University of Toledo

Safety and Health Training
Environmental Health and Radiation Safety Department

- Health Science Campus, Main Campus, Scott Park, and the UT Medical Center
- Responsible for maintaining programs designed to protect your safety and health
- Controlling exposures, preventing injuries and illnesses
Injury and Illness Reporting

- Common injuries on campus
  - Needlesticks
  - Back Injuries, lifting patients/heavy items
  - Slips, trips, falls
  - Prompt reporting required
Prevention--Ergonomics

- Lifting technique
  - Use assist devices
  - Bend at knees
  - Avoid twisting and turning
  - Get help

- Desk Work
  - Avoid static postures
  - OSHA eTool (setup work area)
Additional Safety and Health Training

- Laboratory Safety
- Biological Safety
- LASER Safety
- Radiation Safety
- Maintenance Safety
- Emergency Preparedness drills
- Continuing Education on-line
Patrol
full service, sworn police force with arrest power.

Investigations
Investigation of serious crimes.

Community Affairs
Education and programming like:
A.L.I.C.E. - (Alert Lockdown Inform Counter Evacuate)
Healthy Boundaries – healthy relationship education

Emergency
419-530-2600

Non-Emergency
419-530-2601 (Main Campus)
419-383-2601 (HSC)

Transportation Center (MC)
police.utoledo.edu

follow UTPD on Facebook and Twitter
Hospital Security

Full service security department. Responds to alarms, problem patients, and non-police calls.

Provides assistance with lock-outs, battery jumps and safe escorts.

Manages Lost and Found and HSC door access.

Phone: 419-383-2601
Office - Mulford Library 007
Fleet Safety

UT Drivers must have:

• Valid driver’s license
• Driver’s records check
• Complete driver safety training

And obey all traffic rules...
Hazardous Materials Awareness

- Physical Hazards
- Chemical Hazards
- Biological Hazards
Radiation Safety

- Radioactive Materials and radiation generating devices are managed by the Radiation Safety Office
- As Low as Reasonably Achievable (ALARA)
- Signage
- Monitoring (Dosimeter Badges)
Electrical Safety

- Report to your supervisor
  - Any and all malfunctioning electrical equipment
  - Any shocks received from electrical devices
  - Report any obvious electrical hazards

- Safe Medical Device Act (SMDA) and the Food and Drug Administration (FDA)
  - Anytime a patient is injured by a piece of medical equipment it must be reported to the FDA.
BIOLOGICAL HAZARDS
(Infection Control & Bloodborne Pathogens)
Bloodborne Pathogens of Most Concern

- Human Immunodeficiency Virus (HIV)
- Hepatitis B Virus (HBV)
- Hepatitis C Virus (HCV)

Signs and Symptoms can include:
- Loss of appetite, nausea, vomiting, fever, abdominal pain, jaundice etc.
What Do I Need To Do To Protect Myself?

Use Proper Hand Hygiene get vaccinated (HepB & Flu) available free to employees

Use appropriate Personal Protective Equipment (PPE) i.e. gloves, gown, mask, eye protection, or face shield, to shield from exposures
A set of procedures designed by the Centers for Disease Control and Prevention (CDC) to prevent the spread of known and unknown sources of infections.

It formerly was called *universal precautions* and applies to blood; body fluids, excretions, and secretions of the skin; and oral mucosa.
Signage on Room
(Can be Used in Combination)

Private Room
All VISITORS please report to the Nurses Station.

Instructions:
- Wash hands on entering and leaving room with hand gel or soap and water.
- Personal Protective Equipment REQUIRED:
  > Gown & Gloves ALWAYS when entering a room
- When transporting patient:
  > Try to cover/contain area of infection on patient.
  > NOTIFY RECEIVING DEPARTMENT OF ISOLATION PRECAUTIONS.

Infection Prevention and Control Department
Ext. 5006

Private Room
All VISITORS Please Report to the Nurses Station

Instructions:
- Wash hands on entering room with hand gel or soap and water.
- Wash hands ONLY with soap and water when leaving room.
- Personal Protective Equipment REQUIRED:
  > ALWAYS wear Gown & Gloves when entering a room.
- When transporting patient:
  > Notify receiving department of isolation precautions.

HANDS MUST BE WASHED AFTER REMOVING GLOVES.

Infection Prevention and Control Department
Ext. 5006

Private Room
All VISITORS please report to the Nurses Station.

Instructions:
- Cleanse hands on entry and when leaving room with hand gel or soap and water.
- Personal Protective Equipment REQUIRED:
  > YELLOW SURGICAL MASK
  (INDICATED WHEN WITHIN 3 FEET OF PATIENT)
- When transporting a patient:
  > Apply surgical mask to patient.
  > Limit persons on elevator.
  > NOTIFY RECEIVING DEPARTMENT of isolation precaution.

Infection Prevention and Control Department
Ext. 5006
Signage on Room
(Can be Used in Combination)

Private Room with negative pressure air exchange. Door of room must be kept closed.

All VISITORS please report to the Nurses Station.

Instructions:
- Cleanse hands before entry & when leaving room with hand gel or soap and water.
- Personal Protective Equipment REQUIRED:
  > N95 RESPIRATOR MASK or PAPR HOOD
- When transporting patient:
  > Apply surgical mask to patient.
  > Limit persons on elevator.
  > NOTIFY RECEIVING DEPARTMENT of isolation precautions.

Infection Prevention and Control Department Ext. 5006

Room Requirements:
- Private, monitored negative pressure.
- Call Infection Prevention if no negative pressure room available.

In addition to Standard Precautions, use Airborne Precautions for patients known or suspected to have serious illnesses transmitted by airborne droplet nuclei:
- Measles
- Tuberculosis

Illnesses which require Airborne Precautions combined with another type of precaution includes:
- Herpes zoster (Shingles) – airborne & contact (disseminated in any patient or localized in immune-compromised patient)
- Chicken pox (Varicella) – airborne & contact (until lesions are crusted)
- SARS or MERS – airborne & contact, goggles (eyewear)
- Ebola – airborne & contact, goggles (eyewear)

PA/R cart obtained from central distribution.
Hands are visibly dirty or contaminated with blood or other body fluids.

Wash hands with either a non-antimicrobial soap and water or an antimicrobial soap and water.

Hands are not visibly soiled

Use an alcohol-based hand rub for routinely decontaminating hands.
So, when must we clean our hands?

- Before & After Contact with Patient or Patient Environment
- Before and After Removing Gloves
- Before Eating & After Restroom
- Wash in and out of patient rooms or within 3 feet of the patient
- After manipulating biological samples

NOTE: Do not wear artificial fingernails or extenders when having direct contact with patients. Keep natural nail tips less than ¼-inch long.
Bloodborne Pathogen Standard

- Exposure Control Plan
  - Located on Infection Control Website
- Exposure Determination
- Engineering and Work Practice Controls
- Personal Protective Equipment
- Housekeeping
- Contact Environmental Health & Radiation Safety for copy of regulatory text
Needlestick Prevention

- Contaminated sharps shall not be bent, recapped, or removed.
- Use a “No Touch Technique” when cleaning up blood and/or sharps.
- Do not place sharps in full sharps containers. Contact x5353 for disposal.
- Use a “No Pass Technique”.
Blood and Body Fluid Exposures

- Sharps injuries
  - Needles, scalpel, glass etc.

- Splashes
  - Eyes, mouth, nose

- Non-intact Skin Exposure
  - Cuts, skin conditions, hang nail
Exposure Reporting

- **Normal Business Hours**
  - Report to the Emergency Department
  - In Operating Room report to supervisor

- **After Hours**
  - Administrative Supervisor (Operator)

- **Prompt Reporting within 2-hours**
Resources / Contacts

Infection Control

419-383-5006

www.utoledo.edu/depts/infectioncontrol
CHEMICAL HAZARDOUS MATERIALS
Chemical Hazards

- Hazard Communication Standard
- Global Harmonization System (GHS)
- Standardized Safety Data Sheets (SDS) and labeling
Chemical Hazards

“Hazardous chemical”
- Physical Hazard
- Health Hazard
- Simple asphyxiant
- Combustible dust
- Pyrophoric gas
- Hazard not otherwise classified.

Review the label and determine how to best protect yourself from exposure

Discuss chemical hazards and handling with supervisor or laboratory director
Chemical Hazards

- You must make SDS’s available and accessible, for all hazardous chemicals, to all employees and they MUST know where they are kept.
- SDS’s must be kept via paper copies or CHEMWATCH
NEW “SDS” Format

Section 1 – Identification
Section 2 – Hazard(s) identification
Section 3 – Composition/information on ingredients
Section 4 – First-aid measures
Section 5 – Fire-fighting measures
Section 6 – Accidental release measures
Section 7 – Handling and storage
Section 8 – Exposure controls/personal protection

Section 9 – Physical and chemical properties
Section 10 – Stability and Reactivity
Section 11 – Toxilogical Information
Section 12 – Ecological Information
Section 13 – Disposal Considerations
Section 14 – Transport Information
Section 15 – Regulatory Information
Section 16 – Other information including date of preparation or last revision
Pictograms

Physical Hazards
- Flammable
- Compressed Gas
- Oxidizing
- Corrosive
- Explosive

Health Hazards
- Health Hazard
- Corrosive
- Skin Irritant
- Toxic

Reference Tools
http://www.osha.gov/dsg/hazcom/ghs.html

Environmental Hazards
Controlling Exposures to Hazardous Materials

- Engineering Controls
  - Ventilation Systems
    - Hoods in Labs
    - Negative Pressure Rooms

- Administrative Controls
  - Policies and Procedures
  - Plans and Manuals
  - Standard Operating Procedures (SOP’s)
Controlling Exposures to Hazardous Materials (PPE)

- Shield or isolate individuals from the chemical, physical and biological hazards encountered at work
- Selection and use of PPE should protect the entire body.
- No combination PPE can protect against all hazards
Waste Disposal Procedures

- Remember the colored bags are a form of labeling.
- Don’t mix the waste streams, intermingling of streams causes the new stream to take on the highest hazard class (i.e., mixed solid and infectious is now all infectious).
- Always wash hands with soap and water after handling waste and don’t eat, drink or smoke around wastes.
- Others will be handling these materials based on how you classify them.
Landfill

Municipal Waste
- Regular Trash
- Food Waste
- Packaging

Document Waste
- HIPPA
- Patient Records
- Confidential Information
- Electronic

Regulated Medical Waste
- Red Bag
- Sharps
- Chemo Soft
- Chemo Sharps

Hazardous Waste
- Hazardous RCRA

Radioactive Waste
- Dry Solid and Liquid

Hazardous Waste固体
- Rechargeable Batteries
- P, U, D Listed RCRA pharmaceutical waste solids

Radioisotopes
- Nuclear Medicine
- Heart Station
- Radiation Therapy

Storage Decay

Environmental Health and Radiation Safety

Landfill

Shredder/Incineration

Autoclave

Incineration Grinder/Shredder

Landfill

Landfill

Lined Hazardous Waste Landfill
Recycling at UT

- Reduce, Reuse, Recycle
- Recyclables
  - Paper, Newspaper and Magazines
  - Cardboard
  - Plastic bottles & aluminum cans
- Universal Waste
  - Batteries-- Only rechargeable batteries must be collected and given to EHRS (alkaline go to trash)
  - Computers and electronics
  - Fluorescent bulbs
Emergency Communication

Keeping UT Safe (video)
Emergency Procedures

- Did something spill? Is it a hazardous material? Will it affect the environment? (HM-08-013)
- Call and report any chemical spills to Campus Police at x2600 so trained personnel may be involved.
- Areas where hazardous materials are stored
  - Institutional contingency plan
  - Spill supplies
<table>
<thead>
<tr>
<th>Announced “Code”</th>
<th>Meaning and Procedure #</th>
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</table>
| **Code Adam**    | Infant/Child Abduction  
|                  | SM-08-002               |
| **Black**        | Bomb Threat            
|                  | EP-08-004               |
| **Blue**         | Medical Emergency      
|                  | 3364-100-45-06 and 3364-100-45-07 |
| **Brown**        | Missing Adult Patient  
|                  | SM-08-004               |
| **Copper**       | Communication Involving Utility Failure  
|                  | EP-08-014               |
| **Gray**         | Severe Weather/Tornado Watch or Warning 
|                  | EP-08-002               |
| **Green**        | Evacuation – Follow announced instructions  
|                  | EP-08-005               |
| **Orange**       | Chemical, Biological or Radioactive Incident  
|                  | EP-08-003               |
| **Red**          | Fire Reported in Campus Building  
|                  | LS-08-001               |
| **Violet**       | Violent Situation      
|                  | EP-08-015               |
| **White**        | Snow/Transportation Emergency Plan  
|                  | EP-08-008               |
| **Yellow**       | Disaster Procedure – Internal/External  
|                  | EP-08-001               |
CODE GRAY

Severe Weather/ Tornado
- Conditions are favorable to severe weather (Watch condition)
- Tornado Sighted/Confirmed (Warning Condition within Lucas County)
CODE RED

- Fire reported in campus building
- Activated by:
  - Dialing x2600
  - Pulling pull station
  - Smoke and heat detector response
- Smoke Free and Tobacco Free
  - Includes on grounds/lawn, in parking lots or in your personal vehicles.
  - [UT Smoke Free Tobacco Free Policy](#)
R.A.C.E. in Response to a Fire Situation

- **R**escue **anyone in immediate danger**
- **A**larm **Sound the alarm that there is a fire, pull station or x2600**
- **C**onfine **the fire by closing doors and windows**
- **E**xtinguish **with an extinguisher P.A.S.S. or**
- **E**vacuate **the area either horizontally, vertically or total**
P.A.S.S. to use a Fire Extinguisher

- Pull the pin on the extinguisher
- Aim at the base of the fire
- Squeeze the handle to expel the extinguishing media
- Sweep from side to side working from the front of the fire to the back
CODE GREEN

Evacuation of Campus Building

- May be called in association with another code (i.e., red or gray)
- When a fire alarm sounds you must act!
- Evacuation can be:
  - Lateral
  - Vertical
  - Complete
- Special Equipment (paraslydes)
CODE WHITE

Snow or transportation emergency

- Level 3 Snow Emergency called in Lucas County
- Essential Employees
- UT ID’s
Managing Emergencies

Incident Command System (ICS)

- Management by Objectives
- Disaster management system based on a position assignment
- Individual staff members may be reassigned to work in roles outside of their normal job
- The incident commander is in charge
- The operation of the institution will change based on the needs of the incident