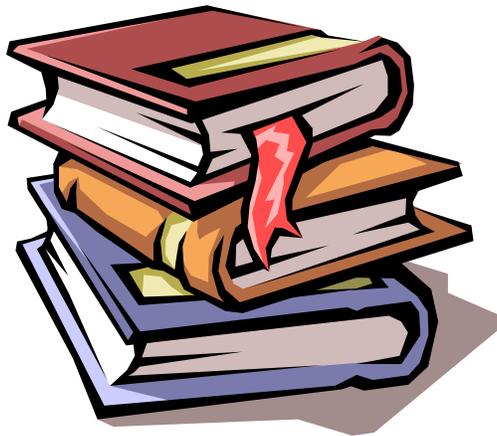


**Study Guide**  
**Annual Mandatory Education**  
**Central Georgia Health System**



**Learning Center**

*Revised June 7, 2011*

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# **Abuse and Neglect**

## **Objectives**

At the completion of this course, you will be able to:

- Define abuse, neglect, and exploitation;
- Identify and assess a victim of abuse and neglect;
- Recognize signs of abuse, including physical, emotional, sexual, financial, and domestic abuse
- Recognize signs of neglect; and
- Appropriately report abuse and neglect.

## ***Introduction***

Every patient and resident has the right to receive care in a safe setting. This includes the right to be free from all forms of abuse, neglect, or exploitation whether from staff, other patients or residents, visitors, or other persons. Abuse includes physical, emotional, and sexual abuse and is defined as the intentional maltreatment of an individual which may cause physical or psychological injury. Neglect is the absence of services or resources to meet basic needs. This includes withholding or inadequately providing food and hydration, clothing, medical care, and good hygiene. Exploitation occurs when a patient or resident is taken advantage of to benefit another person.

## **Identification and Assessment**

Victims of abuse or neglect present to your organization in a variety of ways. The person may be unable or unwilling to speak of the abuse, and it may not be obvious to the casual observer. Therefore staff must identify abuse or neglect, as well as its extent and circumstances, in order to provide appropriate care. Your organization has developed criteria for staff to use to identify and assess victims of abuse and neglect upon entry to the organization and on an ongoing basis. The patient or resident may also be referred to a community agency for assessment and care. The assessment must be performed in a manner that safeguards evidence and supports future legal actions, if necessary.

## **Signs of Abuse and Neglect**

The following signs of abuse and neglect do not necessarily signify abuse or neglect but are important to evaluate.

### ***Physical Abuse***

Physical abuse involves contact that is intended to cause pain, injury, or other physical suffering or harm and feelings of intimidation. Signs of physical abuse include injuries that are unexplained, questionable, or inconsistent with medical findings such as:

- Facial injuries
- Welts or bite marks
- Burns in the shape of an object
- Fractures or cuts in different stages of healing
- Suspicious patterns of bruising (parallel or circular bruises, bruises in the shape of human fingers or several bruises in different stages of healing)
- Pain during movement or movement that is restricted

The patient or resident may display aggressive and destructive behavior or victimize others. They may also be hurtful to animals and vulnerable individuals and/or take pleasure in being hurt.

### ***Emotional Abuse***

Emotional, or psychological, abuse involves verbal or non-verbal conduct that is intended to cause mental or emotional pain. An individual is emotionally abused when he/she is regularly threatened, belittled, harassed, humiliated, ignored, isolated, rejected, blamed or otherwise emotionally mistreated. Signs of emotional abuse include:

- Withdrawn, depressed, or agitated behavior
- Feelings of despair, hopelessness, and vulnerability
- Poor self-image and self-hatred
- Crying without reason
- Overly complaint behavior
- Sleep and/or eating disorders
- Suicidal gestures or attempts
- Loss of interest in activities, including social activities

### ***Sexual Abuse***

Sexual abuse, or molestation, involves undesired sexual acts that are forced upon one person by another. Signs of sexual abuse include:

- Trauma to the genital area or complaints of pain around the genitals
- Presence of venereal disease or infection
- Bruises, bleeding, swelling or other discharge from the penis, vagina or anus
- Difficulty in walking or sitting
- Torn, stained or bloody underclothing

The healthcare provider should be aware of any family member, friend, or other person that seems unusually interested in the patient or resident. The patient or resident might display unusual behavior around this person. They may also be seductive toward others, display compulsive sexual or promiscuous behavior, or participate in demeaning or hurtful sexual activities or habits.

### ***Financial Abuse***

Financial, or economic, abuse involves the use of a person's money, property, or assets without their approval. Signs of financial abuse include:

- Complete control of all finances, including money and credit cards, by another person
- Stealing of money or property
- Misuse of assets for personal gain

### ***Domestic Abuse***

Domestic abuse, or spousal abuse, occurs when one person in an intimate relationship or marriage tries to dominate and control the other person. Since domestic abuse may

include physical, emotional, sexual, and financial abuse, the signs provided earlier in this course may be displayed by the patient or resident.

### ***Neglect***

Neglect is the absence of services or resources that meets a person's basic needs. Signs of neglect include:

- Failure to thrive
- Malnutrition
- Inappropriate dress for weather
- Poor hygiene
- Unattended medical conditions

### **Reporting Abuse and Neglect**

Any physician, employee or staff member who has suspicion or knowledge to believe that abuse, assault, or neglect has occurred must report or ensure that a report is made to the appropriate agency in accordance with the Abuse, Neglect & Exploitation Referral & Reporting Grid and should begin the reporting process through Hospital Police ext. 1490.

A referral shall be made to a victim advocate. The victim advocate may also assist with the following:

- Referral to the Abuse Response Team at (pager 1037) or in units with a designated Social Worker.
- Provision of information to DFCS following the initial report by Hospital Police.
- Assisting the adult victim in developing a safety plan.
- Provide support and patient education regarding reporting, filing charges, orders of protection, and community resources

You must immediately report any event or occurrence that may involve or contribute to abuse, neglect, or exploitation so it can be investigated and appropriate actions taken. External agencies must also be notified. Follow your organization's policies and procedures regarding the reporting of abuse.

### **Conclusion**

Your organization is committed to protecting patients and residents from abuse, neglect, and exploitation. And it takes your help! If you have any questions about abuse and neglect, including reporting procedures, contact the appropriate personnel within your organization for guidance and assistance.

## Blood Administration

### Objectives

This educational module will demonstrate:

- How easily a mistake can occur
- The new Blood Product Pick-Up Request form
- The new Blood Administration Record
- What actually occurs during a transfusion reaction
- How following policy can prevent human error from turning into human tragedy

### Blood Administration

Blood Administration is a high risk procedure...no matter how infrequently or often you do it.

Giving a patient incompatible blood has a >50% chance of **killing** him.

- ABO transfusion reactions are system wide, rapid, and frequently fatal.
- Blood administration is a high risk procedure, whether you do it once a year or 10 times a day.

### Drawing Blood Samples

The process of Blood Administration begins with Phlebotomy but NO blood sample can be drawn without verification of a patient's armband. The phlebotomist or nurse draws the patient sample after verifying from the patient's armband:

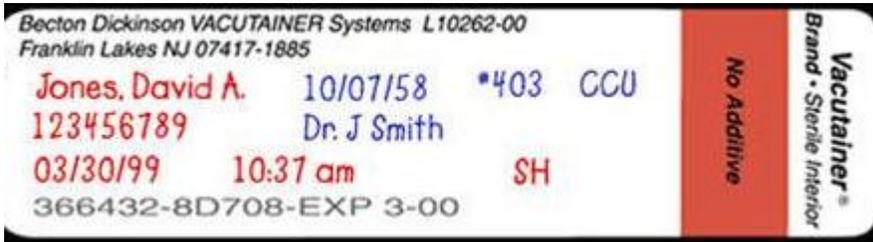
- Patient Name
- Medical Records #



*Example of a Patient's Armband*

The information that **MUST** be included on a Phlebotomy label is:

- Date Sample Drawn
- MR # (Unique Identification #)
- Patient name
- Time drawn
- Person drawing sample



Example of a Phlebotomy Label

Optional information is:

- DOB
- Unit
- Room #
- Doctor's Name

REMEMBER – Label the blood sample at the bedside

### Blood Pick-up Request Forms

Current policy states that:

- Nurses must verify the Blood Pick-up Request Form with the Physician Order prior to blood pick-up.

### **Steps to Complete a Blood Product Pick-up Request Form**

Example of a Blood Product Pick-up Request Form

1. The Medical Receptionist (or person entering the physician's blood order) completes the Blood Product Pick-up Request Form at the time the order to give blood is entered.
2. Medical Receptionist signs the Blood Product Pick-up Request Form and adds it to the patient chart **in front** of the physician's blood order.

3. The nurse verifies the Blood Product Pick-up Request Form with the physician's blood order, prior to going to the Blood Bank. The nurse then signs the Blood Product Pick-up Request Form.
4. The person picking up the blood signs the Blood Product Pick-up Request Form at the Blood Bank.

Incomplete or incorrect Blood Product Pick-up Request forms will not be accepted at the Blood Bank. Blood will not be released and the person who came for the blood will be asked to return to their unit to complete a new Blood Product Pick-up Request form.

## **Blood Administration Record**

*Example of a Blood Administration Record*

Requires TWO RN/LPN/MDs to complete:

- RN/LPN/MD #1 holds the blood
- RN/LPN/MD #2 holds the form

### ***Steps to Complete Blood Administration Record:***

PATIENT DATA	
PATIENT NAME: JONES, DAVID	
MR #: 123456789	CPI #: 1234567891234
LOCATION: CCU	ABO/Rh: B POSITIVE
SEX: M	BIRTHDATE: 02/06/42
ANTIBODY SCREEN:	PHYSICIAN: RUBIN, BILL E. MD

- 1) Verify data contained in the Patient Data section against the patient armband (RN/LPN/MD #1 reads it from the patient armband, RN/LPN/MD #2 verifies it on the sheet.)

**BLOOD PRODUCT**

UNIT ID#: 12X45678      COMPONENT: PC, ADSOL

VOLUME: 250      ATTRIBUTES: IRRADIATED

UNIT ABO/Rh: B POSITIVE

UNIT EXPIRATION: 04/28/99    2359

CROSSMATCH RESULT? COMPATIBLE

- 2) Verify data contained in the Blood Product Section against the blood tag and bag. ((RN/LPN/MD #1 reads it from the tag and bag, RN/LPN/MD #2 verifies it on the sheet.)

**A** Time: 1300    Vital signs prior to sending for Blood: BP 90/60    Pulse 125    Resp 26    Temp 99  
 Infusion Site Location RIGHT ARM    Checked for patency  Yes    Amount of Saline Infused 5cc

- 3) RN/LPN/MD #2 records the vital signs taken immediately prior to picking up the blood.

B      RN/LPN/MD #1 (Blood product)	RN/LPN/MD #2 (Form)	Date/Time Dispensed <b>MAY 30 3:36 PM '99</b>
<p>1. Read from patient's armband: <i>if no armband STOP.</i></p> <p>Patient name Medical Record #</p> <p>2. State Location of Armband</p> <p>3. Ask Patient to state his/her name</p>  <p style="text-align: right;"><input type="checkbox"/> PT Data    <input type="checkbox"/> Blood Prod.</p> <p>4. Read Unit ID # from Blood Product Tag</p> <p>5. Read from the Blood Product label:</p> <p>Unit ID # Component Unit ABO/Rh Unit Expiration</p>  <p>Signature #1 <u>DENA SMITH, RN</u>    RN/LPN/MD</p>	<p>1. Verify information with Patient Data section:</p> <p><input checked="" type="checkbox"/> Patient name <input checked="" type="checkbox"/> Medical Record #</p> <p>Position of armband: <input type="checkbox"/> R arm    <input checked="" type="checkbox"/> L arm    Other _____</p> <p>3. <input checked="" type="checkbox"/> Name matches or <input type="checkbox"/> Patient unable to verbalize name</p> <p>4. <input checked="" type="checkbox"/> Verify Unit ID # with Blood Product Data Section</p> <p>5. Verify information with Blood Product Data Section:</p> <p><input checked="" type="checkbox"/> Unit ID # <input checked="" type="checkbox"/> Component <input checked="" type="checkbox"/> Unit ABO/Rh <input checked="" type="checkbox"/> Unit Expiration</p> <p>Signature #2 <u>ANNE JOHNSTON, RN</u>    RN/LPN/MD</p>	

- 4) RN/LPN/MD #2 checks off the appropriate information as Nurse 1 calls it out, and then RN/LPN/MD #1 and #2 signs the appropriate blank.

## Hemolytic Transfusion Reactions

- Reactions may occur with as little as 10-15 cc of incompatible blood transfused.
- National Statistics indicate that these reactions are most commonly caused (46%) by mistakes during blood administration.
- Failure to properly verify patient identification is often the problem. Patient armband must always be checked before hanging blood.

## Blood Types

There are four basic human blood types, or ABO blood groupings. Two things determine an individual's blood type: the red blood cells and the blood plasma:

- A person with Blood Type A has red blood cells with A antigens on the surface.

- Type A plasma contains antibodies against B antigens.
- A person with Blood Type B has red blood cells with B antigens on the surface.
  - Type B plasma contains antibodies against A antigens.
- A person with Blood Type AB has red blood cells with A & B antigens on the surface.
  - Type AB plasma contains NO antibodies against A or B antigens.
- A person with Blood Type O has red blood cells with NO A or B antigens on the surface.
  - Type O plasma contains antibodies against A & B antigens.

### **Hemolytic Transfusion Reactions**

**Hemolysis** or cell rupture occurs when incompatible blood types mix. It is the result of an antibody/antigen reaction.

- For instance, an O- patient has antibodies against A, B, and AB blood. Exposure to Rh+ (O+) blood can cause Rh- patients to create anti-Rh+ antibodies. A second exposure to Rh+ blood might then lead to a serious transfusion reaction. A single mismatch of ABO blood group can be fatal.
- An Rh+ patient can receive Rh- blood. Rh- means that there is no Rh antigen present on the red blood cells. However, Rh- patients cannot receive Rh+ blood.
- An AB+ patient has no antibodies against A or B blood and a RH+ patient can receive Rh- blood.

The widespread formation of emboli during acute hemolytic transfusion reactions causes life-threatening systemic complications.

Highly vascular area, such as the kidney and brain, are particularly vulnerable.

Kidney damage is almost always seen in acute hemolytic transfusion reaction. The kidneys function as the filtering apparatus for blood, thus they are abundantly supplied with blood. The emboli generated in a hemolytic reaction quickly lodge in the millions of tiny blood vessels. Blood supply to the kidney is gradually cut off. Healthy kidneys can quickly be severely and in many cases irreversibly damaged resulting in kidney failure and death. Hemolysis and emboli migration also cause similar damage in the brain and respiratory system.

Signs and symptoms you can expect to see in a hemolytic transfusion reaction:

- Chills & fever
- Hemoglobinuria (Blood in urine)
- Back/flank Pain
- Shock (Hypotension)
- Decreased urine output
- Unease
- Excess bleeding at surgical site

- Death

A small percentage of hemolytic reactions occur even when ABO matching is properly done. These reactions can occur because of bacterial contamination of blood product, hemolytic anemia, or infection.

## Anaphylactic Reactions

Anaphylactic reactions can also occur during blood administration. These reactions are not due to blood incompatibility, but to patient hypersensitivity to some component of the blood product (preservative, chemical, etc.). Itching and respiratory symptoms are common in these types of reactions. Hemoglobinuria is not usually seen in anaphylactic reactions.

## Reacting to a Reaction

### **Steps to Take if Your Patient Has a Hemolytic Transfusion Reaction:**

- 1) Stop transfusion immediately
- 2) Detach IV at hub, flush with 5-10 cc of NS, and infuse NS at KVO to maintain IV patency.
- 3) Notify patient's physician and Blood Bank (3-1421) of possible reaction.
- 4) Initiate Transfusion Reaction Consultation Request Form (Form Z26159). Complete the portion highlighted in yellow.

Medical Center of Central Georgia - Department of Pathology  
111 Hancock Street - Macon, Georgia 31208  
D. J. Eickens, MD  
Medical Director

**Instructions:** Notify Blood Bank immediately! Complete clinical information at upper portion of form and send to laboratory with transfusion bag and attached administration set.

Clinical Findings		Date	Time	Vital Signs	
<input type="checkbox"/> Fever	<input type="checkbox"/> Tightness in chest	Transfusion began		Before Transfusion	After Transfusion
<input type="checkbox"/> Chills	<input type="checkbox"/> Hemolysis	Transfusion ended		Temperature	
<input type="checkbox"/> Rash	<input type="checkbox"/> Shortness of breath	Clear of symptoms		Blood Products	
<input type="checkbox"/> Dyspnea	<input type="checkbox"/> Nontransfusing	Amount transfused		Rate	
<input type="checkbox"/> Headache		Reaction noted		Clinical Diagnosis	
<input type="checkbox"/> Pain (describe)		Blood returned	Yes <input type="checkbox"/> No <input type="checkbox"/>		
<input type="checkbox"/> Other					

Signature \_\_\_\_\_  
Laboratory Use Only

Step 1 through 3 must be completed for all transfusion reactions or prior to stop of any unit transfused.

1. General Check - Includes all blood and blood components requested  
 Correct  Computer  Work Sheet  Log Book  Complete Label  
 Correct Error  No Correct Error

2. Related to Blood Bank or \_\_\_\_\_ Year  
 Name: \_\_\_\_\_ (product) Donor identification number: \_\_\_\_\_  
 Name: \_\_\_\_\_ (product) Donor identification number: \_\_\_\_\_  
 Name: \_\_\_\_\_ (product) Donor identification number: \_\_\_\_\_  
 Units transfused in volume or recipient pre and post-transfusion sample

Transfusion set: \_\_\_\_\_ (product) (type, lot, no.) Volume: \_\_\_\_\_ ml Yes  No

3. Direct Antigen Test:  Pretransfusion  Posttransfusion  
 If steps 1 through 3 are negative, steps 4 through 6 are not required. Submit report of results for Pathologist review. If steps 1 through 3 are positive, notify Pathologist immediately.

Technician Name \_\_\_\_\_ Date \_\_\_\_\_

Pathologist Consultation \_\_\_\_\_

MEDICAL CENTER OF CENTRAL GEORGIA  
Pathology  
Transfusion Reaction Consultation Request  
Z 26159-01/01-12/98 2pt

Example of Form Z26159

- 5) Check labels and orders to verify product given.

- 6) Send remaining blood product in bag, attached tubing, and related forms to Blood Bank.
- 7) Forms that must be sent to the Blood bank are:
- 8) Blood Administration Record
- 9) Transfusion Reaction Consultation Request Form (Form Z26159).
- 10) A phlebotomist (or nurse, if instructed by the Blood Bank) will draw a post-reaction sample.
- 11) Remain with the patient, monitor vital signs and I&O, administer meds and/or fluids and other support as indicated.

# **Bloodborne Pathogens**

## **Objectives**

After completion of this course, you will be able to:

- Describe a bloodborne pathogen including how it is spread;
- Apply methods to prevent contact with bloodborne pathogens, including the use of Standard Precautions
- Describe job-related tasks and activities which may increase your risk of contact with blood or body fluids and use methods to decrease this risk;
- Appropriately handle spills and medical waste; and
- Describe the steps you should take after an unprotected contact with bloodborne pathogens.

## ***Introduction***

During the course of your job, you may come into contact with blood or body fluids that may contain blood (such as urine, feces, and vomit). Blood may contain bloodborne pathogens that can be passed from person to person and can cause disease. Therefore it is critical that you avoid contact with blood and other body fluids when caring for patients or residents. Bloodborne pathogens include, but are not limited to, the hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV).

## ***Hepatitis B and C***

The hepatitis B virus (HBV) and hepatitis C virus (HCV) are bloodborne pathogens that infect the liver and can cause serious liver damage. Both viruses are spread through contact with the blood of an infected person. Healthcare workers are most often exposed to these viruses from a needlestick or sharps injury. The risk of infection after contact with infected blood is highest for the Hepatitis B virus. However, there is an effective Hepatitis B vaccine available to all healthcare workers who may come into contact with blood or body fluids. There is no vaccine against the hepatitis C virus, but there is treatment available if HCV infection occurs.

## ***HIV***

The human immunodeficiency virus (HIV) is a bloodborne pathogen that attacks the immune system. The virus is spread through contact with the blood or sexual fluids of an infected person. The virus causes long term infection to which there is no cure. Overall your risk for infection after contact with the blood of an infected person is relatively low, about 1 in 300. There is no vaccine against the HIV virus; however, there is preventative medication you can take after an exposure.

## **Standard Precautions**

Standard Precautions are used when caring for any patient in any healthcare setting. It is the best way to prevent the spread of disease among patients, residents and healthcare personnel.

Standard Precautions are based on the principle that all blood, body fluids, secretions, excretions (except sweat), broken skin, and mucous membranes may be infected, and the infection can be spread.

Standard Precautions include hand hygiene; use of personal protective equipment (or PPE); and safe injection practices.

- **Gloves.** Gloves should be worn when you may have hand contact with blood, other body fluids, secretions, excretions, broken skin or mucous membranes; and when handling or touching contaminated items or surfaces.
- **Protective clothing.** Protective clothing such as gowns or aprons should be worn based on the task and likelihood of contact with blood or other body fluids.
- **Mouth, nose and eye protection.** Masks in combination with eye protection or chin-length face shields, should be worn whenever splashes or sprays of blood or other body fluids to the eye, nose, or mouth may occur.

PPE that has come into contact with blood or body fluids should be removed before leaving the area and disposed of properly into a biohazardous container. Be sure to perform hand hygiene following removal of PPE.

### **Exposure Control Plan**

During the course of your job, you may perform tasks and other activities that involve blood and other body fluids. Your organization is committed to eliminating or reducing the risk associated with these tasks and activities and therefore follows the Occupational Safety and Health Administration (OSHA) Bloodborne Pathogen standards. This commitment is reflected in the Exposure Control Plan.

A Sharps Disposal System container is located on each patient care area, on medicine carts and in all areas where disposable syringes, needles, razors, lancets, knife blades or other sharps are used. This is the expected means of disposal.

For personnel who use vacutainers, the needle and holder should be disposed of as a unit. The needle should not be removed from the vacutainer. Vacutainer holders should not be reused under any circumstances. I.V. needles may be disposed of by cutting the tubing with needle attached directly into the disposal container.

Following an injection, contaminated needles will not be recapped using a two-hand method. Discard syringes directly into the disposal container without needles being recapped, broken or clipped.

Environmental Services personnel will replace liners of containers in patient care rooms as needed, when the container approaches  $\frac{3}{4}$  full.

If the sharps container becomes  $\frac{3}{4}$  full before Environmental Services performs daily cleaning, it is the responsibility of the person who discovers the full container to replace the liner.

Sharps containers are biohazardous waste and will be incinerated. Contaminated needles and other contaminated sharps shall not be bent, recapped or removed from the syringe.

## **Prevention of Sharps Injuries**

Sharps injuries occur when a sharp object breaks through the skin. Needles, scalpels, and broken capillary tubes can cause a sharps injury however most injuries result from a needlestick. These injuries can result in a direct exposure to a bloodborne pathogen. The Centers for Disease Control and Prevention (CDC) estimates that up to 88% of sharps injuries could be prevented by using safer medical devices including needleless systems (such as needleless IV connectors) and sharps with built-in protection (such as self-covering needles on syringes). Employees must provide their opinion about these devices to the appropriate personnel within their organization.

Sharps injuries can also be prevented by performing tasks in ways that eliminate or reduce your contact with blood or body fluids. For example, you should never bend or break a needle or other sharp object. In addition, you should not recap a used sharp unless your organization allows this through the use of a mechanical device or the one-handed technique. Broken glass which may contain blood or body fluids should be picked up using a brush and dust pan, not your hands.

Sharps must be placed in a biohazardous sharps container, labeled with the biohazard symbol, as soon as possible after use. Sharps collection units or containers must be puncture-proof and rigid. Do not allow these containers to overfill. Do not discard sharps into bagged trash. Sharps that are approved for re-use should be stored and cleaned in a manner that does not require an individual to reach by hand into a container.

## **Prevention of Indirect Exposures**

Bloodborne pathogens may be spread from an object to a person. Therefore all reusable equipment and surfaces that come into contact with blood or other body fluids must be cleaned with an appropriate disinfectant to avoid an indirect spread of disease. Follow the label or manufacturer's instructions. Cleaning is routinely scheduled for a patient's or resident's room including the furniture, frequently-touched surfaces (such as bedrails, bedside tables, call button, and telephone), restroom surfaces and floors. Patient or resident care equipment such as IV and tube feeding poles must also be cleaned when visibly soiled or in between patients or residents.

When a patient or resident is discharged, the room must be disinfected, disposable equipment discarded, and reusable items or equipment sent to be reprocessed according to your organization's policies and procedures. Equipment and surfaces outside of the patient or resident room must also be routinely cleaned or disinfected, such as linen carts, chart racks, medicine carts, treatment supply carts, counter tops and desks.

## ***Laundry***

Linens soiled with blood or other body fluids should be placed in leak resistant bags and transported to the laundry facility in an appropriate container. These linens should be handled using gloves and other personnel protective equipment as needed.

## **Spills**

If blood or other body fluids are spilled onto a surface, it should be contained, cleaned and disinfected immediately. In addition to gloves, you may also need to wear a gown and other personnel protective equipment if the spill is large. Cover the spill with an absorptive material or towel and clean towards the center of the spill to avoid contaminating the

surrounding area. Place the materials in a red or biohazard labeled bag. Disinfect the area and perform hand hygiene. Refer to your organization's policies and procedures for more details, including the reporting of spills.

### **Medical Waste**

Medical waste is an issue for both healthcare personnel and the public at large. Medical waste are items that are contaminated with (or have the presence of) blood and other body fluids that need to be discarded. Examples of medical waste include used needles, IV catheters, and soiled wound dressings. Medical waste must be handled using gloves and other personnel protective equipment as needed. As previously mentioned, sharps must be discarded in a biohazardous sharps container. Other waste must be placed in a bag clearly labeled with a biohazard label. Once the waste is inside the bag, change your gloves to avoid contaminating the outside of the bag. Close the bag without releasing any trapped air and check for leaks. Keep waste and bags away from your uniform. Perform hand hygiene when you are finished. Follow your organization's policies and procedures on handling, transporting and discarding medical waste.

### **Eating and Drinking**

Avoid eating, drinking, applying cosmetics or lip balm, and handling contact lenses in areas where blood or other body fluids are likely to be present. Neither food nor drink should be kept in refrigerators, freezers, shelves, cabinets or on countertops where blood or other body fluids may be present.

### **Post Exposure**

The employee should be evaluated by an authorized treating facility immediately after exposure to blood or body fluids to insure appropriate medical management and initiation of any recommended medication(s) preferably within 1 – 2 hours post exposure.

Authorized Medical Center of Central Georgia treating facilities include:  
The Employee Health Center

After office and weekends:  
The Emergency Center and the Med Center Urgent Care Centers

A Hot Line (633-7233 or 633 – SAFE) and instructional packets are available to assist the employee, supervisor and physician through the treatment process.

The CDC PEP Line (Post Exposure National Clinicians' Post-exposure Prophylaxis Hotline (PEP-Line) (888) 448 – 4911 is available 24 hours a day 7 days a week for consultation and support.

Following immediate medical attention to the site of injury, an Employee Occurrence Report must be completed.

Immediately wash needlesticks and cuts with soap and water and flush splashes of blood or body fluids to the nose, mouth or eyes with clean water. Report the exposure to your supervisor immediately. You will receive a confidential evaluation, including testing for bloodborne pathogens and preventative treatment if recommended. You will also be asked for details regarding your exposure with a contaminated sharp for the sharps injury log.

With proper reporting and recordkeeping, injury patterns can be studied and valuable information about their causes and prevention measures can be identified. If after an exposure you develop a fever, extreme tiredness, loss of appetite, nausea, vomiting, or yellowing of the skin or eyes, you must notify your supervisor, Infection Control or Occupational Health personnel as soon as possible.

### **Conclusion**

Your organization is committed to eliminating or reducing the risk associated with job-related tasks and activities that involve blood or other potentially infected body fluids. And they need your help! Protect yourself and your patients or residents by helping prevent the spread of disease caused by bloodborne pathogens. If you have any questions regarding bloodborne pathogens, contact the appropriate personnel within your organization.

## CORE Measures

### CORE Measures – Quality Indicators

Acute Myocardial Infarction (AMI)  
Heart Failure (HF)  
Pneumonia (PN)

### What are Quality/CORE Measures?

MCCG has voluntarily committed to PUBLIC reporting of certain *measures* that have been determined to have an impact on the outcomes of patients admitted with certain diagnoses.

Regulatory agencies and health care consumers use these indicators to determine what hospitals have best practices.

These measures are examples of how *evidence based practice* – can make a difference in patient care.

### How can I make a difference?

- Know what the Diagnoses are:
  - AMI – Acute Myocardial Infarction
  - HF – Heart Failure
  - PN - Pneumonia
- Know the indicators (or measures) for each diagnosis – and what you can do to insure that the indicators are completed for each patient that you care for.

### Acute Myocardial Infarction (AMI)

- **Aspirin at Arrival** – insure that patients arriving to the hospital with chest pain receive an aspirin on arrival –
- **Aspirin prescribed at discharge** – aspirin does not require a prescription – but MD's must document plan in discharge notes, RN's must discuss with patient – importance of taking, reason for taking and document as a discharge medication.
- **Beta Blocker at Arrival** – best practice for your patient if not contraindicated– MD prescribes, RN administers – prevents complications.

Part of Acute Coronary Syndrome (ACS) order sets.

- **Beta Blocker at Discharge** – best practice for your patient if not contraindicated – prevents recurrence – part of discharge order set.
- **ACEI (Acetylcholinesterase Inhibitor) for Left Ventricular Systolic Dysfunction (LVSD)** – Best practice for patients with Ejection Fraction (EF) < 40% if not contraindicated. May use Angiotensin Receptor Blocker (ARB)

instead of ACEI. If neither used, MD must document contraindication for both or document EF >40%

- **Adult SMOKING CESSATION Advice** – This is built into RN admission assessment – insure that you screen patient – and give them help if necessary to quit smoking – this is part of patient centered care! Pt. should be counseled even if they quit within the last year. MD counseling should be documented!!
- **Mean time to thrombolysis** – calculated from time of arrival in EC – times have to be documented – and timely intervention reduces complication and LOS.
- **Thrombolytic Agent received within 30 minutes of Hospital arrival** – again, best practice – and MUST be documented.
- **Mean time to Intervention for STEMI (ST Elevated Myocardial Infarction)** – calculated from time of arrival in EC to intervention in the Cath Lab. Times must be documented. Goal: less than 90 mins.

### Heart Failure - HF

- **Adult Smoking Cessation Advice/Counseling** – again – clearly the best thing to do for your patient – Built into the RN Adult Admission assessment. Remember to counsel even if they currently do not smoke but smoked within the last year.
- MD's should also document counseling – best practice – Patients LISTEN to their doctors!
- **Left Ventricular Function Assessment** – The MD should document the EF (echo, cath, bioimpedance, etc...) or describe the patient's Left Ventricular Failure (LVF) in the progress notes. If LVF is not addressed, the MD is not able to determine the appropriateness of an ACEI or ARB.
- **ACE Inhibitor for Left Ventricular Systolic Dysfunction** – Best practice for treatment of CHF patients with EF < 40% when not contraindicated. May use ARB instead of ACE. If neither used, MD must document reason.
- **Discharge Instructions** – Of course, discharge preparation starts on admission – there is a CHF and Cardiac discharge order set prepared for your patient – start using as soon as possible. Discharge instructions for CHF patients MUST include the following components: weight, diet, activity, medications, follow-up appointment and worsening of symptoms. Make sure patient understands

– Prevent readmissions – improve outcomes!

### Pneumonia- PN

- Pneumonia is the 6th leading cause of death for patients > 65 years old in the United States. The following have been demonstrated to be “best practice” and help to decrease both morbidity and mortality from pneumonia – the primary focus is on elderly patients – but most of the interventions are appropriate for patients of all ages.

## Pneumonia Core Measures

- **Oxygenation Assessment** – should be part of the initial assessment of any patient with respiratory distress – helps with diagnosis and treatment interventions – may be pulse oximetry – or ABG. **Must be documented!**
- **Blood Cultures** –Must be collected before the first antibiotic is received in the hospital! **Must be documented!!**
- **Antibiotic Timing** – the initial antibiotic **MUST** be administered within four (4) hours of hospital arrival (DO NOT WAIT FOR BLOOD CULTURE RESULTS!!!). MD's order, RN's must administer timely!
- **Adult Smoking Cessation Advice/Counseling** – again – clearly the best thing to do for your patient – Built into the RN Adult Admission assessment –  

Remember that this must be addressed if the pt. no longer smokes but has smoked within the last year.
- MD's should also document counseling – best practice – Patients LISTEN to their doctors!
- **Initial Antibiotic Selection for Community-Acquired Pneumonia (CAP) for Immunocompetent patients** – Immunocompetent patients require a choice from a specific antibiotic appropriate for that population of patients...include: Erythromycin, Clarithromycin, Azithromycin, Levofloxacin and Trovafloxacin.
- **Vaccine screening and administration**
  - ALL patients who are  $\geq 65$  y.o. should be screened to see if they are appropriate candidates for a **pneumococcal** vaccine:
  - If they have never received one – they are good candidates – if not allergic or hypersensitive to the vaccine.
  - If they do not know if they have received one – they are a candidate to receive the vaccine.
  - MCCG has developed a physician approved protocol for patients  $\geq 65$  that allows NURSING to administer the pneumococcal vaccine without an MD order. A link in Powerchart will facilitate screening and administration of vaccines.
  - Patients must give consent, receive a vaccine information sheet, and receive the vaccine prior to discharge.
  - IF vaccine is NOT given, document the reason.
- **Vaccines**
  - Influenza vaccine –(October – March only)

- Patients who are  $\geq 50$  years old must be screened for annual influenza vaccine – and, if appropriate candidates, must have the vaccine administered.
- MCCG physician approved protocol allows for administration without MD order.
- Insure patient consent, VIS, and administration prior to discharge.

### **Pneumococcal Vaccine (offer year round)**

#### ***Pneumococcal vaccine not indicated (if any of the following):***

- Previously immunized after age 65? Yes No
- Previously immunized but <5 years ago? Yes No
- Reported allergy to vaccine? Yes No
- Patient receiving chemotherapy &/or radiation therapy? Yes No
- Patient on cyclosporine therapy? Yes No
- Patient on Prednisone > 10 mg for > than 14 days?
- **Physician order not to give vaccine this admission ? Yes No**

#### ***If none of the above:***

***Administer vaccine 0.5 ml IM or SC deltoid on day after admission if meets any of the following criteria:***

1. Patient is 65 years of age or older;
2. Patient is age 19 – 64 and has any of the following high risk conditions:
  - Serious long-term health problem with chronic heart or lung disease (including asthma), diabetes mellitus, or kidney disease including nephrotic syndrome.
  - Compromised immunity such as: Hodgkin's disease, leukemia, lymphoma, multiple myeloma, generalized malignancy, HIV infection (or AIDS), organ or bone marrow transplant, treatment with long-term corticosteroids, cancer drugs or radiation therapy
  - Alcoholism, cirrhosis, or chronic liver disease
  - Sickle cell anemia or prior splenectomy
  - Cerebrospinal fluid leaks

- Patient uncertain about prior vaccination status of history unreliable and meets the above criteria

Patient wishes to receive vaccine. Signature denotes consent to vaccination and receipt of vaccination information sheet.

***Patient Signature:***

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**Patient refuses or unable to consent to vaccination**

### **SAMPLE – SCREENING CRITERIA**

#### **Core Measures**

- You – the MD or RN providing care to these patients are responsible for insuring that we achieve OPTIMAL patient outcomes.
- Consistent use of the Core Measures has been shown to decrease LOS, decrease readmissions and IMPROVE OUTCOMES.

**CORE MEASURES – make a difference**

**And so do you!**

## **Corporate Compliance**

By the end of this segment you will be able to:

- Define fraud
- Define abuse
- Describe Patients/Customers right to medical treatment
- Define the Anti-Kickback Statute
- Define conflicts of interest
- Describe Corporate Compliance

Many Federal and State rules and laws today, govern healthcare. These laws cover a very wide range of topics. These laws are split into 2 groups, Financial Planning and Patients Rights and Relationships.

Fraud is defined as an intentional attempt at deception. Any provider that knowingly bills using false information has committed fraud and may be subject to fines/ jail time.

Abuse can be defined as repeated mistakes. Anyone can make mistakes but to keep making the same mistake without trying to correct it leads to abuse of the system. Abuse can cause the provider to pay fines. If the provider knows about the mistake but does not correct it, then they can be charged with fraud.

Actions or things seen as fraud or abuse are:

- Billing for services that were not given. Making sure that you really gave the service for which you are billing. If a service or item was ordered and charged, but was not given to the patient, make sure that the patient is not charged for the service
- Coding and billing for more services than were given. Make sure that you use the correct billing code for services given.
- Billing for services that were not medically needed. Make sure that the services provided were needed by the patient. Written proof is very important to show medical need. Make sure you record what service was given and why the service was needed.

The Office of the Inspector General of the Department of Health and Human Services found that in 2002 the Medicare program lost more than \$12 billion to fraud and abuse. The Office of the Inspector General also found that the insurance companies lost more than \$50 billion to insurance fraud.

Federal and State governments have made large efforts to protect the rights of anyone seeking medical care. Everyone has the right to be able to get medical care without regard to race, creed, ethnic background or being able to pay. There are laws that enforce these rules. They are called:

- Medicare Conditions of Participation. Every provider that accepts Medicare patients must abide by these rules. These rules also protect the patient's right to choose where they receive care.

- By-Laws keep a provider from withholding emergency care. We must provide all needed care that we are able to give regardless of the patient's ability to pay.
- Confidentiality/ Privacy laws. These laws protect patient's right to privacy. They also set rules for giving out patient information to others.

Relationships are vital to the provision of healthcare. We must make sure that these relationships abide by the set rules and laws. Even though all rules and laws are important, health care providers are especially concerned with the Anti- Kickback Statute and avoiding conflicts of interest.

- The Anti- Kickback statute makes it a federal crime to pay for referrals or to make someone buy goods and services. We must make sure that all of our buying decisions are based upon looking at the product's qualities and the Fair Market Value of the product.

We must also ensure that arrangements we make with our doctors are based on the needs for giving patient care and not for the purpose of making referrals.

- Conflicts of interest are sometimes difficult to agree upon. Hospital leaders and staff should not do anything to influence decisions in favor of a company or person with whom they or their family members have a financial relationship. Examples of these relationships are: working for a hospital vendor while working for the hospital; accepting gifts from a vendor while making decisions about using the vendor's products/services.

Here at Central Georgia Health System we make every effort to make sure that we follow the rules for providers and avoid abuse and fraud. We are committed to providing high quality healthcare services in an ethical and legal manner. To meet the commitment, a Corporate Compliance Officer has been put in place to follow the guidelines made by the Office of the Inspector General. The parts of the program include:

- A Corporate Compliance Officer.
- CGHS Standards of Conduct: This booklet contains valuable information about the behaviors CGHS expects of its employees. It also has important contact information.
- Compliance Hotline: The phone line gives CGHS staff a way to report suspected compliance issues and to ask questions while protecting their anonymity. The number is 1-800-888-380-9008.

# **Disaster Preparedness**

## **Objectives**

After completion of this course, you will be able to:

- Identify the types of internal and external disasters your organization may encounter
- Appropriately respond to these disasters.

## ***Introduction***

Your organization may encounter many types of disasters, both internal and external. Internal disasters may include bomb threats, fires, chemical spills and utility outages. External disasters may also include chemical spills in addition to severe weather such as tornados, hurricanes, and floods, and acts of terrorism. Your organization has created policies and procedures outlining the actions you should take if a disaster is encountered. Employees must understand their role and responsibilities within the plan. Following these policies and procedures is essential to the well being and protection of all.

## **Disaster Plan**

Your organization's disaster or emergency preparedness plan lists the different types of potential disasters your organization may encounter, and outlines the employee's roles and responsibilities including the reporting of an emergency, the use of notification systems, and evacuation procedures.

Employees must know how to report and notify others of an emergency. Your organization may use internal telephone numbers, an intercom system, or a public address system to notify other employees of an emergency. Proper authorities such as fire services must also be notified.

A wide variety of emergencies may require a workplace to be evacuated. Your organization's disaster plan addresses evacuation procedures including who is authorized to order an evacuation, under what conditions an evacuation would be necessary, and how to evacuate.

Evacuations can be horizontal or vertical, total or partial. Patients or residents may be evacuated to alternate sites. Remember to use designated emergency escape routes or exits. Do not use an elevator.

Evacuation procedures also often describe actions employees should take prior to and during an evacuation such as closing windows and doors, turning off equipment and obtaining essential records. Patients or residents are generally evacuated according to their physical condition. Patients or residents that are ambulatory are evacuated first, followed by those that can be transported in a wheelchair, and those that are bedfast. Bedfast patients or residents may be pushed in their bed, on a stretcher or, as a last resort, carried with a blanket. Patients or residents should be adequately clothed and offered a blanket.

All patients or residents should be accounted for following an evacuation. An employee that is not needed for evacuation procedures should be assigned to the group that has

been evacuated to provide safety and assurance. Following an evacuation, do not re-enter the facility until you have received permission to do so.

## **Internal Disasters**

### ***Emergency Codes***

<b>Code "B"</b>	Indicates a bomb threat.
<b>Code Blue</b>	Indicates a Cardiac/Respiratory arrest.
<b>Code Blue PALS</b>	Indicates a Cardiac/Respiratory arrest in a patient 16 years or less.
<b>Code Gray</b>	Indicates need for security in an area.
<b>Code Green</b>	Indicates suspected patient(s) needing decontamination in the EC.
<b>Code Lift</b>	Indicates assistance needed in area announced.
<b>Code Baby Pink</b>	Indicates Pediatric/Infant Abduction.
<b>Code Purple</b>	Indicates an Emergency Center Alert.
<b>Code Red</b>	Indicates a fire in the building.
<b>Code Silver</b>	Indicates an active shooter in the building.
<b>Code Triage</b>	Mass casualty plan in effect.
<b>Code Triage Standby</b>	Prepare area for possible mass casualty.
<b>Code Zero</b>	Indicates evacuation is necessary.
<b>Tornado Watch</b>	in effect until (specify time frame).
<b>Tornado Warning</b>	in effect until (specify time frame).
<b>Telephone Failure Backup Numbers</b>	When a hospital wide telephone failure occurs, the Communications staff will change the numbers on the hospital telephone extensions to an outside emergency line. The emergency line will require you to dial a "9" before dialing a number. * If you need to page someone for an emergency, please call the hospital operator.

### ***Bomb Threats***

In the event that you receive a bomb threat, immediately notify the appropriate personnel within your organization. If you receive the threat over the phone be calm and courteous, listen and do not interrupt the caller. Write out the message in its entirety and note information regarding the caller's gender, approximate age, voice characteristics, and background noises. Try to keep the caller talking. If the caller seems agreeable to answer questions, ask where the bomb is located and when it will go off. If you encounter what appears to be a bomb - do not touch it. Again, contact the appropriate personnel. These individuals will make decisions regarding evacuation and prepare for the arrival of assistance. Your cooperation with police and others involved is important; they will have complete authority when they arrive.

### **External Disasters**

Severe weather can strike anywhere and anytime. A WATCH is issued when weather conditions favor a particular hazard. For example, if weather conditions favor the development of a tornado, a tornado watch will be issued. During a "watch" you should prepare to act should the hazard develop. A WARNING is issued when a particular hazard has been reported or is imminent. For example, if a tornado has been reported, a tornado warning will be issued. A "warning" indicates the need to immediately take action to protect life and property.

Your organization's disaster or emergency preparedness plan addresses protective measures for tornados, floods, hurricanes and other potential disasters if applicable for your area. With any emergency, remain calm and do not panic. Know your role and responsibilities within the plan.

### **Emergency Electrical Supply**

Your organization has an emergency electrical system that supplies power in the event that normal electrical supply is interrupted. The system supplies power for lighting, electrical outlets and life support devices. Lighting must always be present in entrance and exit areas, patient care areas, medication preparation and dispensing areas, and at the nurses' station. Power must always be supplied to alarm and alerting systems (such as fire detection, alarm, and extinguishing systems), and communication systems used for issuing instructions during emergency conditions. Electrical outlets powered by the emergency system are located throughout the building. Emergency electrical power is provided for all life support devices (devices necessary to sustain life) by a generator that is located on the premises.

### **Conclusion**

Your organization is committed to the safety of their employees, patients, residents, visitors and property. And they need your help! Employees must understand their role and responsibilities within the disaster or emergency preparedness plan. If you have any questions regarding disaster preparedness, contact the appropriate personnel within your organization for guidance and assistance.

# **Electrical Safety**

## **Objectives**

After completion of this course, you will be able to:

- Identify the hazards of electricity,
- Describe the difference between a conductor and insulator and the effect each have on the flow of electricity,
- Describe electric shock
- Identify actions for preventing electrical accidents.

## ***Introduction***

Electricity has long been recognized as a serious workplace hazard, potentially exposing employees to electric shock, electrocution, burns, fires, and explosions.

However because electricity is such a familiar part of our daily lives, many of us tend to overlook its hazards. Approximately 30,000 electrical shock accidents and 1,000 deaths occur each year, according to the National Safety Council. We must treat electricity with the respect it deserves.

## **Electricity: The Basics**

Electricity flows more easily through some substances than others. Substances that offer very little resistance to the flow of electric current are called "conductors." Metals are conductors. Electricity normally travels through a conductor. Substances that offer resistance to the flow of electric current are called "insulators." Glass, plastic, and dry wood are insulators. Water (unless pure) is a conductor and can turn other substances into conductors. This is true of human skin. When skin is moist or wet, it acts as a conductor and therefore offers very little resistance to the flow of electricity, increasing your risk of electric shock.

## **Electric Shock**

Electricity travels in closed circuits. A person's body can accidentally become part of a circuit. When this occurs, the person receives an electric shock and electricity flows between parts of their body or through their body to the ground.

An electric shock can result in anything from a slight tingling sensation to immediate cardiac arrest. The severity depends on:

- the amount of electric current flowing through the body,
- the current's path through the body,
- the length of time the body remains in the circuit, and
- the current's frequency.

Electric shock can cause:

- Burns (the most common type of injury),

- Physical injuries (such as muscle damage), and/or
- Nervous system effects (such as heart fibrillation or “twitching” that stops blood flow to the body).

Static electricity can also cause a shock, though in a different way and generally not as severe as the type of shock described previously.

## **Prevention of Electrical Accidents**

As previously mentioned, electricity can potentially expose employees to electric shock, electrocution, burns, fires, and explosions. To decrease the risk of these electrical accidents:

- Do not use defective or unsafe electrical equipment.
- Only use appropriate electrical connectors – for example, do not remove the third prong (ground pin) of a plug to make it fit into a 2-prong outlet.
- Do not overload outlets with too many appliances.
- Only use electrical cords for their intended purposes - for example, an electrical cord should not be used to raise or lower a piece of equipment.
- Do not yank or tug on the cord when unplugging a piece of equipment. Use the gripping area of the plug instead.
- Be aware of environmental conditions around you; do not use electrical equipment while your hands are wet or while standing near water or on a wet floor.
- Do not clean or repair an electrical appliance unless you are authorized to do so. Turn off and unplug the appliance before performing the task.
- Reduce the use of electrical equipment where oxygen is being administered or stored. If you must use electrical equipment in these areas, special precautions must be taken.
- You should inspect all electrical equipment before use and follow the manufacturer’s guidelines. Do not use electrical equipment that has:
  - Broken, bent or loose plugs,
  - Loose connections,
  - Faulty or damaged insulation,
  - Improper grounding (such as when the 3rd prong has been removed),
  - Defective parts, or
  - A burning smell. Note that this piece of equipment may be over heating and may also be hot to the touch.

Unsafe equipment should be tagged as defective and/or removed from the area as defined in your organization’s policies and procedures and immediately reported to appropriate personnel.

Submit a work order request to notify Facilities Management immediately.

## **Conclusion**

Everyone has the right to work in a safe environment. By working together, employers and employees can learn to identify and eliminate or control electrical hazards. If you have any questions about electrical safety, contact the appropriate personnel within your organization.

# **Fire Safety**

## **Objectives**

Upon completion of this course you will be able to:

- identify fire hazards,
- classify fires,
- take action should a fire occur, and
- appropriately use a fire extinguisher.

## ***Introduction***

Fire is a serious threat for any healthcare facility. Patients or residents depend on you for their safety since many of them are helpless in a fire emergency. You should know how to protect patients or residents, visitors, personnel, and yourself. Therefore you must make every effort to prevent fires from starting and be prepared to respond promptly and effectively in the event of a fire emergency.

## **Fire Hazards**

- A common cause of fire in healthcare facilities is smoking in unauthorized areas. Smoking should only occur in Designated Areas. Never leave a lit cigarette unattended or throw a lit cigarette in a trash can. All cigarettes should be extinguished prior to being discarded.
- Another major fire hazard is improperly used or damaged electrical equipment (such as cracked or split cords or plugs). All equipment should be checked on a routine basis.
- Additional hazards include dirty or greasy kitchen equipment, full laundry lint screens, and buildup of combustible waste materials such as paper or boxes. You should be aware of the hazardous properties of materials in your work area.

## **Fire Classification**

For fire to exist, the following four elements must be present at the same time:

- Enough oxygen to maintain combustion,
- Enough heat to raise the material to its ignition temperature,
- Some sort of fuel or combustible material, and
- The chemical reaction that is fire.

Fires are organized into five classes that describe what kind of fuel it contains.

- Class A fires are fires in ordinary combustible materials, such as wood, cloth, paper, rubber, and many plastics.
- Class B fires are fires in flammable and combustible liquids and gases.
- Class C fires are fires that involve energized electrical equipment.
- Class D fires are fires in combustible metals.

- Class K fires are fires in cooking appliances that involve combustible cooking media such as vegetable or animal oils and fats.

## **Fire Safety Plan**

Your organization has developed a plan to protect patients or residents, visitors, personnel, and others in the event of a fire. Periodically you will be instructed on your duties according to the fire safety plan. It is important that you understand your role in providing safety from fire.

## **R.A.C.E.**

Personnel must respond promptly and effectively to a fire. R.A.C.E. is the acronym used to represent this response.

### ***R – RESCUE from danger***

The first step of the fire response is to rescue any person in immediate danger from smoke and flames.

### ***A – Activate the ALARM***

The second step of the fire response is to activate an alarm if you discover a fire or respond immediately to an alarm when you hear it. Sounding the alarm is the quickest way to warn others and get help. You may also need to dial a fire emergency number. Activating the alarm initiates the process that alerts the fire brigade (if provided) and fire department. You should know the location of the fire alarms within your work area and how to operate them.

### ***C – Confine/Contain the fire***

The third step of the fire response is to confine the effects of the fire by closing doors. Doors that protect hallway openings are constructed to resist the passage of smoke.

### ***E – EXTINGUISH***

After the rescue, alarm and confine procedures have been followed, you may consider extinguishing a small fire. Portable fire extinguishers release an extinguishing agent that stops a fire from burning. Extinguish a fire only if it is small, and if you know how to operate a fire extinguisher. It is important to know the locations and types of extinguishers in your facility. If the fire can not be extinguished, leave the area, close the door and EVACUATE. Evacuate or relocate patients or residents as detailed in your organization's fire safety plan. In a healthcare facility, this usually means moving a person from the area of the fire to another area inside the building, unless the fire spreads and evacuation of the entire facility becomes necessary. You should know how to move patients or residents safely and quickly. Fire doors and exits must always be clear of trash, equipment and other obstructions.

You should also shut off oxygen machines and other compressed gas systems if you are instructed to do so.

## **Fight or Flight**

Attempting to extinguish even a small fire carries some risk. Fire can increase in size and intensity in seconds, blocking your exit path and creating a hazardous environment. You should only consider extinguishing a fire with a portable fire extinguisher:

- If the fire is limited to the original material ignited, is contained (such as in a waste basket) and has not spread
- If you are safe from smoke;
- If the heat has only slightly raised the temperature of the room;
- If you can see;
- If you have a clear evacuation path behind you;
- If you know how to operate the fire extinguisher; and
- If the extinguisher is proper for the class of fire.

### **Choosing the Appropriate Extinguisher**

There are different classes of fires therefore there are different types of extinguishers. Some types of fire extinguishers can be used on more than one class of fire. Others have warnings when it would be dangerous to use a particular fire extinguisher. A fire extinguisher will have a label that consists of a letter and number based on the class and size of fire it will extinguish.



This label reads “1-A:10-BC”. The letters (A, B, and C) represent the classes of fire for which the extinguisher has been approved. The number 1 indicates how much water the extinguisher contains and represents 1.25 gallons of water for every 1 unit. The number 10 represents the area in square feet that you should be able to extinguish. The extinguisher in this example contains 1.25 gallons of water and may be used for A, B, and C class fires covering a 10 square foot area.

### **Using a Fire Extinguisher**

Contact your Department’s Prevention Control Officer or Department Based Educator for instructions on how to use the fire extinguisher in your area. The Facilities Management Department routinely inspects fire extinguishers to ensure proper maintenance.

Face the fire and have a clear evacuation path behind you. Follow the instructions on the extinguisher. You can operate most fire extinguishers using the P.A.S.S. technique:

- **PULL...** Pull the pin. This will also break the tamper seal.
- **AIM...** Aim low, pointing the extinguisher nozzle at the base of the fire.
- **SQUEEZE...** Squeeze the handle to release the extinguishing agent.
- **SWEEP...** Sweep from side to side at the base of the fire until it appears to be out.

If you find that an extinguisher is in need of inspection, maintenance, or recharging, or is missing from its designated area, contact the appropriate personnel within your organization.

### **If Fire Strikes**

If fire strikes and you must evacuate through smoke, remember to crawl low, under the smoke and keep your mouth covered. Never open doors that are hot to the touch. When you come to a closed door, use the back of your hand to feel the top of the door, the doorknob, and the crack between the door and the door frame to make sure that fire is not on the other side. If it feels hot, use another evacuation path. Even if the door feels cool, open it carefully. Brace your shoulder against the door and open it slowly. If heat and smoke come in, slam the door and make sure it is securely closed, then use an alternate evacuation path. Follow the directions of fire and security personnel. Once outside, go to the relocation areas defined in the fire safety plan. Stay out of the building until fire or security personnel give you permission to go back in.

If fire strikes and you cannot evacuate safely or if you're instructed to stay where you are, be calm and protect yourself. Close the doors between you and the fire and smoke. Stuff the cracks around the door with towels or bedding and cover vents to keep smoke out of the room. If there's a telephone in the room, call in your exact location to the fire department even if they are on the scene. Wait at the window and signal with a sheet or flashlight or something easy to see. Do not open or break the window.

### **Conclusion**

Your organization is committed to preventing fires and training you to respond promptly and effectively in the event of a fire emergency. If you have any questions about fire safety, contact the appropriate personnel within your organization for guidance and assistance.

# **Hand Hygiene**

## **Objectives**

After completion of this course you will be able to:

- Describe the types of patient/resident care activities that result in hand contamination of the health care worker
- Describe the relationship between contaminated hands and health-care-associated infections
- Identify the benefits of hand hygiene
- Appropriately perform hand hygiene
- Properly use gloves
- Identify methods to reduce hand irritation associated with hand hygiene.

## ***Introduction***

Health-care-associated infections are infections linked with the delivery of care in any healthcare setting. Health-care-associated infections are a significant cause of morbidity and mortality among hospitalized patients worldwide. In American hospitals alone, health-care-associated infections account for an estimated 1.7 million infections and 99,000 associated deaths each year. Health-care-associated pathogens are most often spread via the contaminated hands of health care personnel. Hand hygiene (handwashing with plain or antimicrobial soap and water or the use of a waterless, alcohol-based hand rub) is considered one of the most important infection control measures for preventing health-care-associated infections.

## **The Spread of Pathogens**

The primary function of the skin is to reduce water loss, provide protection against abrasive action and microorganisms, and act as a permeable barrier to the environment. The basic structure of skin includes (from the outer- to inner-most layer) the superficial region, the epidermis, the dermis, and the hypodermis.

Normal human skin is colonized or populated with bacteria, and different areas of the body have different amounts. Transient flora bacteria colonize the superficial (or outer-most) region of the skin and are frequently linked with health-care-associated infections. The hands of health care workers can become colonized with organisms such as pathogenic flora, gram-negative bacilli, and yeast. These organisms spread from one patient/resident to another through the following sequence of events:

- The organism present on the skin or in the body secretion, excretion, or wound of a patient/resident, or on an environmental surface in close proximity to the patient/resident, is spread to the hands of the health care worker.
- The organism is then capable of surviving for at least several minutes on the hands.
- Next, handwashing or the use of an alcohol-based hand rub by the health care worker is inadequate or left out entirely, or the product used for hand hygiene is inappropriate for the organism.

- Finally, the contaminated hands of the health care worker come in direct contact with another patient/resident, or with an environmental surface that comes into direct contact with the patient/resident.

### **Benefits of Hand Hygiene**

Hand hygiene decreases the risk of spreading organisms to patients/residents, therefore reducing the incidence of health-care-associated infections and decreasing the morbidity, mortality, and costs linked with these infections. In addition, hand hygiene decreases the risk of the health care worker becoming colonized or infected by organisms from the patient/resident. Regardless of the benefits, compliance by health care personnel with recommended hand hygiene guidelines has remained unacceptable at an average of 40%.

### **Hand Hygiene**

The following guidelines are designed to improve hand hygiene practices of health care workers therefore reducing the spread of organisms to patients/residents and personnel in health-care settings.

#### ***Handwashing Guidelines***

The purpose of handwashing is to remove dirt, organic material and microorganisms. Water alone is not suitable for cleaning soiled hands.

You should wash your hands with plain or antimicrobial soap and water:

- When your hands are visibly dirty or contaminated with proteinaceous material or with blood or other body fluids
- Before eating
- After using the restroom
- After suspected or proven exposure to spore-forming organisms such as *Clostridium difficile* (or *C. difficile*) or *Bacillus anthracis*. Alcohol-based hand rubs are not reliable in killing spores.

When washing your hands with soap and water, wet your hands with water and apply the amount of product necessary to cover all surfaces. Vigorously perform rotational handrubbing for at least 15 seconds on the palms and backs of both hands while interlacing and interlocking your fingers to cover all surfaces including the thumbs. Rinse your hands with water and dry thoroughly with a disposable towel. Use a towel to turn off the faucet to avoid contaminating your hands after handwashing.

#### **Alcohol-Based Hand Rub Guidelines**

Compared to handwashing, alcohol-based hand rubs have been shown to be more effective in reducing the number of bacteria and viruses on hands, require less time to use, and cause less irritation and dryness. In addition, hand rubs can be made more accessible at the point of patient/resident care. Alcohol-based hand rubs (liquids, gels or foams) are the preferred method for hand hygiene in most situations.

If your hands are not visibly soiled, use an alcohol-based hand rub to decontaminate your hands in the following situations:

- Before direct contact with patients/residents
- Before putting on sterile gloves to insert a central intravascular catheter
- Before inserting an indwelling urinary catheter, peripheral vascular catheter, or other invasive device that does not require a surgical procedure
- After direct contact with the intact skin of a patient/resident (such as after taking a pulse or lifting)
- After contact with body fluids or excretions, mucous membranes, non-intact skin, and wound dressings (if hands are not visibly soiled)
- When moving from a contaminated to a clean body site during patient/resident care
- After contact with an object or environmental surface that is in close proximity to the patient/resident
- After removing gloves.

If an alcohol-based hand rub is not available, wash hands with antimicrobial soap and water. Hand hygiene is also essential before handling medication or preparing food.

When using an alcohol-based hand rub, apply an amount of product that is necessary to cover all surfaces of your hands. Vigorously perform rotational handrubbing on the palms and backs of both hands while interlacing and interlocking your fingers to cover all surfaces including the thumbs. Rub until completely dry. This should take at least 15 seconds and ensures that an adequate amount of product had been applied. It is neither necessary nor recommended to routinely wash hands after each use of an alcohol-based hand rub.

Antimicrobial-impregnated wipes (such as towelettes) may be considered as an alternative to washing hands with plain soap and water but because wipes are not as effective as alcohol-based hand rubs or washing with antimicrobial soap and water in reducing bacteria, wipes are not a substitute for these products.

## **Other Aspects of Hand Hygiene**

### ***Gloves***

Wearing gloves during patient/resident care is an additional intervention to help reduce the spread of organisms. Gloves must be used properly:

- Wear gloves when contact with blood or other potentially infectious body fluids, excretions (such as diarrhea), secretions (except sweat), mucous membranes, and non-intact skin could occur.
- Do not wear the same pair of gloves for the care of more than one patient/resident.
- Do not wash gloves and use them to care for a different patient/resident.
- Change your gloves during patient/resident care when moving from a contaminated to a clean body site.

- Remove your gloves using a technique that does not contaminate your hands with the organisms on the surface of the glove.
- Wear gloves for all types of contact with a patient/resident or the environment if the patient/resident is on isolation precautions that require the use of gloves or if there is a unit-based procedure for universal gloving.
- Perform hand hygiene immediately after glove removal since gloved hands can become contaminated due to tiny punctures in the glove or during glove removal.

The use of gloves is an important addition to, but not replacement for, proper hand hygiene.

You should be aware of the location of soap and water, alcohol-based hand rub and gloves in your work area. If you find that soap and water, alcohol-based products or gloves are not available at the point of patient/resident care, contact the appropriate personnel within your organization. Be advised, however, that alcohol-based hand rub dispensers can only be placed in locations that are compliant with local and federal fire safety regulations.

### ***Fingernails and Artificial Nails***

- Research has shown, Health care workers who wear artificial nails are more likely to have organisms on their fingertips than those who have natural nails, both before and after hand washing.
- Chipped nail polish may also support the growth of organisms on fingernails.
- Fingernails should be clean, well cared for and no longer than ¼ inch from fingertip in length.
- Nail polish, if worn, should not be chipped.
- Artificial fingernails are not permitted in patient care areas and areas where employees will handle patient products or supplies that will go to the patient.
- Artificial fingernails include, but are not limited to acrylic nails, all overlays, tips, bonding, extensions, tapes, inlays and wraps. Nail jewelry is not permitted.

### **Irritation from Hand Hygiene Measures**

Frequent and repeated use of hand-hygiene products, particularly soap, is a primary cause of irritant contact dermatitis among health care workers. Other factors that can contribute include the use of hot water for handwashing, low relative humidity (most common in winter months), failure to use supplementary hand lotion or cream, and the quality of disposable towels. Wearing gloves (especially while hands are still wet), removing gloves and allergies to latex may also contribute to dermatitis. Hand lotions and creams can increase skin hydration and restore the barrier function of the skin. The regular use of such products can help prevent and treat irritant contact dermatitis.

If you have any questions regarding hand hygiene, please contact the Prevention and Control Department.

## **Conclusion**

Evidence supports the belief that improved hand hygiene can reduce health-care-associated infection rates. You are empowered to remind other health care workers, regardless of rank or position, to practice hand hygiene. This should also be reinforced by patients/residents. From their perspective, compliance with all elements of appropriate hand hygiene and glove practice is a reasonable expectation. If you have questions about hand hygiene, contact the appropriate personnel within your organization for guidance and assistance.

# **Hazard Communication**

## **Objectives**

After completion of this course, you will be able to:

- Locate the list of hazardous chemicals that are present in your workplace
- Describe the information that can be found on the label of a chemical and its material safety data sheet
- Decrease your risk of exposure to hazardous chemicals.

## ***Introduction***

All employees are provided with information regarding the hazards of chemicals present in their workplace. This information can be found in your organization's hazard communication program which follows the Occupational Safety & Health Administration (or OSHA) standards. Armed with this program, you can decrease your risk of exposure to hazardous chemicals during the course of your job.

## **Hazard Communication Program**

Your organization is committed to ensuring that information about the dangers of all hazardous chemicals used in your facility are known by all affected employees so they can protect themselves. This commitment is reflected in the hazard communication program which includes a list of hazardous chemicals in the workplace; guidelines on labeling containers of chemicals; the distribution of material safety data sheets to employees; and employee training programs regarding hazards of chemicals and protective measures. The program applies to all work operations where you may be exposed to hazardous chemicals under normal working conditions or during an emergency situation.

## ***Hazardous Chemicals List***

A list of hazardous chemicals in the workplace can be found in the hazard communication program. This list can also be collected for specific areas of the facility. The chemical name on the list is also used on the material safety data sheet (or MSDS) for easy cross-referencing.

## **Container Labeling**

A chemical inventory is maintained by each department. Your Prevention and Control Officer (PCO) or Department Based Educator (DBE) will inform you of any hazardous and/or toxic substances which you may be exposed to or will be required to handle

You may request a Material Safety Data Sheet (MSDS) from 3-E Company (800) 451-8346 available 24 hours/day 7 days a week.

A container includes any bag, bottle, box, can, storage tank, or the like that contains a hazardous chemical. Each container must be labeled, tagged or marked with the name of the chemical(s), hazard warnings, and the name and address of the manufacturer or responsible party. The hazard warnings provide information regarding the physical and health hazards of the chemicals. New information regarding the hazards of a chemical will be placed on its label by the appropriate individuals within your organization in a timely manner.

If you come across a container that does not have a label or tag, is labeled but difficult to read, not appropriately displayed or readily available, contact the appropriate personnel within your organization.

### **Material Safety Data Sheets**

Chemical manufacturers develop a material safety data sheet (or MSDS) for each hazardous chemical they produce. The MSDS is given to your employer upon receipt of the chemical. These sheets are made available to employees. An MSDS contains information about a chemical including:

- its name
- physical hazards such as the potential for fire
- health hazards such as signs and symptoms of exposure and acute and chronic effects
- precautions for safe handling such as procedures for the clean-up of spills and the use of personal protective equipment
- emergency and first aid procedures
- contact information for the manufacturer or responsible party.

OSHA does not require a MSDS for household consumer products used in the workplace as long as the products are used in the same manner that a consumer would use them.

Copies of the material safety data sheet for each hazardous chemical in your workplace are available and readily accessible to each employee during each work shift. Electronic access and other alternatives to maintaining paper copies are acceptable. If an MSDS for a chemical in your workplace is not available, contact the appropriate personnel within your organization.

### **Precautionary Signs**

All hazardous areas within a facility are identified with appropriate precautionary signs. Smoking is prohibited in all hazardous areas without exception.

### **Conclusion**

Your organization is committed to decreasing your risk of exposure to hazardous chemicals. And it takes your help! If you have any questions about hazardous chemicals, contact the appropriate personnel within your organization for guidance and assistance.

## What is HIPAA?

***By the end of this module you will be able to:***

- Describe the purpose of HIPAA
- Define PHI
- Discuss the requirements under the HIPAA Privacy rule
- Explain the difference between HIPAA Privacy and Security
- Identify the elements of HIPAA Security
- Identify ways to keep CGHS in compliance with HIPAA guidelines
- Recognize when to report a HIPAA incident and whom to report to

### WHAT IS HIPAA?

(The Health Insurance Portability and Accountability Act of 1996)

HIPAA is a federal law put in place to protect patient privacy and ensure security of patient information or Protected Health Information (PHI).

ALL health care providers must comply with HIPAA. The purpose of HIPAA is:

- To ensure the privacy and confidentiality of patient information
- To protect the security of patient information
- To establish uniform electronic transaction standards.

HIPAA requires everyone who works within Central Georgia Health System to take steps to protect the privacy and confidentiality of patient information. This means all employees, students, physicians, consultants and contract workers. HIPAA requires Central Georgia Health System to provide training to inform you of your responsibilities in relation to the organization's HIPAA policies.

### General Privacy Rule

You may not USE or DISCLOSE patient related information except as permitted under HIPAA and as required to do your job. Personal Health Information or PHI is information relating to a person's health or ability to pay that is created by Central Georgia Health System and may identify the individual. This information includes oral, written, and electronic communications and records. Under the HIPAA Privacy rule CGHS is required to do the following:

- ***NOTICE of PRIVACY PRACTICES*** - HIPAA requires CGHS to make available our NOTICE of PRIVACY PRACTICES to all patients. All patients must receive a special privacy notice that describes how Central Georgia Health System uses and discloses patient information and how to make complaints if someone violates their confidentiality.

- **AUTHORIZATIONS** - HIPAA requires AUTHORIZATIONS for non-routine disclosures. HIPAA will require a special written authorization from the patient.
- **MINIMUM NECESSARY RULE** - HIPAA requires us to use the MINIMUM NECESSARY RULE. This means you must limit the patient information that you use or disclose to the minimum necessary to accomplish your job responsibilities.
- **LIMIT YOUR ACCESS** - HIPAA requires you to LIMIT YOUR ACCESS. You may NOT access patient information unless you have a specific job related purpose for doing so. This includes but is not limited to your: spouse, mother, father, brother, co-worker or friend unless: 1) you have a specific job related purpose for doing so or 2) they have given you express permission through CGHS
- **PRIVACY OFFICER** - The hospital is required to designate a HIPAA Privacy officer who will be responsible for ensuring compliance with the HIPAA Privacy Standards. If you have any questions or are aware of any HIPAA violations, contact Judy Ware at 3-6990 immediately.
- **COMPLAINTS** -HIPAA requires Central Georgia Health System to have an individual or department responsible for handling patient complaints regarding HIPAA. Please refer any patient complaints relating to privacy or confidentiality to Judy Ware or use the confidential hotline at 1-888-380-9008.

HIPAA requires us to limit the disclosure of PHI. You may not share patient information with anyone except as required by your job. You may not discuss patients with your fellow workers except as necessary for your job. You may not carry PHI away from CGHS. You must use the document destruction bins when discarding patient information.

### **HIPAA Privacy vs. Security**

- HIPAA Privacy covers what information you protect – the use and disclosure of PHI
- HIPAA Security covers how you protect that information and when National standards for safeguards to protect the confidentiality, integrity, and availability of PHI

The purpose of HIPAA Security is to protect the confidentiality, integrity and availability (CIA) of electronic information. Confidentiality means only authorized persons have access to data. Integrity means the information is as intended, without unauthorized or undesirable modification or corruption. Availability means data is accessible when needed.

There are several different types of security risks. They include human error, nature (fire, earthquake, flood), technology failures and deliberate security breaches (internal and external threats).

### **The HIPAA Security rule requires us to implement the following:**

- Role Based Access
- Audit or Review file accesses, logins, security incidents maintained by the organization

- Formal, documented procedures for ending internal/external user's access
- If using passwords-Implement password guidelines
  - Do not share passwords!
  - Use "strong" passwords
    - contain upper and lower case characters
    - Use digits and special characters (0-9;@#\*&%)
    - Are at least SIX characters long
    - Are not based on personal information
    - Don't use words in the dictionary
  - DON'T WRITE THEM DOWN
- Appoint an Information Security Officer - the CGHS Information Security Officer is Isaac Ramsingh at 3-6990
- Many other technology specific requirements to secure information

You can help make CGHS more secure by implementing simple security safeguards. Be aware of your surroundings and protect your work area. Be aware of who can look over your shoulder and view patient information in your possession, on your desk or on your computer screen. Do not leave unattended patient information unsecured. Sign off your computer. Turn computer screens away from public view. Do not post your password.

**You can help CGHS comply with the HIPAA Security rule by abiding by the following requirements:**

- ***BEWARE OF VIRUSES AND MALICIOUS SOFTWARE***
  - Viruses and other malicious software are a serious threat to the integrity of patient information and the operations of the hospital. To protect against viruses:
- Do not bring in information from outside the hospital on moveable media (disk, cd or memory stick).
- Do not open e-mails from unknown senders
- Do not download information from the Internet without the express authorization from Corporate Compliance
- CGHS will send computer users routine alerts when threats of new viruses become known.
- ***Follow Hospital Policy for Removal and Installation of Hardware and Software***

- It is forbidden to install new hardware/software on CGHS computer systems or remove hardware/software from the premises unless given authorization from Corporate Compliance.
- **Report Incidents**
  - It is your responsibility to report:
    - Unauthorized log-ins to the system
    - Unsuccessful log-ins or discrepancy in log-in activity
    - Any breaches in the security of patient information of which you become aware.
    - Security Incidents should be reported to Corporate Compliance

### **HIPAA Privacy and Security Compliance Tips**

- Protection of PHI is everyone's responsibility. Here is a review of a few things which were discussed in this presentation:
- DO NOT discuss patient information in public areas
- DO NOT discuss patient information outside of the hospital
- DO NOT share your password
- DO NOT leave patient information unattended
- DO NOT access patient information unless required by your job
- Do use the document destruction bins
- DO NOT send patient information by Internet unless authorized
- DO use "strong" passwords
- DO remember your computer activity is monitored and audited
- DO inform report HIPAA concerns to Corporate Compliance

### **SANCTIONS**

#### ***Hospital Sanctions***

Central Georgia Health System will take disciplinary action if it is determined that an employee failed to comply with the hospital's HIPAA or Information Security policies. An employee who violates these policies may be subject to various sanctions up to and including termination.

#### ***Federal Sanctions***

HIPAA violations may subject Central Georgia Health System and the employee to monetary penalties and criminal actions, depending on the extent and type of HIPAA violation.

### ***Civil Fines***

Civil Fines of no more than \$100 per violation with a maximum of \$25,000 in each calendar year for violations of an identical requirement.

The ENFORCER of HIPAA is the Office of Civil Rights. They institute Criminal Penalties for “Knowing Misuse” of PHI. There are three Degrees 1) Simple violations - up to \$50,000 plus up to 1 year in prison, 2) Violation committed under false pretenses - up to \$100,000 plus up to 5 years in prison and 3) Violation committed for gain or harm - up to \$250,000 plus up to 10 years in prison

# **Infection Prevention and Control for Non-Clinical Employees**

## **Objectives**

After completion of this course you will be able to:

- Describe Standard Precautions and the three types of Transmission-Based Precautions
- Describe a bloodborne pathogen and tuberculosis infection and disease, and use methods to decrease the likelihood of contact
- Appropriately handle spills and medical waste
- Describe the steps you should take after an unprotected contact.

## **Standard Precautions**

Healthcare workers can play a huge role in preventing the spread of healthcare-associated infections (or HAIs) through the use of Standard and Transmission-Based Precautions.

Standard Precautions, including hand hygiene and personal protective equipment, must be used to avoid contact with blood, body fluids, secretions, excretions (except sweat), broken skin, and mucous membranes to prevent the spread of infection. Hand hygiene includes washing with soap and water and using alcohol-based products. Personal Protective Equipment (or PPE) includes gloves, protective clothing, and mouth, nose and eye protection. Gloves should be worn when you may have hand contact with blood, body fluids, secretions, excretions, broken skin, mucous membranes, or equipment or surfaces that have come into contact with these substances. Protective clothing such as Isolation gowns should be worn to prevent these substances from touching your skin or clothing. Do not reuse gowns, even for repeated contact with the same patient and/or their environment. Mouth, nose, and eye protection such as masks, goggles, and face shields should be worn to prevent contact with these substances from a splash or spray. Personal Protective Equipment that has come into contact with blood, body fluids, secretions, excretions, broken skin, or mucous membranes should be removed before leaving the area and placed into a biohazardous container. Be sure to perform hand hygiene after removing Personal Protective Equipment.

## **Bloodborne Pathogens**

Blood may contain substances called bloodborne pathogens that can cause infection or disease. The hepatitis B and hepatitis C viruses are bloodborne pathogens that are spread through contact with the blood of an infected person and can cause a liver infection. There is a Hepatitis B vaccine. There is no vaccine against the hepatitis C virus; however, there is medication available if infection occurs. The human immunodeficiency virus (HIV) is a bloodborne pathogen that attacks the immune system. The virus is spread through contact with the blood or sexual fluids of an infected person. The virus causes long term infection to which there is no cure. Your risk for infection after contact with the blood of a patient with HIV is relatively low, about 1 in 300. There is no vaccine against the HIV virus; however, there is medication you can take after contact to prevent infection.

## **Direct Contact**

Injuries that occur when a sharp object breaks through the skin can result in direct contact with bloodborne pathogens. Many of these injuries, however, can be prevented such as picking up broken glass using a brush and dust pan, not your hands. Sharps must be placed in a biohazardous sharps container, labeled with the biohazard symbol, as soon as possible after use. These containers must be puncture-proof and firm, and not allowed to overfill. Sharps must not be thrown away in bagged trash.

## **Indirect Contact**

Contact with objects can result in indirect contact with bloodborne pathogens. Equipment and surfaces must be cleaned with an appropriate disinfectant. Patient and resident rooms, including the furniture, restroom surfaces and floors, are routinely cleaned. Equipment such as IV and tube feeding poles must also be cleaned when dirty and between patients or residents.

When a patient or resident is discharged, the room must be cleaned, disposable equipment thrown away, and reusable items or equipment sent to be reprocessed according to your organization's policies and procedures. Equipment and surfaces outside of the patient or resident room must also be routinely cleaned or disinfected, such as linen carts, chart racks, medicine carts, treatment supply carts, counter tops and desks.

## ***Spills***

Spills of blood and body fluids should be covered with a towel or other absorptive material and cleaned up without affecting the surrounding area. The material should be placed in a biohazard bag and the area disinfected. In addition to gloves, you may also need to wear a gown if the spill is large. Refer to your organization's policies and procedures for more details, including the reporting of spills.

## ***Medical Waste***

Medical waste are items that have come into contact with blood and other body fluids that need to be thrown away. Avoid contact with medical waste by wearing gloves and other personal protective equipment as needed. As previously mentioned, sharps must be thrown away in a biohazardous sharps container.

Other waste can be placed in a bag with a biohazard label. Once the waste is inside the bag, change your gloves to avoid getting the outside of the bag dirty.

Close the bag without releasing any trapped air and check for leaks. Keep waste and bags away from your uniform. Perform hand hygiene when you are done.

Follow your organization's policies and procedures on medical waste.

## ***Linens***

Dirty linens should be handled in a way that reduces the likelihood of contact, including the use of personal protective equipment. Linens should be removed from a bed by gathering the edges to the center in a folding fashion. Keep the linens close to the bed and do not shake. Linens should be rolled and taken to the dirty utility room if feces are present and need to be dumped. Never empty feces into a wash sink. Do not sort or rinse linen in the patient or resident care area. Linens should be placed in a linen hamper. If the

linen is wet, place in a linen or laundry bag that will not leak and take it to the laundry facility in an appropriate container. Do not let the linens touch your uniform.

Always perform hand hygiene before getting clean linens, pillows or blankets and keep them from touching your uniform. Clean linens should be stored in a closet or on a covered rack. Linens should be placed on a clean chair, table or closet in the patient's or resident's room, and can not be returned to storage or carried to another room. Plan ahead to know the right number and kinds of linens you will need.

### ***Eating and Drinking***

Do not eat, drink, put on make-up or lip balm, or touch your contact lenses in areas where there may be blood or other body fluids. In addition, do not keep food or drinks in refrigerators, freezers, shelves, cabinets or on countertops where there may be blood or other body fluids.

### **Unprotected Contact**

The employee should be evaluated by an authorized treating facility immediately after exposure to blood or body fluids to insure appropriate medical management and initiation of any recommended medication(s) preferably within 1 – 2 hours post exposure.

Authorized Medical Center of Central Georgia treating facilities include:

The Employee Health Center

After office and weekends: The Emergency Center and the Med Center Urgent Care Centers

A Hot Line (633-7233 or 633-SAFE) and instructional packets are available to assist the employee, supervisor and physician through the treatment process.

The CDC PEP Line (Post Exposure National Clinicians' Post-exposure Prophylaxis Hotline (PEP-Line) (888) 448 – 4911 is available 24 hours a day 7 days a week for consultation and support.

Following immediate medical attention to the site of injury, an Employee Occurrence Report must be completed.

If you suffer a sharps injury immediately wash the area with soap and water. If blood or body fluids are splashed into your nose, mouth, or eyes, clean the area with water. Report the exposure to your supervisor immediately. You will receive a private evaluation, including testing for bloodborne pathogens and medication to prevent infection (if recommended). If after an exposure you develop a fever, extreme tiredness, loss of appetite, nausea, vomiting, or yellowing of the skin or eyes, you must tell your supervisor, Infection Control or Occupational Health personnel as soon as possible.

### **Transmission-Based Precautions**

There are three types of Transmission-Based Precautions: Contact, Droplet, and Airborne. Transmission-Based Precautions are used when the spread of infection is not stopped using Standard Precautions alone. It is important to note that Transmission-Based Precautions are always used in addition to Standard Precautions. When Transmission-Based Precautions are in use signs must be placed to alert visitors and staff. It is the

responsibility of all staff to educate and assist individuals who do not understand infection control procedures.

### ***Contact Precautions***

Contact Precautions include the use of gloves and a gown to prevent the spread of infection that occurs from direct or indirect contact with a patient or resident and/or their environment. Contact Precautions should also be used when a patient or resident is infected (or colonized) with bacteria that are resistant to medication such as MRSA. Personal Protective Equipment should be put on upon entering the room and thrown away before exiting the room.

### ***Droplet Precautions***

Droplet Precautions include the use of a mask to prevent the spread of infection that occurs from respiratory secretions. Respiratory secretions are released when an infected person coughs, sneezes, or talks. Infections such as influenza (or the flu) require Droplet Precautions.

### ***Airborne Precautions***

Airborne Precautions include the use of a respirator and airborne infection isolation room (AIIR) to prevent the spread of infection that occurs from respiratory secretions that can float in the air over long distances. Infections such as tuberculosis require Airborne Precautions.

Tuberculosis (or TB) bacteria are carried in small particles that spread when a person coughs, sneezes, shouts, or sings. Infection occurs when a person breathes in the bacteria, and it enters their lungs. If the immune system is able to stop the bacteria from multiplying, the person has no symptoms and can not infect others. This is known as latent tuberculosis infection. Tuberculosis disease occurs when the bacteria is active in the body and multiplies because of a weak immune system. The person with TB disease will have symptoms and is able to infect others.

All healthcare workers who may have contact with the tuberculosis bacteria must be screened for TB using a two-step tuberculin skin test (TST) or blood test before employment and periodically based on the facility's risk assessment. If you have unprotected contact with a patient or resident with TB disease, you will be screened for TB infection. If the test result is positive you will receive medication to prevent infection (if recommended). This will be provided to you at no cost. Report any unprotected contact or signs or symptoms of TB disease to Infection Control or Occupational Health personnel.

### **Conclusion**

Your organization is committed to preventing the spread of infection. And they need your help! If you have any questions regarding infection prevention and control, contact the Infection Prevention and Control Department.

## Information Services

### Network Logon User ID and Password

User IDs and passwords are an important **part** of computer security. They are the front line of **defense** from **wrongful** access to our computer systems. It is NEVER safe to share this type of **private material** with anyone. All passwords are to be treated as sensitive, Confidential CGHS information.

**CGHS network users must** change passwords at least once every 90 days. If an account or password is believed to have been **exposed**, report it to the Information Security Officer at 633-1223 or by calling the Corporate Compliance Hotline at 888-380-9008 and **quickly** change the password.

You can unlock or reset your network account by **going to** the hospital Intranet and looking for the Password Reset link.

### Medical Center Of Central Georgia

Self-Service Password Management - For Network And eMail Logon  
Please call the Help Desk @ 7272 for PRISM applications, PACS & ESA

Welcome To The MCCG Network Password Reset.

This system allows you to change your network & email password and to unlock or reset your network account, even if you have forgotten your password.

[Click Here For The Password Guidelines \(opens into a new window\)](#)



#### Enroll

You must enroll into this system before you can use it to reset your password or unlock your account. Enrollment is a one-time process and takes only a few minutes. [Enroll now](#)



#### Reset

Select this option if you have forgotten your password and would like to reset it. [Reset password](#)



#### Unlock

Your account may become locked if the wrong password is entered too many times during logon. Select this option to unlock your account. [Unlock account](#)



#### Change

Select this option if you know your current password and would like to change it. [Change password](#)

## **Force Encryption - #secure#**

If a user sends an Email that has any patient, sensitive business, financial or legal information, the user must force the Email to be encrypted. To force the Email to be encrypted, the user will type #secure# in the subject of the message. If the message does not have the phrase #secure#, it will still go through the **correct** filters to catch any words that MCCG **thinks requires** encryption.

## **Computer Security Incident Response**

All CGHS staff and contractors are **trusted** to help ensure the security of the company's computer systems. Part of this duty is to report any confirmed or suspected security problem in a timely manner.

If you **believe** that there may be a security problem on a CGHS computer system which you use you are **required** to do the following:

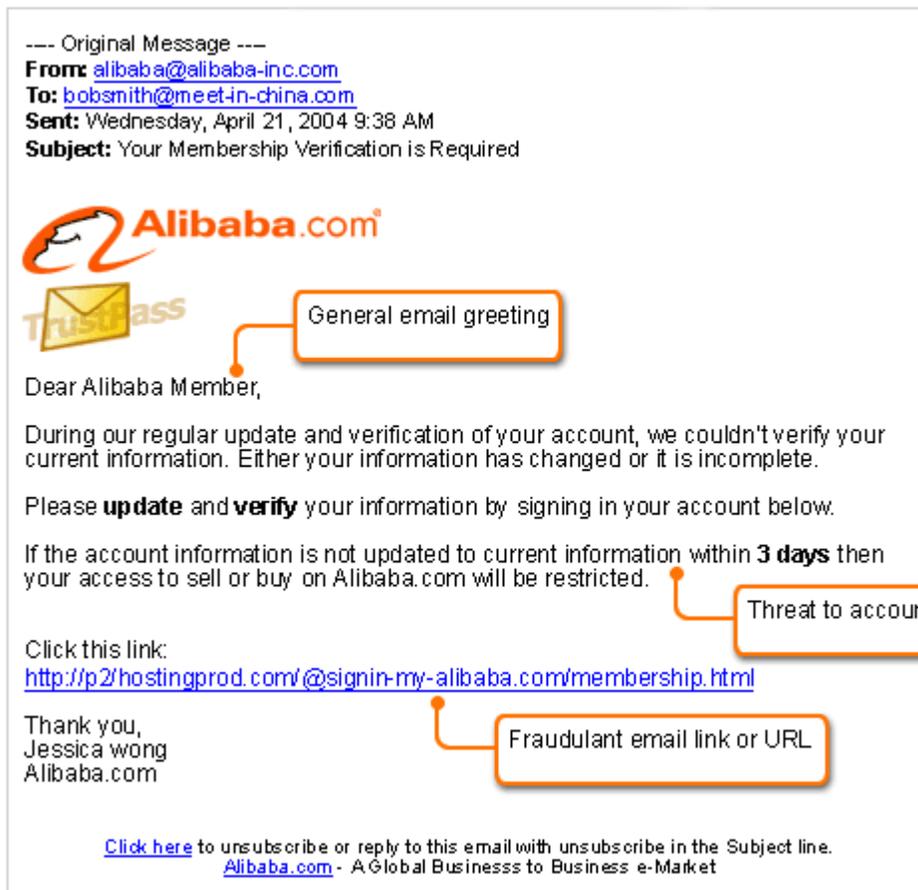
- Contact the Information Security Officer at 633-6990 or the Corporate Compliance Helpline at 1-888-380-9008 **promptly**. Corporate Compliance should **record** anything known about the problem and the contact information (name, phone number, office location and hours, e-mail address) of the person reporting the issue.

Please be **mindful** of visiting unknown websites that may be infected with spyware, adware, or **harmful** code.

Also be on the lookout for "phishing" email scams. Phishing scams are emails to a user which falsely claim to be an established **real** person or business. These emails **try** to scam the user into **giving up** private information that will be used for identity theft.

For example, Fake e-mail messages from what appears to be a company you do business with warning you that they need to **confirm** your account information or your account will be suspended.

Another example is a fake online sales **deal, in which** a criminal offers to buy something from you and **says** that they **will** pay you an amount well over the price of the item they are buying. In return, they ask you to send them a check for the difference. The payment to you is not sent, but your check is cashed, and the criminal pockets the difference. **Also**, the check that you send has your bank account number, bank routing code, address, and phone number.



## Confidentiality and Security Access

All CGHS **workers** and associates must hold **private** information used or obtained in the course of their duties in confidence. All employees and associates with access to confidential information, including patients' medical records **data**, employment **data** and/or information systems must read and sign the CGHS Confidentiality and Security Access Agreement, which will be kept on file and updated **yearly**.

If assigned a CODE, I will not **reveal** it to anyone or allow / enable anyone to access **the network** using it.

Internet access and email are provided by CGHS to employees for use in the conduct of work, research or other related activities. As with any work related privilege there exists **chances** for abuse. Any misuse or abuse (ex. pornography, sports, chain-letter writing, etc.) of these services could be grounds for disciplinary action.

It is against CGHS policy for anyone other than Information Services to install software unless authorized by Corporate Compliance. Information Services relies on installation and support to provide software and hardware in good operating condition to CGHS employees so that they can best accomplish their tasks.

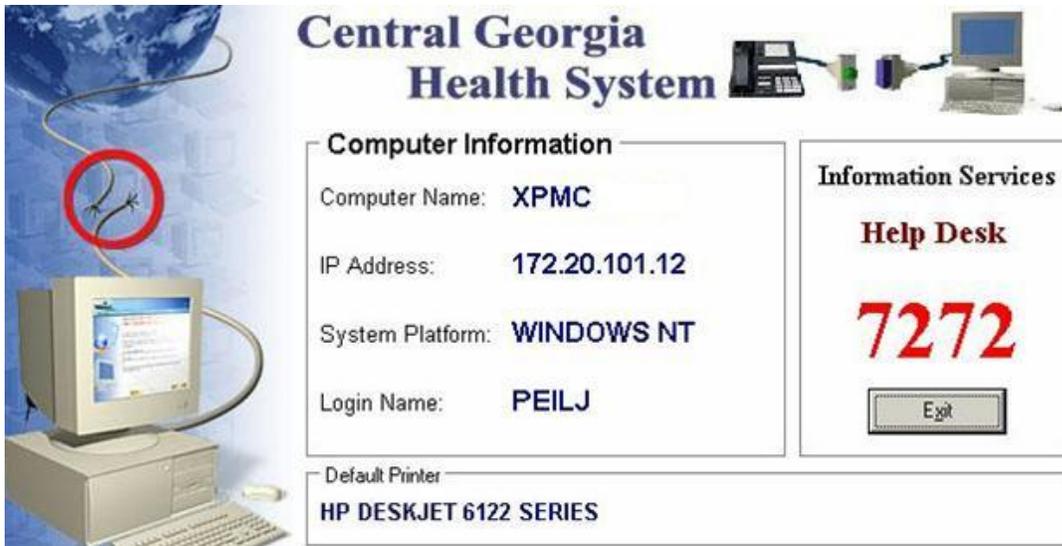
## Electronic Mail (email)

The Email system is intended to help CGHS employees and associates **do** their jobs more efficiently and effectively. It is requested that employees use the Email system responsibly, as **improper** use **wastes** computer resources needed for **valid official** functions. Staff cooperation will help keep the entire Email system **running at it's highest level**.

The use of Email for non-business purposes such as gossip, retail sales, chain letters or solicitation activities may result in the loss of mail privileges. An employee sending personal messages **gives up** any claims to privacy.

## Technical Support

On a computer desktop the "Help Desk Info" icon displays the computer name, **internet** address, login name, and default printer when double clicked. Please contact the Help Desk at ext. 3-7272 with any computing questions or problems. If you receive an alert or notice on your computer that a virus or spyware infection has been detected, you should notify the Help Desk **right away**.



**Central Georgia Health System**

**Computer Information**

Computer Name: **XPMC**

IP Address: **172.20.101.12**

System Platform: **WINDOWS NT**

Login Name: **PEILJ**

**Information Services**

**Help Desk**

**7272**

Exit

Default Printer  
**HP DESKJET 6122 SERIES**

# **Isolation and Standard Precautions**

## **Objectives**

After completion of this course, you will be able to:

- Describe the practices used in Standard Precautions including hand hygiene, use of personal protective equipment, safe injection and lumbar puncture procedures, Respiratory Hygiene and Cough Etiquette, and the handling of patient- or resident-care equipment and the environment;
- Describe the three categories of Transmission-Based Precautions including Contact, Droplet and Airborne Precautions; and
- Apply Standard and Transmission-Based Precautions to prevent the spread of infection.

## ***Introduction***

Infections can cause illness and death. The term healthcare-associated infection (HAI) is used to refer to infections associated with healthcare delivery in any setting (such as hospitals, long-term care facilities, ambulatory settings, and home care). Healthcare workers can play a huge role in preventing the spread of infection through the use of Standard and Transmission-Based Precautions.

Standard Precautions are used when caring for any patient in any healthcare setting. It is the best way to prevent the spread of infection among patients, residents and healthcare personnel. Transmission-Based Precautions are used when caring for any patient or resident who is known or likely to have an infection which requires additional safeguards to prevent it from spreading. Since the presence of an infection is often not known at the time of entry to a healthcare facility, Transmission-Based Precautions may be used based upon a person's symptoms and the likelihood of infection, and then adjusted as the infection is confirmed or ruled out.

## **Standard Precautions**

Standard Precautions are based on the principle that all blood, body fluids, secretions, excretions (except sweat), broken skin, and mucous membranes may be infected, and the infection can be spread. Standard Precautions include hand hygiene; use of personal protective equipment (or PPE); safe injection practices; special procedures for lumbar punctures and Respiratory Hygiene and Cough Etiquette. Equipment or items in the patient's or resident's environment likely to have been contaminated (or have the presence of) blood or body fluids must be handled with caution. All of these practices prevent the spread of infection.

## ***Hand Hygiene***

Hand hygiene is the single most important practice to reduce the spread of infection in healthcare settings. Hand hygiene includes handwashing with plain or antimicrobial soap and water, and the use of alcohol-based products.

## ***Personal Protective Equipment (or PPE)***

*Gloves:* Gloves should be worn when you are likely to have contact with blood, body fluids, secretions, excretions, broken skin, or mucous membranes. Gloves should fit and be appropriate for the task. For example, disposable examination gloves should be worn when giving direct care whereas reusable utility gloves may be used when cleaning

medical equipment. Gloves should be removed after contact with a patient or resident and/or the surrounding environment using a technique that prevents hand contamination. You should not wear the same pair of gloves for the care of more than one person or wash gloves for the purpose of reuse. You should change gloves during patient or resident care when your hands move from a soiled (or dirty) body-site to a clean body-site. After removing gloves, remember to perform hand hygiene.

*Protective Clothing:* Isolation gowns should be worn when it is likely that blood, body fluids, secretions, or excretions may touch your skin or soil your clothing.

Remove the gown using a technique that prevents contact with your skin or clothing, discard and perform hand hygiene before leaving the patient's or resident's environment. Do not reuse gowns, even for repeated contact with the same person.

*Mouth, nose, and eye protection:* Mouth, nose, and/or eye protection should be worn when it is likely that blood, body fluids, secretions and excretions may be splashed or sprayed. PPE for mouth, nose, or eye protection include masks, goggles, face shields, and combinations of each. Remove, discard (as appropriate) and perform hand hygiene before leaving the patient's or resident's environment.

### ***Safe Injection Practices***

Needles and syringes are sterile, single-use items. After use these items should be discarded intact in an appropriate sharps container. Single-dose vials, pre-filled syringes, and ampules should be used whenever possible. Do not administer medications from single-dose vials to multiple people or combine leftover contents for later use. If multiple-dose vials are used, they should be restricted to the medication area or for single patient or resident use. Never re-enter a vial with a needle or syringe used on one person if that vial will be used to withdraw medication for another person. Vials must be stored based on the manufacturer's recommendations and discarded if sterility is questionable. Do not use bags or bottles of intravenous solution as a common source of supply for multiple patients. Use aseptic technique to avoid contamination of sterile injection equipment and medications.

### ***Special Procedures for Lumbar Puncture***

The healthcare professional placing a catheter or injecting material into the spine of a patient or resident must wear a surgical mask to prevent the possible spread of infection to the person.

### ***Respiratory Hygiene and Cough Etiquette***

Respiratory Hygiene and Cough Etiquette reduce the spread of respiratory infections and apply to any person that enters a healthcare facility with signs or symptoms of a respiratory illness such as coughing, congestion, runny nose, or an increased amount of sputum, especially during seasonal outbreaks of infection (such as influenza). Respiratory Hygiene and Cough Etiquette include control measures such as covering the mouth and nose with a tissue when coughing, prompt disposal of used tissues, and the placement of a surgical mask on the coughing person. Persons with respiratory infections should be placed 3 feet from others when possible.

## ***Equipment and the Environment***

Handle equipment and surfaces that come into contact with blood, body fluids, secretions, and excretions in a way that prevents exposure, contamination of clothing, and transfer of infection to other people and surfaces. All reusable equipment and contaminated surfaces must be cleaned with an appropriate disinfectant to reduce the indirect spread of infection from an object to a person.

Follow the manufacturer's instructions and your organization's policies and procedures.

## **Transmission-Based Precautions**

There are three categories of Transmission-Based Precautions: Contact, Droplet, and Airborne. Transmission-Based Precautions are used when the spread of infection is not stopped using Standard Precautions alone. To prevent the spread of some infections, more than one Transmission-Based Precaution category is necessary. It is important to note that Transmission-Based Precautions are always used in addition to Standard Precautions. When Transmission-Based

Precautions are in use signs must be placed to alert visitors and staff. It is the responsibility of all staff to educate and assist individuals who do not understand infection control procedures.

### ***Contact Precautions***

Contact Precautions are used to prevent infection that is spread by direct or indirect contact with a patient or resident or their environment. Infections such as *C. difficile* require Contact Precautions. Contact Precautions are also required for large draining wounds and uncontrolled diarrhea. In addition, Contact

Precautions should be used when a person is infected (or colonized) with bacteria that are resistant to medication such as MRSA. A single-person room is preferred for those who require Contact Precautions. When a single-person room is not available, infection control personnel should be contacted to evaluate other placement options. In multi-person rooms, patients or residents should be separated by at least 3 feet to reduce the possibility of sharing items. Disposable care equipment (such as a blood pressure cuff) should be used or equipment must be assigned to a specific person. If you must use the same equipment for multiple people, clean and disinfect the equipment between uses. Healthcare personnel caring for patients or residents on Contact Precautions must wear a gown and gloves for all interactions that involve contact with the person or their environment. Healthcare personnel should change PPE and perform hand hygiene between contact with patients or residents in the same room. Of course this should be done regardless of whether one or both are on Contact Precautions. PPE should be applied upon entering the room and discarded before exiting the room. The patient or resident on Contact Precautions should be moved for medically-necessary purposes only. During transport infected areas of the person's body should be covered.

### ***Droplet Precautions***

Droplet Precautions are used to prevent infection that is spread through respiratory secretions. Respiratory secretions are released when an infected person coughs, sneezes, or talks. Infections such as influenza require Droplet Precautions. A single-person room is preferred for patients or residents who require Droplet Precautions. When a single-person room is not available, infection control personnel should be contacted to evaluate other placement options. In multi-person rooms, patients or residents should be separated by at least 3 feet and the privacy curtain drawn. Healthcare personnel caring for patients or

residents on Droplet Precautions must wear a mask. This should be applied upon entering the person's room. Patients or residents on Droplet

Precautions who must be moved should wear a mask and follow Respiratory Hygiene and Cough Etiquette. If the patient or resident is wearing a mask, the person moving them is not required to wear one.

### ***Airborne Precautions***

Airborne Precautions are used to prevent infection that is spread through respiratory secretions; however the bacteria from these infections can float in the air over great distances. Infections such as tuberculosis (or TB) require Airborne Precautions. An airborne infection isolation room (AIIR) is required for patients or residents on Airborne Precautions. An airborne infection isolation room is a single-person room that is equipped with special air handling and ventilation systems to reduce the amount of bacteria in the air and prevent the escape of bacteria into nearby areas. Healthcare personnel caring for patients or residents on Airborne Precautions must wear a mask or respirator depending on the infection. This is applied prior to entering the person's room. Patients or residents on Airborne Precautions who must be moved for medically-necessary purposes should wear a surgical mask and follow Respiratory Hygiene and Cough Etiquette. During transport infected areas of the person's body, such as skin lesions caused by tuberculosis, should be covered. If the patient or resident is wearing a mask and their skin lesions are covered, the person moving the patient is not required to wear a mask.

Transmission-Based Precautions remain in effect for limited periods of time depending on the infection. Follow your organization's guidelines regarding when to end Transmission-Based Precautions.

### ***Other Considerations***

Patients or residents on Transmission-Based Precautions may experience anxiety, depression or feelings of shame because of practices such as wearing a mask or being alone in a room. They may also have less contact with staff which can increase the risk of an adverse event. These concerns must be considered and addressed in order to ensure the compliance and safety of the person.

### **Laundry**

Linens should be handled appropriately to reduce the risk of contamination.

Always perform hand hygiene before retrieving linens, pillows or blankets and avoid contact with your uniform. Linens should be stored in a closet or on a covered rack and placed in a closet or on a clean chair or table in the patient's or resident's room. Linens cannot be returned to storage or carried to another room.

Plan ahead and determine the correct amount and type of linens needed.

Employees who have contact with dirty or soiled linens must wear appropriate PPE. Dirty linens should be removed from a bed by gathering the edges to the center in a folding fashion. Keep the linens close to the bed to reduce the release of bacteria into the air and onto other surfaces and people. Roll dirty linens that contain feces and empty in the dirty utility room. Do not empty feces into a wash sink or sort or rinse soiled linen in a patient or resident care area. Place dirty linens in a linen hamper and use a leak resistant bag when necessary. Do not allow dirty linens to come in contact with your uniform.

## **Conclusion**

Your organization is committed to preventing the spread of infection. And they need your help! Protect yourself and your patients or residents by appropriately using Standard and Transmission-Based Precautions. If you have any questions regarding Standard or Transmission-Based Precautions, contact the appropriate personnel within your organization.

## **Machine Guarding**

### ***You will be able to:***

- Understand the hazardous actions of different types of machinery
- Identify the hazards of working with machinery
- Identify machine safeguards and know how they work
- Properly operate machines with guards

### **Why Machines Must Be Properly Guarded**

- According to the Occupational Safety and Health Administration (OSHA), workers who operate and maintain machinery suffer over 800 deaths per year.
- According to federal statistics, workers in the U.S. experience 92,000 injuries annually from unguarded machine parts, each resulting in one or more days away from work.
- Approximately 18,000 amputations, fractures, lacerations, crushing injuries.
- Electric shocks and burns are experienced by workers every year from unprotected machine parts.

### **Unsafe Machines Cause Injuries**

- Poorly designed machines
- Poorly maintained machines
- Machines being used for unintended purposes
- Machine not properly installed
- Inadequate safeguarding
- Objects discharged from the machine

### **Unsafe Actions Cause Injuries**

Injuries can result from actions, or the lack of proper actions, on the part of the machine operator, including:

- Reaching around, under, over or through guards into hazardous areas
- Removing or bypassing guards
- Reaching into equipment to remove stuck or jammed material
- Not using electrical safety procedures
- Not wearing appropriate protective equipment
- Not knowing how to properly service or repair machines

### **Where Machine Hazards Occur**

- Machine hazards occur most commonly in three areas of a machine or operating equipment with moving parts:
- The point of operation where the work is actually performed.
- A drill bit cutting into wood or where machine parts move toward or

- Past each other are examples of point of operation hazards.
- The power transmission system which includes flywheels, pulleys, belts, connecting rods, couplings, cams, spindles, chains, cranks, and gears.
- Operating controls that move while the machine is working.

### **Purpose of Machine Safeguarding**

- Safeguards are designed to protect you from machine-related injuries. You should always make sure that safeguards:
- Prevent access to point of operation and power transmission apparatus
- Prevent objects from being ejected toward people

### **Safeguarding Best Practices**

In order to make sure that the safeguards work effectively:

- Never remove or defeat safeguards while operating the machinery.
- Remove guards only when machine is locked and tagged out
- Immediately report any machine guard problems or failures to supervisors.
- Operate equipment only when guards are in place and properly adjusted
- Don't use unauthorized or damaged guards
- Never leave machines unattended with parts still moving
- Do not wear loose clothing, long hair, or loose jewelry around machines.

### **Rule of Thumb**

- If you can contact the moving parts on a machine, the machine must be guarded.
- Most machines built today include guards designed and installed by the manufacturer. Follow the manufacturer's specifications for the guarding of machines, unless another safe procedure or process has been implemented by our company.

### **Key Points to Remember**

To protect yourself from injury from machinery or equipment, remember these key points:

- All point of operation and power transmission apparatus hazards must be safeguarded.
- Do not operate machines without proper guards in place.
- Remove guards or protective devices only when the machine is locked out following a formal lockout/tagout program.
- Report problems with machine guards or protective devices immediately.

### **Machine Safeguarding—Any Questions?**

- Any questions about safeguarding best practices?

- Questions about any particular type of safeguard?

**If you have questions, please contact Prevention and Control @ 633-1828. Someone will be glad to assist you.**

# **Medical Radiation Safety**

## **Introduction**

Ionizing radiation used in medicine is the largest source of man-made radiation to which people in the United States are exposed. Most of this exposure is from X-rays, however, medical facilities may use radioactive materials for diagnostic and therapeutic procedures also. The effects of ionizing radiation on hospital personnel depend on how much radiation an individual is exposed to and the length of the exposure.

In this course you will learn about the different sources of radiation used in medical facilities, the health effects of ionizing radiation and steps you can take to minimize your exposure.

## **Radiation Basics**

### ***Ionizing Radiation***

Radiation is the process of producing invisible energy in the form of waves and particles. Radiation occurs naturally or is man-made. Naturally-occurring radiation comes from radioactive materials that exist in nature, such as from outer space, rocks and soil, and the human body, and accounts for approximately 80 percent of a person's annual exposure. The remaining 20 percent of a person's exposure comes from man-made radiation sources, primarily medical X-Rays.

Ionizing radiation carries enough energy to change living cells. This can be used in good ways for medical imaging and cancer therapy. X-Rays and CT Scans are examples of procedures in which a person may be exposed to man-made ionizing radiation.

Radioactive materials are materials that are unstable. They emit ionizing radiation in an attempt to become stable, non-radioactive materials. Precautions need to be taken to minimize or prevent exposure to the radiation emitted, and to prevent the spread of radioactive contamination on a person or throughout a facility.

Since ionizing radiation can change living cells, it creates some health risk. That is why your organization addresses the issue of safety, and maintains a radiation-friendly environment.

## **Sources of Radiation at Medical Facilities**

Sources of radiation include medical imaging, nuclear medicine and radiation therapy. We will be discussing those that are applicable to your organization.

### ***Sources of Radiation – Medical Imaging***

Medical imaging refers to the use of ionizing radiation to create images of the human body for clinical purposes. At your organization, personnel may work near radiation sources such as:

- X-Rays,
- Fluoroscopy,
- Computed Tomography (CT),
- C-Arm,

- Mammography, and
- Catheter angiography.

The only time that radiation is generated by these sources is when they are actually “taking the image”. Compare it to a light switch. When “on”, the radiation travels in a straight line at the speed of light and cannot be seen, tasted, smelled or felt. It can also be produced at different levels of energy. A small amount of radiation scatters in other directions. If you are near one of these sources at the time of exposure, you may be asked to wear a lead apron or stand behind some equipment for shielding. Radiation from the sources mentioned above is highly penetrating; do not stand behind a linen curtain for protection.

When used within a Medical Imaging Department or another fixed location, these sources are typically enclosed within lead walls and access is restricted to keep out non-radiation personnel, except when medically necessary. Some of the sources are portable (or mobile), however and may be used outside of the Medical Imaging Department, such as in the Emergency Department, Operating Room or patient room. When using portable sources, precautions should be taken to prevent unnecessary exposures by keeping people out of the radiation beam. Precautions should also be taken to keep people out of areas where there are high levels of unshielded, scattered radiation.

### **Sources of Radiation – Diagnostic Nuclear Medicine**

Nuclear Medicine is a branch of medical imaging that uses the nuclear properties of matter for diagnostic and therapeutic procedures. In diagnostic procedures, radioactive substances are administered to patients intravenously or orally and the amount of radiation retained in the body is measured. A radiation detection instrument is used to measure the amount of radiation emitted which helps evaluate disease process, organ function, tumors or infection. These patients usually do not require special precautions for staff safety because the amount of radioactive material administered is low and therefore the radiation dose to others is minimal. These people typically leave the hospital following their exam.

Your organization may perform diagnostic nuclear medicine procedures such as:

- Myocardial Perfusion Scanning
- Positron emission tomography (PET)
- Thyroid Scan and Uptake

### **Sources of Radiation – Radiation Therapy**

Radiation therapy uses ionizing radiation to kill cancer cells and shrink tumors. Internal radiation therapy, in which a sealed radiation source is placed in a person, allows a higher total dose of radiation be used to treat a smaller tissue area in a shorter time than is possible with external radiation treatment. The radioactive material is enclosed and implanted within or next to the tumor. While the implant is in place, there is a large amount of radioactive material in the patient. When the implant is removed, all radioactive material is gone. For these procedures, the patient remains in the hospital until the radioactive source is removed.

External radiation therapy is a procedure in which a source of radiation outside the body is used to treat cancer cells or a tumor. A beam of radiation leaves the source and

irradiates the tumor. The patient does not become radioactive with this type of procedure and therefore no special precautions are needed when attending the patient either before or after the treatment.

Your organization may perform radiation therapy such as:

- Brachytherapy,
- Teletherapy.

## **Steps to Minimize Your Exposure to Ionizing Radiation While at Work**

### ***Health Effects of Exposure to Ionizing Radiation***

While radiation is used to help diagnose and treat disease, exposure to high levels can also be harmful. The effects of exposure to ionizing radiation depend on how much radiation you are exposed to and how long you are exposed. Too much radiation can increase your risk of developing cancer. Exposure to high levels while a woman is pregnant may lead to complications in pregnancy. It is important to keep your exposure to radiation as low as possible by adhering to the following precautions.

### **Standard Precautions**

Standard precautions refer to the practice of avoiding contact with patients' radioactive bodily fluids, by means of wearing personal protective equipment such as gloves and lab coats or other disposable garments. Standard precautions should be followed with all patients, not just those receiving radiation. Following standard precautions ensures protection against contamination from patient body fluids regardless of the fact that they may contain radioactive material.

### **Internal Exposure Precautions**

Radioactive substances or radiopharmaceuticals used for diagnostic and therapeutic nuclear medicine procedures may be internally deposited in the body through inhalation, ingestion and absorption. These exposures can occur when radioactive substances are inhaled and absorbed by the lungs; are present in contaminated food or drink; or are spilled onto the skin or enters through cuts or scratches. Internal deposition may also result from contaminated hands, with subsequent eating or rubbing of eyes. Precautions should be taken to avoid each of these means of internal exposure to radioactive substances. Wearing protective equipment such as gloves and labcoats, or washing your hands frequently are ways to avoid getting radioactive materials in your body.

### **External Exposure Precautions**

There are three major ways to reduce your external exposure to radiation:

- Distance – Increase the distance between the radioactive source and yourself. As radiation travels from the source, it spreads out becoming less intense. As a rule, if you double the distance between your body and the radiation source, you reduce the exposure by a factor of four.
- Time – Spend less time around radiation sources to limit your exposure. Conduct the work quickly and efficiently, but do not rush.
- Shielding – Use proper barriers to minimize your external exposure.

## **ALARA**

ALARA is an acronym for As Low As Reasonably Achievable. All organizations and individual workers are responsible for taking necessary steps to keep radiation doses to all people ALARA. Your organization follows this radiation safety principle by establishing procedures workers are to follow and utilizing reasonable methods that minimize radiation doses and releases of radioactive materials to work and public areas. ALARA is not only a reliable safety principle, but is a regulatory requirement for all radiation safety programs.

### **Monitoring for Radiation Exposure**

Personnel monitoring equipment detect and measure radiation to which you may have been exposed. It is the most important monitor to determine your risk from radiation on the job. There are different types of personnel monitoring equipment available, such as radiation body badges, pocket chambers, pocket dosimeters, and radiation ring badges. Personnel who are likely to be exposed to radiation may wear personnel monitoring equipment. The millirem (mrem) is a unit of radiation dose. The annual allowable limit is 5,000 millirems whole body radiation dose for occupationally exposed radiation workers.

The following personnel may wear monitoring equipment in your organization:

- Radiologic Technologists,
- Nuclear Medicine Technologists,
- Radiologists,
- Cardiologists,
- Cath Lab and Special Procedures staff,
- Surgery staff,
- Clinical Equipment engineers,
- Staff caring for an Iodine-131 therapy patient.

### **Radiation Signs**

A radiation “caution” sign will tell you when radiation precautions are in effect. Do not enter the rooms containing radiation generating equipment or radioactive substances without the authorization of the Medical Imaging personnel. If you must be in an area where radiation is being generated follow the directions of the Medical Imaging personnel for personal protection procedures.

### **Radiation Safety Concerns and Pregnant Workers**

Exposure to radiation while pregnant could also involve exposure to the embryo or fetus. The maximum permissible exposure to the embryo or fetus of a declared pregnant worker during the gestation period is 500 mrem. Declaring the pregnancy to your employer is voluntary. The pregnant worker must notify appropriate personnel in writing in order for the prenatal exposure limits to take effect. Pregnant personnel working within areas in which radiation or radioactive materials are used may be assigned additional monitoring equipment.

### **Magnetic Resonance Imaging**

#### ***Magnetic Resonance Imaging (MRI)***

Although Magnetic Resonance Imaging (MRI) does not involve the use of ionizing radiation and is therefore not associated with the same health hazards, it does involve the

use of magnetic and radiofrequency fields to acquire its images. Because of these fields it is important to address some MRI specific safety issues for healthcare personnel.

### ***Safety Issues for Personnel***

Significant safety issues for personnel regarding MRI include:

- **Projectiles:** As a result of the very high strength of the magnetic field needed to produce scans (frequently up to 60,000 times the earth's own magnetic field effects), there are several safety issues. Missile-effects accidents, where magnetic objects are attracted to the center of the magnet, have resulted in injury and death. It is for this reason that magnetic objects and devices are prohibited in proximity to the MRI scanner, with non magnetic versions of many of these objects typically retained by the scanning facility. Only use equipment that has been approved for use during MRI scans. The magnetic field remains a permanent hazard – the superconductive MRI magnet retains its magnetic field at all times. Never attempt to run a cardio-pulmonary arrest code or resuscitation within the MR magnet room itself.
- **Cryogenics:** An emergency shut-down of a superconducting electromagnet is an operation known as “quenching”. During this process helium may be released into the scanner room where it may cause displacement of the oxygen and, therefore, risk of asphyxiation. Spontaneous quenches are uncommon, but can occur at any time.

### **Conclusion**

Your organization is committed to maintaining a radiation-friendly environment. And it takes your help. All employees are responsible for ensuring a safe work environment and notifying your employer if there are safety problems such as unexpected contamination, unusual or unnecessary radiation doses, or people are not following established safety procedures. If you have questions about any practice involving radiation or radioactive materials, contact your Medical Imaging Department for guidance and assistance.

Reducing the risk of adverse health effects from radiation exposure greatly depends on you. Together, everyone can keep the workplace safe.

## **Moving and Lifting**

***Upon completion of this course, you will be able to:***

- Define manual handling and body mechanics;
- Identify safe moving and lifting practices;
- List injury prevention activities; and
- Appropriately report injuries.

### ***Introduction***

Every employee within your organization performs tasks that involve lifting, lowering, pushing, pulling, carrying, moving or holding an object. When a person uses force to perform these tasks it is called manual handling and includes carrying boxes of paper, moving equipment, and lifting patients or residents. Employees should perform these tasks safely.

Body mechanics is the use of ones body to produce motion that is safe. Proper body mechanics can reduce stress and strain on your body therefore reducing the possibility of injury. Improper body mechanics such as bending at the waist to lift an object, twisting or reaching while lifting, and lifting from an awkward position, increase your risk of injury.

### **Safe Lifting and Moving Guidelines**

Employees can be affected by improper lifting and moving. Staff is at risk for strains, sprains, and long-term disabilities (such as chronic back pain) that can result in missing work, decreased income and increased medical expenses.

The following guidelines are provided to assist you with lifting and moving. You should never lift or move anything unless you can do so safely. Be aware of your abilities and limitations.

### ***Plan the Lift***

- Determine the weight and balance of the object. If you do not know the weight, test it by lifting it a little bit and setting it down again. The heavier the object, the greater the risk for injury.
- Evaluate the area from which you are moving the object. Is there adequate space for lifting using proper body mechanics?
- Evaluate the need for mechanical aid (such as a dolly), an assistive device (such as a sliding board), or a team lift. If equipment is needed, lift and move the object by following the manufacturer's guidelines.
- Evaluate the area to which you are moving the object. Remove any obstacles or tripping hazards from your path. If the object is to be moved a long distance, plan areas to rest.
- Determine the need for personal protective equipment.

### ***Lifting Technique***

- Face the object. Place your feet shoulder width apart, with one leg slightly forward of the other. Wear sturdy non-skid shoes. Stand close to the object. If the object is not close, try sliding it towards you before attempting to lift it. The stress on your lower back greatly decreases when objects are held close to the body and when a long reach is not needed. Bend at your knees – not at your waist. Keep your back bowed in and your shoulders level and facing the same direction as your hips. Grip the object with your palms, not just your fingers. Use handles if available. Keep your arms close to your body to help support the object. For objects that are awkward in size or shape, you may need to grip at opposite corners.

### ***Lifting Maneuver***

- Tighten your stomach muscles, and lift your head. Using your leg muscles, not your back, lift the object smoothly. If the object is too heavy and you have to stop, slowly lower it and get help.
- If a team is used to lift an object, choose one person to call out directions. Perform all maneuvers smoothly and in unison.

### ***Moving the Object***

- When carrying an object, keep it as close to your body as possible by grasping the bottom corners furthest from your body. Keep the heaviest side of the object closest. When turning, avoid twisting your body, instead, turn with your feet.
- Whenever possible push, don't pull an object. Place the object on a rolling device or have wheels attached, if possible, to allow for easier movement. Keep wheels in good condition to reduce the amount of force used with these objects. Place the handles at waist or chest level. Stay close, keep your arms close to your body and use your body weight to move the object. Let the movement of

the object do some of the work for you. Get help with heavy or bulky objects, or objects in which you can not see over.

- Don't move several objects at one time by yourself. If you need to move a patient or resident in a wheelchair in addition to an IV pole or other equipment, ask for help.

### ***Lowering the Object***

- Put the object down by bending at the knees and bowing in your lower back. Keep your feet apart, if possible. Set down a corner of the object and slide your hand out from under it. Settle the rest of the object.

### **Additional Guidelines**

As mentioned, you should never lift or move anything unless you can do so safely. Special consideration should be given in regards to the following:

#### ***Gas cylinders***

- When moving or lifting a gas cylinder use an appropriate carrier. Since gas cylinders are heavy and awkward, they require special care and equipment for moving, lifting and securing so that they don't fall or tip over and cause an injury. Do not lift the cylinder by its protective cap or guard or by using magnets, chains or slings because this may damage the valves.

#### ***Storage areas***

- Store heavy objects on lower shelves and racks. Label extra heavy or unbalanced objects to alert other employees.
- A ladder or step stool should be used for any object that must be reached or placed on a rack higher than shoulder level. To remove the object, pull the object from the shelf using the strength of your legs and hand it to someone else before climbing down. To place the object, have someone hand it to you while you are on the ladder. Place a corner of the object on the rack or shelf, and slide your fingers free. Settle the object securely on the rack or shelf.

### **Prevention of Injuries**

Improper lifting and moving can result in injury. Injury can follow sudden trauma or repeated acts of improper lifting and moving. To eliminate or minimize injuries you need the correct amount of strength, flexibility, and overall quality of life. You need to exercise, eat right, use proper body mechanics and stretch as often as possible to help prevent injuries, and to recover more quickly if you are injured.

### **Reporting**

An Employee Occurrence Report must be completed if an injury occurs to an employee due to lifting or moving.

It is important for you to report injuries to the appropriate personnel within your organization. These individuals are responsible for recording and appropriately reporting these injuries. With proper reporting and recordkeeping, injury patterns can be studied and valuable information about their causes and prevention measures can be identified.

## **Conclusion**

Your organization is committed to providing a safe and healthy environment for their employees and patients or residents. If you have any questions about body mechanics, injuries, or reporting of these incidents, contact the appropriate personnel within your organization.

## Operation Excellence

***By the end of the segment you should be able to:***

- Define Operation Excellence
- Describe how to answer the phone
- Describe how to deal with difficult customers/patients
- Understand Operation Excellence Standards
- Describe how to help a customer/patient who has been inconvenienced

Operation Excellence (OE) is the name given to the Medical Center's customer service policies. We uphold this way of thinking to make sure we give our customers the best service. In today's world, people have lots of choices. If we want them to return and tell others about us, we must always exceed what our customer expects. It is the key to our success.

- 1% of customers are lost because they die
- 3% move away
- 4% float from company to company
- 5% change to companies friends use
- 10% have chronic complaints
- 68% leave because no one cared for their needs

Think about the reasons why customers decide to go somewhere else. A number of surveys have been done. One of these reports shows that:

If you focus on the service you give, you help make sure the customer is happy. Most people leave because they are unhappy with the service. If we always practice Operation Excellence, we will keep our customers for life.

- OE is our promise to provide the best customer service
- Customer satisfaction is defined by our customers (patients, family members, coworkers).
- Operation Excellence means always meeting our customer's needs

We promote Operation Excellence by:

- Talking in a clear helpful manner in person or over the phone
- Making a good one-on-one impression
- Taking care of problems in a friendly manner
- Owning up to and taking care of complaints when they happen

A key factor to Operation Excellence and customer need is talking to customers the right way. It promotes teamwork and often saves a lot of time. Good listening skills are needed as well.

The following show good listening skills:

- Making eye contact
- Giving the customer your full attention
- Asking questions when appropriate
- Focus on what the customer is saying

Making a good impression by telephone is extremely important for Operation excellence.

- Answer the phone in 3 rings
- Your tone of voice should be warm and friendly
- End all telephone conversations with “Is there anything else I can do for you?”
- Always try and find a solution to the caller’s problem by referring them by direct extension to a more appropriate department

When a customer enters our building or unit, we should welcome them and respond warmly. Customers get their first insight of us from the first person they meet. If they feel their first contact was rude or uncaring, he/she will not want to come back or tell others about us. Our goal is to make each contact pleasant. Therefore, all staff should treat patients, visitors, employees and physicians with courtesy and respect, being aware of any cultural needs.

Proper contact with a fellow worker, patient, or customer should include:

- Smiling when making eye contact
- Using a friendly greeting
- Using the person’s name during the contact

Operation Excellence also involves having a good attitude on the job. Your attitude is guided by your thoughts and feelings. It is shown through your words, actions, tone of voice, the look on your face and your body language. Try looking at things in a positive way. Focus on the good and not the bad.

While we strive for the best service, not all contacts will be positive. Sometimes a person may be angry, anxious, upset or fearful. They may not be in the best frame of mind. When dealing with angry or upset people, remember we work in a health care setting and people come to us when they are not at their best. Try not to take the persons behavior personally. They may be upset about things that are beyond your control. Your job is to help them the best you can and solve the problem.

You should know that an upset person usually needs the chance to vent and know someone is concerned enough to listen and care about their feelings. If you are not threatened by the person:

- Get them to a private place/area where you can both sit down
- Let them vent their feelings without interruption
- Show you are hearing them and understanding

- Accept their feelings
- Relate to their problem

Once the person has calmed down, you can now focus on the problem.

- Ask questions so you know what has happened
- Think of ways we can meet their needs
- Sometimes you will have to think outside the box
- If you can't fix the problem, refer the person to someone who can
- Follow- up and make sure the problem was taken care of

When we find that we are at fault, we should accept the error, say we are sorry, and fix the mistake. If it's o.k., use the service recovery (Care Square Program) to recover the service.

Our biggest complaint in healthcare is waiting. Patients and families tend to accept waiting if they know what's going on. Keep track of who is waiting and give a status update to patients and families.

## Cultural Diversity

This lesson covers the basics of Cultural Diversity. Employees are expected to treat each patient with respect and dignity. All employees should know about diversity and cultural competency and how it relates to their job.

The goal here at the Medical Center is to meet the needs of our patients and customers. We also have to meet the needs of our employees. We see patients from many different cultures. We also have employees from many different cultures. In order to satisfy our patients, customers and staff we must take care of their individual needs. Our mission states that, “we value and respect the uniqueness and dignity of all individuals”. Joint Commission also requires us to look at the culture/religious beliefs and communication needs of the people we serve.

### Diversity, Cultural Competency & Expected Behaviors

Culture is the shared values, beliefs, customs, language and behaviors of a group of people. Our culture is what sets us apart and makes us diverse (different). We all belong to a certain culture. For instance, all employees of the Medical Center are expected to follow Operation Excellence. This is a part of our hospital’s culture.

Diversity means “different” or “variety”. There are two types:

- **Individual Diversity** – no two people are alike
- **Cultural Diversity** – those things common to a group of people based on what they believe, the way they speak, are raised or experiences they share. This is also known as Ethnicity.
- **Race** is the grouping of people based on the way they look (physical appearance). It is the first thing people think of when it comes to diversity but it’s not the only thing that makes up culture. Sometimes you cannot tell a person’s race simply by what they look like. Black Americans from Africa or the Caribbean are different from Black Americans raised in Central Georgia.

As an employee, you must be aware of diversity and how your values and beliefs may affect how you think and relate to other people. The hospital must make sure that all employees are culturally competent. This means that you carry out the right behaviors, attitude and skills when working with and caring for people from different cultures.

Clinical employees need to be familiar with the cultural backgrounds of the patients they serve. They need to be aware of the best ways to communicate to build trust & respect. Employees working with patients need to know how different cultures treat illness in order to create a plan of care that is most likely to be followed.

Each year every employee will be evaluated to see if they are culturally competent. This includes:

- Showing compassion, courtesy, and respect for all people
- Being able to communicate and build trust with people from different cultures
- Know the importance of having a diverse staff
- Take into account a patient’s culture when giving care

- Being aware of and how to use interpreting tools and services

### **Stereotypes & Generalizations**

A stereotype is a common held belief about a group of people. For instance, thinking that all people who can't read are not smart. Stereotypes are learned and come from many places, such as:

- Past experiences
- Family
- Friends/Peers
- TV/Media
- Religion

Stereotypes are both good & bad but most of the time they are bad. The important thing to know is that they can be unlearned.

A generalization is when you make a judgment about a person or group of people; however unlike a stereotype you learn more about the person(s) to find out if what you think is true or not. Not looking beyond the stereotype can lead to bad health outcomes and decrease the quality of the care we provide. In order to provide the best care for our patients we must know as much as possible about them and their needs.

### **Health Literacy**

Health literacy means being able to understand and follow health information such as discharge instructions, appointment slips, patient education materials and prescription labels. Twenty-one percent of people in the United States cannot read the front page of a newspaper. This is a huge problem for hospitals because it results in longer hospital stays, delays in treatment, and problems that could have been avoided. These problems added up to 73 billion dollars in healthcare costs in 2003! There are things we can do to help:

- Use simpler words to explain things to patients
- Cover only the things that the person needs to know; don't go overboard with long drawn out explanations
- Use the teach-back method. Ask the person to tell you what they will do or show you how they will do it
- Always ask if they need help when filling out forms

### **Communication**

45 million Americans use a language other than English; 19 million speak no English at all. The fastest growing ethnic group we are currently seeing is Hispanic. We have the responsibility to meet the needs of all people we serve. We are required by law to provide communication to our patients in a language they can understand. The National Standards for Culturally and Linguistically Appropriate Services (CLAS), states that "Health Care Organizations should ensure that patients/consumers receive from all staff members effective, understandable and respectful care that is provided in a manner compatible with their cultural health beliefs, practices, and preferred language". This includes sign language for our deaf patients.

Interpreters must be certified. If not errors can occur. Do not use family members or friends to interpret medical information for patients. Children under 18 should never be used to interpret. Doing so can lead to problems with confidentiality and patients not getting the right information. If a patient insists on using someone not certified such as a family member or they refuse to use the hospital's services, a consent form (A 0178) must be signed.

## **Resources**

The hospital has certain tools, services to help employees meet the needs of our patients. Some of these resources can help staff learn more about other cultures. However employees should always remember that some people might not follow all of the cultural practices or beliefs listed in books. It is always best to ask the person about his/her beliefs or customs to avoid stereotyping. The following are things staff can use:

***Interpreting Services:*** Provides languages including sign language. Any patient that speaks limited English should be reported to Interpreting Services. Employees can reach Interpreting Services Monday-Friday from 8am to 5pm at ext. 6868. You should leave a detailed message if you call before or after these hours.

***Telephone Interpreters Service 1-800-264-1552:*** Telephone language service available 24 hours a day 7 days a week in 185 different languages. This service should be used when Interpreting Services is not available or when you need a language other than Spanish.

***Phone Hand-set and Adapter:*** To be used when calling the telephone language line to make interpreting easier for the employee and patient.

***Deaf Talk:*** To be used for deaf patients who need sign language. Available 24 hours a day 7 days a week. There are 3 units (1 in Central Supply; 1 in WT Anderson Clinic and 1 in Children's Hospital).

***Telecommunication Device for the Deaf (TDD/TDY):*** To be used for deaf patients needing to make or receive telephone calls. An operator from GA Relay will connect these calls. These machines can be checked out from Central Supply.

Georgia Relay is a service that connects telephone calls for deaf patients. When you receive a call from GA Relay listen for a special tone that sounds like a fax machine. Do not hang up. This is the operator connecting the TDD/TDY machines.

***Pocket Talker:*** To be used for patients who are hard of hearing. It can be checked out from Central Supply.

***Culture & Nursing Pocket Guide Book:*** To be used to learn about different cultures, for example, special birth/death rituals, health beliefs, and gestures that may offend. All patient care service areas should have a copy of this book. It can also be checked out from the Health Resource Center Library or Patient Education.

***Cultural/Spiritual Intranet Page:*** At a glance, up-to-date information about the most common ethnic groups receiving services at the hospital.

**CareNotes:** Print on demand educational handouts in Spanish. It can be accessed through any CGHS computer that has the Intranet.

**Pastoral Care:** To be used to meet the religious/spiritual needs of patients. Chaplain services are available 24 hours a day. The extension is 1461.

The major cultural issues employees need to address include:

- Language barrier – employees should use Interpreting Services
- Non-verbal communication – Some cultures will not make eye contact; certain gestures may be offensive; use the Culture Guide Book or Intranet page for more information
- Family Support – find out who besides the patient should be involved in planning care
- Illness beliefs – find out what they think may be causing their illness & what they are doing about it
- Pain – cultures react differently to pain; check the Culture Pocket Guide Book or Intranet page for more details
- Food – get likes/dislikes; foods that can't be eaten; work with Nutritional Services to meet special needs
- Religious/Spiritual beliefs – work with Pastoral Care to meet special religious/spiritual needs
- Birth/Death rituals – ask about special needs for birth/death and attempt to meet if possible
- Time Orientation – be aware that cultures view time differently
- Name order – always ask how the patient should be addressed; what order the name should be

### **Documenting Cultural Competence**

Documentation must be included in the medical record to show proof of culturally competent care. For instance, if a patient does not speak or understand English, the use of an interpreter should be noted in the patient's record. This also includes informed consent. Having someone sign a consent form they cannot read is the same as having no consent. Whenever possible, consent forms should be provided in the patient's primary language. Many of our consent forms are available in Spanish.

## **Patient Rights**

### **Objectives**

Upon completion of this course, you will be able to:

- Identify the rights and responsibilities of the patient and how this information is provided to them.

## **Introduction**

Both you and your organization are responsible for the protection and promotion of each patient's rights. A patient must understand their rights in order to exercise their rights. This includes the right to treatment, communication, informed decisions, privacy, and safety. The patient must also understand their responsibilities to the organization. The delivery of healthcare is enhanced when patients are partners in the process.

## **Notice of Rights**

Information on patients' rights is given to the patient in the appropriate language or method of communication (such as Braille) at the earliest opportunity depending on his/her medical condition. This information is also available for individuals involved in the care of the patient or part of their support system since they too need to understand the patient's rights.

## **Right to Treatment**

Your organization is professionally and ethically responsible for providing care, treatment, and services within its capability and mission, and the law. Hospitals cannot refuse to treat individuals on the basis of race, color, religion, sex, national origin, disability, sexual orientation or source of payment. In an emergency situation, a patient has a right to treatment, regardless of their ability to pay. The Emergency Medical Treatment and Active Labor Act (EMTALA) requires hospitals provide a screening exam to determine if an emergency condition exists, stabilize the patient before transfer, and continue treatment until the patient can be discharged or transferred without harm.

## **Right to Communication**

Each patient has the right to receive open and honest communication regarding his/her health status and the outcomes of care, treatment, and services, including unanticipated outcomes. The patient has the right to be involved in making decisions and resolving dilemmas. This includes the right to participate in the creation, implementation and update of his/her treatment or care plan, discharge plan, and pain management plan.

## **Informed Consent**

The patient or his/her representative has the right to make informed decisions regarding care, treatment, services, medications, interventions, and procedures.

An informed decision can only be made when the patient or his/her representative is given enough information to enable him/her to fully understand and agree to or refuse the care. This information must be offered in understandable terms using an appropriate language or method of communication. Medical procedures or treatments must be explained including its purpose, benefits, likelihood of success, risks and side effects, potential problems that might occur during recovery, and who will perform the task. The patient must be informed of the risks and prognosis if the procedure or treatment is not provided and alternative methods (if any) with its risks, benefits, and side effects. You should encourage the patient to ask questions. Your organization has determined which decisions require informed consent and the completion of a consent form. When a consent form is required, the patient or his/her representative must sign, date, and time the form in addition to the individuals who provide the information and witness the consent. The

patient's signature means that they have a complete understanding and they agree to, or refuse, the procedure or treatment.

### **Advance Directives**

Every patient is provided information concerning his/her right to create, update or withdraw an advance directive (such as a living will, healthcare proxy, or medical power of attorney) at the earliest opportunity depending on his/her medical condition. The advance directive should be placed in the patient's medical record to be consulted if the patient is unable to make decisions for him/herself. An advance directive can provide guidance as to a patient's wishes about certain healthcare choices or the delegation of decision-making to another individual. If such an individual has been selected by the patient, information should be provided to him/her so that informed decisions can be made for the patient. The presence or lack of an advance directive does not determine an individual's access to care. Staff is available to help patients create an advance directive upon request.

### **Right to Privacy**

Each patient has the right to personal privacy, including the right to respect, dignity, and comfort. Each patient must be provided privacy during personal hygiene activities, exams or treatments, when discussing care issues, and as requested. Individuals not involved in the care of the patient should not be present without the patient's consent during these activities.

The right to personal privacy also includes limiting the release of patient information such as his/her presence or location in the healthcare facility. Follow your organization's procedure for providing this information to families or significant others in situations where the patient is unable to make their wishes known, such as in an emergency. Confidentiality of the patient's personal information, such as name, age, or health information, and medical records must also be maintained. Access to this information is limited to individuals who have a need to know. The patient has the right to access his/her medical records, except under limited circumstances. Refer to your organization's Health Insurance Portability and Accountability Act (HIPAA) policies and procedures for more information.

### **Right to Safety**

Each patient has the right to receive care in a safe setting. Employees must protect the patient's emotional health and safety as well as his/her physical safety. Each patient has the right to be free from all forms of abuse, neglect, or exploitation whether from staff, other patients, visitors, or other persons. Abuse includes physical, emotional, and sexual abuse and is defined as the intentional maltreatment of an individual which may cause physical or psychological injury.

Abuse also includes financial abuse. Neglect is the absence of services or resources that meets a person's basic needs. Exploitation occurs when a patient is taken advantage of to benefit another person.

Your organization is committed to protecting patients from abuse, neglect, and exploitation and has developed criteria for staff to use to identify and assess victims of abuse. Any event or occurrence that may involve or contribute to abuse, neglect, or exploitation must be immediately reported so it can be investigated and appropriate actions take place.

## **Right to File a Complaint**

Information about expressing complaints/concerns is available in the Patient Visitation Guide in each patient's room, provided at the time of admission in the Our Commitment to You informational sheet and in the patient rights brochures throughout the hospital.

Each patient or his/her representative has the right to file a complaint (or grievance) when issues regarding services or care are not resolved promptly by staff. The hospital must inform each patient of who to contact to file a grievance, including state authorities. The hospital must review, investigate and resolve each grievance within a reasonable time frame. Patients can freely voice complaints or recommend changes without being subject to cruelty, discrimination, payback, or unreasonable interruption of care.

## **Patient Responsibilities**

Healthcare organizations have the right to reasonable and responsible behavior by their patients, within their capabilities, and their families. Staff provides education on the responsibilities of the patient upon entry to the organization and as needed. The patient is responsible for providing accurate and complete information about matters relating to their health. The patient must ask questions when they do not understand the care, treatment, or service, or what they are expected to do. The patient must follow instructions regarding the plan of care or inform staff when they are unable to follow the instructions. The patient must accept consequences that result when they do not follow instructions. Patients must follow the organization's rules and regulations and show respect and consideration for staff and property, as well as other patients and their property.

Lastly, patients should promptly meet any financial obligation agreed to with the organization.

## **Code of Ethics**

A code of ethics is a formal statement of your organization's values on matters such as behavior and professional standards of practice. Your organization conducts business and patient care practices in an ethical manner. Every patient has the right to receive care with kindness, compassion, and respect for cultural, psychosocial, spiritual, and personal beliefs and values.

Many organizations have an Ethics Committee that can be consulted regarding ethical situations related to both business and patient care, determine whether a violation of the code of ethics occurred and, if so, work toward a resolution.

## **Conclusion**

The delivery of healthcare is enhanced when patients are partners in the process. Your organization is committed to the protection and promotion of each patient's rights. And it takes your help. If you have any questions about Patients' Rights, contact the appropriate personnel within your organization for guidance and assistance.

## **Patient Safety**

It is our goal to provide the safest possible environment for our patients. Our Patient Safety program means that each employee must be responsible for noticing and reporting safety risks and errors. Providing a safe environment for our patients can only be achieved

through teamwork. Each employee must be alert to, and report problems that might pose a risk for patient safety. It is everyone's job to respond and report any patient distress or patient's request for help.

Medical error is the 8<sup>th</sup> leading cause of death, 98,000 people die each year due to medical errors. More people die each year due to medical error than from Breast Cancer, HIV/AIDS, or auto accidents.

### **What are the goals of patient safety?**

There are 9 commonly performed tasks in ensure patient safety:

- We use two patient identifiers. We ask the patient their name and date of birth, or check the armband before giving medications or drawing blood.
- We take a "time out" before any surgical or invasive procedure to confirm correct patient, correct procedure and correct site.
- We have a procedure and verification list. We use the checklist for all invasive procedures to ensure correct procedure and correct site.
- We read back and verify(R&V) all verbal orders and critical test results
- We have a do not use abbreviation list, and these abbreviations are not written anywhere in the patient's chart
- We mark the surgical site with "yes" if there is a left/ right distinction
- We assure that all alarms are activated and we can hear them on our nursing units. We regularly test alarms so we can hear them
- We have free flow protection on our infusion pumps, and guard rails to ensure proper dosage of medicine
- We comply with CDC hand hygiene guidelines, washing our hands before and after providing care for our patients.

### **Medication Safety**

Medication errors occur because orders are hard to read and can be subject to interpretation. Medicine errors can be prevented, but only if we apply safeguards and carry out proper procedures.

- Medication orders that are hard to read should be called to the doctor who wrote them to be confirmed.
- Medicine doses that are outside of the standard for that patient should be "double" checked with pharmacy.
- Orders for medicines that seem wrong for the patient's condition should be questioned and checked.

### **Alarms and Call Lights**

Check all alarms and emergency call lights right away. We must ensure that alarms are working properly when activated, and loud enough to be heard by staff. We must answer call lights as soon as possible, especially for those patients who are at high risk for falls.

### **Partnering with the Patient**

A successful Patient Safety Program involves asking the patient to be a part of the healthcare team. It is every employee's job to educate the community of this important aspect of health care. Direct caregivers such as nurses and doctors should ensure that the patient/family understands each test, medicine, and treatment they are receiving. Patients/families should be told to ask questions.

It is easy to get distracted or pre-occupied with other tasks and there are times when we may forget basic tasks such as hand-washing. Letting the patient know their responsibility to "help us" can improve patient outcomes by involving the patient and family directly in the care they receive from us.

It is important that patients:

- Help us remember to wash our hands before doing a treatment
- Make sure we ask their name and date of birth, or check their armband before giving medications or drawing blood
- Make sure we know about their health history and home medicines (including herbals)
- Let us know if something is beeping alarming in their room
- Ask questions if there is something they do not understand
- Let us know how we can better serve them

Tell our patients to speak up if there is something they do not understand. This partnership with the patient allows the patient to be an active part of the health care team and can decrease medical errors.

### **Culture of Patient Safety**

A culture that supports patient safety must recognize the following key elements:

- We accept the fact that humans are prone to error and that no single person can be 100% error-free.
- We understand that errors can and will occur. We put systems in place to prevent the error from reaching the patient
- We recognize that it is our personal job to follow policies and go through the steps that have been put in place to prevent errors
- We never assume that everyone before us has "done it right" therefore, we recognize the need to "check it out" for ourselves
- We are held accountable for the following policy.

### **Blame Free Environment**

The hospital's blame free environment encourages all employees to identify and report all patient errors, accidents, and near misses. Identifying and reporting helps to evaluate and correct any factors and or/system related problems that impact patient safety

### **Near Misses**

- Error caught and prevented before it occurred
- Error that caused no harm

- Error resulting in the need for increased patient assessment but no patient harm

### **Errors**

- Required treatment and/or intervention and caused temporary harm
- Required prolonged hospitalization and caused temporary harm

### **Sentinel Events**

- Resulting in permanent patient harm or near death
- Resulting in actual patient death

## **Personal Protective Equipment Training**

*Personal Protective Equipment (PPE) is special clothing or equipment to protect us against workplace hazards.*

### **Session Objectives you will be able to:**

- Understand the PPE hazard assessment process
- Select the right PPE for the job

- Properly wear and care for PPE

The use of PPE is required by OSHA in some cases

The use of PPE is required by CGHS policy in some cases

The use of PPE is recommended any time there is the risk of injury

### **Choosing PPE begins by knowing the hazards present**

A Hazard Assessment is done to assess every job to decide if hazards are present.

#### ***Hazard Assessment***

Check for hazards to:

- Eyes and Face
- Hands
- Respiratory System
- Feet
- Head

Then decide what PPE will protect against those hazards

#### ***Eye and Face Hazard Assessment***

Check for exposures to:

- Blood and Body Fluids
- Liquid or solid chemicals
- Chemical gases or vapors
- Injury causing light radiation
- Flying particles

#### ***Respiratory Hazard Assessment***

Check for exposures to:

- Airborne pathogens
- Airborne dusts or particles
- Chemical vapors or fumes

#### ***Hand Hazard Assessment***

Check for exposures to:

- Skin absorbed harmful substances
- Skin contact with infectious blood and body fluids
- Severe cuts
- Severe abrasions (scratches)
- Punctures

- Chemical burns
- Thermal burns

### ***Foot Hazard Assessment***

Check for exposures to:

- Blood and Body Fluids
- Slippery walking surfaces
- Hazardous chemicals
- Falling, rolling, or sharp objects
- Electrical hazards

### ***Clothing Assessment***

Check for exposures to:

- Infected blood and body fluids
- Cuts or Abrasions (scratches)
- Hazardous Chemicals
- Thermal burns

### ***Head Hazard Assessment***

Check for exposures to:

- Low-hanging objects
- Falling objects
- Exposed electrical outlets

### ***PPE Eye Protection***

- Each day, more than 2,000 workers suffer eye injuries
- Each year, 62,000 eye injuries result in lost workdays
- Many injured workers believed protective eyewear was not needed in their situation
- Eye protection can reduce the number and severity of eye injuries in 90% of accidents

Follow CGHS rules for eye protection

### ***Eye Hazards***

Eye Hazards depend on the type of work you do. In healthcare, one of the most common exposures is Blood and Body fluid splash or spray. Other exposures also may be present such as:

- Chemical splashing or spraying
- High-intensity heat or light
- Flying objects

- Harmful dust particles

### **Safety Eyewear Selection**

Safety eyewear must be chosen based on the type of hazards present.

- The PPE must fit the person
- Good fit and comfort is a must
- Lens options may be needed

When eye hazards are present reading eye glasses (visual lenses) do not provide enough protection

### ***Blood and Body Fluid Protection***

- *Hazard*—splash, spray, or mist causes risk of exposure to bloodborne diseases such as:
  - HIV, Hepatitis B, Hepatitis C, Malaria and Syphilis
- *Work process* —Handling sharps, performing test/treatments on patients or cleaning contaminated equipment.
- *Eye protection* —Goggles, face shield, approved safety glasses

### ***Chemical Hazard and Protection***

Anytime you, use, mix, or handle chemicals there is a risk for injury to your eyes. The right protective eyewear can prevent injury to the eyes.

If you are working with any liquid chemical that could splash onto your face and eyes, or that is misted or sprayed, you must wear chemical-resistant goggles, at a minimum.

If working with dangerous chemicals such as acids or in cases with severe exposure, you must wear a face shield over the goggles.

### ***Flying Object Hazard and Protection***

Most flying objects pose impact hazards to the eyes. According to the federal Bureau of Labor Statistics, 70% of serious eye injuries are caused by flying or falling objects, and 60% of those objects are smaller than the head of a pin.

In the healthcare setting there are a variety of activities that may produce flying objects including both facilities maintenance and medical test/treatment.

Safety glasses with side protection, goggles, or face shield for severe exposure must be used.

### ***Protection from Other Hazards***

- *Dust*: Use Goggles for tight seal around the eyes
- *Laser*: Use approved safety glasses for the type of energy present
- *Welding*: Use an appropriate Welders Faceshield
- *Heat*: Use an appropriate screen or reflective face shield
- *Sunlight*: Sunglasses and hat with brim

### ***Safety Eyewear Maintenance***

- Inspect your protective eyewear before each use.
- Look for cracked lenses or face shields. Scratched lenses or face shields should be replaced when they impair vision.
- Check for loose frames, nose pieces. Make sure the eye protection fits properly and has not been damaged in a way that prevents a proper fit.
- See manufacturer's instruction for cleaning and caring for the type of eye ware that is used.

### ***Eyewash Stations***

OSHA requires emergency eyewash stations be installed in areas that use large quantities of hazardous chemicals, particularly corrosives, which might be splashed or sprayed into the eyes.

- Eyewash stations provide immediate first aid that can make the difference between permanent blindness and a temporary injury.
- Eyewash stations must be located within 10 feet or 10 seconds' travel time of a work process that uses hazardous chemicals that could be splashed or sprayed into the eyes.
- Always flush your eyes for at least 15 minutes after eye exposure to a harmful chemical.

### ***Safety Eyewear – Key Things to Remember:***

- Assess eye hazards
- Chose the right protective eyewear
- Wear your eye protection before exposure to the hazard
- Don't become an eye injury statistic

### ***Safety Eyewear —Any Questions?***

- Any questions about how to select and use of eyewear?
- Any questions about checking and caring for eyewear?
- Any questions about eye first aid?

**If you have questions, please contact Prevention and Control @ 633-1828. Someone will be glad to assist you.**

### ***Respiratory Protection Selection***

Once the hazard assessment identifies the exposures, the correct respiratory protection must be selected. There are many types of respirators, each with unique features. Three types are used at MCCG.

- Filtering face piece, also known as N95, or dust mask, is worn when employees are exposed to airborne pathogens or dusts

This type of respirator protects against exposure to TB, and other airborne pathogens. It may also be used for certain construction and building maintenance activities.

- Air purifying respirator uses a cartridge and/or filter to purify the air breathed by workers. These respirators can provide protection from dusts, mists, chemical vapors, or fumes depending on the type of cartridges used.

This type of respirator is used by facilities management personnel during certain construction and maintenance tasks.

- Air-supplied respirators are used for exposures to high concentrations of chemicals.

This type of respirator is used only by specially trained staff to decontaminate patients exposed to unknown or hazardous materials.

### **Respiratory Protection**

- All respirators and filtering face pieces used in the workplace must be certified by the National Institute for Occupational Safety and Health (NIOSH).
- Workers who wear respirators must be medically approved.
- Fit testing is done to see if the respirator seals to the worker's face properly.
  - Workers who wear respirators for exposure to airborne pathogens must be fit tested before being exposed to the hazard.
  - Workers who wear respirators for exposure to chemicals or other harmful materials must be fit tested every year.

The medical evaluation and fit testing is done by the Employee Health Department, 633-1547.

### **Respiratory Protection Wear and Care**

- Employees must inspect the respirator before each use for signs of cracking, wear, or other damage.
- Each time a worker puts on a respirator, a seal check should be done to make sure the respirator seals to their face properly. The specific procedure depends on the type of respirator being used. The seal check procedure will be taught at the time of the fit test.
- Respirators must be stored properly to protect them from dust and other contaminants.

### **Respiratory Protection —Any Questions?**

- Any questions about how to select and use respiratory protection?
- Any questions about checking and caring for respiratory protection equipment?

**If you have questions, please contact Prevention and Control @ 633-1828. Someone will be glad to assist you.**

## **PPE: Hand Protection**

Hands and fingers are complex and versatile tools used for so many tasks that we often take them for granted.

- OSHA studies have found that nearly one-fourth of work injuries involve hands or fingers.
- OSHA also found that 70 percent of workers with hand injuries were not wearing gloves.
- OSHA found that the other 30 percent were wearing improper or damaged gloves.

**Wearing proper gloves in good condition prevents hand injuries**

## **Hand Hazard Review**

Check for exposures to:

- Skin absorbed harmful substances
- Skin contact with infected blood and body fluids
- Severe cuts
- Severe abrasions (scratches)
- Punctures
- Chemical burns
- Thermal burns

## **Selecting Gloves**

- Consider the conditions present. Are there infectious materials, sharps, chemicals, temperature extremes?
- Consider the tasks to be performed. Delicate tasks require dexterity, extra grip may be needed when working with slippery materials, chemical resistance may be needed.
- Consider the length of time the glove will be used. Some gloves may be rated for shorter use in certain conditions.
- Gloves must fit properly. Gloves that are too small will limit your hand's mobility and could tear. Gloves that are too big will limit your dexterity

## **Glove Limitations**

- Some people are allergic to latex gloves. Vinyl or nitrile gloves are used whenever possible.
- Chemicals or infectious blood and body fluids can get inside the gloves and cause problems. Fluids inside gloves can actually cause more problems than if the gloves were not present.
- Gloves can fail in conditions of extreme temperatures, high mechanical force, high vibration, or when handling extremely harsh chemicals.
- Gloves can get caught in moving machinery.

## **Disposable Gloves**

- “Disposable” usually refers to thin-walled vinyl, nitrile, and latex gloves used in the healthcare. These gloves protect workers from bloodborne pathogens and some chemicals.
- Due to some people being latex sensitive, CGHS limits the use of gloves and other supplies made out of natural rubber latex. Vinyl and nitrile gloves are used most commonly.
- Disposable gloves should be worn whenever there is the risk of contact with infectious materials is present.
- Body fluids that may be infectious include amniotic, cerebrospinal, peritoneal, pleural, pericardial, and synovial fluids. Bloodborne pathogens may also be found in urine and vomit if they contain blood. And they can be carried in semen and vaginal secretions as well.
- Unfixed tissue samples, organs, or laboratory cell cultures, sheets, towels, or bandages contaminated with blood and bodily fluids may also contain potentially infectious agents.

## **Contaminated Glove Removal**

The goal is to prevent your bare hands from touching the outside, contaminated, surface of your gloves.

- Grasp the outside of the glove (near the cuff) on one of your hands with the other gloved hand. Pull the glove off.
- Now insert fingers from the hand without a glove under the cuff of the glove on your other hand.
- Begin to pull the glove off, then grasp the inside (clean) surface of the glove and pull it off your other hand.

## **Chemical Resistant Gloves**

- Consider the type of chemical exposure. Acids, caustics, solvents, and oils have different requirements for gloves.
- Chemical contact considerations include how often and the length of contact, whether the glove is immersed in the chemical, and the chemical concentration. Cuff length is important if the gloves will be immersed in the chemical.
- Abrasion and cut resistance must be considered if there is a risk for a puncture, cut, snag, or tear.
- A variety of materials are available with specific properties for chemical resistance.

## **Gloves for Other Exposures**

Gloves are available for various hazards. The correct hand protection will be provided and should be used as directed by your supervisor. Special gloves are available which are designed for resistance to:

- Cuts and Punctures
- Abrasion

- Electricity
- Heat
- Cold
- Vibration

### **Glove Use and Care**

Proper use of gloves is important to prevent injury or exposure to hazards.

- Always inspect your gloves prior to using them. Look for cuts, tears, or punctures. Dispose of gloves that are damaged.
- Carefully remove the gloves and avoid touching the outside of the gloves with your hands. One method to prevent contamination involves pulling the first glove off with the other gloved hand and then slipping ungloved fingers underneath the cuff of the second glove and removing it.
- Some gloves can be reused as long as the inside remains uncontaminated and they are checked before each use. Avoid secondary chemical exposure by washing the outside of the gloves, before removing them, with soap and water and then rinse with water.
- Be sure to place gloves intended for reuse in a dry and clean area. Hang the gloves in such a way that they will dry out.

### **Glove Protection—Any Questions?**

- Any questions about how to select, use or care of gloves?

**If you have questions, please contact Prevention and Control @ 633-1828. Someone will be glad to assist you.**

### **PPE: Foot Protection**

#### **Foot Injury Statistics**

- According to the National Safety Council, more than 180,000 foot-related injuries occurred in a recent year.
- That equates to roughly 400 foot-related injury claims per day.
- The estimated average cost of these injuries was \$6,000 each.
- In a recent year, there were 1,509 foot and toe injuries that were serious enough to require the workers to take time off from work.

#### **Foot Injury Hazards**

In the healthcare industry there is a risk of foot related injuries from:

- Chemicals and/or Infected materials
- Rolling equipment
- Punctures
- Falling objects

- Electrical Hazards

Proper footwear is also important in preventing Slips and Falls.

### **Slip Resistance**

Proper footwear can play a large role to reduce slip-related injuries. Street shoes or athletic shoes are not intended to provide slip resistance in the work environment. For example, shoes that provide good traction on a basketball court may not provide good traction in a work environment that is subject to slip hazards from water, oil, or chemicals.

Slip-resistant shoes will have soft rubber soles that grip the surface of the floor.

The soles of slip-resistant shoes have treads with channels that carry the water, oil, chemical, or other contaminant out from under the shoe, which will allow the ridges on the sole to come into firm contact with the floor.

- Remember that wearing slip-resistant shoes may not stop you from slipping. You must still be aware of slip-related hazards and walk carefully in areas that have wet floors.

### **Footwear Selection**

Choose protective shoes or boots with low heels, good traction, and the proper impact-resistance rating for your job.

Shop for footwear with special protective features when you work around wet or slippery floors, sharp objects, electricity, or hazardous substances.

After you find proper protection, make comfort a priority.

### **Key Points to Remember**

- Know the foot hazards in your workplace
- Wear footwear with the right protective features for the job
- Know the capabilities and limits of protective footwear
- Check comfort, fit, and support of footwear
- Clean, store, and inspect footwear

### **Foot Protection—Any Questions?**

- Any questions about how to select, use or care of footwear?

**If you have questions, please contact Prevention and Control @ 633-1828. Someone will be glad to assist you.**

### **Head Protection**

Some jobs may require the use of head protection.

- Hard Hats are used for protection from the impact or penetration of falling objects. Some hardhats also offer protection from electrical hazards.
- Bump Caps are intended to protect from injury against low-hanging objects, such as pipes, steel structures, or machinery components. Bump caps are not intended to protect against falling objects or electrical hazards.

You may be required to wear head protection in construction areas and some areas in the facility with low hanging pipes, equipment or other objects.

### **Clothing**

A variety of special clothing is used in the healthcare setting to protect both the patient and the employee. Always follow the specific CGHS policies and procedures as well as any special requirements for your area in regard to clothing selection.

### **Personal Protective Equipment Key Things to Remember**

- Be aware of the hazards present in your work area
- Ensure that all parts of the body are protected based on the hazards present
- Select the correct PPE for the hazard(s) identified
- Properly wear and care for your PPE

## **Population Specific Care**

### **The Infant, Pediatric, and Adolescent Patient**

#### **Objectives**

At the completion of this course, you will be able to:

- Describe the stages of growth and development for neonates, infants, toddlers, preschoolers, school-aged children, and adolescents and use this information to provide population specific care.

## ***Introduction***

As a healthcare provider you must give care that is appropriate for the patient population in which you serve. To do this, you must be aware of the stages of growth and development and have the knowledge, abilities, and skills needed to assess, plan, and evaluate care.

Age-specific groups have been created to provide practice guidelines for giving care to individuals across the lifespan. These guidelines assist in care planning, discharge planning and patient education. Be advised, however, that the growth and development of a patient can be different than other individuals in their age group. In addition, literature varies regarding where each age group begins and ends.

## **Infants – School Age**

As you care for a patient you should determine their physical, physiological, cognitive and psychosocial state, in addition to their moral and spiritual needs.

### ***Neonates and Infants***

The neonatal stage extends from birth to 28 days old. A neonate's behavior is mostly reflexive.

The infant stage extends from 1 month to 1 year of age. The physical growth of an infant is rapid. They respond to sounds and will coo, babble, laugh, vocalize, and imitate sounds. They depend on others for all of their needs and develop a sense of trust when these needs are met. Crying is the infant's reaction to stress, and the main way in which they communicate as they gradually learn to tolerate stress. Infants have no understanding of waiting.

### ***Toddlers***

The toddler stage extends from 1 to 3 years of age. During this stage there is an increase in motor development and psychosocial skills. For example, by 3 years of age a toddler can express likes and dislikes, display curiosity and ask questions, understand words such as up, down, cold, hungry, and speak in sentences of three to four words. Toddlers also begin to develop a sense of independence and assert themselves with the frequent use of the word "no." The toddler needs positive feedback so that they can develop a positive and healthy self-concept.

### ***Preschoolers***

The preschool stage extends from 3 to 6 years of age. During this stage the preschooler gains control of their body and displays an increase in coordination.

The preschooler also emerges as a social being. By 5 years of age a preschooler can understand right from wrong, respond to others' expectations of behavior, use complete sentences, and cooperate in doing simple chores.

### ***School Age***

The school age stage extends from 6 to 12 years of age. This stage includes the preadolescent period from 10 to 12 years of age. By 12 years of age the school age child can articulate an understanding of right and wrong, express themselves in a logical manner, and talk through problems. The child begins to develop a sense of competence and perseverance. They are greatly influenced by their peers and may express the need

for privacy. The skills learned during this stage are particularly important in relation to work later in life and willingness to try new tasks.

### **Care Guidelines: Infants – School Age**

When caring for a neonate, infant, toddler, preschooler or school age child you should:

- Involve the parent(s) in the care of the patient
- Prepare the patient for interventions and procedures using simple, short, direct and concrete explanations
- Identify normal and abnormal assessment data and modify care as needed
- Modify diagnostic and therapeutic interventions as needed
- Use appropriate equipment
- Approach the patient in a non-threatening manner and allow the presence of familiar objects for comfort
- Provide opportunities for the patient to participate in decision making and care as appropriate
- Use rewards and praise when appropriate.

### **Adolescents**

The adolescence stage extends from 12 to 20 years of age. During this stage physical growth accelerates and the adolescent begins to establish a sense of identity. Peer groups provide the adolescent with a sense of belonging, pride and social learning. Stress increases during this stage as the adolescent starts planning for the future. The leading causes of adolescent death are motor vehicle accidents, homicide and suicide.

### **Care Guidelines: Adolescents**

When caring for an adolescent you should:

- Allow for participation in care and decision making
- Prepare the patient for interventions and procedures using understandable explanations
- Identify normal and abnormal assessment data and modify care as needed
- Modify diagnostic and therapeutic interventions as needed
- Use appropriate equipment
- Evaluate the adolescent's coping behaviors and assist in the development as needed
- Provide opportunities for interaction with peers
- Provide for privacy and respect modesty
- Assess educational needs and provide appropriate referrals and resources.

### **Conclusion**

Your patients depend on you to provide the best care possible. If you have any questions regarding population specific care, contact the appropriate personnel within your organization.

## **The Adult Patient or Resident**

### **Objectives**

At the completion of this course, you will be able to:

- Describe the stages of growth and development for the young, middle, and older adult and use this information to provide population specific care.

### **Young – Middle Adult**

As you care for a patient you should determine their physical, physiological, cognitive and psychosocial state, in addition to their moral and spiritual needs.

### **The Young Adult**

The young adult stage extends from 20 to 40 years of age. Physical growth and development peaks in the middle 20s. The young adult develops a personal lifestyle and demonstrates emotional, social and economic responsibility for their life. Their behavior is guided by values and they continue to develop spiritually. Many young adults establish a relationship with a significant other and a commitment to something.

### **The Middle Adult**

The middle adult stage extends from 40 to 65 years of age. Midlife adults may experience physical changes due to aging or lifestyle changes due to events such as children leaving home. Adults in midlife must balance the needs of many, including their own parents and children.

### **Care Guidelines: Young – Middle Adult**

When caring for a young or middle adult you should:

- Allow for participation in care and decision making
- Prepare the adult for interventions and procedures using understandable explanations
- Identify normal and abnormal assessment data and modify care as needed;
- Modify diagnostic and therapeutic interventions as needed;
- Use appropriate equipment;
- Evaluate the adult's lifestyle and assist with necessary adjustments related to health;
- Evaluate other responsibilities and commitments in the adult's life
- Assist in planning for anticipated changes; and
- Assess educational needs and provide appropriate referrals and resources.

### **The Older Adult (or The Elderly)**

The elder population is steadily growing and may outnumber young people by the middle of the 21<sup>st</sup> century. The young-old stage extends from 65 to 74 years of age. The young-old adult may experience retirement, changing physical abilities and chronic illnesses. The middle-old stage extends from 75 to 84 years of age. The middle-old adult may experience a decline in their speed of movement and reaction time. They may also become more dependent on others.

The old-old stage extends from 85 years of age. During this stage the old-old adult may experience more physical problems.

### **Care Guidelines: The Older Adult**

When caring for an older adult you should:

- Allow for participation in care and decision making. You may also need to include other individuals as designated by the patient or resident;
- Prepare the older adult for interventions and procedures using understandable explanations;
- Identify normal and abnormal assessment data, such as the effects of aging on functional ability and visual and auditory acuity, and modify care as needed;
- Modify diagnostic and therapeutic interventions, including medications, as needed;
- Use appropriate equipment
- Encourage the older adult to keep physically and socially active and to maintain peer group interactions when able;
- Evaluate the adult's ability to cope with loss and assist as needed;
- Assist with self-care as required but allow as much independence as possible;
- Provide safety measures to prevent skin breakdown, falls, etc.; and
- Assess educational needs and provide appropriate referrals and resources.

It is important for healthcare providers to be aware of their own attitudes toward aging and the elderly to avoid ageism.

### **Conclusion**

Your patients and residents depend on you to provide the best care possible. If you have any questions regarding population specific care, contact the appropriate personnel within your organization.

## **Restraint and Seclusion**

### **Objectives**

After completion of this course you will be able to:

- Define restraint and seclusion;
- Identify alternatives to restraint;
- Recognize an appropriate order for restraint;

- Recognize the importance of appropriate monitoring and assessment;
- List documentation requirements; and
- Appropriately report and document deaths associated with restraint.

## **Introduction**

Every patient/resident should be treated with respect and dignity. Each has the right to be free from physical or mental abuse, and corporal punishment. This includes the right to be free from the inappropriate or unnecessary use of restraint or seclusion and to be safe when use of either intervention is necessary.

Restraint or seclusion has the potential to produce serious consequences, such as physical or psychological harm, loss of dignity, violation of a patient's/resident's rights, and even death. However restraint or seclusion is sometimes necessary in clinically justified situations given a healthcare organization's population and clinical services, the current state of knowledge, and availability of effective alternatives. Therefore it is essential that healthcare professionals be competent in providing care for a patient/resident in restraint or seclusion.

## **Restraint Defined**

A restraint is:

- Any manual method, physical or mechanical device, material, or equipment that immobilizes or reduces the ability of a patient/resident to move his or her arms, legs, body, or head freely; or
- A drug or medication when it is used as a restriction to manage behavior or restrict freedom of movement and is not a standard treatment or dosage for the patient's/resident's condition.

A drug or medication used as a standard treatment:

- Is given within pharmacy parameters set by the Food and Drug Administration (FDA) and manufacturer;
- Follows national practice standards; and
- Is given to treat a specific condition based on a patient's/resident's symptoms.

Restraint may only be used to ensure the immediate physical safety of a patient/resident, a staff member, or others and must be discontinued at the earliest possible time. Restraints include, but are not limited to, vest jackets, hard wrist/soft limb restraints and hand mitts that are pinned or tied down.

A restraint does not include devices, such as orthopedically prescribed devices (slings and casts), surgical dressings or bandages, or protective helmets. In addition, a restraint does not include the physical holding of a patient/resident for the purpose of conducting a routine physical examination or test. Therefore, holding a child to give a shot is not a restraint. A device's intended use, its application, and/or the identified patient/resident need determines whether the use of a device is considered a restraint. For example, if a patient/resident requests all four bedrails be raised to protect them from falling out of bed and they can demonstrate that they are capable of lowering the rails, the bedrails are not considered a restraint. The nurse must document the request and return demonstration.

However, if all four bedrails are raised to prevent the patient/resident from getting out of bed and they can not demonstrate that they are capable of lowering the rails, the bedrails are then considered a restraint.

Age or developmentally appropriate protective safety interventions, such as stroller safety belts, swing safety belts, high chair lap belts, raised crib rails, and crib covers, that a safety-conscious child care provider outside a healthcare setting would use to protect an infant, toddler, or preschool-aged child would not be considered a restraint. The use of these safety interventions should be addressed in your organization's policies and procedures. A staff member picking up, redirecting, or holding an infant, toddler, or preschool-aged child to comfort the patient is also not considered a restraint.

Forensic devices (such as handcuffs and shackles) that are applied by outside law enforcement officials to patients/residents that are prisoners are not considered restraints in a health care organization. The law enforcement officers who maintain custody and direct supervision of the prisoner (the patient/resident) are responsible for the use, application, and monitoring of these devices.

However, the organization is still responsible for providing safe and appropriate care and ensuring the devices are not injuring the patient/resident.

A request from a patient/resident or family member for the application of a restraint which they would consider to be beneficial is not ample reason for the intervention. Regardless of whether restraint use is voluntary or involuntary, if it is used, then the requirements mentioned throughout this course must be met.

Seclusion is the involuntary confinement of a patient/resident alone in a room or area from which he or she is physically prevented from leaving. Seclusion may only be used for the management of violent or self-destructive behavior that jeopardizes the immediate physical safety of the patient/resident, a staff member, or others. The use of restraint or seclusion for the management of these behaviors will be explained in more detail later in this course if applicable to your organization.

### **Restraint as a Last Resort**

Restraints are not the answer to daily patient/resident challenges such as wandering and decreased mental ability or dementia. Restraint can only be used to ensure the immediate physical safety of the patient/resident, a staff member or others and may only be used as a last resort when less restrictive interventions have been determined to be ineffective. However, it is not always appropriate for these interventions to be attempted prior to the use of restraint.

The following interventions may be effective in preventing the use of restraint and may be applied alone or in combination:

- Decreasing noise stimulation from overhead paging, raised voices, and telephones;
- Soothing music, massage, aromatherapy, and lighting changes;
- Prevention of boredom with activities such as puzzles, movies, television, coloring books, games or activity books;

- Adjustment of the room temperature;
- Ensuring glasses and hearing aids are in use and working;
- Adhering to a patient's/resident's preferences/routine or the development of a routine;
- Speaking to the patient/resident often, especially while providing care;
- Returning to the patient/resident when agreed upon or visiting with them frequently;
- Regular ambulation
- Use of a low bed;
- Use of movement sensors; and
- Placement of the patient/resident in a chair near the nurse's station.

The type of restraint used must also be the least restrictive and applied in compliance with safe and appropriate techniques as defined by your organization. For example, the use of a hand mitt is less restrictive than a soft wrist restraint. The use of a roll belt is less restrictive than a vest restraint. It is never acceptable to use restraint for convenience, punishment, retaliation, or coercion. Restraints may not be used as a substitute for adequate staffing, monitoring, assessment, or investigation of the reasons behind patient/resident behavior.

### **Plan of Care**

The use of a restraint should be reflected in a modification to the patient's/resident's plan of care or treatment plan. The plan of care or treatment plan should also be reviewed and updated in writing within a timeframe specified by your organization.

### ***Restraint Order***

A written order based on a patient/resident exam by a physician or other LIP must be documented in his or her chart within 24 hours of the initiation of restraint for Joint Commission accredited organizations. Restraints must be renewed by a physician or other LIP at least every 24 hours for medical-surgical patients.

### ***Monitoring and Assessment***

Joint Commission accredited organizations must monitor patients/residents in restraint at least every 2 hours or sooner.

## **Management of Violent or Self-Destructive Behavior**

### ***The 1-Hour Rule***

When restraint or seclusion is used for the management of violent or self-destructive behavior that jeopardizes the immediate physical safety of the patient/resident, a staff member, or others, the patient/resident must be seen face-to-face within one hour after the initiation of the intervention by a physician or other LIP; or a trained registered nurse (RN) or physician assistant (PA) to evaluate the patient's/resident's:

- Immediate situation
- Reaction to the intervention
- Medical and behavioral condition

The need to continue or end the restraint or seclusion must also be evaluated.

If the face-to-face evaluation is conducted by a trained RN or PA, he or she must consult the attending physician or other LIP as soon as possible. The evaluation must be documented in the medical record. If the intervention is discontinued prior to the 1-hour point the mandated assessment and consultation are still required.

### **Restraint or Seclusion Order**

For Joint Commission accredited organizations, a physician or other LIP must evaluate the patient/resident in person within 4 hours of the initiation of restraints or seclusion if the patient is 18 or older, within 2 hours for children 17 and under, or within 24 hours if restraint or seclusion is discontinued before the original order expires. If the physician or other LIP who reorders the restraint or seclusion is not the LIP who gave the original order, the patient's/resident's physician or other LIP must be notified of his or her status.

It is your responsibility to report instances in which a patient/resident experiences extended or multiple episodes of restraint or seclusion to the appropriate personnel within your organization.

### **Monitoring and Assessment**

For Joint Commission accredited organizations, patients/residents who are at risk of hurting themselves or others must be assessed upon admission to determine alternative interventions that could minimize the use of restraint or seclusion. Patients/residents must be assessed at initiation and every 15 minutes thereafter for signs of injury, nutrition and hydration, circulation and range of motion in extremities, vital signs, hygiene, and elimination, physical and psychological status, and readiness for discontinuation of restraint or seclusion. Continuous in-person observation must be performed. After the first hour, a patient/resident in seclusion without restraints may be continuously monitored using simultaneous video and audio equipment.

A physician or other LIP must conduct an in-person reevaluation at least every 8 hours for patients ages 18 years and older and every 4 hours for patients ages 17 and younger.

### **Documentation**

For Joint Commission accredited organizations, when restraint or seclusion is used for the management of violent or self-destructive behavior that jeopardizes the immediate physical safety of the patient/resident, a staff member, the following must be documented in the medical record in addition to those previously mentioned:

- Notification of the patient/resident and family of the organization's restraint policy in cases in which he or she has consented to have the family informed about his or her care, treatment, and services and the family has agreed to be notified
- Pre-existing medical conditions or history of abuse that may increase risk during restraint or seclusion
- Documentation of each order, episode, evaluation, reevaluation, continuous monitoring, and 15-minute assessment
- Criteria for discontinuing restraint or seclusion, note that patient/resident was informed of this criteria and the assistance provided to meet the criteria

- Staff debriefing
- Injuries and deaths.

### **Simultaneous Use of Restraint and Seclusion**

Simultaneous restraint and seclusion use is only permitted if the patient/resident is continually monitored face-to-face by an assigned, trained staff member, or by trained staff using both video and audio equipment. This monitoring must be in close proximity to the patient/resident.

### **Reporting**

The Joint Commission encourages voluntary reporting of all events which resulted in an unanticipated death or major permanent loss of function unrelated to the patient's/resident's illness or underlying condition under The Joint Commission Sentinel Event process. In addition, deaths are to be reported to hospital leadership and other appropriate external agencies. Again, it is your responsibility to report deaths associated with the use of seclusion or restraint to the appropriate personnel within your organization.

### **Conclusion**

Your organization is committed to preventing, reducing and eliminating the use of restraint or seclusion. And it takes your help. If you have questions about restraint or seclusion, contact the appropriate personnel within your organization for guidance and assistance.

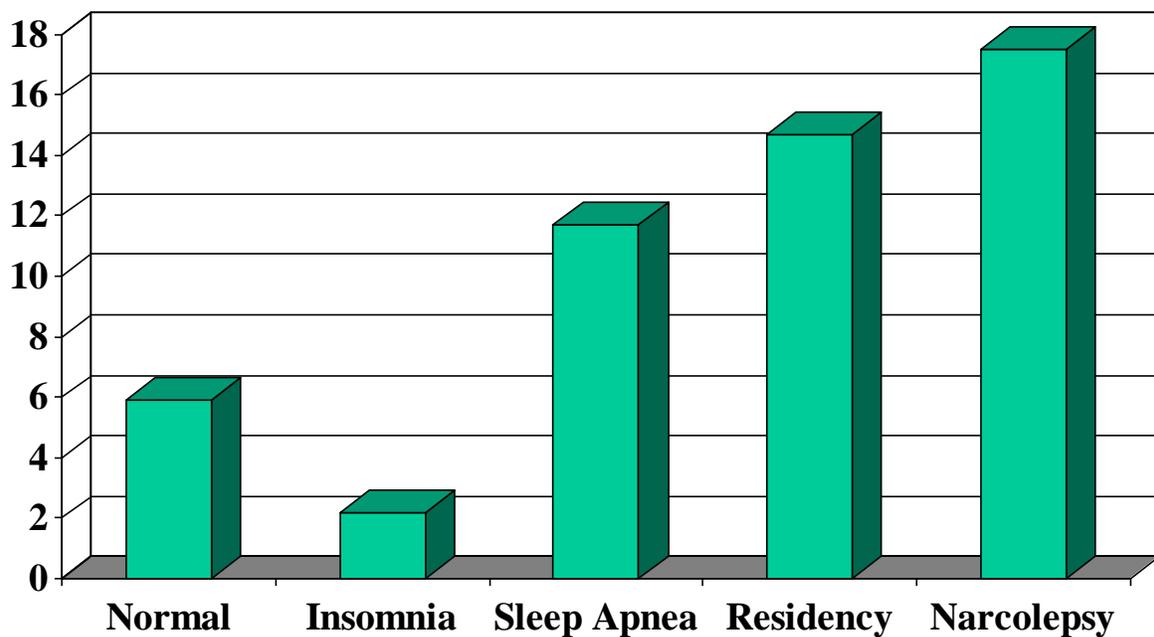
## Sleep and Fatigue

“Patients have a right to expect a healthy, alert, responsible, and responsive physician.”  
- January 1994 statement from the American College of Surgeons; re-approved and reissued June 2002.

### Learning Objectives

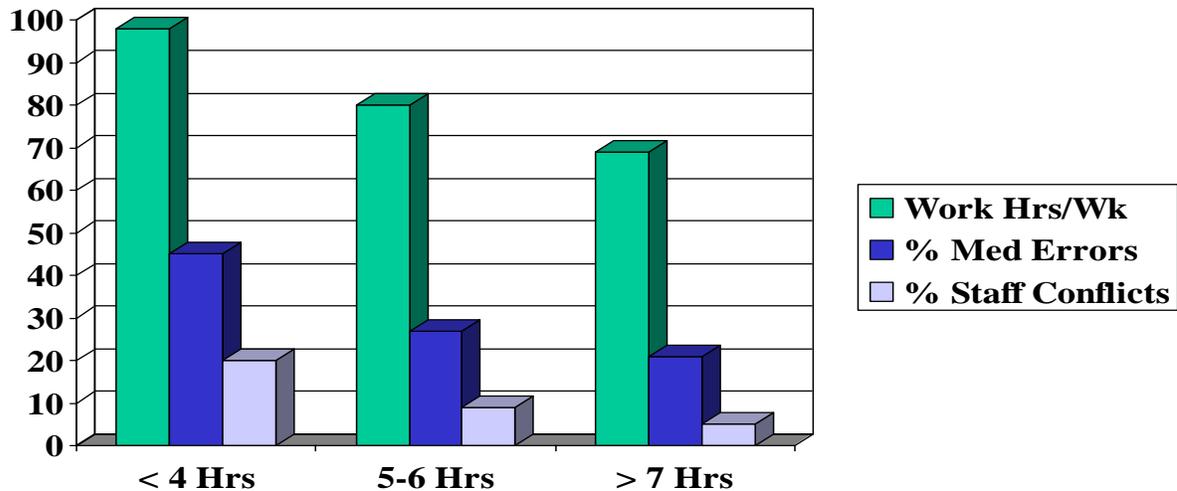
- List factors that put you at risk for sleepiness and fatigue
- Describe the impact of sleep loss on residents’ personal and professional lives
- Recognize signs of sleepiness and fatigue in yourself and others
- Challenge common misperceptions among physicians about sleep and sleep loss.
- Adapt alertness management tools and strategies for yourself and your program

### ***Residents vs. Patients with Sleep Disorders***



*Epworth Sleepiness Scale scores (0-24 range)  
Sleepiness in residents is equivalent to that found in patients with serious sleep disorders*

## Work Hours, Medical Errors, and Workplace Conflicts



*Baldwin and Daugherty, 1998-1999 survey of 3,604 PGY1's and PGY2's Hours of Sleep per Night*

**Despite this, the problem of sleepiness and fatigue in residency is underestimated**  
Why?

- Physicians know relatively little about sleep needs and sleep physiology
- There is no 'drug test' for sleepiness
- Most programs do not recognize and address the problem of resident sleepiness
- The culture of medicine says
  - Sleep is optional, and you're a wimp if you need it
  - Less sleep = more dedicated doc

Myth: "It's really the boring noon conferences that put me to sleep."

- Fact: Environmental factors (passive learning situation, room temperature, low light level) may unmask but *do not cause sleepiness*

### **Conceptual Framework** ***Insufficient sleep***

- On call sleep loss
- Inadequate recovery Sleep

### ***Circadian rhythm disruption***

- Night float

- Rotating shifts

### ***Fragmented sleep***

- Pager
- Phone calls

### ***Primary sleep disorders***

- Sleep apnea
- Drugs, ETOH

## **Sleep Needed vs. Sleep Obtained**

- *Myth:* “I’m one of those people who only need 5 hours of sleep a night, so none of this applies to me.”
- *Fact:* Human beings need at least 6 hours of sleep on a regular basis to be *minimally alert*.
- *Fact:* Chronic partial sleep loss (on call) creates a “sleep debt” that must be paid off.
- Thus, if you are chronically sleep-deprived (i.e., a resident), you need MORE than 6 hours of sleep!

## **The Circadian Clock Impacts You**

- It is easier to stay up later than to try to fall asleep earlier
- It is easier to adapt to shifts in forward (clockwise) direction
- Night owls may find it easier to adapt to night shifts

## **Sleep Disorders: Are You at Risk?**

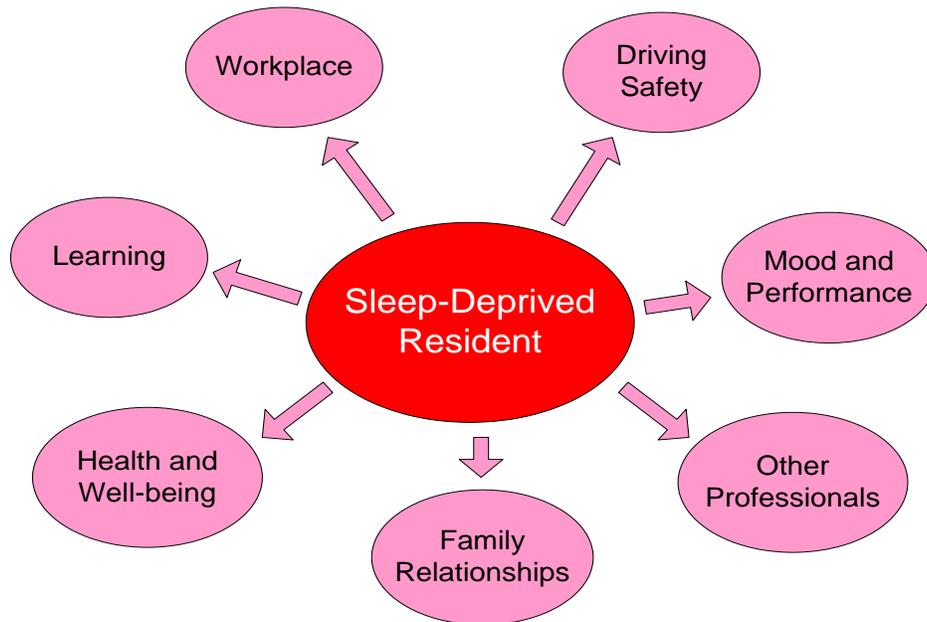
- Physicians can have sleep disorders, too!
  - Obstructive sleep apnea
  - Restless legs syndrome
  - Learned or behavioral insomnia
  - Medication-induced insomnia

## **Adaptation to Sleep Loss**

- *Myth:* “I’ve learned not to need as much sleep during my residency.”

- *Fact:* Sleep needs are genetically determined and cannot be changed
- *Fact:* Human beings do not “adapt” to getting less sleep than they need
- *Fact:* Although performance of tasks may improve somewhat with effort, optimal performance and consistency of performance DO NOT!

## **The Sleep-Deprived Resident**



### ***Impairment across Specialties***

- Surgery: 20% more errors and 14% more time to perform simulated laparoscopic procedures
- Medicine: ECG interpretation impaired
- Pediatrics: ↑ in time required to place an arterial catheter

### ***Across tasks***

- Emergency Medicine: Significant reductions in comprehensiveness of documentation
- Family Medicine: In-service scores negatively correlated with pre-test sleep amounts

### ***Impact on Professionalism***

“Your own patients have become the enemy...because they are the one thing that stands between you and a few hours of sleep.”

### ***Sleep Loss and Fatigue: Drowsy Driving in Residents***

- 58% of ER residents reported near-crashes
- 80% post night-shift
- ↑ with number of night-shifts per month
- 23% of pediatric residents reported falling asleep while driving
- 44% at stoplights
- 90% of incidents post-call

### ***Impact on Medical Education***

- Residents working longer hours report decreased satisfaction with learning environment and decreased motivation to learn
- Two surgical studies report less operative participation associated with more frequent call

### ***Impact on Medical Errors***

- Anesthesiologists: more than 60% report making fatigue-related errors
- Fatigue-related errors:
  - 2% of anesthesia incidents
  - 5% of 'preventable incidents'
  - 10% of drug errors
  - Surgical complication rates 45% if resident was post-call

## **Recognizing Sleepiness in Yourself and Others**

### ***Estimating Sleepiness***

- *Myth*: "I can tell how tired I am and I know when I'm not functioning up to par."
- *Fact*: Studies show that sleepy people *underestimate* their level of sleepiness and *overestimate* their alertness
- *Fact*: The sleepier you are, the *less accurate* your perception of degree of impairment
- *Fact*: You can fall asleep briefly ("microsleeps") without knowing it!

### ***Recognize the Warning Signs of Sleepiness***

- *Falling asleep in conferences or on rounds*
- *Feeling restless and irritable with staff, colleagues, family, and friends*

- *Having to check your work repeatedly*
- *Having difficulty focusing on the care of your patients*
- *Feeling like you don't really care*
- *If you don't recognize that you're sleepy, you're not likely to do anything about it.*

## **Alertness Management Strategies**

### ***Napping***

- Myth: "I'd rather just 'power through' when I'm tired. Besides, even when I nap, it just makes me feel worse."
- Fact: Some sleep is always better than no sleep
- Fact: At what time and for how long you sleep are key to getting the most out of your sleep
- Pro: Naps temporarily increases alertness
- Types
  - Preventative (pre-call)
  - Operational (on the job)
- Con: Naps may prevent falling asleep later

### ***Timing of Naps***

- Take advantage of circadian "windows of opportunity"
  - 2a to 5a
  - 2p to 5p
- Avoid trying to sleep in the circadian "forbidden zone"
  - 8p to 10p

### ***Healthy Sleep Habits***

- Get adequate (7 to 9 hours) sleep *before* anticipated sleep loss
- Avoid *starting out* with a sleep deficit!

### ***Recovery from Sleep Loss***

- Myth: "All I need is my usual 5 to 6 hours the night after call and I'm fine."

- Fact: Recovery from on-call sleep loss generally takes two nights of extended sleep to restore baseline alertness
- Fact: Recovery sleep generally has a higher percentage of deep sleep that is needed to counteract the effects of sleep loss.

### **Healthy Sleep Habits**

- Go to bed and get up about the same time every day
- Develop a pre-sleep routine
- Use relaxation to help you fall asleep
- Protect your sleep time. Enlist your family and friends
- Avoid going to bed hungry, but no heavy meals within three hours of sleep
- Get regular exercise but avoid heavy exercise within three hours of sleep

### ***Sleeping Environment***

- Cooler temperature
- Dark
  - Eye shades
  - Room darkening shades
- Quiet
  - Unplug phone
  - Turn off pager
  - Use ear plugs
  - White noise machine

### **Recognize Signs of DWD (Driving While Drowsy)**

- Trouble focusing on the road
- Difficulty in keeping your eyes open
- Nodding
- Yawning repeatedly
- Drifting from your lane and missing signs or exits
- Not remembering driving the last few miles

- Closing your eyes at stoplights

### ***Risk Factors for Drowsy Driving***

- Taking ANY sedating medications
- Drinking even small amounts of alcohol
- Having a sleep disorder (e.g., sleep apnea)
- Driving a long distance without breaks
- Driving alone on a boring road

### **Adapting to Night Shifts**

- Myth: “I get used to night shifts right away, no problem.”
- Fact: It takes at least a week for circadian rhythms and sleep patterns to adjust
- Fact: Adjustment often includes physical and mental symptoms (think jet lag)
- Fact: Direction of shift rotation affects adaptation (forward-clockwise easier to adapt)

### ***How to Survive Night Float***

- Protect your sleep
- Nap before work
- Consider splitting sleep into two 4-hour periods
- Have exposure to bright light when you need to be alert
- Avoid light exposure in the morning after night shift

### **In Summary...**

- Fatigue is an impairment like alcohol or drugs
- Drowsiness, sleepiness, and fatigue cannot be eliminated in residency, but they can be managed
- Recognition of sleepiness and fatigue and use of alertness management strategies are simple ways to help combat sleepiness in residency
- When sleepiness interferes with your performance and/or health, talk to your supervisors and program director

## **Health and Safety Compliance – Slips, Trips and Falls**

Everyone has the right to work in a safe environment. By working together, employers and employees can eliminate or reduce injuries related to slips, trips, and falls.

### **Objectives**

After completion of this course, you will be able to:

- List ways to prevent slips, trips and falls;
- Fall correctly to reduce your risk of injury; and
- Appropriately report slips, trips, and falls.

### ***Introduction***

The act of walking has potential hazards, however since it is such a familiar part of our daily lives, many of us tend to overlook them. According to the U.S. Department of Labor, slips, trips and falls are the second leading cause of death, following motor vehicle accidents. Slips occur when you are walking and there is a loss of traction (the force that allows you to walk without slipping) between your shoe and the walking surface. Trips occur when you are walking and the front of your foot strikes an object and is suddenly stopped. Both a slip and a trip can cause you to fall.

### **Prevention of Slips, Trips and Falls on the Same Level**

Slips, trips and falls may occur on the same level (floor level) or from a different level. The majority, however, occur on floor level and not from high places.

### ***Housekeeping***

Good housekeeping activities such as picking up, wiping up, and cleaning up can greatly decrease the risk of slips, trips and falls. Although these activities are routinely assigned to environmental services or housekeeping personnel, like "safety" itself, it is everyone's responsibility. Each employee should do his/her part to keep the work area clean.

### ***Wet or Slippery Surfaces***

Slips and trips due to wet or slippery outdoor and indoor walking surfaces can result in significant injuries.

The traction on outdoor surfaces can quickly change due to environmental factors such as rain or snow. Use caution when walking on these surfaces.

Moisture, and liquid, food, grease and oil spills cause hazardous indoor walking conditions. Floors must be kept clean and dry. To prevent or decrease slips and falls resulting from wet or slippery indoor surfaces:

- Immediately clean up food, liquid, grease, or oil spills (regardless of size) or report the spill to appropriate personnel if you not authorized to clean it up. When cleaning the spill, avoid getting any more area than necessary wet. Do not wait for a spill to dry itself.
- Display wet floor caution signs or use safety cones to advise others to avoid the area. You may need to post a sign that shows another route around the area.

Once the hazard has been resolved the sign should be removed. If not, the sign may become commonplace and lose its effectiveness.

- Place absorbent mats in entrance areas when moisture from environmental factors such as rain or snow may be tracked inside by others. Please note, however, that improper mats can become tripping hazards. Floor mats should have beveled edges, lie flat on the floor, and be made out of material or contain a backing that will not slide on the floor.
- Place appropriate rugs, mats, or other non-slip surfaces in food preparation areas and bathing facilities.

Be advised that highly polished floors such as ceramic tile can be extremely slippery when wet.

### ***Obstacles***

Trips due to obstacles can result in significant injuries. To prevent or decrease trips and falls resulting from obstacles:

- Keep work areas, aisles, passageways, stairs and exits clean and clear.
- Do not string cords or lines across hallways or in any walkway.
- Use safe work practices such as closing file cabinet drawers after use and picking up and storing loose items from the floor. Even the smallest object such as a pencil should be immediately picked up to keep the work area clean and clear.

If an obstacle is in your way, move it or walk around it, do not climb over it.

### ***Lighting***

Poor lighting can hide obstacles and wet or slippery surfaces, therefore work areas should be well lit. Proper illumination is used in walkways, stairways, and hallways to help individuals avoid slips, trips, and falls. If you find an area that is not well lit or a light bulb that needs to be replaced, complete a work order and/or contact the appropriate personnel within your organization.

### ***Footwear***

Prevent or decrease slips and falls by wearing shoes with nonskid soles. High heels, slides, and open toe shoes create the greatest risk of falling. You are expected to wear footwear appropriate for the duties of your job. The hems and cuffs of your clothes should also be short enough to reduce the risk of catching your heel while walking.

### ***Individual Behavior***

The most common cause of slips, trips, and falls is not paying attention. A brief moment of not paying attention can lead to injury such as a bruise or a concussion or even death. It is important that you stay alert and plan ahead. Lack of planning may cause you to get behind, triggering you to hurry, walk too fast or focus on a task at hand and become unaware of your surroundings. To prevent or decrease slips, trips, and falls - plan, stay alert, and pay attention.

## **Prevention of Slips, Trips and Falls from Different Levels**

As previously mentioned, slips, trips and falls may occur from different levels. Falls from elevated surfaces are less frequent but, in most cases, more severe than same level falls.

### ***Uneven Surfaces***

Use caution when walking over uneven surfaces such as loose tiles, bricks, or pavement, or carpet that does not meet evenly with another surface. Report uneven surfaces to the appropriate personnel within your organization.

### ***Stairs***

Nearly half of all falls occur on steps and stairways. To prevent or decrease your risk of falling on stairs:

- Plan, stay alert, and pay attention. Do not hurry.
- Use the handrail.
- Keep stairways well lit and clear of obstacles.
- Report ice and snow on stairs.
- Report worn or loose carpeting or chipped or torn stair tread.
- Carry loads that do not block your view of each step. This may result in several trips with smaller loads. However, smaller loads will also allow you to keep one hand free to hold onto the handrail.
- Make sure rugs positioned at the top or bottom of a stairway are securely fastened.

Be aware of steps when entering or existing a room or building.

### ***Ladders***

You may be expected to use a ladder as a result of the duties of your job. In these situations, you must follow certain guidelines when placing, climbing, and coming down the ladder. The guidelines provided in this course apply to the safe use of a straight ladder, step-ladder or step-stool. Be advised, if a situation requires the use of a ladder, use one! Do not substitute with a chair, box, or other piece of furniture.

- You should always inspect the ladder first. It should be clean and in good condition. Use it only for its intended purpose. Follow the manufacturer's guidelines regarding maximum weight and always use the locking device.
- Choose the correct ladder length for the job. A step-stool is usually two feet high, a step-ladder is generally 8 feet and an extension-type straight ladder can be 16 feet or longer. A straight ladder should be long enough so that when it rests against the upper support the employee can work with their waist below the top rung or the rung at which the siderails are resting against the support. Never stand on the top three rungs of a straight ladder or the top two steps of a step-ladder.
- Only use ladders on stable, level, and dry surfaces. Do not place a ladder on make-shift objects such as a table or box. Keep the upper resting edge of a straight ladder on a firm foundation.

- Ladders should be set at a 4:1 angle. For each four feet of rise from the base to the upper resting edge of the ladder, the base should be one foot out from the upper resting edge of the ladder to the working surface.
- Face the ladder and use both hands to hold the siderails when going up or down. Be sure your shoes are not slippery before using a ladder.
- Carry small tools in a tool belt, not in your hands. Raise other tools and supplies with a rope.
- Never lean too far to the sides. Keep your belt buckle within the siderails.
- Never move or attempt to adjust a ladder while someone is on it.
- Never have more than one person on a ladder at a time.
- Never jump from a ladder. Always step down from the bottom rung.
- Do not use a metal ladder in locations in which it or its user could come into contact with electricity.

### **The Correct Way to Fall**

If you find yourself falling, do so correctly to reduce your risk of injury:

- Tuck your chin in, turn your head, and throw an arm up. It is better to land on your arm than on your head.
- While falling, twist or roll your body to the side. It is better to land on your buttocks and side than on your back.
- Keep your wrists, elbows and knees bent. Do not try to break the fall with your hands or elbows. When falling, you want to have as many square inches of your body as possible contact the surface at the same time, thus, spreading out the impact of the fall.

### **Reporting**

All slips, trips and falls, with or without injury, should be reported, recorded and reviewed. Action to prevent a repeat occurrence should be taken immediately. To report a slip, trip or fall, contact the appropriate personnel within your organization.

An Employee Occurrence Report must be completed if an injury occurs to an employee.

### **Conclusion**

Everyone has the right to work in a safe environment. By working together, employers and employees can eliminate or reduce injuries related to slips, trips, and falls.

## **Stroke Education (Clinical Support Staff)**

### **Background**

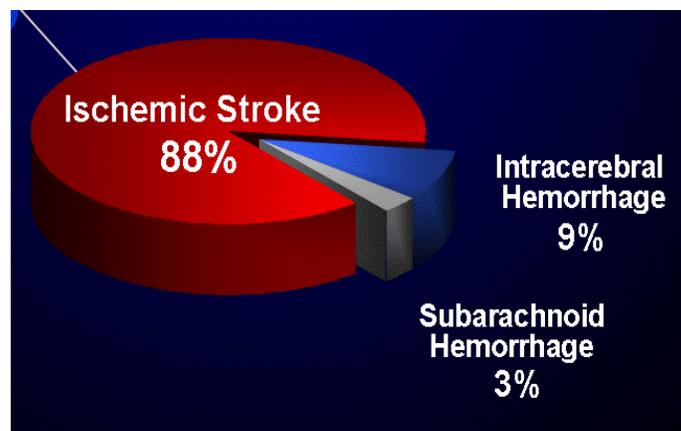
What causes a stroke to occur:

- Ischemic: Blood supply to part of the brain is suddenly interrupted (e.g. a clot).
- Hemorrhagic: A blood vessel in the brain bursts

Other names for a stroke:

- CVA (Cerebral Vascular Accident)
- TIA (Transient Ischemic Attack)
- Brain Attack

### **Primary Stroke Mechanisms**



### **U.S. Statistics**

- 750,000 people suffer a stroke each year.
- Stroke is 3<sup>rd</sup> leading cause of death annually
- Stroke is the leading cause of serious long-term disability
- 14% of people who have a stroke will have another within one year
- 40,000 more women than men have a stroke each year
- Stroke care costs more than \$52 billion annually

### **Stroke Death Rates per 100,000, US Adults Ages 35+, 1991-1998**

Age-adjusted Average Annual Deaths per 100,000

61 - 113
114 - 123
124 - 133
134 - 146
147 - 241
Insufficient Data

Stroke mortality rates are 150% of the national average in the “**Stroke Belt**” (Georgia, South Carolina, North Carolina)

### **Act F-A-S-T**

- **F = Face** - ask the person to smile
- **A = Arm** - ask the person to raise both arms
- **S = Speech** - ask the person to say a simple sentence
- **T = Time** - Time is precious. Seek treatment ASAP

### **CALL 9-1-1**

The faster you act, the better the chances of recovery!

### **MCCG Stroke Center Goals**

- Provide World Class stroke care
- Use evidence-based standards of care
- Develop care network with regional hospitals.
- Monitor & continually improve our performance & care
- Educate our community about how to recognize & care for a stroke

### **Expected Benefits of Stroke Center**

#### ***Improved Patient Care***

- Fewer Complications
- Increased Use of Acute Therapies
- Reduced Morbidity & Mortality
- Improved Long Term Outcomes
- Reduced Costs
- Increased Patient Satisfaction

### **MCCG Stroke Center Team**

Complete Team Effort:

- Community Educators
- EMS, EC, Radiology, Laboratory
- Neurology, Neurosurgery
- Critical Care & Inpatient Nursing
- Rehabilitation Services

### **Possible Symptoms of Ischemic Stroke**

- Blindness in one eye
- Blurred or double vision
- Numbness
- Tingling
- Weakness
- Unable to move one side of the body
- Trouble Walking
- Trouble Swallowing
- Difficulty speaking
- Severe headache
- Dizziness
- Confusion
- Fainting

### **Possible Symptoms of Hemorrhagic Stroke**

- Nausea
- Vomiting
- Blindness in one eye
- Blurred or double vision
- Tingling
- Weakness
- Unable to move one side of the body
- Trouble walking

- Trouble swallowing
- Difficulty with speech
- Severe headache
- Dizziness
- Confusion
- Fainting
- Sleepiness

### **Stroke Orders**

Do you know how to find the Stroke Order Sets?

- Go to the “Forms” pages of the MCCG Intranet:
  - EC Suspected Orders – N1515d
  - Stroke MD Orders - C 5229, C 5230, C 5231.
- You can also find them by typing “Stroke” in the Forms Search tool.

### **Your Role at MCCG**

Model Service Excellence Pillar: Care for Stroke patients is everyone’s responsibility at MCCG

- Whoever sees patient first takes ownership & begins process.
- Perform brief assessment of person (“FAST”)
- Initiate Code Stroke/Begin stroke process if appropriate
- Educate your family, friends, peers, community members, etc.

### **Your Responsibility**

- Recognize the signs and symptoms of stroke and always report them to the patients nurse immediately
- Educate your patients, friends, and family members about the FAST exam and the importance of getting to the emergency room as soon as possible for stroke symptoms

# Stroke Education (Nurses, Respiratory Therapists, and Physician Assistants)

## Background

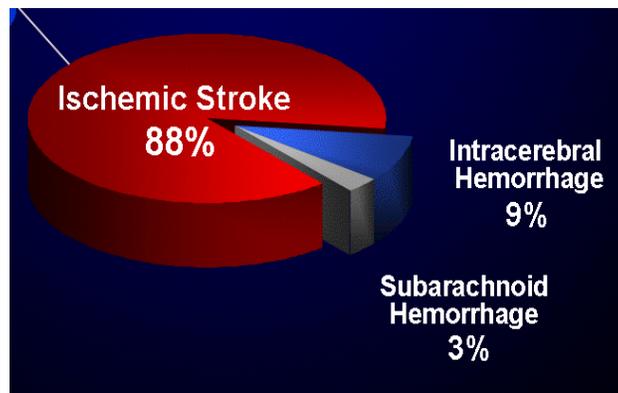
### *Primary Stroke Mechanisms:*

- *Ischemic:* Blood supply to part of the brain is suddenly interrupted (e.g. a clot).
- *Hemorrhagic:* A blood vessel in the brain bursts

### *Other names for a stroke*

- CVA (Cerebral Vascular Accident)
- TIA (Transient Ischemic Attack)
- Brain Attack

### Primary Stroke Mechanisms



## What is the most common type of stroke?

- Hemorrhagic Stroke
- Intra-cerebral Hemorrhage
- Subarachnoid Hemorrhage
- Ischemic Stroke

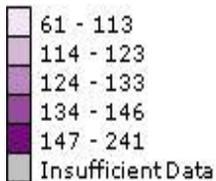
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- Stroke care costs more than \$52 billion annually

### **Stroke Death Rates per 100,000, US Adults Ages 35+, 1991-1998**

Age-adjusted Average Annual Deaths per 100,000



- Stroke mortality rates are 150% of the national average in the “**Stroke Belt**” (Georgia, South Carolina, North Carolina)

### **Act F-A-S-T**

[The symptoms of *stroke* can easily be remembered by the letters *FAST* and can be used by *anyone* to quickly expedite stroke interventions]

- *F = Face* - ask the person to smile
- *A = Arm* - ask the person to raise both arms
- *S = Speech* - ask the person to say a simple sentence
- *T = Time* - Time is precious. Seek treatment ASAP

**In the HOSPITAL call 3-1600**

**In the COMMUNITY call 9-1-1**

**The faster you act, the better the chances of recovery!**

### **MCCG Stroke Center Goals**

- Provide World Class stroke care
- Use evidence-based standards of care
- Develop care network with regional hospitals.
- Monitor & continually improve our performance & care
- Educate our community about how to recognize & care for a stroke

### **Non-Modifiable Risk Factors for Stroke**

- Age
- Sex/Gender

- Race/Ethnicity
- Heredity (Family History)
- Previous stroke, TIA, or heart attack

### **Modifiable Risk Factors for Stroke**

- Heart Disease
- Hypertension
- Smoking
- Diabetes
- Atrial Fibrillation
- Elevated Cholesterol
- Metabolic Syndrome
- Obesity
- Physical Inactivity
- Poor Diet
- Excessive Alcohol Use
- Drug Use

### **Expected Benefits of Stroke Center**

#### ***Improved Patient Care***

- Fewer Complications
- Increased Use of Acute Therapies
- Reduced Morbidity & Mortality
- Improved Long Term Outcomes
- Reduced Costs
- Increased Patient Satisfaction

### **MCCG Stroke Center Team**

Complete Team Effort:

- Community Educators
- EMS, EC, Radiology, Laboratory

- Neurology, Neurosurgery
- Critical Care & Inpatient Nursing
- Rehabilitation Services

### **Acute Stroke Goals**

- Rapid Identification & coordination with other members of the health care team
- Perform “FAST” screen – activate stroke team by dialing 3 - 1600
- Implement stroke order set:
  - Door to CT: 20 minutes
  - CT read: 25 minutes
  - Door to Lab results: 45 minutes
  - Door to TPA: 60 minutes (**if onset within 3 hrs**)
  - Blood Pressure Management
  - Engage Neuro-interventional Services (if symptom onset >3hrs; <8hrs)

### **Possible Symptoms of Ischemic Stroke**

- Blindness in one eye
- Blurred or double vision
- Numbness
- Tingling
- Weakness
- Unable to move one side of the body
- Ataxia
- Dysphagia
- Dysarthria
- Severe headache
- Dizziness
- Confusion
- Syncope

## **Ischemic Stroke**

- Remember, your patient may have only one symptom or multiple symptoms of stroke
- Regardless of the patient's presentation, the treatment and procedure to follow is the same for all
- patients
- If you suspect a stroke, call a Code Stroke

### ***Treatment Options:***

- **If symptoms < 3 hrs:**
  - **Consider intravenous tPA**
- If symptoms >3 hrs, but less <8 hrs
  - Evaluate for neuro-interventional procedures
    - Merci Retrieval
    - Penumbra Suction Catheter
    - Intra-arterial tPA

## **Neurosurgical Services**

- Intra-arterial TPA available
  - This breaks up any clots
- Numerous Biplane Interventions
  - Penumbra
  - Clot Buster
  - Merci Retrieval
    - Pulls out clot

## **Possible Symptoms of Hemorrhagic Stroke**

- Nausea
- Vomiting
- Blindness in one eye
- Blurred or double vision
- Tingling

- Weakness
- Unable to move one side of the body
- Ataxia
- Dysphagia
- Difficulty with speech
- Severe headache
- Dizziness
- Confusion
- Syncope
- Lethargy

### **Hemorrhagic Stroke**

#### ***Treatment Options***

- Evaluate for Surgery
- NICU observation for changes
- Supportive care if non-operative

### **Joint Commission Performance Measures**

- Deep Vein Thrombosis (DVT) Prophylaxis
- Discharged on Antithrombotic Therapy
- Patients with Atrial Fibrillation Receiving Anticoagulation Therapy
- Thrombolytic Therapy Administered
- Antithrombotic Therapy By End of Hospital Day Two
- Discharged on Cholesterol Reducing Medication
- **Dysphagia Screening**
- **Stroke Education**
- **Smoking Cessation / Advice / Counseling**
- Assessed for Rehabilitation

\*The measures in **RED** are nursing responsibilities

## **Code Stroke**

- For hospitalized patient who exhibits possible stroke symptoms:
  - Dial 0 & ask operator for CAT team
  - CAT team activates Code Stroke as necessary
  - Helps get lab drawn, CT done, etc.
  
- For hospitalized patient who exhibits definite stroke symptoms:
  - Call Code Stroke (3-1600)

## **Stroke Orders**

### ***Do you know how to find the Stroke Order Sets?***

- Go to the “Forms” pages of the MCCG Intranet:
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## **Your Role at MCCG**

Model Service Excellence Pillar: Care for Stroke patients is everyone’s responsibility at MCCG

- Whoever sees the patient first takes ownership & begins process.
  - Perform brief assessment of person (“FAST”)
  - Initiate Code Stroke/Begin stroke process if appropriate
- Educate your family, friends, peers, community members, etc.

## **What is classified as a “stroke”?**

- Ischemic Stroke (embolic or thrombotic)
- Intracranial Hemorrhage (ICH)
- Subarachnoid Hemorrhage (SAH)
- Ruptured Aneurysm

- Keep in mind that TIA is a warning sign for stroke. The workup for a cause of TIA is the same as for stroke and both are treated the same and also have the same order sets and the same requirements

## **Nursing Assessment-Dysphagia Screen**

### ***Dysphagia Screen***

Why is this important?

- 27-50% of stroke patients will develop dysphagia
- 43-54% with dysphagia will experience aspiration
- Of those, 37% will develop pneumonia

## **Pneumonia**

- Pneumonia is among the leading complications of stroke and a significant cause of death after CVA
- Most of the pneumonia cases develop due to aspiration
- To prevent aspiration, suspected stroke patients should be NPO **INCLUDING MEDS** unless they pass dysphagia screen

## **Dysphagia Screen**

- Is the patient able to participate?
- Is the patient able to manage their own secretions?
- Is the patient's speech understandable?
- Does the patient have pharyngeal sensation?
- Can the patient swallow 50 ml of water without difficulty?
- IF THE ANSWER IS **NO** TO ANY OF THE RN DYSPHAGIA SCREENING QUESTIONS THE PATIENT MUST BE KEPT NPO **INCLUDING MEDS** UNTIL THEY HAVE BEEN EVALUATED BY SPEECH THERAPY

## **NIH Stroke Scale**

***What is it?***

- The National Institute of Health Stroke Scale (NIHSS) is a systemic assessment tool that provides a quantitative measure of stroke related neurological deficits.

- Can be used as a clinical stroke assessment tool to evaluate and document neurological status in the acute stroke patient.

### ***Why is the NIHSS important?***

- This scale is valid for predicting lesion size and can serve as a measure of stroke severity
- Has been shown to be a predictor of both short and long term outcomes
- Serves as a data collection tool for planning patient care and provides a “common language” for healthcare providers

### ***How is NIHSS tested & scored?***

- NIHSS is a 15 item neurologic examination stroke scale to evaluate the effect of acute cerebral infarction on the levels of consciousness, language, neglect, visual field loss, extra-ocular movement, motor strength, ataxia, dysarthria, and sensory loss
- Each item is scored grade 3-5 and zero is a normal score

### ***Complete NIH Stroke Scale:***

- On admission
- When sedation is off
- For a change in mental status
- 24 hours after tPA or a neuro-interventional procedure at discharge
- **Remember to complete on all stroke patients regardless of stroke order set completion by MD**

### **Stroke Education**

- Patients must be educated about stroke prior to discharge
  - Care notes under *stroke hotlist*
  - Check off the ones that apply
- Must include smoking cessation if they have smoked in the last 12 months
- Must have patient or family member sign and place sheet in chart. This is our documentation!!

# **TB Prevention**

## **Objectives**

After completion of this course you will be able to:

- Describe tuberculosis (or TB) infection and disease;
- Identify persons at risk for infection;
- Identify symptoms of tuberculosis disease, diagnosis and treatment;
- List methods to decrease the spread of the disease; and
- Describe the steps to take following an unprotected contact.

## ***Introduction***

Tuberculosis (or TB) bacteria are carried in small airborne particles that spread when a person coughs, sneezes, shouts, or sings. The particles can float in air and spread throughout a room or building. Infection occurs when a person breathes in the bacteria, and it enters their lungs. If the immune system is able to stop the bacteria from multiplying, the person has no symptoms and can not infect others. This is known as latent tuberculosis infection (or TB infection).

Tuberculosis disease occurs when the bacteria is active in the body and multiplies because of a weak immune system. This can occur due to a number of medical conditions including infection with HIV. The person with TB disease will have symptoms and is able to infect others.

## **Who's at Risk?**

The biggest risk to healthcare workers is the undiagnosed or unsuspected patient or resident with TB disease. That's why it is important to collect a medical history that includes information about 1) their risk for infection or disease and 2) symptoms or signs of the disease.

The risk that a person will become infected with TB depends on the amount of bacteria in the air, the length of contact, and the distance to the person with TB disease. Close contacts are persons who share the same air space for weeks or months. Close contacts are at a high risk for infection, in addition to:

- Persons from or who have recently traveled to areas with a high rate of TB disease (such as Africa, Asia, Eastern Europe, Latin America, and Russia).
- Persons who live or work where there are many people frequently entering from different settings (such as prisons, long-term care facilities, and homeless shelters).
- Persons who are medically underserved or who have a low income.
- Healthcare workers who serve patients or residents who are at high risk.
- Healthcare workers with an unprotected contact with a patient or resident with TB disease.

## **Symptoms, Diagnosis, and Treatment**

Symptoms of TB disease include coughing for more than 3 weeks, loss of appetite, unexplained weight loss, night sweats, bloody sputum, hoarseness, fever, extreme tiredness, or chest pain.

A diagnosis of TB disease is confirmed when a sputum test contains the tuberculosis bacteria. TB disease is treated with multiple drugs and individuals are observed while taking the medication to make sure they are compliant with the treatment.

### **Prevention of Tuberculosis**

Healthcare workers can play a huge role in preventing the spread of tuberculosis by following their organization's TB control plan. Within the plan are guidelines for Airborne Precautions, which must be used when caring for patients or residents with suspected or confirmed TB. Airborne Precautions include the use of respiratory protective equipment, such as an N95 mask, which must be worn by healthcare workers when caring for the patient or resident. A fit test is performed on the worker during initial training and periodically to determine the best model and size. Visitors may be offered respiratory protection and should be instructed on its use by a healthcare worker. Patients or residents on Airborne Precautions must also be placed in an airborne infection isolation room (or AIIR). These rooms are used to 1) separate patients or residents with suspected or confirmed TB from other persons, 2) provide an area in which the amount of bacteria in the air is reduced, and 3) prevent the escape of bacteria into nearby areas. Airborne infection isolation room doors are kept closed and entry of visitors and healthcare workers are controlled. Signs or symbols are displayed when Airborne Precautions are in effect.

Patients or residents on Airborne Precautions who must be moved for medically-necessary purposes should wear a surgical mask and follow Respiratory Hygiene and Cough Etiquette. If the patient or resident is wearing a mask the person moving them is not required to do so.

All healthcare workers who have the potential for contact with the tuberculosis bacteria must be screened for TB using a two-step tuberculin skin test (TST) or blood test before employment and periodically based on the facility's risk assessment.

### **Unprotected Contact**

If you have unprotected contact with a patient or resident with TB disease, you will be screened for TB infection with either a tuberculin skin test (TST) or blood test. If the test result is positive you will be evaluated for preventative treatment. Treatment, if needed, will be provided to you at no cost.

Report any unprotected contact or symptoms or signs of TB disease to Infection Control or Occupational Health personnel. Steps taken following an unprotected contact are performed and recorded confidentially between Infection Control and Occupational Health personnel and the local or state TB control program or health department.

### **Conclusion**

Your organization is committed to preventing the spread of tuberculosis. And it takes your help. If you have any questions about tuberculosis or related infection control procedures, contact your organization's Occupational Health or Infection Control personnel for guidance and assistance.

## **Violence in the Workplace**

The MCCG Violence prevention program has five parts:

- 1) A clear policy stating the organization's position regarding threats and harassment
- 2) A training and education program
- 3) A process for employees to report threats and unacceptable behavior
- 4) A process to look at threats
- 5) An action plan for incidents

An effective tool used by the Medical Center to reduce violence is screening all possible new hires by Human Resources. Not all workplace violence can be avoided, but there are skills you can learn to make getting hurt less likely. There are also many different types of workplace violence.

### **Violence by Strangers**

The stranger has no real relationship to the worker or the workplace. He/She enters the workplace, usually on the pretense of being a customer, to commit a robbery or other violent act. Workers also may become a victim of strangers outside the 'traditional' workplace.

### **Violence by Customers/Clients**

Violence is carried out by someone who receives a service provided by a business, such as a current or former customer, client or patient, a passenger or, a criminal suspect or prisoner. The violence can happen in the workplace or outside the workplace but while the worker is doing his/her job. Violence of this kind is made up of two types: One type involves people who may be naturally violent (prison inmates, mental health service clients). The second type involves people who are not known to be naturally violent, but become violent in a given situation. Something in that situation has caused the person to become violent.

### **Violence by Co- Workers**

The person is employed where the workplace violence occurs. He/she can be a current or former employee, a possible new hire, a current or former supervisor or manager. This type of violence can be divided into two types: violence between supervisors and workers and violence between workers at the same level.

### **Violence by personal relations**

This is someone who has a personal relationship with the worker. Examples are a current or former spouse/partner, a relative or a friend. The person has a personal issue with the worker and enters the workplace to harass, threaten, injure or kill.

Almost two-thirds of nonfatal assaults occur in the service industry (61%), retail trade (21%), nursing homes (27%), social services (13%), hospitals (11%), grocery stores (6%), and (5%) occurred in eating and drinking places.

Multiple murders represent a small number of workplace violence incidents. Most incidents include: lesser cases of assaults, domestic violence, stalking, threats, harassment (to include sexual harassment), and physical or emotional abuse. These types of events make no headlines. Many of these incidents are not reported to the company or to police.

While workplace murders have grabbed media attention, they are only part of the problem. For each murder, there are countless other cases of workplace violence in which the victim is harassed, threatened or injured, sometimes seriously.

Almost two-thirds of nonfatal assaults occurred in service settings. These include nursing homes, hospitals, and places that provide assisted living/residential care and other social services.

Nonfatal assaults were mostly reported between patients and nursing staff in health care settings. Because health care workers provide services to the public at large, they are more subject to workplace violence.

In case of workplace violence, follow these steps:

- 1) Do not go into the person's private space
- 2) Know the warning signs of violence
- 3) Speak in a calm voice
- 4) Work to build trust
- 5) Avoid wearing jewelry to prevent possible theft or being strangled
- 6) Report all threats and assaults to your supervisor or manager
- 7) Use the buddy system anytime you think that you may be unsafe
- 8) Know and practice our procedure for preventing workplace violence.

## Virtual CODE BLUE Cart

### Code Blue

- A Call for IMMEDIATE Medical Assistance.
  - Does NOT have to be a cardiac or respiratory arrest.
  - Call when you need immediate assistance, don't wait.

**CALL A CODE TO PREVENT A CODE !!!**

**\*\*\*\*\* 3-1600 \*\*\*\*\***



### What to do FIRST ???

- START CPR
- APPLY QUICK COMBO ELECTRODES
- TURN 'ON' THE MONITOR
- DELEGATE SOMEONE TO DOCUMENT !!

### Canceling Codes

- BE CAREFUL!
  - Cancellation should only happen for codes called by accident.
  - If called for medical reasons, don't assume the patient is better. Let the MD responding make that decision.
  - If paged, a Code Blue form MUST BE COMPLETED anyway. Indicate WHY code was cancelled.

### Code Blue Cart (Adult)

#### **POINTS TO REMEMBER:**

- Back board is on the front of the cart  
(See the *lifeline* writing)
- Cart kept in every unit
- Supplied by Materials Management
- White handle on right side must be in up position to steer
- Red lock number checked & recorded daily
- Daily check includes
  - Test firing the defibrillator (unplugged)
  - Assessing the expiration date of the cart.
  - plugging in the suction to assure it is functioning.
  - Other functions as indicated on forms.
- A defibrillator should be on or near each cart (easily accessible)
- Blue box on top is for used NON disposable items (laryngoscopes / blades etc.)

## Unlocking/ Opening the Cart

**LIFT** the Handle straight up.  
(This will break the red lock off)

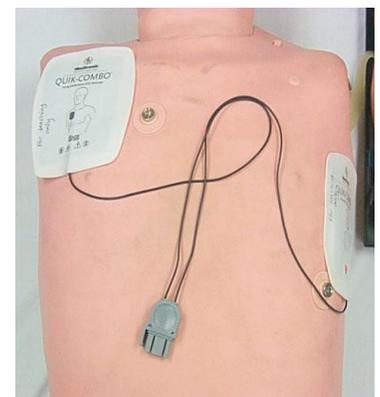


**PUSH** it ALL the way back

*NOTE: If drawers do not open, push the handle back again, the handle controls the locking mechanism.*

## QUIK-COMBO PLACEMENT

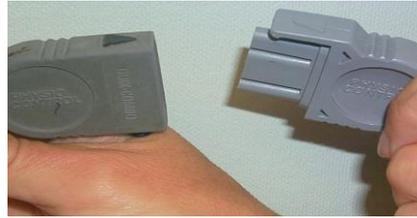
- FOUND IN DRAWER 1
- Used for:
  - DEFIBRILLATION
  - CARDIOVERSION
  - PACING
- ASSURE proper placement.
  - Diagram on front
  - Lateral patch should be over the RIBS, not the abdomen.
  - ALTERNATE: Anterior / Posterior placement.



*NOTE: Three lead wire is only needed to pace, it is NOT generally needed at the beginning of a code.*

## CONNECTING THE QUIK-COMBO PATCHES

- Obtain Therapy Cord from Lifepak
- Connect Lifepak cord Arrow to
- Quik-Combo cord Arrow



## MCCG Defibrillators

- Two types
  - LP12
    - Higher volume code areas
    - ICU / ER/ GHC etc.
  - LP20
    - Lower volume code areas
    - Includes automated AED function.
- All Defibrillators are BIPHASIC (Truncated exponential)
- **DO NOT USE PADDLES**
- QUIK –COMBO pads are identical for both machines.



## USING THE LIFEPAKLifePak 20

Allows both:

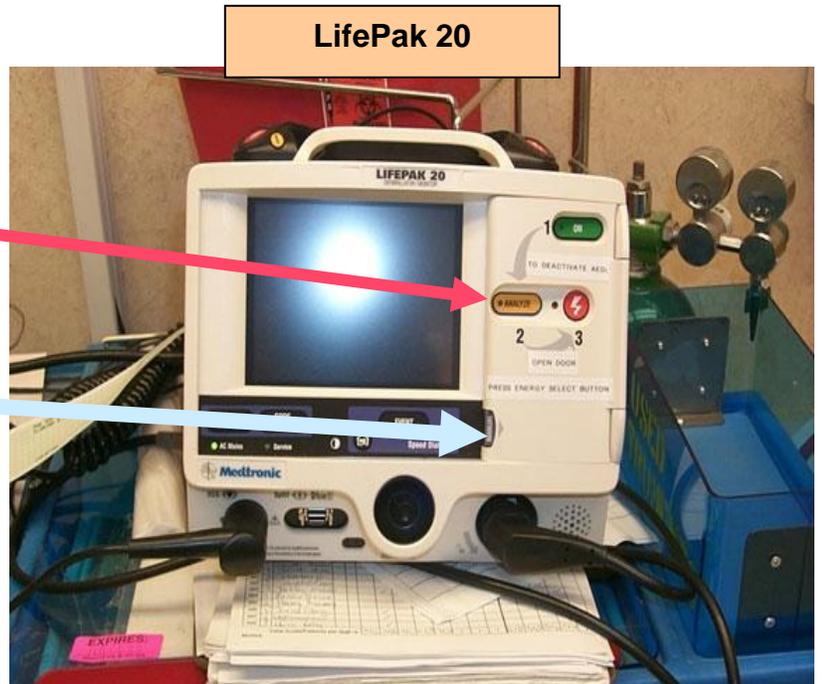
- AED Function  
**SLOW DOWN & LISTEN**

Use 1, 2, 3  
Will advise to  
needed

- Full ACLS function

Open door when  
Experienced  
Providers arrive.

Opening door deactivates AED  
function



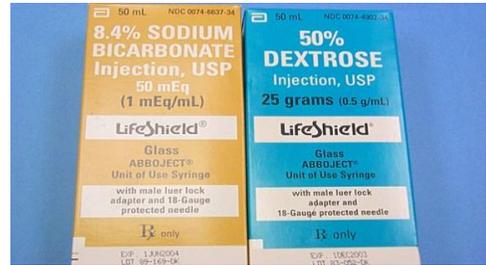
## THE MEDICATION DRAWER

- ON THE TOP OF THE CART



## MEDICATIONS – Top of Cart

- Adenosine 6mg/ 2ml
- Atropine 1mg syringe
- Amiodarone 150mg vials
- Calcium Chloride 10% 1g vial
- D5W 250ml
- Dextrose 50% 50ml syringe
- Midazolam 10mg injection
- Epinephrine 1:10,000 1mg
- Flumazenil (Romazicon) 0.1mg/ml inj
- Lidocaine 100mg syringe
- Magnesium sulfate 1g/2ml inj
- Naloxone (Narcan) 1mg/ml inj
- Phenytoin 250mg injection
- Procainamide 500mg inj
- Sodium Bicarbonate 50mEq syringe
- Vasopressin 20unit inj
- Dopamine 400mg/250ml D5W PREMIX
- Lidocaine 2gm/500ml D5W PREMIX
- Norepinephrine (Levophed) 4mg/4ml inj



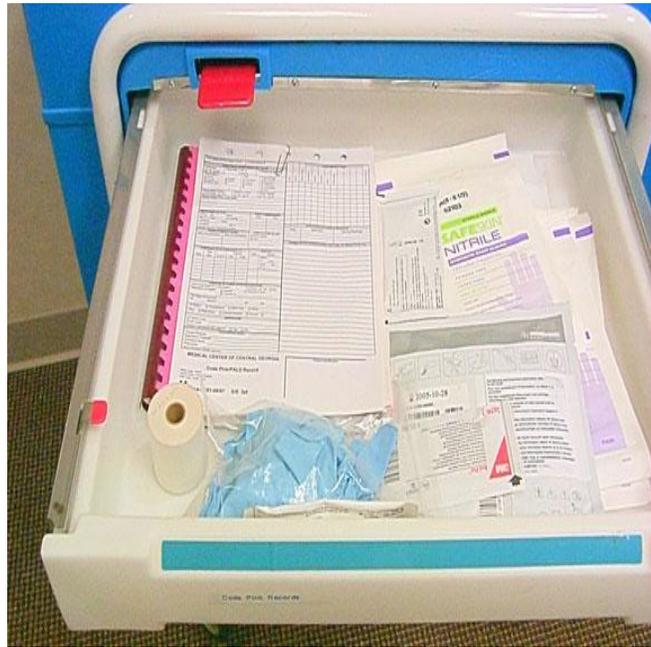
## MEDICATIONS – Side of the cart

IV FLUIDS: ALL plain IV fluids are in the tilt bins on the LEFT SIDE of the code cart.



**Drawer 1**

- Quik-Combo patches
- EKG Electrodes
- Documentation Forms
- Extra Paper for Defibrillator
- Gloves (sterile & nitrile)



## Drawer 2

- NURSES DRAWER
  - Lab tubes
  - IV catheters
  - IV start kits
  - Tape
  - Large Bore Needles
  - Syringes
  - Red Caps
  - One-Way valves
  - Chloro Prep



## Drawer 3

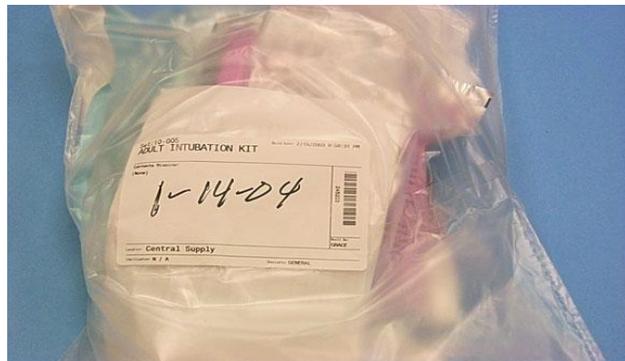
- Airway Management Drawer
  - **Ambu Bag**
  - Intubation KIT (includes blades, handles, lube, etco2 detector, stylet)
  - Oxygen delivery supplies(NC, FM, 100%NRB, O2 flow meter)
  - Suction sets / Yankaur
  - ABG supplies
  - NG & 60 cc syringe
  - Lubricant
  - Sterile Suction Equipment



Drawer also includes Tracheostomy Tray



- Intubation KIT
  - Handle
  - Blades
    - MAC
    - Miller
  - Stylet
  - Lubricant
  - Multiple Sized ETTs
  - ETCO2 detector



## **BOTTOM OF THE CART**

- Introducer Kit
- Triple Lumen Central Line Kit
- Central Line Dressing Tray
- Sterile Gown
- Primary Infusion Pump Sets
- Y Site Administration Set w/ Pump (blood set)

**Use for rapid volume replacement of blood OR FLUIDS!**



**REMEMBER: You can call a code when you need help... BUT... These situations that MUST be documented on a Code Blue Form:**

- **Patient is defibrillated (pt pulseless)**
  - Does not include cardioversion for a rhythm with a pulse.
    - **Exception:** Cath Labs have one intervention exemption, if patient does not convert with one shock, a form must be completed.
- **Patient receives CPR**
  - Compressions & / or emergency ambu bagging.
- **Patient has a lethal (pulseless) arrhythmia requiring intervention**
- **When Code Blue is paged**

## **Documentation Tips**

- **Every intervention must be followed with assessment**
  - Document intervention **and** patient response
- **Time factor is crucial**
  - Be accurate,
  - choose ONE timepiece and **STICK TO IT**
- **Documentation paints a picture**
  - Covers event from beginning to end
  - Reader should be able to tell exactly what happened when and why it occurred.
- “There is never a more important time to document than in the situations where you have the least time to do it!”
- **ALL 3 copies MUST be stickered.**

- All documentation of event **MUST** be on Code Blue Form
- Do **NOT** refer to another form
- The “other” form can refer to the Code Blue form, but the Code Blue form can **NEVER** refer to a different form.
- Patient should be assessed at least every 5 minutes through the event.

### **Do YOU document emergencies on a PAPER TOWEL??**

- A WORD ABOUT DOCUMENTING ON A PAPER TOWEL.
  - There is **NO SHORTAGE** of Code Blue forms
  - It is perfectly permissible to copy the form over if you are unhappy with the quality of the 1st document.
  - Charting on a Napkin may cause you to leave out important details and can not remind you of **WHAT** to chart.

### **After the Code is Complete**

#### ***DO NOT FORGET...***

To obtain the black lock from the medication bin (top of cart) and lock the cart

REMINDER: place backboard on cart prior to attaching black lock

Materials Management will **NOT** take cart from the unit until the **BLACK LOCK** is in place.

