an assessment will be completed by RN**

• Continuous monitoring is only required if patient is in **both restraints and seclusion**

• Based on RN’s assessment, restraint may be discontinued without obtaining a physician’s order

• If patient is removed from restraints after one hour face to face assessment, physician conducts in-person evaluation within 24 hours of original order.
Refer to

- Restraints for Violent or Self-Destructive Patients, including “Baker Act” Patients in Behavioral Health Settings refer to:
  - Behavioral Health Restraint Policy and Procedure # 208.2
  - Behavioral Health Seclusion Policy and Procedure # 208.3

Criteria for Release

- Clinical
  - Calm down
  - Follow direction
  - Comprehend need for treatment
  - Comprehend need to ask for assistance
  - Comprehend directions
  - Equipment/medical device(s) no longer needed or in use

- Behavioral
  - Calm down
  - Follow redirection
  - Refrain from self-harming behaviors
  - Refrain from harming others

Chemical Restraint Procedure

- Chemical restraint must be ordered by a physician as a one time order
- Use of force to physically hold a patient to administer medication against his/her wishes is considered a restraint and requires a physician’s order
- Ordering physician is responsible for conducting and documenting a face-to-face assessment within 1 hour of the chemical restraint order
- RN documents the effectiveness or side/adverse effects of intervention within first hour after administration
- Any untoward effects will be reported immediately to ordering physician
Common Medications Used for Chemical Restraint

- Haloperidol (Haldol®)
  - Watch for increased agitation
  - Watch for EPS (Extra Pyramidal Side Effects)
- Diazepam (Valium®)
- Lorazepam (Ativan®)
- Midazolam (Versed®)
  - Watch for respiratory depression

Psychological Considerations During and Post Restraints

- Complications
  - Feelings of humiliation
  - Resentment
  - Embarrassment
  - Resistance
  - Stress reaction
- Interventions
  - Maintain dignity, respect, privacy
  - Patient/family education
  - Re-establishing rapport
  - Listening

Notification of Risk Management In the Event of a Death While in Restraints

- Enter event report in Quantros for any patient who dies in restraints regardless of whether or not death is associated with restraint
- During business hours, immediately notify Risk Manager on call. All other hours immediately notify AIC
- Risk Management:
  - is required to report the death to CMS Regional Office no later than the next business day
  - maintains internal log for deaths that occur while patients in soft wrist restraints only, or within 24 hours after patient removed from such restraints
References

- Florida Administrative Code 65E-5.180. Right to quality treatment
- Florida Statutes 395.1041(6). Rights of persons being treated.
- Florida Statutes 395.003. Adherence to patient rights, standard of care and examination and placement procedures.

Revised 2016
SAFE HANDLING OF HAZARDOUS DRUGS

Learning Objectives

At the end of this session all JHS employees who work in areas that handle hazardous drugs will understand the safety practices associated with handling hazardous drugs and will be able to:

- Define what are hazardous drugs and their classifications
- Discuss use of the equipment and supplies used when handling, transporting, administering, and disposing of hazardous drugs
- Discuss how to properly manage hazardous drug spills
- Identify and discuss appropriate application and removal of the Personal Protective Equipment (PPE) for each classification of hazardous drugs
- Identify routes of exposure to hazardous drugs
- List hazardous communication identifiers
- Define the “High Risk Exposure Alert Period”
- Ensure safe handling practice when handling hazardous drugs
- Discuss how to manage an exposure to a hazardous drug, including reporting and medical surveillance

Definition of Hazardous Drugs

- Hazardous drugs are capable of causing harm to those individuals exposed
- They have at least one of the following characteristics:
  - Genotoxic — can change DNA structure
  - Carcinogenic — can cause cancer in animals and/or humans
  - Teratogenic - can cause reproductive toxicity in humans
  - Fertility Impairment — can cause birth defects or prevent reproduction for men and women with occupational exposure to hazardous drugs
  - Serious toxicity at low doses — danger has been shown in experimental animal models and treated patients
- Hazardous drugs can be classified as anti-neoplastic, cytotoxic, biologic, antiviral, immunosuppressive, antibiotic, and/or hormone
- They are hazardous regardless of whether they are administered intravenously, by mouth, or by topical administration

Classification Of Hazardous Drugs

- High Hazard Drugs
  - Drugs that are carcinogenic or mutagenic or cause organ toxicity at low doses
- Low Hazard Drugs
  - Drugs where there is limited evidence of toxicity, but the mechanism of action or drug class has the potential to cause toxicity
- Reproductive Hazard Drugs
  - Medications that have the potential to impair fertility
SAFE HANDLING OF HAZARDOUS DRUGS

Required Personal Protective Equipment

- High Hazard Drug Administration:
  - Gloves (double gloving recommended)
  - Gown approved for use with hazardous drugs
  - Goggles approved for use with hazardous drug administration (if there is a risk of a splash)
- Low Hazard Drug Administration:
  - Gloves (single gloving recommended)
- Reproductive Drug Administration:
  - Gloves (double gloving recommended)
  - Gown approved for use with hazardous drugs
  - NIOSH-approved respirator you have been fit-tested to use
  - Goggles approved for use with hazardous drugs administration (if there is risk of a splash)
- Refer to the JHS Hazardous Drug List in policy #400.034

Reproductive Definitions

- Reproductive Category Employees:
  - Women and men who are trying to conceive under the direction of a physician; women who are pregnant, and women who are breastfeeding
- Reproductive Hazard Drug:
  - A medication that has specific warnings for women and/or men who are trying to conceive under the direction of a physician, women who are pregnant, and women who are breastfeeding

Safe Handling Practices

- Wash hands for at least 20 seconds with soap and water prior to and after handling, preparing, administering, transporting, disposing of, or managing spills of hazardous drugs or waste
- Wash hands before and after working in any area where hazardous drugs are handled, prepared, administered, or disposed
- Do not eat, drink, chew gum, apply cosmetics or store food items in areas where hazardous drugs are stored, handled, prepared, administered, or disposed

Common Areas that Handle High Hazardous Drugs

- Hazardous drug administration is not limited to these areas:
  - Jackson Memorial Hospital:
    - Chemotherapy Pharmacy
    - Adult Medical/Surgical Hematology/Oncology Unit
    - Pediatric Hematology/Oncology Unit
    - Women’s GYN/GYO
    - Pediatric Blood and Marrow Transplant Unit
    - Outpatient Infusion Center
  - Jackson North Medical Center
  - Jackson South Community Hospital

Routes of Exposure of Hazardous Drugs

- Inhalation of aerosols and drug particles
- Absorption through direct contact with skin, eyes or mucous membranes (examples: nostrils, mouth, lips, eyelids)
- Injection through needle sticks
- Ingestion by swallowing
Some Symptoms Associated with Acute Exposure to Hazardous Drugs

- Lightheaded
- Dizzy
- Abdominal pain
- Headache
- Burning / watery eyes
- Hair loss
- Nausea and vomiting
- Local skin or mucous membrane reaction
- Metallic taste in mouth
- Scratchy throat

Hazard Communication Identifiers

How do we communicate to others that a patient has received a hazardous drug so that we can all protect ourselves from a potential exposure?

- Intravenous drugs come from chemo pharmacy in a green bag with an orange label
- There are drug alerts in the medication Omnicell for hazard medications given by mouth or topically
- Door signage and an orange arm band for the patient is used during the “High Risk Exposure Alert” time frame
- Hazardous drugs are clearly identified and an orange label is noted on all IV drugs indicating that special handling is required
- Specific supplies and PPE are utilized when handling and disposing of these drugs
- All IV hazardous drugs will be placed in a green bag by pharmacy prior to delivery and will then be placed in a secondary zip-top bag for transport
- **REGULATED HAZARDOUS DRUGS**
  - Require special waste disposal per Hazardous Waste Regulations, due to their toxicity:
    - Cyclophosphamide (Cytoxan)
    - Daunorubicin
    - Mechlorethamine
    - Melphalan
SAFE HANDLING OF HAZARDOUS DRUGS

- Mitomycin
- Chlorambucil

- These agents are listed as hazardous waste per the Environmental Protection Agency (EPA), the Resource Conservation and Recovery Act (RCRA) and hazardous materials per Department of Transportation (DOT)
- A black dot placed on the green bag will indicate the need to dispose of these drugs into the black hazardous waste container

Hazard Communication:

Door Signage “High Risk Exposure Alert”

- Signage in three languages (English, Spanish & Creole) shall be placed on the patient’s door when administration of a hazardous drug is to begin and shall remain on the door until 48 hours after administration has completed
- In the event the patient is discharged before the 48 hour time period has expired, the signage will be left on the door until after the room is cleaned by Environmental Services
Hazard Communication: Orange Arm Band High Risk Exposure Alert Period

- Nursing staff will place an Orange Arm Band on all patients who are receiving hazardous drugs, including intravenous, oral and topical doses, beginning with the initial dose.
- Nursing staff will date and time the arm band as soon as the last dose of hazardous drugs is completed, to reflect 48 hours post hazardous drug completion.
- This 48 hour time frame is considered the High Risk Exposure Alert Period. Staff need to take special precautions when handling the patients’ body fluids, or any items that have come into contact with them, such as soiled linens.

Hazard Communication High Risk Exposure Alert Period

- If the patient is receiving hazardous drugs on a daily basis, and the drug(s) will not be discontinued, do not put a date on the orange arm band.
- The orange arm band will remain on the patient until the time of discharge.
- Staff need to take special precautions when handling the patients body fluids, or any items that have come into contact with them, such as soiled linens, throughout the hospitalization period.

Care of the Patient with an ORANGE ARM BAND

- During the time frame the patient is wearing an orange arm band:
  - Wear gloves approved for use with hazardous drugs if there is a risk of exposure to a patient’s body fluids
  - Wear a gown approved for use with hazardous drugs and/or goggles if there is a risk of contamination by direct contact or by splashing of a patient’s body fluids

Review: Personal Protective Equipment Approved for Use With Hazardous Drugs

- Gloves
- Gown
- Goggles/face shield
- Respirator
- Chemotherapy Emergency Spill Kit
- Closed system transfer device
SAFE HANDLING OF HAZARDOUS DRUGS

Gloves

- Use gloves approved by the hospital for use with hazardous drugs
- Double gloving is recommended when handling high risk hazardous drugs, or if you are at reproductive risk
- Single gloving is recommended when handling low risk hazardous drugs
- Change gloves immediately after each patient use
- Do not wear gloves for more than 30 minutes before changing
- Inspect gloves for visible defects and if there is a tear replace them immediately

Refer to policy #400.034 for appropriate order number of products

Gowns

- Impervious (Poly-Coated) Gowns provide the best protection when administering hazardous drugs
- The impervious gowns should be:
  - Disposable
  - Knitted or elastic cuffs
  - Lint free
  - Low-Permeable fabric
  - Solid front with back closure
  - Poly-Coated
- Gown is for single use only. Do not remove/re-use
- Exception: One gown can be used when administering medications for multiple patients in the Outpatient Infusion Center, however outer gloves must be changed after each individual patient contact
- Remove the gown when the task is completed

Safety Goggles Approved for use with Hazardous Drugs
SAFE HANDLING OF HAZARDOUS DRUGS

Use the N-95 respirator mask that you have been fit tested and certified to use

Eye, Facial and Respiratory Protection

- A plastic face shield or goggles are worn in situations where eyes, mouth, or nasal splashing may occur
- A NIOSH-approved respirator (N-95) is required if contact with aerosols or splashing is suspected
  - Note: Ensure that all impacted employees are fit-tested for the appropriate NIOSH-approved respirator
- During IV administration, if a Closed System Transfer Device is present (i.e. PhaSeal), the respirator and goggles are not required

Emergency Chemotherapy Spill Kit
SAFE HANDLING OF HAZARDOUS DRUGS

Closed System Transfer Devices

Exposure to Hazardous Drugs

- In the event of exposure to skin, remove contaminated clothes and immediately wash skin with soap and water for at least 20 seconds
- Do not use products containing alcohol such as Purell
- In the event of eye exposure, immediately flush the eyes with water for at least 15 minutes, using a Plumbed Eyewash Station
- If a Plumbed Eyewash Station is not immediately available, use the personal eyewash bottle station, and then go immediately to the nearest Plumbed Eyewash Station
- Flush eyes for at least 15 minutes

Plumbed Eyewash Station

- Flush exposed eyes for at least 15 minutes
- The Eyewash Station is tested weekly and water lines are cleared of potential sediment by turning on the water and letting it flow for at least 3 minutes
SAFE HANDLING OF HAZARDOUS DRUGS

Exposure to Hazardous Drugs

• Seek emergency treatment as indicated
• Report ALL exposures to the Occupational Health Services (OHS) immediately
  – Phone Number: 786-466-8381
  – Mon-Fri from 7:30 a.m.-4:00 p.m. Excluding holidays and weekends
  – Report to the E.R. after hours, on weekends and holidays
• Inform OHS by the next working day
• Document ALL actual and near miss exposures in Quantros

Oral/Topical Hazardous Drug Exposure

• When administering oral or topical hazardous drugs, wear gloves approved for use with hazardous drugs
• Discard all used PPE and medicine cups in the yellow bins
• Do not crush meds or open capsules
• If a hazardous drug is required to be altered or crushed, it must be performed by a Pharmacist or Pharmacy Tech inside the Containment Isolator Hood, to avoid aerosol exposure
• Exception: Nurses administering Prograf sublingually as per protocol must wear an N-95 respirator and single gloves approved for use with hazardous drugs

Hazardous Drug Disposal Bins

• Hazardous waste must be stored in containers that comply with the RCRA (Resource Conservation and Recovery Act) rules
• JHS provides two (2) types of hazardous drug disposal bins
• All used PPE and contaminated waste (dedicated IV bags and tubing, needles, sharps, medicine cups, etc.) must be disposed of in the appropriate hazardous drug disposal bin
• Always place sharps such as spinal needles that have been used to administer hazardous drugs in the yellow disposal bin, not in the red sharps disposal bin
• Disposal bins must be available in all areas where hazardous drugs are administered
• Keep the lid closed until ready to permanently seal for transport
SAFE HANDLING OF HAZARDOUS DRUGS

Hazardous Waste Disposal Bins - BLACK DISPOSAL BINS

- The EPA has identified several drugs as hazardous waste, due to their toxicity. They require disposal in a separate bin (black)
- An EPA Compliance Documentation log (weekly container inspection) is required for each bin
- A label must be placed on the bin listing the date of initial usage. Maximum accumulation is 180 days at Jackson Health System
- Hazardous drugs that require disposal in the black bins:
  - Chlorambucil
  - Cyclophosphamide (Cytoxan)
  - Daunomycin
  - Mechloretamine
  - Melphalan
  - Mitomycin

Contamination of Linen

- Linen that is directly contaminated with a hazardous drug will need to be placed in a leak-proof plastic bag, which can be located in the Chemotherapy Drug Spill Kit
- The leak-proof plastic bag is tied off, double bagged and then disposed of in appropriate yellow or black hazardous waste bin
- Linen that is contaminated with body fluids of a patient who is wearing an orange arm band is placed in a regular soiled linen bag, tied off and disposed of with regular soiled linen
- Surfaces contaminated with body fluids need to be cleaned using a hospital-approved disinfectant, while wearing appropriate PPE

Spills

- Hazardous drug spills are a priority
- Personnel properly trained to manage spills can manage hazardous drug spills which are of a controllable nature
- A large spill is identified as a spill that the unit/department lacks the resources to respond to or to manage. (example: an industrial spill of bleach)
- For uncontrollable spills call a “CODE ORANGE”
- Jackson Memorial Hospital call 85-6123
- Jackson North Medical Center call 5555
- Jackson South Community Hospital call 7777
SAFE HANDLING OF HAZARDOUS DRUGS

- The page operator will ask you the nature and amount of the spill
- Every attempt should be made to contain the spill and to keep it from spreading
- Refer to JHS Administrative Policy #400.034 Safe Handling of Hazardous Drugs

Spills Management

- Units administering hazardous drugs need to stock an appropriate number of Chemotherapy Drug Spill Kits to manage the maximum amount of a spill that could be encountered (1000 mL)
- In the event of a spill of a hazardous drug you should:
  - Notify the specific department personnel or supervisor in the area
  - Alert everyone in the immediate area to avoid direct contact with the spill, including patients, visitors, and staff
  - Use the Chemotherapy Drug Spill Kit(s) and the PPE included for containment of any hazardous drug.
  - Double gloving is required to clean a spill
  - Document any and all spills and near-misses of Hazardous Drugs in Quantros

Emergency Chemotherapy Spill Equipment Contents

- Impervious gown
- Two pair of LATEX gloves rated for chemotherapy use (Use nitrile gloves if you have a latex allergy)
- Protective eyewear
- Shoe coverings
- Spill towels (3)
- Poly bag (2) (Leak-proof plastic bag)
- Chemo absorbent pad (2)
- Chemotherapy Spill Sign
- Scoop with scraper (1)
- 1 Respirator N-95 (use the one you have been fit-tested for if available)
- Chemotherapy Spill Kit Box
SAFE HANDLING OF HAZARDOUS DRUGS

Safe Removal of PPE when handling or performing a spills procedure

- Sequence for removal of PPE: remove the booties, outer pair of gloves, goggles, respirator, gown and then remove the second set of gloves. Dispose of items in the appropriate disposal bin
- Booties: remove booties from back to front avoiding direct contact to potential hazardous drugs
- Gloves: (first pair) grasp outside edge near wrist, peel away from hand, turning glove inside-out and hold in opposite gloved hand
- Goggles: grasp straps with inner gloves or ungloved hands, lift away from face
- Respirator: lift the bottom elastic over your head first, then lift off the top elastic and pull respirator away from body
- Gown: unfasten ties, peel gown away from neck and shoulder, turn contaminated outside toward the inside, fold into a bundle, and discard
- Gloves: (second pair, remove as in step one)
- Place PPE into zip-top or leak-proof plastic bag and dispose of in the appropriate hazardous waste bin
- Wash hands with soap and water, for 20 seconds; do not use alcohol

Step by step process removing PPEs

- Discard booties into first poly bag
  Remove outer gloves and discard in first poly bag

- Gloves: (first pair) grasp outside edge near wrist, peel away from hand, turning glove inside-out and hold in opposite gloved hand and place in first poly bag and then seal the first bag

- Seal first poly bag and place into the second poly bag provided
SAFE HANDLING OF HAZARDOUS DRUGS

Remove goggles

- Goggles- grasp straps (if applicable) with inner gloves or ungloved hands, lift away from face and place in second poly bag
- Do not remove by grasping the front of the goggles as this may cause an exposure

Remove respirator and discard in poly bag

- Respirator - lift the bottom elastic over your head first, then lift off the top elastic and pull respirator away from body into second poly bag

Gown

- Unfasten ties, peel gown away from neck and shoulder, turn contaminated outside toward the inside, fold into a bundle, and discard into second poly bag

Seal second poly bag and place in appropriate waste container
SAFE HANDLING OF HAZARDOUS DRUGS

Remove inner gloves and wash hands

- Remove gloves after transporting poly bag and placing it into the chemo waste container. Place gloves into chemo waste container, close the lid and perform hand hygiene.

SPECIAL TRAINING FOR SAFE HANDLING PRACTICES

Transportation Services

- A Chemotherapy Drug Spill Kit is required to accompany all patients who are transported off the unit who are receiving a hazardous drug, or who have received one in the last 48 hours.
- These patients will be identified by an orange arm band that will be placed on them at the time of drug initiation.
- A physician’s order is required for all patient transports off the unit while actively receiving a hazardous IV drug.
- The transporter will check for the presence of the orange arm band. If one is present the transporter will ask for the chemotherapy drug spill kit, and a respirator that they have been fit tested to use.
- The chemotherapy drug spill kit will be used by escort services to treat any hazardous drug spills, or to protect them from contact with bodily fluid and soiled linens of a patient who is wearing an orange arm band.

Hazardous Drug Medical Surveillance

- Program through Occupational Health Services.
- Two Components:
  - Medical Surveillance questionnaire - MANDATORY in JEN
  - Laboratory testing and focused physical exam - VOLUNTARY.
- Surveillance is performed annually. Collection of, responses to questionnaire, results of testing, and exam findings are confidential.
- Refer to JHS Administrative Policy #400.034 Safe Handling of Hazardous Drugs.
SAFE HANDLING OF HAZARDOUS DRUGS

SUMMARY

• Hazardous drugs can cause serious health effects in health care workers who do not wear appropriate PPE
• Lifetime exposure to hazardous drugs and other chemicals can cause serious health effects
• Employees can be exposed to these drugs through direct contact, ingestion, breaks in the skin, or through inhalation
• Hazardous drugs are used in many areas of the hospital
• All employees of the JHS have a right to know the nature and effect of the hazardous drugs they are exposed to, how to protect themselves, and the appropriate personnel protective equipment that is required
• The appropriate PPE required for the safe handling of hazardous drugs are available through JHS Materials Management
• Hazardous spills are managed by employees trained in the procedure by using a Chemotherapy Drug Spill Kit
• Information on safe handling of hazardous drugs can be found in the JHS Administrative Policy #400.034
• You can protect yourself by wearing the appropriate PPE, and by following established rules, guidelines, and procedures

Contact Information

• Environmental Health and Safety Department
  305-585-2903 (85-2903)

“Safe Handling of Hazardous Drugs”

Approved by Nurses Cancer Committee and Safe Handling of Hazardous Drugs Committee
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