**EXHIBIT A**

**STEP 1 – Preliminary Approval from Leadership**

<table>
<thead>
<tr>
<th>Completed?</th>
<th>Form Required</th>
<th>Instructions</th>
<th>Signatures Required From</th>
</tr>
</thead>
</table>
|            | **Exhibit B** - Request and Attestation of Granted Approvals for Sponsor’s Invitation | Observer/sponsor signatures will be obtained by the Department – CMO/CNO approval will be obtained by the Office of Observership Credentialing. | Observer
Sponsor
CMO
CNO (optional) |

**STEP 2 – Application Submission**

*Applicant submits completed via Department or Electronic application to the Nursing Office of Credentialing.*

<table>
<thead>
<tr>
<th>Completed?</th>
<th>Form/Documents Required</th>
<th>Instructions</th>
<th>Signatures Required From</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Exhibit C</strong> – HIPAA Confidentiality and Non-Disclosure Statement</td>
<td>Completed by applicant</td>
<td>Observer</td>
</tr>
<tr>
<td></td>
<td><strong>Exhibit D</strong> – Immunization Verifying Documentation</td>
<td>Completed by applicant</td>
<td>Observer</td>
</tr>
<tr>
<td></td>
<td><strong>Exhibit E</strong> – Health Screen</td>
<td>Completed by applicant</td>
<td>Observer</td>
</tr>
</tbody>
</table>
|            | **Exhibit F** – Sponsor Supervision Agreement | Completed by sponsor | Sponsor
Designated Supervisor |
|            | **Exhibit G** – Release of Waiver of Liability | Completed by sponsor | Observer
Sponsor |
|            | **Exhibit H** – Observership Code of Conduct | Emory Healthcare Pledge included for reference, not for submission. | Observer |
|            | **Exhibit I** – Observer Required Regulatory Courses | Completed by applicant | Observer |
|            | Government issued photo ID of observer | Passport or driver’s license. Attestation form provided for Emory department designee to verify. | Observer
Designee |
|            | **Exhibit J** – (Invasive Procedure Only) – HIPAA authorization | Patient’s signed consent to Observership (filed in patient’s medical record) | Sponsor
Patient |
|            | **Observership Credentialing Fee ($150)** | Payable to Emory Healthcare via check, money order, credit card or department smart key | Waived |

**STEP 3 – Final Approval Granted by the Office of Observership Credentialing**

The Office of Observership Credentialing will notify the observation site’s Security Office to issue an Emory Healthcare photo ID badge. Observer picks up ID badge from Security Office on day of arrival. *(Applicants EHC and EU badge may not be used while observing.)*

**Security Office Locations:**

- **Emory University Hospital**
  2nd floor, D wing, Room D-215
  Office: 404-712-5599

- **Emory University Hospital Midtown**
  Orr Building, 1st floor
  Office: 404-686-4485

- **Emory Saint Joseph’s Hospital**
  5665 Peachtree Dunwoody
  Office: 678-843-7568
EXHIBIT B
Request and Attestation of Granted Initial Approvals for Observership

This document is a preliminary approval of the invitation only to be completed a month in advance of the start date. Following this approval, other requirements must be submitted to the Office of Observership Credentialing prior to the final authorization, start date, and badge distribution.

Applicant Name: ____________________________________________
Date of Birth: ____________________________ Age at time of Observership: ____________________________
Home Address: ____________________________________________
Home/Cell Phone Number: __________________________________
Email Address: ____________________________________________
Name of School/College: ____________________________________

Purpose and Goal of Observership (please write 1-5 sentences):

Sponsor: ____________________________________________
Observation Site: _______________________________________
Observation Period: Start: ___________ End: ___________

NOTE: Clinical and non-clinical authorizations for an observership must be linked to an affiliation with an EHC Executive or Medical Staff Member with active, Emory clinical privileges. If not linked with a physician, the sponsoring affiliation may also be with a professor or clinical researcher from Emory University School of Medicine or Emory’s Nell Hodgson Woodruff School of Nursing with approved, Emory clinical access.

The following individuals must print, sign, and date, signifying the Observer is APPROVED to begin the application process:

Any requested exceptions to the policy herein must be noted on this sheet and approved by the parties listed below.

Observer: ____________________________________________ Date: ___________
(Print) ____________________________ (Signature)

Sponsor: ____________________________________________ Date: ___________
(Print) ____________________________ (Signature)

Dept. Chair/Chief of Service or Designee: ____________________________ Date: ___________
(Print) ____________________________ (Signature)

Site Chief Nursing Officer (when appropriate): ___________
(Print) ____________________________ Date: ___________
(Print) ____________________________ (Signature)

Site Chief Medical Officer: ____________________________ Date: ___________
(Print) ____________________________ (Signature)

Upon obtaining ALL signatures, submit to: observership.credentialing@emoryhealthcare.org Phone: 404-686-6919
EXHIBIT C
HIPAA Confidentiality and Non-Disclosure Statement

I, the Observer visiting Emory Healthcare, am aware of the Hospital’s Regulations and Policies that are issued under the Health Insurance Portability and Accountability Act of 1996 (also known as the HIPAA Privacy Rule).

I understand that all patient information, including medical records, other medical information, billing and financial data, is confidential.

I agree to comply with all Hospital policies and procedures, including and without limitation to the Non-Staff Observer Handbook and the Privacy Policies and Procedures implementing the HIPAA Privacy Rule.

I understand that if I violate patient confidentiality by using or disclosing patient information improperly, I may be subject to disciplinary action including having my Observership immediately terminated and I may be held personally responsible.

I understand that if I have any questions or concerns about the Privacy Rule and/or the proper use or disclosure of patient information, I shall ask my supervising attending, the Hospital Privacy Officer, or the Hospital Compliance Officer.

I have read and understand Emory Healthcare’s Privacy and Security Training Materials and signed the acknowledgement statement. I understand and agree that the Hospital Privacy Policies and Procedures will apply to all patient information even after my Observership has been completed.

I certify that I have read Emory’s HIPAA Policy Regarding Confidentiality of Patient Health Information and have completed the associated Privacy and Security Regulatory Course, outlined on the Non-EHC Staff Regulatory Courses form provided herein.

I understand that no information about any patients I may observe or hear discussed while on the Observership or at any time thereafter may be transmitted to any third party or person via personal recording device, email, text message, posting on any social network or another online site, or via any other written or verbal communication. *Exceptions must be reviewed and approved through Legal, the CMO, and the respective sponsor.

I understand that photography and videotaping are prohibited.

As a condition of my Observership, I agree to abide by the prohibition on discussing my Observership and agree that Emory Healthcare has the authority to terminate the Observership at any time in its sole discretion. I further agree to indemnify and defend Emory Healthcare and its affiliates for all damages or losses incurred related to my participation as an Observer.

Print Name	Signature	Date
Provide Verifying documentation for one option per category.

I. Measles, Mumps, and Rubella (MMR)

Option A Two live attenuated MMR vaccines
Vaccine #1 __________ Vaccine #2 __________

Option B Proof of individual titers – attach titer document (Positive titers represent immunity)

Rubeola Titer Date __________
Mumps Titer Date __________
Rubella Titer Date __________

II. Tuberculosis (TST=PPD)

Option A T-Spot Serology and/or QuantiFERON TB Gold Blood Test. The result must be current within 3 months of observership start date
Last Serology Date __________
For Positive serology, provide documentation with a negative/clear chest x-ray report, treatment received, and a TB symptom questionnaire

Option D For history of bacilli Calmette-Guerin (BCG) vaccination: provide documentation of a T-Spot/QuantiFERON Gold Blood test result within 3 months of observership start date.

III. Varicella (Chicken Pox, VZV) Childhood history of disease is not sufficient.

Option A (two live VZV vaccines) Varivax Date #1 __________ Varivax Date #2 __________

Option B VZV Serologies (attach titer documentation) VZV Titer Date __________
Positive titer = immune, Negative titer = not immune (option A required)

IV. Hepatitis (HBV)

Option A Hepatitis B Vaccination (provide documentation) (three (3) doses required or titers)

Option B Hepatitis B Surface Antibody (HBVSAB) Test Results (provide serology documentation)
Serology Date __________ (positive=immune, negative=non-immune)

Option C Declination of Hepatitis Vaccination – After consultation with an Emory Healthcare Representative

V. Annual Mandatory Flu Vaccine (October-March) please submit influenza verification documentation or submit Emory Healthcare waiver signed by physician or religious leader.

Immunization clearance is required prior to observing in Emory hospitals or clinics.
Applicant Name _______________________________________________________________

1. Have you been around anyone with any of the following diseases within the past 30 days?
   
   - Chicken pox  Yes [ ]  No [ ]
   - Measles  Yes [ ]  No [ ]
   - German Measles (Rubella)  Yes [ ]  No [ ]
   - Mumps  Yes [ ]  No [ ]
   - Influenza  Yes [ ]  No [ ]

2. Have you had the following symptoms in the past 72 hours?
   
   - Fever  Yes [ ]  No [ ]  If yes, temp degrees F: ________
   - Conjunctivitis/pink eye  Yes [ ]  No [ ]
   - Vomiting  Yes [ ]  No [ ]
   - Diarrhea  Yes [ ]  No [ ]
   - Cough  Yes [ ]  No [ ]
   - Congestion/runny nose/cold  Yes [ ]  No [ ]
   - Skin sores  Yes [ ]  No [ ]
   - Rash  Yes [ ]  No [ ]

3. Have you had any chronic cough (lasting greater than 3 weeks), night sweats, unexplained fevers, loss of appetite, sudden weight loss, blood tinged secretions from the nose or mouth or coughed up?  Yes [ ]  No [ ]
   Please describe: ____________________________________________________________

4. In the past 21 days, have you traveled to other countries?  Yes [ ]  No [ ]
   Please list all countries you have traveled in: ________________________________

5. Have you had any contact or exposure to someone ill who has traveled in another country in the past 21 days?
   
   Yes [ ]  No [ ]

   If any of the above are answered yes, the individual must be cleared by the Department of Occupational Injury Management (OIM)

I certify that the above information is correct.

Print Name ___________________________  Signature ___________________________  Date ___________________________

******************************************************************************************************************************************

(Office Use Only)

Applicant has provided verifying documentation for the following: (as outlined in Exhibit D)

MMR [ ]  TB [ ]  Varicella [ ]  Hep B or Waiver [ ]  Seasonal Flu [ ]
I, the undersigned, agree to be responsible for supervising _____ (Observer) while he/she observes the activities of the _____ (Clinical/Non-clinical services) during the period of _____ to _____.

I acknowledge and agree to accept the above named Observer under my supervision and consent that he/she will not be present in any patient care area without me being with him/her or with my designated non-student, non-resident supervisor.

I agree to ensure that the above named Observer shall engage in observation activities only and shall not participate in any patient care activities within Emory Healthcare. These activities include:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Touching patients</td>
<td>• Advising other care providers, patients or visitors</td>
</tr>
<tr>
<td>• Writing on the medical record</td>
<td>• Scrubbing in the Operating Room or any other procedural area</td>
</tr>
<tr>
<td>• Accessing the patient medical record</td>
<td>• Performing any professional duties</td>
</tr>
<tr>
<td>• Answering questions posed by patients, family, or care providing staff</td>
<td>• Receiving badge access to open doors of clinical areas</td>
</tr>
<tr>
<td>concerning treatment</td>
<td></td>
</tr>
</tbody>
</table>

I also understand that he/she is not covered by Emory’s Liability Program.

I understand it is the expectation that an Observer will leave patient or procedure rooms during emergency situations and am aware that, if in the best interest of the patient, I have the latitude to ask an Observer to leave the patient or procedure room at anytime without explanation.

I understand that should an Observer under my supervision enter into an Emory Hospital or affiliated clinic intoxicated/impaired, it is my responsibility to prevent the Observer from entering patient care areas and immediately inform the respective hospital or clinic CMO who will move forward with the termination of the individual’s Observership.

I understand that the entity CMO has the ultimate authority and discretion to terminate the described Observership at any point in time.

I understand that at no point in time will access capability to the patient medical record be granted for Observers.

**Should the Observer observe direct patient care or view medical records with the sponsoring physician, a HIPAA waiver/release form (attached hereto) must be signed by that patient. It is the responsibility of the sponsoring physician to that patient to obtain such documentation and file with the department under which the procedure or patient care is performed.**

Sponsor Name and Title ____________________________

Sponsor Signature ____________________________ Date

Sponsor Email Address ____________________________ Sponsor Phone Number ____________________________

Designated Supervisor Name and Title (non-student, non-resident) ____________________________

Designated Supervisor Signature ____________________________ Date ____________________________

Designated Supervisor’s Email Address ____________________________ Designated Supervisor’s Phone Number ____________________________
I, _____, wish to observe the activities of the ______ service or department within Emory Healthcare, Inc. (EHC) from _____ to _____ in furtherance of my personal or educational goals (observership).

I understand that I will not be allowed to perform any clinical activities or other work, including without limitation the touching of any patient, documenting on any medical record, scrubbing in the EHC Operating Room or any other EHC procedural area, and advising of care providers or patients. I further understand that I will be under the supervision of attending physician ______ and agree to remain with the attending physician at all times during my Observership. I agree to adhere to the EHC policies and procedures.

I understand I am not to be involved in the provision of patient care at any time and will remain with my assigned sponsor at all times. I understand that my sponsor can ask me to leave the room at anytime without explanation. It is the expectation that all observers will leave during emergency situations.

I understand that I am not an employee, agent or contractor of Emory Healthcare and as such, I am not authorized to conduct any business on its behalf and am not entitled to receive payment or benefits from Emory Healthcare.

I understand that Emory Healthcare does not provide insurance coverage including, but not limited to, the following: professional medical malpractice, general liability, workers’ compensation, or health insurance benefits. I understand that I am not an Emory employee and do not receive employee benefit. I concur that any injury that I may sustain in connection with my participation in the observership shall be covered by my personal medical insurance.

I understand that even though I will only be observing activities in the ______ clinical services I may be exposed to certain risk of bodily injury and other dangers, including but not limited to, exposure to blood born pathogens, biological waste, and dangerous chemicals. I am aware of these risks and voluntarily assume these risks. I release and agree to indemnify and defend EHC from all damages, liability or loss arising from any injury that I sustain related to my participation in the observership.

For and in consideration of EHC allowing me to observe the activities of the ______ services to further my professional and educational goals, I hereby release and forever discharge and agree to indemnify and defend EHC and its parent and affiliate entities and their respective officers, agents and employees from all claims, losses, demands, rights and causes of action of whatever kind or nature arising out of my observership or observation activities, including but not limited to, those specific risks enumerated above. In addition, I understand and take sole responsibility for any personal belongings I bring with me to Emory.

I understand that EHC may terminate my observership: (i) at any time in its sole discretion; or (ii) if I violate the terms of this agreement or EHC Policies or Procedures.

I have read this document carefully and I voluntarily choose to participate in the observership activities described herein. I hereby certify that I am at least 18 years of age, I am legally competent, and I am signing this document with full knowledge of its significance.

Observer Name (print) ___________________________ Signature ___________________________ Date ___________________________
When participating in the observership, I will…

- Arrive promptly
- Accurately represent my position and role
- Appreciate the limits of my role as an Observer
- Ensure patients give informed consent for shadowing freely and without undue influence
- Respect patients’ right to refuse to have visitors present
- Treat all patients and staff with respect and dignity, regardless of age, gender, race, ethnicity, national origin, religion, disability, or sexual orientation
- Maintain strict confidentiality about patient information
- Maintain honesty and integrity by being forthright in my interactions with patients, peers, physician supervisors, and staff
- Ensure patient safety by remaining at home if I am ill
- Report concerns about patient safety to the appropriate individual
- Behave in an appropriate, professional, courteous manner at all times
- Not initiate or accept patients’ invitations to engage in social relationships
- Dress and act professionally
- Not abuse drugs or alcohol
- Be aware of and follow the policies, procedures and guidelines of my sponsoring institution
- Wear the Observer’s ID Badge at all times
- Maintain patient and employee confidentiality

I agree to follow the Code of Conduct described above and to adhere to Emory Healthcare’s Pledge attached hereto.

Observer Name (print) __________________________ Signature __________________________ Date __________________________
EXHIBIT H
Code of Conduct

Our Pledge

We will treat each other the way we want to be treated.
We will...
- treat everyone as professionals and with respect and dignity
- greet each other by name
- welcome and encourage new team members
- be honest and open in all interactions
- be respectful of everyone’s privacy
- be culturally and racially sensitive

We will not...
- raise our voices in anger or use sarcasm or profanity
- be passive-aggressive
- make culturally or racially derogatory remarks
- undermine each other’s work
- criticize each other and Emory in public spaces

We will cultivate a spirit of inquiry.
We will...
- ask “why” when we have questions or concerns, especially about safety
- ask for a pause when we think someone is about to make a mistake or do something unsafe
- thank each other for raising concerns
- declare our openness to the inquiry of others

We will not ...
- respond with anger or sarcasm when someone requests a pause
- intentionally belittle or respond in a threatening or condescending manner when someone asks a question
- tolerate rudeness
- stifle learning

We will defer to each other’s expertise.
We will...
- encourage each other to offer different perspectives
- recognize that all members make important contributions to the team
- seek help when we don’t know the answer

We will not ...
- belittle or ignore the ideas and perspectives offered by each other
- assume that expertise is overruled by age, profession, or rank

We will communicate effectively.
We will...
- listen thoughtfully and ask for clarification when we don’t understand
- check that others have understood when we say something important
- remain respectful with our body language and tone of voice
- remain calm when confronted with or responding to stressful situations
- use scripts, read-back, repeat-back, or other techniques where appropriate to reduce the chance of misunderstanding

We will not ...
- stifle clarifying questions
- interrupt our team members unnecessarily
- say “it’s not my job” or “it’s not my responsibility”

We will commit to these behaviors in support of Emory Healthcare Care Transformation
We will...
- encourage and support each other
- hold each other accountable for the behaviors identified in this Pledge
The following regulatory courses (found as an attachment to this page) must be reviewed by the applicant prior to the Observer’s start date. After reading through the two applicable courses, the applicant must sign below, verifying that he/she has read, understands, and accepts accountability for complying with all material through the entirety of their time with Emory Healthcare.

Topics include, but are not limited to:

1. Hazard Communication
2. Standard Precautions

Additional training for clinical areas may be required and will be specified prior to the individual’s start date. The regulatory courses may be accessed by using the link below:

I, ____________________________, confirm that I have read all the required Regulatory Courses, as outlined above. I understand that I will be held accountable for complying with these rules, regulations, and practices, and am aware that any breach of rules may result in immediate termination of my visitation/Observership.

_______________________________  _________________________________  _________________
(Print) Observer Name                                               Signature                                                   Date
1. EHC Hazard Communication

1.1 Introduction: Lesson 1

Welcome to the introductory lesson on hazard communication.

1.2 Course Rationale

Under its Hazard Communication Standard (HCS), Occupational Safety and Health Administration (OSHA) requires all employers to develop written hazard communication programs.

The primary goal of the HCS is to ensure the safety of employees who work with hazardous materials.

To keep safe at work:

- Learn about hazardous materials and how they can hurt you.
- Identify your potential for exposure and recognize signs of overexposure.
- Learn how to safeguard against exposure.
- Learn how and where you can find Safety Data Sheets (SDS) and information about Hazardous Materials & Waste for your area.

This course will give you the information you need to keep safe when working with hazardous materials.
1.3 Course Goals

Course Objectives

After completing this course, you should be able to:

- Define hazardous materials that include a description of why certain materials are hazardous to healthcare workers.
- Explain the requirements and how to interpret a chemical container label that will help ensure healthcare worker safety.
- Explain where you find Safety Data Sheets (SDS).
- Cite the importance of using personal protective equipment that can assist in improving healthcare worker safety.

1.4 Course Outline

Course Outline

Lesson 1: Introduction
Lesson 2: Hazardous Materials
  - Physical hazards
  - Health hazards
  - Hazardous chemicals
Lesson 3: Safety Data Sheets
  - Responsibilities
  - SDS Sections
Lesson 4: Labeling of Hazardous Chemicals
  - Container labels
  - Hazard warnings
  - Symbols
Lesson 5: Personal Protective Equipment
  - Purpose
  - Responsibilities
  - Types
1.5 Introduction: Lesson 2

Welcome to the lesson on hazardous materials.

This lesson will review:

- Physical and health hazards of chemicals.
- Potential routes of exposure to hazardous chemicals.
- The three different forms of hazardous chemicals.

1.6 What Makes a Chemical Hazardous?

A chemical is hazardous if it is likely to cause harm.

Chemicals can have two types of hazards:

- Physical hazards
- Health hazards

Click on each type of hazard to learn more.
What Makes a Chemical Hazard?

A chemical is hazardous if it is likely to cause harm.

Physical hazards are related to the way that a chemical interacts with other substances or the environment. A chemical that is physically hazardous can harm you by:

- Exploding
- Igniting
- Reacting violently with other substances

Health hazards are related to the way that a chemical interacts with your body. If you are exposed to a chemical hazardous to human health, you could suffer:

- Death
- Long-term damage
- Short-term injury or illness

Click on each type of hazard to learn more.
1.7 Physical Hazards: Examples

Trinitrotoluene (Slide Layer)
Compressed gas in a cylinder (Slide Layer)

Physical Hazards: Examples

Examples of chemicals that are physical hazards include:
- Trinitrotoluene
- Compressed gas in a cylinder
- Isopropanol and other alcohols

Isopropanol and other alcohols (Slide Layer)

Physical Hazards: Examples

Examples of chemicals that are physical hazards include:
- Trinitrotoluene
- Compressed gas in a cylinder
- Isopropanol and other alcohols

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1.8 Health Hazards: Examples

Health Hazards: Examples

Examples of chemicals that are health hazards include:

- Lead
- Mercury
- Formalin
- Glutaraldehyde

References 3-6

Click on each example to learn more.

Lead (Slide Layer)

Health Hazards: Examples

Examples of chemicals that are health hazards include:

- Lead
- Mercury
- Formalin
- Glutaraldehyde

References 3-6

Click on each example to learn more.

Exposure to lead can cause mental retardation in children.
Mercury (Slide Layer)

Health Hazards: Examples

Examples of chemicals that are health hazards include:

- Lead
- Mercury
- Formalin
- Glutaraldehyde

This chemical can cause brain damage, as well as damage to other parts of the body.

Click on each example to learn more.

Formalin (Slide Layer)

Health Hazards: Examples

Examples of chemicals that are health hazards include:

- Lead
- Mercury
- Formalin
- Glutaraldehyde

This chemical is used as a fixative. Ten percent formalin is a carcinogen and severe eye and skin irritant. It can cause instant and irreversible lung damage; dry, flaky skin; and/or allergic reactions.

Click on each example to learn more.
1.9 Health Hazards: Routes of Exposure

Health Hazards: Routes of Exposure

You must be exposed to the chemical for it to harm you.

Routes of exposure include:

- Eyes
- Skin
- Inhalation
- Ingestion
- Injection

Roll over each route of exposure to learn more.
Eyes (Slide Layer)

Health Hazards: Routes of Exposure

You must be exposed to the chemical for it to harm you.

Routes of exposure include:

- Eyes
- Skin
- Inhalation
- Ingestion
- Injection

Eyes:
Many chemicals can burn or irritate the eyes. In some cases, chemicals may be absorbed through the eyes and enter the bloodstream.

Skin (Slide Layer)

Health Hazards: Routes of Exposure

You must be exposed to the chemical for it to harm you.

Routes of exposure include:

- Eyes
- Skin
- Inhalation
- Ingestion
- Injection

Skin:
Some chemicals can burn the skin. Other chemicals may pass through the skin and enter the bloodstream.
Inhalation (Slide Layer)

Health Hazards: Routes of Exposure

You must be exposed to the chemical for it to harm you.

Routes of exposure include:

- Eyes
- Skin
- Inhalation
- Ingestion
- Injection

Inhalation:
The most common type of exposure occurs when chemicals are inhaled into the lungs. Inhaled chemicals may:

- Irritate the nose or throat
- Damage the lungs
- Enter the bloodstream through the lungs

Ingestion (Slide Layer)

Health Hazards: Routes of Exposure

You must be exposed to the chemical for it to harm you.

Routes of exposure include:

- Eyes
- Skin
- Inhalation
- Ingestion
- Injection

Ingestion:
You may ingest hazardous chemicals while:

- Smoking
- Eating
- Drinking

It is never safe to eat, drink, or smoke near hazardous chemicals. Always wash your hands after working with hazardous chemicals. Wash your hands before eating, drinking, or smoking.
1.10 Health Hazards: Types of Damage

Health Hazards: Routes of Exposure

You must be exposed to the chemical for it to harm you.

Routes of exposure include:
- Eyes
- Skin
- Inhalation
- Ingestion
- Injection

Injection: Injection may occur if you are cut with a tool, instrument, or needle that has been contaminated with a chemical.

Roll over each route of exposure to learn more.

Health Hazards: Types of Damage

Toxic chemicals can have local and/or systemic health effects.

Local Health Effects
Systemic Health Effects

Key Thought
A local effect, such as a chemical burn, can provide warning of exposure, alerting you that you may be at risk for systemic injuries.

Many chemicals, however, do not produce noticeable local effects. Certain toxic gases, for example, can be inhaled without causing irritation or other local effects. Nevertheless, these gases may produce serious systemic effects.

Click on each example to learn more.
Local Health Effects (Slide Layer)

Health Hazards: Types of Damage

Toxic chemicals can have local and/or systemic health effects.

- Local Health Effects
- Systemic Health Effects

Key Thought
A local effect, such as a chemical burn, can provide warning of exposure, alerting you that you may be at risk for systemic injury.

Many chemicals, however, do not produce noticeable local effects. Certain toxic gases, for example, can be inhaled without causing irritation or other local effects. Nevertheless, these gases may produce serious systemic effects.

A local effect occurs when the chemical causes damage at the point where it first contacts the body. For example:
- Eyes
- Skin
- Nose

Click on each example to learn more.

Systemic Health Effects (Slide Layer)

Health Hazards: Types of Damage

Toxic chemicals can have local and/or systemic health effects.

- Local Health Effects
- Systemic Health Effects

Key Thought
A local effect, such as a chemical burn, can provide warning of exposure, alerting you that you may be at risk for systemic injury.

Many chemicals, however, do not produce noticeable local effects. Certain toxic gases, for example, can be inhaled without causing irritation or other local effects. Nevertheless, these gases may produce serious systemic effects.

A systemic effect occurs when the chemical enters the bloodstream and travels throughout the body. The organs most commonly harmed include:
- Liver
- Kidneys
- Heart
- Brain
- Reproductive organs

Click on each example to learn more.
1.11 Forms of Hazardous Chemicals

Forms of Hazardous Chemicals

Hazardous chemicals come in the forms of:
- Solid
- Liquid
- Gas

Click on each example to take a closer look.

Notes:

Solid (Slide Layer)

Solids are not usually hazardous. This is because solid materials are not readily absorbed into the body. Certain forms of solids, however, can be highly hazardous. These include:

- Dust
- Fumes
- Fibers

Click on each item to learn more. Rollover the sub-terms to learn more.
Liquid (Slide Layer)

Many hazardous chemicals are liquids at normal temperatures and pressures. Hazardous liquids may:

- Damage the skin
- Enter the body through the skin
- Evaporate, forming toxic gases that can be inhaled

Gas (Slide Layer)

Gases can be:

- Flammable
- Explosive
- Toxic

Hazardous gases can be difficult to detect. Many gases do not have a distinctive color or odor.
Fumes (Slide Layer)

Fume consists of very small, fine solid particles, suspended in the air. Fume is created when solid chemicals (often metals) are heated to very high temperatures. After they evaporate to the gaseous state, they re-solidify. Fume is easily inhaled. Metal fumes can be highly toxic. An example of hazardous fume is lead oxide, which can be produced during soldering.

Fibers (Slide Layer)

A fiber is long, thin solid particle. Small fibers can be inhaled. Very small fibers can lodge in the lungs and cause damage. An example of hazardous fiber is asbestos.
Dust (Slide Layer)

Dust consists of very small solid particles. These are suspended in the air. Hazardous dust is created when certain solids are pulverized, or settled dust becomes airborne. Dust can:
- Be inhaled.
- Enter the bloodstream through the lungs.
- Explode or react violently with other substances.

An example of hazardous dust is silica.

1.12 Knowledge Check

(Multiple Choice, 10 points, unlimited attempts permitted)

Knowledge Check

All of the following are true EXCEPT:
Select the answer that best fits the question.

- Trinitrotoluene is a physical hazard.
- Physical hazards are defined by the way in which a chemical interacts with other substances or the environment.
- A chemical with physical hazards can harm you by exploding, igniting, or reacting violently with other substances.
- All of the above are true.

<table>
<thead>
<tr>
<th>Correct Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trinitrotoluene is a physical hazard.</td>
</tr>
</tbody>
</table>
Physical hazards are defined by the way in which a chemical interacts with other substances or the environment.

A chemical with physical hazards can harm you by exploding, igniting, or reacting violently with other substances.

**X** All of the above are true.

**Feedback when correct:**

That's right! All of these statements are true.

**Feedback when incorrect:**

All of these statements are true.

**Notes:**

**Correct (Slide Layer)**

**Knowledge Check**

All of the following are true EXCEPT:
Select the answer that best fits the question.

- Triethylamine reacts with water
- Physical hazards: explodes, ignites, reacts violently
- A chemical with physical hazards can harm you by exploding, igniting, or reacting violently with other substances
- All of the above are true.

**Correct**

That's right! All of these statements are true.

[Continue Button]
Incorrect (Slide Layer)

Knowledge Check

All of the following are true EXCEPT:
Select the answer that best fits the question.

- Trinitrotoluene
- Physical effects when it reacts with other substances
- A chemical substance that is reacting, or
- All of the above are true.

Incorrect

All of these statements are true.

Try Again (Slide Layer)

Knowledge Check

All of the following are true EXCEPT:
Select the answer that best fits the question.

- Trinitrotoluene
- Physical effects when it reacts with other substances
- A chemical substance that is reacting, or
- All of the above are true.

Incorrect

That is incorrect. Please try again.

Try Again
1.13 Summary

Summary

You have completed the lesson on hazardous materials.

Remember:

- Chemicals can have physical and/or health hazards.
- Physical hazards are related to the way a chemical interacts with other substances or the environment.
- Health hazards are related to the way a chemical interacts with your body.
- Routes of exposure to hazardous chemicals include the eyes, the skin, inhalation, ingestion, and injection.
- Toxic chemicals can have local or systemic health effects.
- Hazardous chemicals may be solids, liquids, or gases.
- Solids are not usually hazardous. Dust, fume, and fibers, however, can be highly hazardous, depending on the material.
- Many hazardous chemicals are liquids at normal temperatures and pressures.
- Gases can be flammable, explosive, and/or toxic.

1.14 Introduction: Lesson 3

Introduction

Welcome to the lesson on safety data sheets.

This lesson will review:

- The responsibilities of:
  - Manufacturers and distributors of hazardous chemicals
  - Employers
  - Employees
- How to read a safety data sheet and understand its contents
- The importance of following all storage and use instructions contained in a safety data sheet

References 1
1.15 The Manufacturer's Responsibility

The Manufacturer's Responsibility

The HCS requires that all manufacturers of hazardous materials determine the specific physical and health hazards of their products.

The manufacturer must record all hazard information for the product in a Safety Data Sheet (SDS).

Finally, the manufacturer (or distributor) is responsible for providing the relevant safety data sheet to those who purchase the product.

References 1

1.16 Your Employer's Responsibility

Your Employer's Responsibility

The HCS requires your facility to compile a list of all hazardous chemicals used in the facility.

Each of the chemicals on the list must have a safety data sheet.

This file must be readily available to all workers in their work areas at all times.

References 1
1.17 Your Responsibility

Your Responsibility

All employees must know how to obtain information on any chemical they use.

You should know:

- Which hazardous chemicals are used in your work area.
- How to read a safety data sheet.
- Know where to find the safety data sheet.

The safety data sheets are located on EHC Intranet Explorer at http://www.msdsonline.com or go to Quick Links at the bottom of the main page and click on Resources.

You must be trained by your employer when you are assigned to work with any hazardous chemical.

You are responsible for reading all safety data sheets before using a hazardous chemical.

References 1

1.18 Format

Format

OSHA’s Hazard Communication Standard specifies the information that has to be on the safety data sheet, but no specific format is required. A 16-section format has been developed and is recommended by OSHA.

<table>
<thead>
<tr>
<th>16 Sections recommended by OSHA:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification</td>
</tr>
<tr>
<td>Hazard(s) identification</td>
</tr>
<tr>
<td>Composition</td>
</tr>
<tr>
<td>First-aid measures</td>
</tr>
<tr>
<td>Fire-fighting measures</td>
</tr>
<tr>
<td>Accidental release measures</td>
</tr>
<tr>
<td>Handling &amp; storage</td>
</tr>
<tr>
<td>Personal Protection</td>
</tr>
</tbody>
</table>

References 9
1.19 Safety Data Sheet Sections

Information in a safety data sheet is divided into sections:

- Identification
- Hazard(s) identification
- Composition/Information on ingredients
- First-aid measures
- Fire-fighting measures
- Accidental release measures
- Handling and storage
- Exposure controls/personal protection
- Physical and chemical properties
- Stability and reactivity
- Toxicological information
- Ecological information
- Disposal considerations
- Transport information
- Regulatory information
- Other information

Click on each term to take a closer look at each section. Click on the button to return to this view. A check mark will appear after you review each section to show your progress.

Section 1: Identification (Slide Layer)

The Identification section contains general information such as:
- Product identifier used on the label.
- Name and address of the product manufacturer.
- Emergency phone number for questions regarding product toxicity and other hazards.
- Recommended use of the chemical and restrictions on use.
Section 2: Hazard Identification (Slide Layer)

**Section 2: Hazard Identification**

This section should include:
- **The hazard class of the chemical.**
  - The nature of the physical or health hazards such as flammable solid, carcinogen, or oral acute toxicity.
- **The hazard category of the chemical.**
  - Divisions within each hazard class that compare hazard severity within the class.

<table>
<thead>
<tr>
<th>GHS Classification:</th>
<th>Physical</th>
<th>Environmental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>Acute Toxicity – Category 2</td>
<td>Flammable Liquid – Category 2</td>
</tr>
<tr>
<td></td>
<td>Eye Damage – Category 1</td>
<td>Corrosivity – Category 19</td>
</tr>
<tr>
<td></td>
<td>Skin Corrosion – Category 1</td>
<td>Respiratory or Skin Irritants – Category 18</td>
</tr>
<tr>
<td></td>
<td>Skin Sensitization – Category 1</td>
<td>Respiratory or Skin Irritants – Category 19</td>
</tr>
<tr>
<td></td>
<td>Chronic Toxicity – Category 2</td>
<td>Respiratory or Skin Irritants – Category 19</td>
</tr>
<tr>
<td></td>
<td>Target Organ Toxicity – Prolonged</td>
<td></td>
</tr>
</tbody>
</table>

**GHS Labels:**
- **Hazard Statements**
  - "DANGER!" Highly Flammable Liquid and Vapor. Keep container tightly closed.
  - Keep out of reach of children. Store in a cool, dry, well-ventilated area.
- **Precautionary Statements**
  - "Use only non-sparking tools. Do not use or store in metal containers." Wash thoroughly after handling.

References: 1

Section 3: Composition/Information on Ingredients (Slide Layer)

**Section 3: Composition/Information on Ingredients**

Except for trade secrets, this section lists:
- Chemical name
- Common name and synonyms
- **CAS number** and other unique identifiers
- Impurities or additives

For mixtures, the name and concentration of all ingredients which are classified as health hazards is required.

**CAS number**

A unique number assigned to every chemical by the Chemical Abstracts Service

References: 10
Section 4: First Aid Measures (Slide Layer)

First aid measures are based on exposure route:
- Eyes
- Skin
- Inhalation
- Ingestion

The most important symptoms or effects should be listed, as well as immediate and delayed reactions.

Specific advice to health care personnel should be provided.

Roll over each route with your mouse for examples.

References 10

Section 5: Fire-fighting Measures (Slide Layer)

This section provides information about flammability of the product. It also lists how to properly extinguish fires involving the product.

Information includes:
- Extinguishing media
- Fire-fighting procedures
- Fire or explosion hazards

Roll over each item to learn more.

Flammability

The measure of a material’s ability to burn

Fire or explosion hazards:
Conditions that may cause this product to explode or ignite. Be certain to avoid these conditions. Never smoke in areas where chemicals may be present. A match, lighter, or cigarette could set off an explosion or start a fire.

References 10
Section 6: Accidental Release Measures (Slide Layer)

This section covers spills and leaks:

- Personal precautions, protective equipment, and emergency procedures.
- Methods and materials for containment and clean up.

Section 7: Handling and Storage (Slide Layer)

This section provides precautions for safe handling and storage, including any incompatibilities.

References 10
Section 8: Exposure Controls and Personal Protection Information

This section provides information about exposure limits and required personal protective equipment (PPE).

Exposure limit
The maximum concentration of a chemical to which most people can be exposed without experiencing harmful effects.

Section 9: Physical and Chemical Properties

This section lists physical properties of the product. For example:

- Appearance
- Odor
- pH
- Melting point/freezing point
- Boiling point and range
- Flash point
- Evaporation rate
- Flammability
- Vapor pressure and density
- Solubility
- Partition coefficient: in octanol-water
- Auto-ignition temperature
- Decomposition temperature
- Viscosity

Decomposition
Chemical separation of a substance into two or more products; the products may differ from each other and from the original substance.
Section 10: Stability and Reactivity (Slide Layer)

The reactivity data section provides information about the product’s stability. It also contains any special storage or use instructions. Follow these instructions.

Specific information in this section includes:
- Chemical Stability
- Possibility of hazardous reactions
- Conditions to avoid
- Incompatibility reactions

Hazards of decomposition

Chemical separation of a substance into two or more products that may differ from each other and from the original substance.

Section 11: Toxicological Information (Slide Layer)

A description of the various health effects and how to identify them should be listed, including:
- Information on likely routes of exposure.
- Symptoms related to the physical, chemical, and toxicological characteristics.
- Delayed and immediate effects and also chronic effects from short- and long-term exposure.

The most common routes of exposure are inhalation, ingestions, skin and eye contact.

References 10
Section 12-15: Non-mandatory Information (Slide Layer)

Information on ecological, disposal, transport, and regulatory considerations is outside the jurisdiction of OSHA. While not required by OSHA, this information may be necessary for GHS compliance.

References 11

Section 16: Other Information (Slide Layer)

The date of preparation of the safety data sheet, or its most recent revision, should be listed here.

References 10
1.20 Summary

Summary

You have completed the lesson on safety data sheets.

Remember:
• The manufacturer of any hazardous chemical must research, develop, and distribute an SDS.
• Your employer must acquire and maintain a file of SDSs for all hazardous chemicals used in your facility. This file must be readily available to all workers.
• Employees must know where to find SDSs. You must know how to read them. You should also follow SDS instructions for chemical use and storage.
• Information in an SDS is divided into sections.
• The Identification section contains general information about the product and the manufacturer.
• The Hazards Identification section lists the hazard class and category of the product.
• The Composition section details the chemical name and common name of the

1.21 Introduction: Lesson 4

Introduction

Welcome to the lesson on labeling of hazardous chemicals.

This lesson will review:
• Who is responsible for labeling hazardous chemicals.
• The proper contents of a container label.
• The importance of following all storage and use instructions contained in a safety data sheet.
1.22 Container Labels: Manufacturer Responsibilities

Container Labels: Manufacturer Responsibilities

OSHA standards require chemical manufacturers and importers to label all containers of hazardous materials. Labels must be written in English.

A label must include the following information:

- Product identifier
- Signal word
- Hazard statement(s)
- Pictogram(s)
- Precautionary statement(s)
- Name, address, and telephone number of the manufacturer

References 12

1.23 Product Identifier

Container Labels: Product Identifier

The Product Identifier on the label should match that used on the SDS.
1.24 Container Labels: Signal Word

Container Labels: Signal Word

The signal word indicates the relative level of the hazard. "Danger" is used for more severe hazard categories and "Warning" for less severe.

1.25 Container Labels: Hazard Statement

Container Labels: Hazard Statement

Hazard statements are assigned to a hazard class and category to describe the nature and degree of the hazard.

Examples include:
• Fatal if swallowed.
• Toxic if swallowed.
• Harmful if swallowed.
• May be harmful if swallowed.
1.26 Container Labels: Pictograms

Container Labels: Pictograms
Nine pictograms are in use. Some are used for more than one class of hazard. A label may contain more than one pictogram. Click on each image to learn more and a check mark will appear for each label you review.

oxidizers (Slide Layer)

Container Labels: Pictograms
Nine pictograms are in use. Some are used for more than one class of hazard. A label may contain more than one pictogram. Click on each image to learn more and a check mark will appear for each label you review.

The "Flame Over Circle" picture is used to identify an oxidizing agent.

Oxidizing agent:
Chemical that can act as an electron acceptor; often a very reactive chemical; may form unstable mixtures that create a risk of fire or explosion when in contact with combustible material.
skull and cross bones (Slide Layer)

Container Labels: Pictograms
Nine pictograms are in use. Some are used for more than one class of hazard. A label may contain more than one pictogram.
Click on each image to learn more and a check mark will appear for each label you review.

The "Skull and Crossbones" identifies products with the potential for severe, acute toxicity.

health_hazard (Slide Layer)

Container Labels: Pictograms
Nine pictograms are in use. Some are used for more than one class of hazard. A label may contain more than one pictogram.
Click on each image to learn more and a check mark will appear for each label you review.

This picture is titled "Health Hazard" and is used to label the following products:
- Carcinogens
- Mutagens
- Reproductive Toxins
- Respiratory Sensitizers
- Products with target organ toxicity
- Products with aspiration toxicity
flames (Slide Layer)

Container Labels: Pictograms
Nine pictograms are in use. Some are used for more than one class of hazard. A label may contain more than one pictogram. Click on each image to learn more and a check mark will appear for each label you review.

The "Flame" representation is used to identify:
- Flammables
  - Pyrophoric
  - Self-Heating
  - Emits
  - Flammable Gas
- Self Reactive/chemicals
- Organic Peroxides

References: 14

Pyrophoric:
A substance that will ignite spontaneously in air

corrosive (Slide Layer)

Container Labels: Pictograms
Nine pictograms are in use. Some are used for more than one class of hazard. A label may contain more than one pictogram. Click on each image to learn more and a check mark will appear for each label you review.

Corrosives are identified by the "Corrosion" pictogram.

Corrosives:
A substance that will destroy or damage another substance it comes in contact with
Container Labels: Pictograms

Nine pictograms are in use. Some are used for more than one class of hazard. A label may contain more than one pictogram.

Click on each image to learn more and a check mark will appear for each label you review.

- Explosives
- Self Reactives
- Organic Peroxides

The "Environment" pictogram indicates environmental or aquatic toxicity. Since environmental concerns are outside the scope of OSHA, this pictogram is not mandatory.

The "Explosive Bomb" pictogram is used to indicate:
- Explosives
- Self Reactives
- Organic Peroxides
glass cylinder (Slide Layer)

Container Labels: Pictograms
Nine pictograms are in use. Some are used for more than one class of hazard. A label may contain more than one pictogram.
Click on each image to learn more and a check mark will appear for each label you review.

The "Gas Cylinder" picture is used to label gases under pressure.

exclamation mark (Slide Layer)

Container Labels: Pictograms
Nine pictograms are in use. Some are used for more than one class of hazard. A label may contain more than one pictogram.
Click on each image to learn more and a check mark will appear for each label you review.

The "Exclamation Mark" is used for these properties:
- Irritant
- Skin Sensitizer
- Acute Toxicity (harmful)
- Narcotic effects
- Respiratory Tract Irritation
- Hazardous to Ozone Layer
1.27 Summary

Summary

You have completed the lesson on chemical container labeling.

Remember:

- The manufacturer must label all containers in English. The label must contain the product identifier, signal word, hazard statement(s), pictogram(s), precautionary statement(s), and contact information for the manufacturer.
- Your employer must make sure that all chemical containers are labeled properly. Incoming chemicals should be inspected to verify proper labeling. If a chemical is transferred to a new container, the new container must be labeled appropriately.
- Employees must read product labels carefully. Follow all instructions. Heed all warnings.
- The 8 mandatory and 1 optional pictograms are used to identify the class of the hazard.

1.28 Introduction: Lesson 5

Introduction

Welcome to the lesson on personal protective equipment (PPE).

We will discuss the responsibilities of employers and employees, with regard to PPE and the various types of PPE that may be required.
1.29 PPE: Purpose

PPE: Purpose

The purpose of PPE is to shield workers from physical and health workplace hazards. These hazards include:

- Chemical
- Radiological
- Physical
- Electrical
- Mechanical
- Other

References 15

1.30 PPE: Employer Responsibilities

PPE: Employer Responsibilities

Your employer is responsible for selecting the types of PPE. It must provide appropriate PPE for all hazards in your work area.

Your employer must train all workers required to use PPE. Training should educate employees about:

- When to use PPE
- Which types of PPE to use
- How to put on PPE
- How to use PPE
- How to remove PPE
- How to store and maintain reusable PPE
- How to dispose of single-use PPE
- Understanding the limitations of PPE

References 15
1.31 PPE: Employer Responsibilities

PPE: Employer Responsibilities

Trained employees are responsible for following facility procedures for PPE.

Reusable PPE should be decontaminated, cleaned, and stored after each use.

Single-use PPE should be disposed of according to facility protocol. This is also true for heavily contaminated reusable PPE.

Key Thought

Always select adequate PPE, but not too much.

Excess PPE can create hazards such as:
- Heat stress
- Physical and psychological stress
- Impaired vision
- Impaired mobility
- Impaired communication

References 26

1.32 Types of PPE

Types of PPE

Types of PPE may include:
- Protective clothing
- Respiratory equipment
- Eye protection

References 26
1.33 Types of PPE

Types of PPE

Protective clothing may include:
- Gloves
- Suits/gowns
- Coveralls
- Hoods
- Boots

Choose a glove material appropriate for the chemical. Latex gloves are permeable to many chemicals. They do not provide adequate protection.

Gowns, coveralls, and other protective clothing should be worn if hazardous chemicals might splash or spill on your clothes.

Choose protective clothing appropriate for the chemical. Some chemicals require impermeable gowns for adequate protection.

References 16

1.34 Types of PPE: Respiratory Equipment

Types of PPE: Respiratory Equipment

Respirators cover the mouth and nose. They prevent inhalation of hazardous substances.

Respirators are only effective if:
- The proper respirator for the chemical/situation is selected.
- The worker is trained in use of the respirator.
- The respirator fits properly.
- The respirator is properly maintained.

References 27
1.35 Types of PPE: Eye Protection

Types of PPE: Eye Protection

Goggles protect the eyes from hazardous chemical splashes.

Face shields protect the entire face.

Prescription glasses are not a substitute for goggles. Glasses may break. They also do not shield the eyes from all angles.

Employee wearing goggles as protective equipment.

References

1.36 Summary

Summary

You have completed the lesson on PPE.

Remember:

- Employers must select and provide appropriate PPE for all hazards in the work environment.
- Employers must train workers in the safe and effective use of PPE.
- Trained employees must follow facility procedures and protocols for the selection, use, storage, maintenance, and disposal of PPE.
- Choose protective clothing appropriate for the chemical.
- Use respirators appropriately.
- Use goggles or a face shield when there is a risk of splash or splatter from a hazardous chemical.
1.37 Resources

References


4. Occupational Safety & Health Administration. OSHA Fact Sheet Personal Protective Equipment.

5. Occupational Safety & Health Administration. Personal Protective Equipment.


Please remember that compliance is the responsibility of each organization. Provision of this list does not imply that the content of this course wholly or partially addresses the guidelines and references provided here.

1.38 END

END

Congratulations!

You have completed...

EHC Hazard Communication

Thank you for taking time to complete this course. Please click on the EXIT button below to return to the main HLC course page. Complete and pass the posttest to receive credit for this course.

EXIT
This course provides essential information that will help you to know:

- What bloodborne pathogens are
- What the symptoms of disease are from bloodborne and airborne pathogens, and
- Safe work practices, known as "standard precautions," when working with blood and body fluids, or around possible airborne pathogens.
Standard Precautions

Exposure Control Plan

Could the performance of your duties as an employee potentially expose you to blood or other infectious materials?

If the answer is yes, then your employer has created and implemented an exposure control plan. This is a written plan that helps maintain a safe workplace by outlining specific work practices to eliminate or minimize employee exposure.
Other Questions

If you have questions about any of the material presented in this course on Standard Precautions, or any questions about the Infection Prevention and Control Programs for Emory Healthcare, we encourage you to discuss your question with your supervisor, and to use the Infection Prevention and Control web site (on the Emory Healthcare intranet under Departments > Office of Quality & Risk > Infection Prevention and Control).

The purpose of this site is to support Emory Healthcare's mission to promote patient safety by eliminating preventable health care associated infections.

Contacts

To contact Infection Prevention and Control, please see the "Contacts" link on the web site which includes current Infection Prevention and Control Coordinators for each EHC facility as well as Leadership Contacts. If you are a staff member at a facility that is newly affiliated with Emory Healthcare, you may also ask your supervisor to help you contact your facility's Infection Prevention and Control Coordinator.

More Details

More information about the bloodborne pathogens standard also may be found on the web at www.osha.gov.
Common Bloodborne Pathogen

The most common bloodborne pathogens include, among others:

- Hepatitis B virus (HBV)
- Hepatitis C virus (HCV)
- Human immunodeficiency virus (HIV)
Hepatitis B virus (HBV) and Hepatitis C virus (HCV) both can cause potentially life-threatening infections. Both of these hepatitis viruses invade the liver and can cause long-term liver damage. Eighty-five percent (85%) of those infected with HCV become chronic carriers of the disease.
Standard Precautions

Hepatitis B Vaccine

If you are an Emory Healthcare employee who is at risk for occupational exposure to blood or infectious materials, Emory Healthcare offers you the opportunity to receive the Hepatitis B vaccine, free of charge. The immunity provided by the vaccine appears to last a lifetime. The Centers for Disease Control and Prevention (CDC) currently has no recommendations for providing boosters for HBV on a routine basis. In the case of a high-risk exposure to a patient with HBV, Emory Healthcare may recommend a booster at that time.

If you decide to decline the HBV vaccine, you will be asked to sign a form stating that you were offered the vaccine and voluntarily declined the series of inoculations. If you initially decide to decline the vaccine, you can change your mind at any time and still receive the vaccine free of charge.

For more information, contact our Employee Health Department.

Unfortunately, there is no vaccine for the Hepatitis C virus at this time.
Symptoms of Infection with Hepatitis B Virus and Hepatitis C Virus

Symptoms of HBV and HCV infection often are confused with those of other illnesses, such as the flu. As a healthcare professional, you must be able to recognize the signs and symptoms of HBV and HCV infection. Symptoms include:

- Fatigue
- Nausea and vomiting
- Loss of appetite
- Jaundice
- Mild fever
- Dark urine
- Aching muscles/joints
- Light colored stools
- Diarrhea
- Itching
Human Immunodeficiency Virus
The human immunodeficiency virus (HIV) also can cause a potentially life-threatening infection. HIV attacks the immune system and causes the disease commonly known as AIDS. Without a strong, healthy immune system, the body becomes susceptible to many infections and illnesses. Many AIDS patients do not die from HIV, itself, but rather from cancers or pneumonias that develop as a result of a weakened immune system.
Symptoms of Infection with Human Immunodeficiency Virus (HIV)

Symptoms of HIV infection often are confused with those of other illnesses, such as the flu. Signs and symptoms include:

- Swollen lymph nodes
- Visual changes
- Diarrhea
- Night sweats
- Unexplained weight loss
- Rash
- Fatigue
- Flu-like symptoms
- Frequent pneumonias or shortness of breath
Standard Precautions

Modes of Disease Transmission

Bloodborne pathogen diseases may be transmitted in a number of ways, including through:

- Sexual contact
- Organ transplantation
- Sharing needles to inject drugs
- Mother-to-baby exchange of bodily fluids
- Accidental needle-stick injury
- Transfusion of infected blood products
- Contact through mucous membranes or non-intact skin
Standard Precautions

Transmission Among Healthcare Workers
The leading cause of transmission of bloodborne pathogen disease to healthcare workers is through needle-stick injury. Other common modes of transmission include splashes or punctures with contaminated sharps such as glass or scalpels.
Standard Precautions

Exposure and Transmission
As healthcare workers, we are at greatest risk of contracting hepatitis B virus, in the event of exposure. Our risk of contracting HIV is quite small.

On average, if you have been exposed to a patient with a bloodborne pathogen, the risk of transmission is:

- Hepatitis B Virus (HBV): 6% to 30%
- Hepatitis C Virus (HCV): 1.8%
- Human Immunodeficiency Virus (HIV): 0.3%
Standard Precautions

Risk of Transmission
Risk of disease transmission following exposure varies according to a number of factors, including:

- Amount of exposure (for example, a large splash into the mouth presents a higher risk than a small splash)

- Route of exposure (for example, a needle-stick injury presents a higher risk than a splash)

- Amount of virus in the patient's blood (for example, the relatively high concentration of hepatitis virus generally present in a hepatitis-infected patient presents a higher risk than the relatively small amount of human immunodeficiency virus present in an AIDS patient)
Standard Precautions

Exposure

In the workplace, we may be exposed to bloodborne pathogens in a number of different ways, including through puncture wounds, through contact with broken skin, or through mucous membranes (eyes, nose, and mouth).

Even a hangnail or a rash can be an entry point for pathogens if you do not wear gloves while handling blood or other infectious materials.
Standard Precautions

Standard precautions are used in your workplace to help protect you from exposure to blood and other potentially infectious materials.

Standard precautions apply to blood and all body fluids, secretions, and excretions except sweat (regardless of whether or not they contain visible blood).
Standard Precautions

Body Fluids
Contact with blood is NOT the only way you can be exposed to a bloodborne disease. Other body fluids also may carry bloodborne pathogens. These other fluids may include, but are not limited to:

- Semen
- Vaginal secretions
- Fluid from around an unborn baby
- Fluid from any human body cavity
- Unfixed tissue or organ
- Miscellaneous cell, tissue, or organ culture
- Saliva from a dental procedure

Any other body fluid visibly contaminated with blood should be treated as if it is potentially infectious. Regardless of the body fluid, following standard precautions will help protect you from exposure to bloodborne diseases.
Standard Precautions

The next set of information will review practices that will help protect you from exposure. These include:

- Hand hygiene
- Engineering controls
- Work practice controls
- Housekeeping controls
- Personal protective equipment (PPE)
Standard Precautions

Protecting Yourself

Emory Healthcare has put engineering and work practice controls in place to eliminate or minimize your potential exposure to blood or other potentially infectious materials. Personal protective equipment (PPE) also is available to help protect you against certain hazards. Refer to your department/section's exposure control plan for more information about these safeguards.

EHC has reviewed the tasks and procedures that put you at risk of potential exposure. Safeguards have been put into place to protect you when you perform these tasks and procedures. Documentation of exposure risks and safeguards is part of your department/section's exposure control plan.
Standard Precautions

Hand Hygiene
Cleaning your hands is your single most important defense against the spread of disease. To wash properly, lather your hands vigorously with soap or an antimicrobial agent, rub the hands together for 15 seconds, rinse with a continuous stream of warm water, and dry with a paper towel. A clean paper towel should be used as a barrier to turn off the faucet.
Standard Precautions

Hand Hygiene
For your protection, wash your hands at these times:

- Before and after your work shift
- After using the toilet, blowing your nose, covering a sneeze, etc.
- Whenever hands become obviously soiled
- Before eating, drinking, or handling food
Standard Precautions

Hand-Sanitizing
Hand-sanitizing with an alcohol-based hand rub is appropriate when your hands appear to be clean (are not visibly soiled or contaminated with protein matter) but need degerming.

Hand-sanitizing is appropriate:

- Upon entering and exiting patient exam rooms, "Foam in/Foam Out."
- Before and after physical contact with each patient or touching intact skin;
- After touching surfaces or handling contaminated items or equipment such as bedpans, dressings, urinary drainage bags;
- After removing your gloves; and
- When a hand-washing sink is not readily accessible.
How to Sanitize the Hands

The total time for the hand-sanitizing process, leaving the hands dry enough for gloving, is 15 seconds.

Dispense enough hand sanitizer to wet the hands thoroughly. Rub the hands together, wetting the entire surface of both hands, including the nails. Continue rubbing hands together to facilitate drying. Hand sanitizers should NOT be used with water or rinsed off after application.

Remember! After cleaning your hands, avoid touching surfaces that might be contaminated with germs.
Standard Precautions

Engineering Controls
Engineering controls have been put into place by Emory Healthcare to eliminate hazards at their source. Examples of engineering controls include safety device needles, sharps disposal boxes, and autoclaves.
Standard Precautions

Work Practice Controls

Proper work practice controls also can help minimize or eliminate hazards in your workplace:

- Clean your hands correctly and at appropriate times.
- Dispose of sharps in proper sharps disposal containers.
- Familiarize yourself with EHC procedures for the handling of contaminated linen. Contaminated linen should be handled, transported, and processed in a manner that prevents:
  - Skin and mucous membrane exposure
  - Contamination of clothing
  - Transfer of microorganisms to other patients or environments
Standard Precautions

Work Practice Controls

To help minimize or eliminate hazards, also:

- Do not eat or drink in patient care or laboratory areas.
- Do not apply lip balm or cosmetics, or handle contact lenses, in areas of potential exposure.
- Do not store your lunch or snacks in refrigerators that contain patient nourishments or products used in patient care or medical procedures.
- Do not recap or bend needles.
Standard Precautions

Housekeeping Practices
Good housekeeping practices also can help protect you:

- Keep a clean and sanitary workplace.
- Use only approved disinfectants when cleaning contaminated areas or spills.
- Use tongs or forceps to pick up contaminated glass or sharps.
- Recognize containers or bags that have contaminated items in them.
- Recognize the standard BIOHAZARD label (fluorescent orange or orange-red with lettering and symbols in a contrasting color).
Personal Protective Equipment

Personal protective equipment (PPE) is specialized clothing or equipment worn to protect against a hazard. Examples of PPE include gloves, masks, eye protection, face shields, shoe covers, and lab coats. Emory Healthcare will provide these items if you need them to perform your job, and you will be trained in their use.
Standard Precautions

Types of Personal Protective Equipment

**Gloves** should be worn when touching blood, body fluids, secretions, excretions, or other potentially contaminated items.

**Masks, eye protection, face shields, and bench shields** are used to protect the mucous membranes of the eyes, nose, and mouth during procedures and patient-care activities likely to generate splashes or sprays of blood, body fluids, secretions, or excretions.
Standard Precautions

Types of Personal Protective Equipment

**Protective clothing** (gowns, hoods, surgical caps, shoe covers, lab coats) should be worn to protect skin and prevent soiling of clothing during procedures and patient-care activities likely to generate splashes or sprays of blood. Body fluids, secretions, and excretions also may soil clothing.

**Barrier devices** such as mouthpieces or pocket masks should be used when performing CPR.

Remember to remove all personal protective equipment before leaving your work area.
Standard Precautions

Training
Training on how to protect yourself from blood and body fluid exposure is provided by EHC when you begin your job. This training must be repeated once a year.

EHC will provide additional information, as well as training for new exposure tasks, when new information and training become available.
Standard Precautions

Exposure Incident
If you are exposed to bloodborne pathogens, remember to **WIN**:

- **W**ash the exposed area immediately with soap and water.
- **I**dentify the source of the exposure.
- **N**otify your supervisor and Occupational Injury Management (OIM) immediately.
Standard Precautions

Take Action Quickly

Quick action could lower your chances of contracting a disease. For very high-risk exposures, time can be important to help prevent possible disease transmission.
Confidential Evaluation

If you are an Emory Healthcare employee who sustains an occupational exposure to blood, other potentially infectious material, tuberculosis, or other communicable diseases, you must notify your supervisor, complete an Employee Incident Report in e-Vantage, and notify Occupational Injury Management. As an Emory employee you will be offered a free, confidential post-exposure evaluation and follow-up coordinated by Employee Health.

A medical exam will be performed by or under the supervision of a licensed physician or other licensed healthcare professional. Any associated laboratory tests will be conducted by an accredited laboratory at no cost to you.
Standard Precautions

Elements of the Evaluation
Your confidential medical evaluation and follow-up will consist of the following elements:

- Documentation of the route of exposure and the circumstances under which the exposure occurred
- Identification and documentation of the source individual (unless identification is prohibited by state or local law)
- HIV, HCV, and HBV testing of source patient
- Blood tests will be performed on you according to Occupational Injury Management Protocols
Elements of the Evaluation

The following elements also are part of every post-exposure follow-up:

- Consideration for post-exposure prophylaxis
- Counseling
- Evaluation of reported illnesses

OIM (Occupational Injury Management) will obtain and provide the employee with a copy of the evaluating healthcare professional's written report within 15 days of completion of the evaluation.

Standard Precautions:
Course Completed!

Thank you for taking time to complete this course. Please exit the course now and take the exam to get credit for the course.