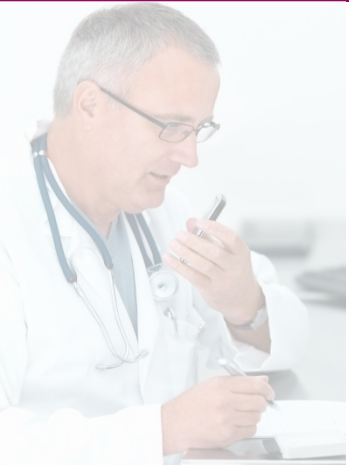


# Managing the Mandatories

*May 2023*



EXTRAORDINARY CARE FOR EVERY GENERATION

**In order to satisfy your annual requirements, please read this entire course.**

Because there are several different locations within Covenant HealthCare, you will also need to review any departmental policies and procedures, specific to your area, for any of the topics covered in this course. If you have any questions, please contact your manager, Safety Officer/EM (3.2756), Safety Manager (3.4090), or Infection Prevention and Control. Quizzes are due by May 31, 2023. Newly hired employees must complete within 14 days of their start date.

# USP <800>

## First set of enforceable standards for handling hazardous medications.

- USP <800> applies to all healthcare personnel who will come in contact with hazardous drugs (HDs).  
**Examples:** pharmacy, nursing, physicians, home healthcare workers, phlebotomy, environmental services, supply chain, etc.
- Requires all drugs on the NIOSH list to be considered hazardous.  
An Assessment of Risk has been performed to exempt certain medications from the safety requirements.

# Hazardous Drugs

## Occupational exposure to hazardous drugs can result in:

- Acute effects - (i.e., skin rashes and nausea).
- Chronic effects - (i.e., reproductive toxicity and cancer).

All personnel involved in the handling of hazardous drugs should be knowledgeable about safe practices required for handling and administering the drugs/medications.

## NIOSH classifies drugs and medications into three categories:

### Group 1

- Chemotherapy drugs. Many of these drugs also have a reproductive risk.

### Group 2

- Non-chemotherapy drugs that meet one or more of the NIOSH criteria for HDs. Some of these drugs may also have a reproductive risk.

### Group 3

- Drugs that only have a reproductive risk.

# Hazardous Drugs

## Potential Exposure

Workers may be exposed during:

- Receiving the drug
- Transport
- Dispensing
- Preparation
- Administration
- Spills
- Disposal
- Handling bodily fluids and linens

**CAUTION:  
Hazardous Drug  
Special Handling  
Special Disposal  
Required**

# Hazardous Drugs

## Environmental Controls

- All HDs must be labeled to identify them for special handling and transported in a sealable bag to avoid spills
- Patient's MAR will reflect all PPE and disposal requirements
- No liquid hazardous medications will be sent in the pneumatic tube system

# Hazardous Drugs

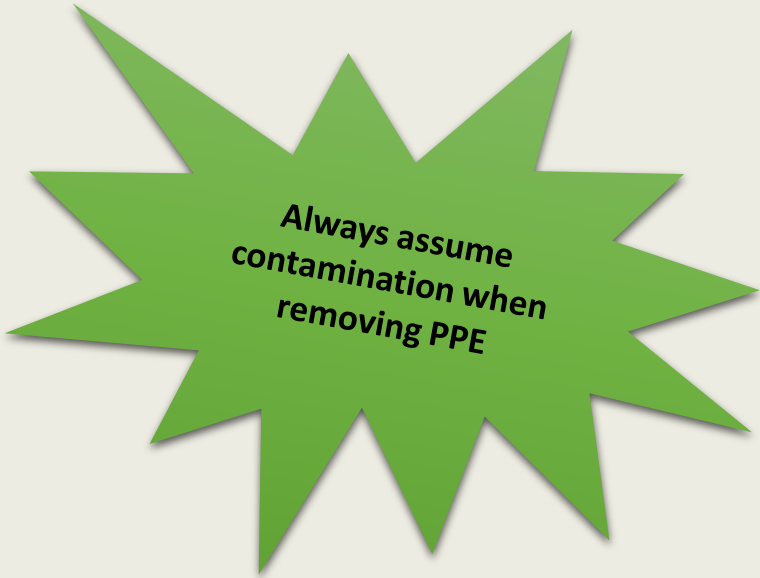
## PPE – Gloves and Gowns

### GLOVES

- Must be tested for use with chemotherapy drugs
  - Also denoted as being ASTM D6978 certified or its successor
- Should be worn at all times when handling hazardous drugs
- Must be changed after 30 minutes of wear, or if torn
- Wash hands immediately after removing gloves with soap and water

### GOWNS

- Must be polyethylene coated
- Must close in the back
- Must have tight-fitting wrist cuffs placed over the first set of gloves and under the second set



***Always assume  
contamination when  
removing PPE***

# Hazardous Drugs

## Additional PPE

Eye and face protection should be worn whenever there is a possibility for splashing.

### Splash Risk

- Infants
- Unruly/Combative Patients

### Spit/Vomit Risk

- Infants
- Unruly/Combative patients
- Difficulty swallowing
- Pre-disposed to spitting



Respirators should be available in times of possible aerosolization  
CAPR with an organic vapor filter or fit tested N95 mask

# Medical Waste Management

- Healthcare entities nationwide produce more than 9 thousand pounds of waste daily. Healthcare waste poses a threat to the environment and employees if it is not disposed of properly. The EPA, DEQ and MIOSHA are responsible for protecting the environment and any employees who are exposed to waste. Improper waste disposal can cause harm to your coworkers, waste management employees and the environment.
- Covenant Healthcare has a waste management plan located in the safety manual (HMW-009 Waste Management Plan Including Batteries and Pharmaceutical).

## The purpose of our plan is to:

- Prevent injuries to fellow coworkers
- Obey the law
- Create a safer environment





# Medical Waste Management

## Red Medical Waste Containers

- For sponges/dressings that are saturated with blood or body fluid, or containers of blood or body fluids that cannot be opened and rinsed out, i.e., blood transfusion bag
- **No** clean looking bed pans, urinals or pink basins. **No** paper garbage, gloves or urine cups, **No sharps, NO patient information (HIPAA)**

### Items that go into red medical waste containers:

- Bone/Tissue
- Grossly contaminated PPE
- Blood Product IV Tubing
- Any tubing that contains body fluids
- Saturated gauze, sponges, bandages, etc.

*\*If the item is lightly squeezed will it drip blood or body fluid? When the blood or fluid is dried is it capable of flaking material off? If so the item should be disposed of as Regulated Medical Waste (RMW).*



# Medical Waste Management

## Sharps Containers

- For sharp items that can poke.
- **No** medicine vials, urinals, urine cups, urine, sheets or bedding, empty IV bags, Central line kits, paper products or gloves.

### Items that must be placed in sharps containers:

- Blades
- Disposable razors
- Wire guides Lancets
- Scalpels
- Syringes and needles
- Teeth
- Surgical needles
- Guide wires
- IV Spikes if removed from IV bag
- Introducers, etc.



# Medical Waste Management

## General Waste

- **EMPTY** medication vials, empty IV bags (with spike still inserted), IVPB (piggyback) once HIPAA is removed or covered.
- **Group 2 and 3 hazardous medications:** used PPE, empty medication vials, empty IV bags (with spike still inserted), empty syringes (separated from any needles), used medication cups.
- For all other trash including rinsed out bedpans, empty urinals, empty suction containers, the bottom of the emptied urine cup (no sharp) paper products and gloves. Double bagged soiled briefs.
- **Nothing** that could potentially poke or break the skin.
- ***NO patient information (HIPAA).***



# Medical Waste Management

## Trace Hazardous Waste








- **EMPTY** Group 1 hazardous medication vials, IV bags (with spike still inserted), syringes (separated from any needles).
- Additional Group 1 hazardous medication waste: used PPE, medication cups, syringe end caps.
- During treatment and for 48 hours after receiving a Group 1 medication: used rinsed out bedpans, empty urinals, empty suction containers, the bottom of the emptied urine cup (no sharp) paper products. Double bagged soiled briefs, or linens.
- **Nothing** that could potentially poke or break the skin.
- ***NO patient information (HIPAA).***



# Medical Waste Management

## Door Signs

Door signs will be used for patients receiving Group 1 medications.

<b>Hazardous Drug Precautions</b>	
<b>FOR MEDICAL PROFESSIONAL STAFF</b>	
<p><b>Always wear this when handling BODILY FLUIDS.</b></p> <div style="display: flex; justify-content: space-around;"><div style="text-align: center;"><p>Fluid resistant gown</p></div><div style="text-align: center;"><p>Double gloves</p></div><div style="text-align: center;"><p>Face shield if there is a chance of splashing/spraying</p></div></div>	<div style="text-align: center;"><p>Discard disposable diapers, pads, linens and gowns visibly wet with hazardous drug medication or bodily fluids in the <b>yellow</b> hazardous waste container.</p></div>
<div style="text-align: center;"><p>Discard used garb and empty packaging in the <b>yellow</b> hazardous waste container.</p></div> <div style="text-align: center;"><p>Discard any remaining medication in the <b>black</b> universal waste container.</p></div>	<div style="text-align: center;"><p><b>Always wash your hands with soap and water after removing garb or handling waste.</b></p></div>
<p>Patient waste precautions date effective through ____/____/____. <i>Includes 48 hours from the last treatment.</i></p>	

# Medical Waste Management

## Controlled Substance Waster

For disposal of controlled substances.

Items that do go in the controlled substances containers:

- IV Contents
- Syringe Contents
- Vial and Ampoule Contents
- Patches
- Pills
- Tablets
- Capsules
- Oral Liquids

### **DO NOT PLACE IN THE CONTAINER:**

- IV Bags and Tubing
- Syringes, Vials or Ampoules
- Drugs Other than Controlled Substances



# Medical Waste Management

## Pharmaceutical Waste Box

For disposal of medications.

Items that do go in the pharmaceutical containers:

- Partially empty medicine vials
- Medicine patches and it's wrapper
- Loose non-narcotic pills, ointments, syrups, liquids and suspensions
- All medicated IVs or IVPB with solution remaining once HIPAA is removed or covered. Clamp tubing first and place into a zip lock bag.
- Injectable containers
- Sponges soaked in liquid meds
- Supplies used for a hazardous medication spill cleanup
- ***NO patient information (HIPAA)***



# Medical Waste Management

## Covenant HealthCare – Medical Waste Disposal: Quick Tips

### Sharps Containers

- Wire Guides
- Needles
- Syringes
- Razors
- Scalpels/Lancets
- Small Glass Vials
- IV Tubing Spikes if tubing is removed from spike

### Regular Trash

- Reduce waste as much as possible
- Reuse or recycle (including confidential documents, which should be placed in Shred bins)
- Dispose of food waste, packaging, paper, used supplies,
- Nonhazardous or Group 2 and 3 hazardous: empty IV bags and tubing (if IV spike is NOT removed) in regular trash (clear plastic bags), empty suction containers, empty bed pans

### Biohazard Container (Red Bag/Container)

- Organs
- Body Tissues
- OVA & Parasite Transport Vials
- Blood Tubes
- Blood culture vials
- Placentas

### Chemotherapy Waste (Yellow or Black Container)

- Items used in the preparation and/or administration of chemotherapy agents IV bags or syringes with more than TRACE chemo in them need to go into the Pharmaceutical Waste (black)
- Group 1 hazardous: empty IV bags and tubing (if IV spike is NOT removed), used PPE, empty suction containers, empty bed pans, used administration supplies go into the Trace Waste (yellow)

### Biohazard Container (Red Bag/Container)

- Blood saturated dressings
- Bloody tubing
- Blood Bags with attached tubing
- Pleuravacs
- JP Grenades
- Biohazard bin should not be filled more than 90% to allow for proper seal of the container.

### Reusable Items

- Separate instruments and supplies from linens and place linens in linen bags.
- Place instruments in soiled instrument tray. (Mark broken instruments with adhesive tape before placing in soiled instrument tray.)
- Place blood saturated linen in clear plastic bag before placing in linen bag.



# Medical Waste Management

## Covenant HealthCare – Medical Waste Disposal: Quick Tips, cont.

### Pharmaceutical Waste (Black Container)

- Capsules or tablets
- Unused or partial vials of medication contain greater than 3% of the medication.
- Antibiotic or Medication bags with medication present without the set
- Syringes with medication without the needle
- Topical ointments (capped)
- Topical medication patches (non-controlled) fold in ½ and dispose in black container

### Other Pharmaceutical Waste

- Silver Nitrate (return to Pharmacy)
- Controlled substances need to be disposed of in the Controlled Substance bins following Covenant HealthCare and FDA guidelines
- Inhalers (return to Respiratory Therapy)
- Botox or Collodion (return to Pharmacy)
- Plain maintenance IV solutions (no meds added) – Drain remaining fluid and dispose of in regular trash with spike attached.

### Other General Information

- All containers must be appropriately labeled.
- All waste disposal buckets must be properly sealed before being picked up by EVS.
- Pleuravacs must be securely sealed prior to disposal in biohazard bin.
- Sharps container maximum capacity is 75%.
- Suction canisters must be emptied before placing in regular trash.

### HFAP Quality Measures

- Are sharps properly disposed?
- Is other medical waste properly contained?
- Are biohazard waste bins and sharps containers properly sealed?
- Ensure that all sharp and pharmaceutical containers are dated when placed into service.
- These are being evaluated CHC wide.

# Medical Waste Management

## Waste Disposal Decision Tree



# Medical Waste *Management*

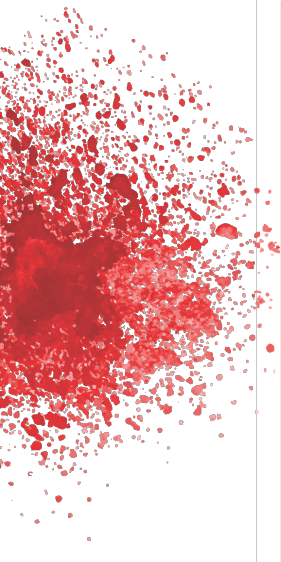
## Quiz Questions

- **1. You have an aerosol inhaler you need to dispose of properly.**
  - a) Send to Pharmacy
  - b) Send to Respiratory Therapy
  - c) Seal in a Zip-Lock baggie
  - d) **B & C**
- **2. The PPE you were wearing is grossly contaminated with a bloodborne pathogen, you should dispose of the PPE in the:**
  - a) General Trash
  - b) **In a red biohazard bag and place in the red medical waste containers**
  - c) Pharmaceutical container
  - d) Trace chemotherapy container
- **3. True or False: Door signs will be utilized for patients receiving Group 1 medications.**
  - a) **True**
  - b) False
- **4. True or False: ASTM D6978 gloves are not chemotherapy approved PPE.**
  - a) True
  - b) **False**

# Michigan's *Right to Know* Law

**Employers** have the responsibility to provide access to chemical information for workers whose jobs involve the routine use of hazardous chemicals.

- Hazard determinations (inventories)
- Formal written hazard communication program (policies and procedures)
- Labeling (visible container identifications)
- Safety Data Sheets (SDS)
- Employee information and training
- Community and Fire Department notifications



# Michigan's *Right to Know* Law

## Employee Rights and Responsibilities:

- Be informed
- Request information and training not be discriminated against for requesting information refuse to work in an area with unlabeled pipes/containers; and no SDS available
- Employees have the responsibility to
- Attend training sessions and ask if they do not know how to work with a particular material
- Wear PPE when it is provided
- Report hazardous conditions and act in a prudent manner

# Chemical Safety

## The Globally Harmonized System **GHS**

### GHS Safety Data Sheets

Safety Data Sheets are a detailed source of information for learning about how to safely handle and use chemicals. All Safety Data Sheets will soon be written to follow the Globally Harmonized System (GHS), a worldwide effort by the United Nations to have common ways to describe chemicals and how to use them safely. With GHS, Safety Data Sheets from manufacturers in many countries will offer the same information in the same format.

### Follow these rules for Safety Data Sheets:

- Make sure you know where to find a Safety Data Sheet if you need one.
- All Safety Data Sheets can be found online on the MSDS Online program. The link can be found on the internet homepage.
- Ask a supervisor for a Safety Data Sheet if you don't understand the information presented on the product label.
- Ask for help if you don't understand how to safely use a chemical after reading the Safety Data Sheet.

The screenshot shows the Covenant HealthCare employee portal. At the top, there is a navigation bar with tabs for Human Resources, Life at Covenant, Work Tools, Policies & References, Departments, and Our DNA. A search bar is located in the top right corner. Below the navigation bar, there is a large banner for "Doctor's Week 2021" with the text "Thank You To Our Amazing Doctors!" and an image of a stethoscope. A dropdown menu is open over the "Policies & References" tab, listing various documents. The link "MSDS Online - Safety Data Sheets" is highlighted with a red box. Other links in the dropdown include Infection Prevention Manual, Covenant Policies and Procedures, Epic Downtime Printing, Epic Knowledge Base, External Reference Manuals, HFAP Manual, HFAP Primary Stroke Manual, HFAP Quality Report 2019, Infonet, Medication Formulary, and Policies - Recently Approved Archive. Below the banner, there are three columns of content: "Employee Links" with links for Citrix, Covenant Cares, and Covenant Website; "News and Safety Alerts" with news about Happy National Doctor's Day and HHH Kentucky Derby Party; and "Calendar of Upcoming Events" with events like High Reliability Organization (HRO) Training and C2: Andrus Family Farms CSA Sign-up.

# Chemical Safety

## *The Globally Harmonized System* **GHS**

### **GHS Labels**

Chemical labels and Safety Data Sheets are the key sources of information for learning how to safely handle and use a chemical. All chemical labels and Safety Data Sheets are written to follow the Globally Harmonized System (GHS).

**Chemical labels that are compliant with GHS must have five things:**

- A Product Identifier that gives the name of the chemical, part numbers or other identifiers and the name and address of the manufacturer or supplier.
- Signal Words that tell about the hazard level of the chemical. Danger is for severe hazards and Warning is for less severe hazards. Sometimes there is no signal word, but that does not mean that the product is hazard free.
- A Hazard Statement that describes what kind of harm the chemical can cause.
- Pictograms which are symbols that instantly identify the kind of hazard the chemical poses.
- Precautionary Statements that describe what needs to be done to be safe when using the chemical.

**Follow these rules for labeling:**

- Make sure all containers have a proper GHS label.
- If you use workplace labels, make sure they include the name of the product and information regarding the hazards of the product.
- Replace torn and/or damaged labels.
- Label smaller workplace containers that have had chemicals transferred into them if they are used during more than one work shift or by more than one employee.

# Chemical Safety

## *The Globally Harmonized System* **GHS**

### **Important Safety Information**

- Ask if you don't know how to work with a chemical or product.
- Wear Personal Protective Equipment (PPE) whenever it is indicated -don't take short cuts.
- Know how to clean up spills safely.
- Know what information is on the SDS: located on the Hospital Network, or in the SDS book in your work area. Master books of SDS are located in the ECC and Safety Office.
- You are responsible for knowing how to work with chemicals in your area.
- Your employer is responsible for making sure information on chemicals is available to you.
- Education and training are provided; you are responsible for attendance and participation.
- If a label falls off and you know for sure what is in the container, place a new label on the container. If you are not sure, discard the container's contents appropriately.

### **Spill Management**

- All employees are responsible for initial management of a spill (which may mean securing the area and contacting a contractor for cleanup).
- Always evacuate the immediate area and secure it so that no one further is exposed.
- Check the SDS for instructions on how to manage the spill.
- Use spill kits as appropriate.
- Wear PPE when required by hazard or policy.



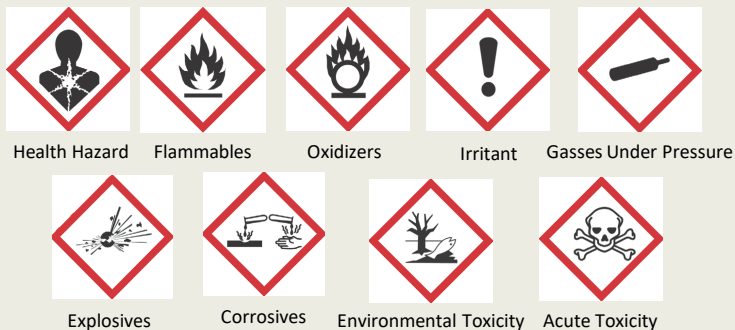
# Chemical Safety

## The Globally Harmonized System **GHS**

### Pictograms

There are nine distinct pictograms that are part of the Hazard Communication Standard. The pictograms are symbols that show what kind of hazards a chemical has.

There can be one or more pictograms on a label depending on the hazards. The pictograms will always be a black symbol on a white background with a red diamond-shaped border.



**GHS LABEL SAMPLE**

**ISOPROPYL ALCOHOL 99% ANHYDROUS**

UN 1219. ISOPROPYL ALCOHOL

24 Hour EMERGENCY NUMBER 444/555-6666

NET WEIGHT  
32.00 LBS  
14.51 KGS

Danger: Highly flammable liquid and vapor. Causes serious eye irritation. May cause drowsiness and dizziness.

**PREVENTION**  
Keep away from sources of ignition - No smoking. Avoid contact with skin and eyes. Avoid breathing mist and vapors. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Take precautionary measures against static discharges.

**RESPONSE**  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Avoid breathing. Wear protective gloves/eye protection/face protection. Wash hands thoroughly after handling.

**STORAGE**  
Store in a well-ventilated place. Keep cool. Store locked up. Keep container tightly closed. Keep away from sources of ignition - No smoking

**DISPOSAL**  
Dispose of contents and container to appropriate waste site or **reclaimer**, in accordance with local and national regulations.

Red River Chemicals 4688 Front Street, Riverdale, Illinois 44444  
Emergency Phone Number: 444-555-6666

## Check Your Knowledge

Who should initially take care of a spill or release?

- A) Call 5-2222 and ask for the spill team
- B) Environmental Services
- C) All employees are responsible for taking care of a spill or release initially even if it is only calling someone else and keeping people out of harm's way
- D) Engineering

Submit

## Check Your Knowledge

It is important to always read the label on a product, even if you have used the product many times before and by reading the label you should be able to safely work with the product.

- A) True
- B) False

Submit

## Check Your Knowledge

Pictograms can be found on Safety Data Sheets and product labels; the pictograms are intended to convey specific information about the hazards of a chemical. Safety Data Sheets can be found on the Intranet using MSDSONline and product labels are found on the chemical containers.

- A) True
- B) False

Submit

# “On-line” Safety Manual

## To Access Covenant’s Safety Manual

The user needs to “sign on” to the network to have access.

“On-line” manuals can be accessed by:

1. Clicking on the **Google Chrome** or **Microsoft Edge** icon on your desktop.
2. Clicking on **Policies & References** tab.

*\*Hard copies of the Safety manual can be found at the front desk of Michigan, Mackinaw, Harrison, Cooper and the ECC.*

The screenshot displays the Covenant HealthCare Employee Portal. At the top, the CovNet logo is on the left, and the text 'Welcome Jay Morast to the Covenant Employee Portal' is in the center. On the right, there is a 'Log Out' link and a search bar with the placeholder text 'I'm searching for...'. Below the header is a navigation bar with tabs: 'Human Resources', 'Life at Covenant', 'Work Tools', 'Policies & References', 'Departments', and 'Our DNA'. The 'Policies & References' tab is highlighted with a red box, and its dropdown menu is open, showing the following items: 'Infection Prevention Manual', 'Covenant Policies and Procedures', 'Epic Downtime Printing', 'Epic Knowledge Base', 'External Reference Manuals', 'HFAP Manual', 'HFAP Primary Stroke Manual', 'HFAP Quality Report 2019', 'Infonet', 'Medication Formulary', 'MSDS Online - Safety Data Sheets', 'Policies - Recently Approved', and 'Policies - Recently Approved Archive'. Below the navigation bar is a large banner for 'Doctor's Week 2021' with the text 'Thank You To Our Amazing Doctors!' and an image of a stethoscope. To the right of the banner is a 'Library Search' section with search boxes for 'Search by name' and 'Search by department'. At the bottom of the page, there are three columns: 'Employee Links' with links like 'Citrix', 'Covenant Cares', 'Covenant Website', 'Department Pages', 'Infonet', 'IT Support', and 'Requisition Center'; 'News and Safety Alerts' with news items like 'Happy National Doctor's Day', 'HHH Kentucky Derby Party', and 'Congratulations to the New Covenant HealthCare Chief Nursing Officer'; and 'Calendar of Upcoming Events' with events like 'High Reliability Organization (HRO) Training' and 'C2: Andrus Family Farms CSA Sign-up Deadline'.

# “On-Line” Manuals

## To Access the **MSDSonline**

The user needs to “sign on” to the network to have access.

“On-line” manuals can be accessed by:

1. Clicking on the **Google Chrome or Microsoft Edge** icon on your desktop.
2. Clicking on **Policies & References** tab.
3. Click on **Safety Data Sheets**.

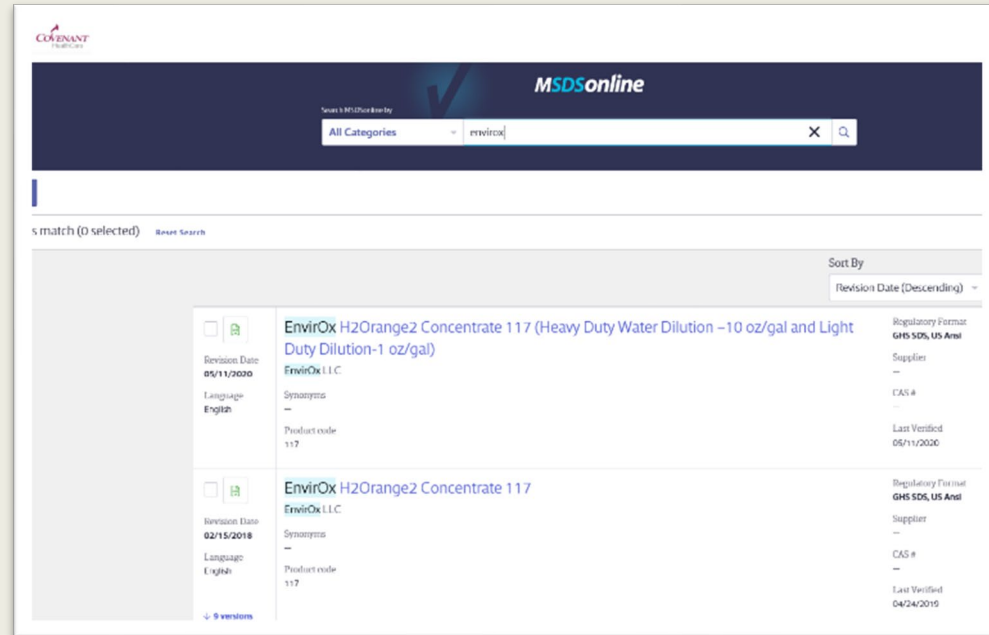
## Searching the **MSDSonline**

1. Click on **Safety Data Sheets** to open the program.
2. Enter the *name of the product* in the **search bar**.

MSDSOnline can also be accessed from Citrix in the event of a network outage. A master list of Safety Data Sheets is updated as necessary and stored in the servers.

Hard Copies of Safety Data Sheets are stored in the Safety office at Cooper and in the ECC.

ECC also can access Safety Data Sheets by using WISER during an event involving patients who need decontaminated.



# CBRN



## Chemical, Biological, Radiological and Nuclear Events

Chemical, biological, radiological and nuclear materials can be dispersed in the air we breathe, the water we drink or on surfaces we come in physical contact with. The dispersion method of these materials may be as simple as placing an open container in a high traffic area, using conventional spray devices (garden or commercial) or as elaborate as detonating an explosive device.

**A BIOLOGICAL EVENT** uses agents containing living organisms or materials derived from them that cause disease in or harm to humans, animals or plants, or cause deterioration of material. Biological agents may be used as liquid droplets, aerosols or dry powders. Onset of symptoms may take days to weeks and there will be no immediate characteristic side effects (i.e., colored residue, dead foliage, pungent odor or dead insect or animal life). Because symptom onset can be delayed in a biological incident, the area affected may be greater due to movement by affected individuals.

**A CHEMICAL EVENT** involves the dispersion of chemicals or toxins that cause disease in or harm to humans or other living organisms. A chemical attack is characterized by the rapid onset of medical symptoms -minutes to hours- and easily observed side effects.

**A RADIOLOGICAL EVENT** will typically use an explosive device to distribute radiological material. Symptoms may not appear for days or weeks. Radiological materials are colorless and odorless so they are not recognized by human senses. Specialized equipment is required to determine the size of the area impacted as well as if the level of radioactivity presents an immediate or long-term health hazard.

Due to a delayed onset of symptoms in a radiological event, the affected area may be greater due to the movement of contaminated individuals into surrounding areas.

# CBRN - WISER

## Wireless Information Systems for Emergency Responders – (WISER)

WISER is a system designed to assist emergency responders in hazardous material incidents. WISER provides a wide range of information on hazardous substances, including substance identification support, physical characteristics, human health information, and containment and suppression advice. Physicians in our Emergency Care Center can utilize WISER to help determine what decontamination procedure needs to be used for the patient, signs and symptoms from the exposure and what treatment plans need to be used for the patient(s). If the chemical or substance is unknown WISER will help determine what the patient was exposed to based on what signs and symptoms the patients are having.

WISER can be accessed by downloading an application for Android or Apple phones, the icon placed on the desktops on the computers in the ECC or by accessing the information from <https://webwiser.nlm.nih.gov/>.

Covenant HealthCare has Emergency Response Guidebooks available for physicians in the ECC.

All physicians and staff also have full access to **MSDSOnline** where information on chemicals can be obtained. Safety Data Sheets for chemicals provide the necessary information for decontamination and patient treatment.

**MSDSOnline** can be accessed from the intranet homepage.



# CBRN - DECONTAMINATION

## Decontamination

In the event Covenant HealthCare receives self-transporting patients from an incident that requires decontamination our ECC is prepared to decontaminate and treat all patients that present to our ECC.

Generally, patients are decontaminated at the scene of an incident before they are transported by EMS to the ECC. In large events we need to plan for self-transporting patients to the ECC or if the event happened at a home where first responders were not called, and the patient was transported here.

Our ECC has a decontamination shower that can decontaminate two patients at one time. The water from the shower is stored in a holding tank and is secure from releasing the content until it is pumped out or determined it can go into the general wastewater sewer system.

If we receive more than four patients, we have a Zumro portable decontamination shower unit that can be setup outside. This unit is heated or air-conditioned, it has a self-containing bladder for the runoff (grey water) from the shower. In this unit we can shower patients that are mobile and in the event that we have patients that require backboards we have a patient conveyer that we can use to move the patient through the tent.

Covenant is a Level II Trauma Center for pediatric and adult patients, we have made adaptations to the decontamination process to accommodate infants, children and service animals if they should become contaminated.

# CBRN

## Decontamination Showers





# Check Your Knowledge

## Quiz Questions

1. Where can a physician find decontamination and treatment information on a chemical that a patient was exposed to?
  - a. WISER
  - b. MSDSOnline
  - c. Emergency Response Guidebook
  - d. All of the above
2. If a chemical is unknown to the provider, they can enter in information that is known about the exposure into what program to determine proper treatment of the patient?
  - a. MSDSOnline
  - b. WISER
  - c. Emergency Response Guidebook
  - d. All of the above

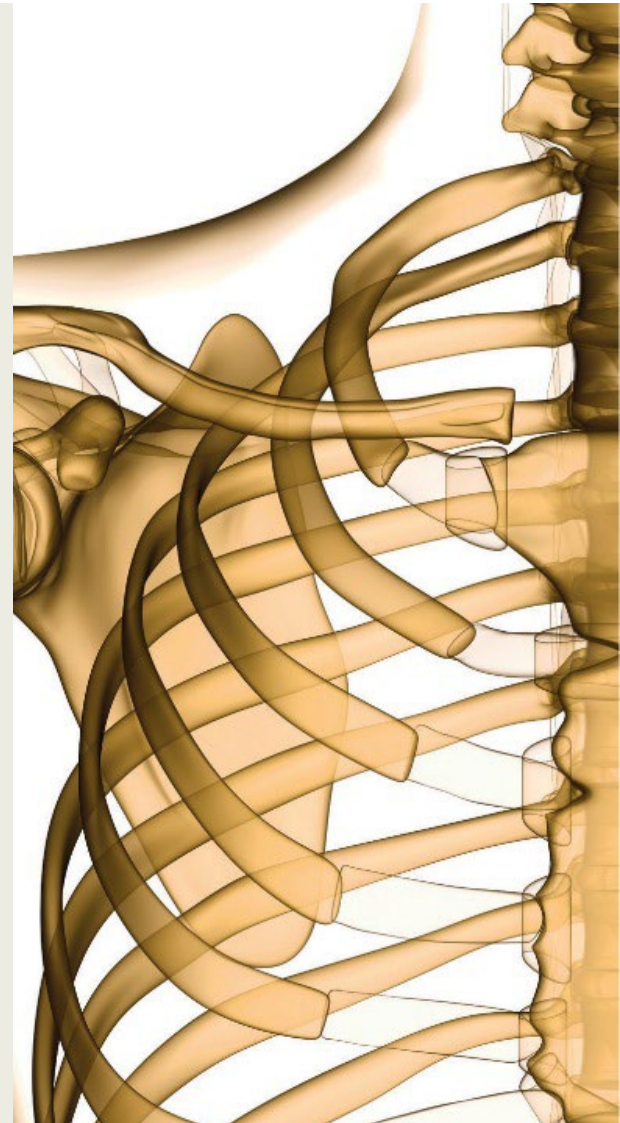
# Radiation Safety

Radiation is something you can't smell, feel or touch, but can harm you if you are overexposed. The Covenant Radiation Safety Officer, Dan Dryden, MS, DABR, and the Radiation Safety Committee monitor policy and procedure, as well as exposure to radiation. Their job is to ensure our exposure to radiation is As Low As Reasonably Achievable (ALARA). Nuclear Medicine technologists provide monitoring of radioactivity should there be a spill, leak or terrorist attack using radioactive materials.

## Mobile X-Ray

Mobile (portable) x-ray can produce some of the highest occupational radiation exposures. Protection for patients and hospital personnel is critical. The main goal in any radiographic procedure is to reduce the amount of radiation to the patient and staff while still achieving the best diagnostic image.

Mobile (portable) x-ray should only be used to perform radiographic procedures when it is medically inadvisable to transport the patient to the Imaging & Diagnostic (I&D) Department. Mobile (portable) machines are not designed to take the place of a fixed x-ray room. Images obtained in the I&D Department typically have superior diagnostic quality and should be obtained whenever possible.



# Radiation Safety

## You Can Eliminate Unnecessary Exposure by:

- Limiting the amount of time you are exposed.
- Staying a safe distance from the source (6 feet or more).
- Using proper shielding.

## Safe Practices

- Use safe practices and radiation protection equipment including lead aprons to reduce exposure.
- Work quickly and efficiently to reduce the time spent exposed.
- Pay strict attention to warning signs and labels. Radioactive signs are yellow and purple color.
- Wear a radiation monitoring badge when indicated by your job. They do not prevent exposure, but they do indicate the amount and type of radiation received. These badges are required by the Nuclear Regulatory Commission (NRC) and by MIOSHA as well as by hospital policy and procedure.
- Always consult your manager or the Radiation Safety Officer if you must work around radiation and are pregnant.
- Follow instructions from the radiologic technologist when portable images are being taken, or during any other radiologic procedure.

## Check Your Knowledge

Increasing a safe distance (6 feet or more) from the source of radiation:

- A) Will reduce the amount of radiation received
- B) Will increase the amount of radiation received
- C) Will not change the amount of radiation received
- D) Will result in the need of a better monitoring device

Submit

## Check Your Knowledge

All Lead Aprons and Thyroid Shields need to be checked for holes and voids annually.

- A) True
- B) False

Submit

## Check Your Knowledge

What precautions should be observed with the radiation safety practice of ALARA?

- A) Reducing time in proximity to the X-ray source
- B) Increasing distance from the X-ray source
- C) Increasing shielding around the X-ray source
- D) Monitoring exposure
- E) All of the above

Submit



**CONGRATULATIONS!**



*Congratulations!*

***You have successfully completed this course!*** Please use the button below to exit and return to Halogen in order to receive credit for this course.