

LAB SAFETY

An Honestly Kinda Boring Presentation



SAFETY TOPICS

- Fire Safety
- Chemical Hygiene
- Bloodborne Pathogens



FIRE SAFETY

- In the Event of Fire
 - R. A. C. E.
 - Rescue
 - Alarm
 - Contain
 - Extinguish or evacuate
 - P. A. S. S.
 - Pull
 - Aim
 - Squeeze
 - Sweep



FIRE EXTINGUISHERS

- **Classed**
 - **Class A**
 - Common combustibles- wood, paper, cloth
 - **Class B**
 - Liquids and gases- gasoline, propane, solvents
 - **Class C**
 - Electrical equipment- computers, fax machines, beepers, adding machines...
 - **Class D**
 - Combustible metals- magnesium, lithium, etc
 - **Class K**
 - For Kooking- grease fires (oil, lard, fats)



EXTRA FIRE SAFETY

- Fire Blanket
 - To be placed over items on fire
- Flammable storage cabinet



CHEMICAL HYGIENE PLAN

- Your Responsibilities
 - Develop good personal chemical hygiene habits
 - Label secondary containers appropriately
 - Review container labels or SDS prior to working with chemicals
 - Use PPE appropriately
 - Work with hazardous chemicals in safe manner












CHEMICAL HAZARD CLASSES

- Carcinogen
- Combustible Liquid
- Corrosive/Caustic
- Flammable
- Irritant
- Organ specific
- Oxidizer
- Reactive
- Reproductive Toxin
- Sensitizer
- Toxic/highly toxic



CHEMICAL HAZARD SYMBOLS

HCS Pictograms and Hazards

Health Hazard  <ul style="list-style-type: none">• Carcinogen• Mutagenicity• Reproductive Toxicity• Respiratory Sensitizer• Target Organ Toxicity• Aspiration Toxicity	Flame  <ul style="list-style-type: none">• Flammables• Pyrophorics• Self-Heating• Emits Flammable Gas• Self-Reactives• Organic Peroxides	Exclamation Mark  <ul style="list-style-type: none">• Irritant (skin and eye)• Skin Sensitizer• Acute Toxicity (harmful)• Narcotic Effects• Respiratory Tract Irritant• Hazardous to Ozone Layer (Non-Mandatory)
Gas Cylinder  <ul style="list-style-type: none">• Gases Under Pressure	Corrosion  <ul style="list-style-type: none">• Skin Corrosion/ Burns• Eye Damage• Corrosive to Metals	Exploding Bomb  <ul style="list-style-type: none">• Explosives• Self-Reactives• Organic Peroxides
Flame Over Circle  <ul style="list-style-type: none">• Oxidizers	Environment (Non-Mandatory)  <ul style="list-style-type: none">• Aquatic Toxicity	Skull and Crossbones  <ul style="list-style-type: none">• Acute Toxicity (fatal or toxic)



CHEMICAL HAZARD LABELING

- You are responsible for ensuring that secondary containers:
 - Identify of contents
 - Word, picture, or symbol (GHS compliant) of hazard
 - Date of preparation (where applicable)
 - Date placed into use (where applicable)
 - Expiration date (where applicable)



LABORATORY ATTIRE

- NO:
 - Loose, torn clothing
 - Unrestrained long hair
 - “skimpy” clothing
 - Sandals, perforated shoes, cloth sneakers
 - Cloth lab coats as outerwear
- YES:
 - Lab coats INSIDE lab only
 - AT A MINIMUM lab coat, eye protection, proper gloves, must be worn
 - Shoes that cover whole foot



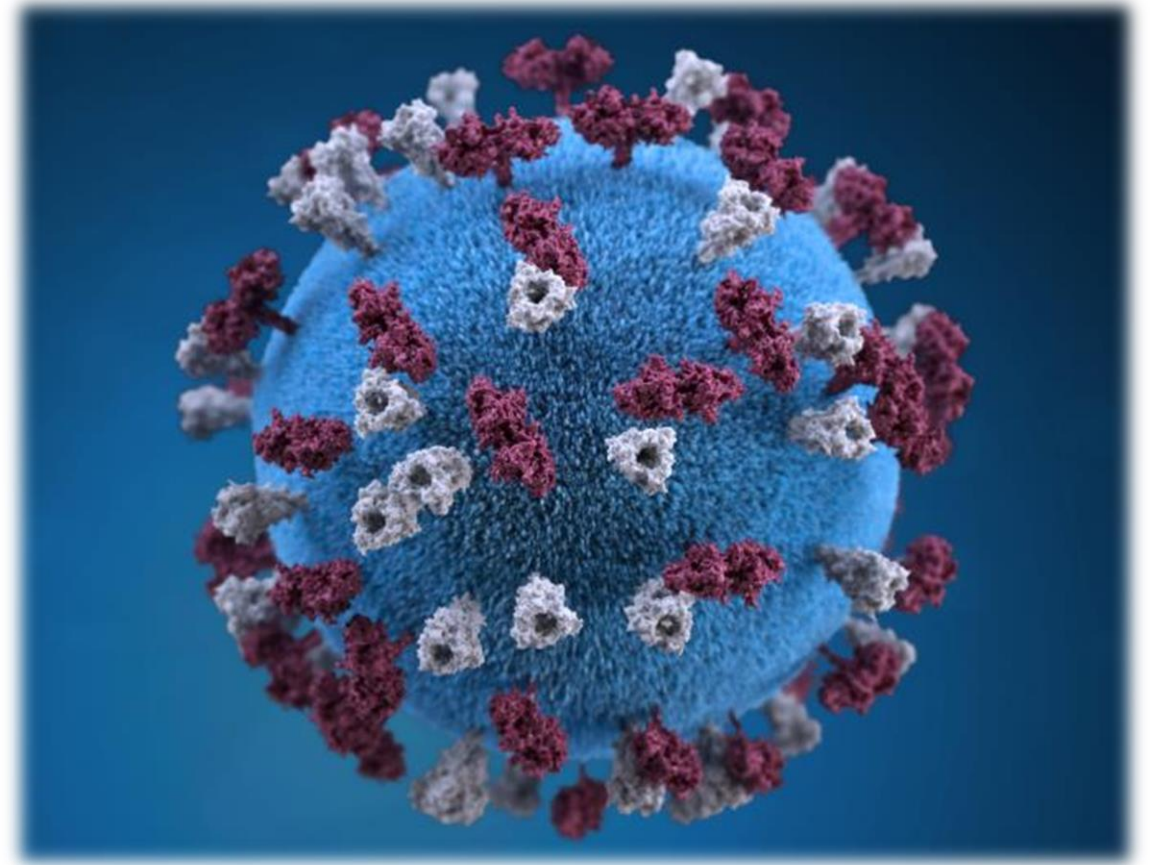
STANDARD OPERATING PROCEDURES

- Read and follow all precautions on chemical labels and on SDS sheets prior to use



BLOODBORNE PATHOGENS

- HIV
- HBV
 - Vaccination
- HCV
 - 80% Asymptomatic
- CJD



TRANSMISSION OF BBP

- Direct contact
- Indirect Contact
- Airborne
- Fecal-Oral



PROTECTION FROM BBP

- PPE
 - Gloves, lab coat, masks etc...
- Engineering Controls
 - Shields, hoods/BSCs etc...
- Work Practice Control
 - Universal Precautions



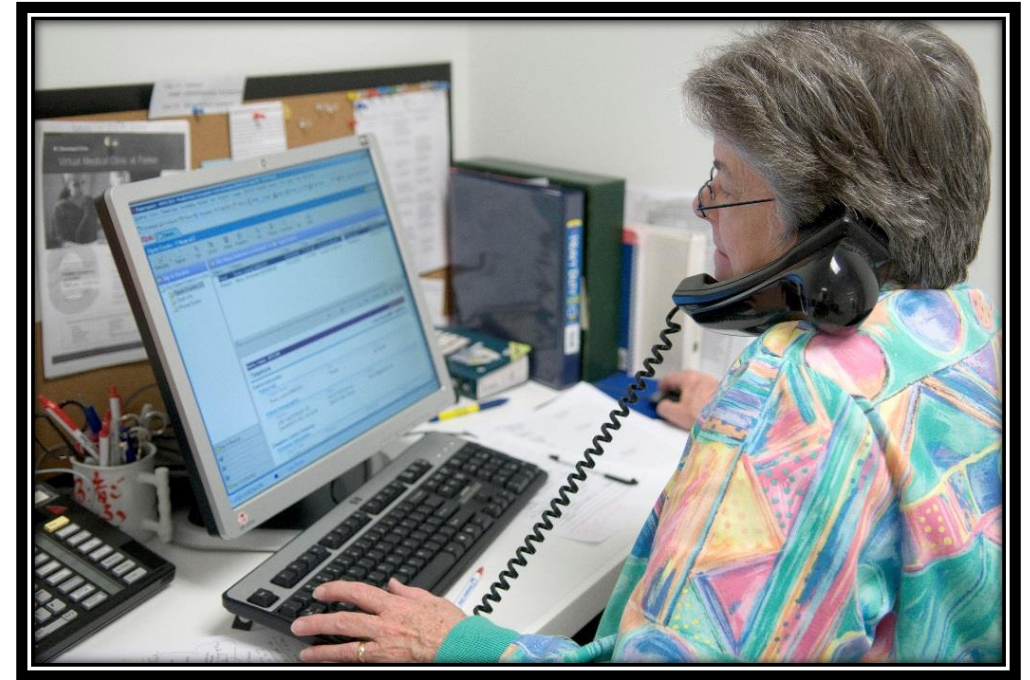
PROTECTION FROM BBP

- Eating
- Eyes
- Cosmetics
- Personal items
- Washing hands



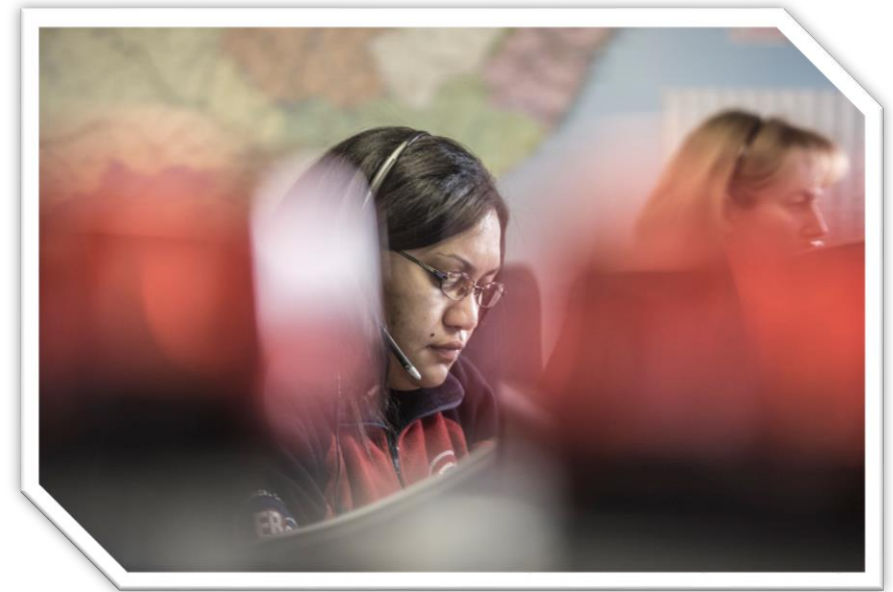
EXPOSURE PROTOCOL

- Did an exposure occur?
 - First Aid
 - Report exposures
 - 216-445-0742



NON-EXPOSURE SCENARIOS

- Contaminated Tube System
 - Pneumatic Tube System Emergency Procedure
- Medical Emergency
 - 111 pulseless
 - 122 other medical emergencies



KEY TAKEAWAYS

- Safety information can be found on intranet
- Fire-Safety: R.A.C.E. & P.A.S.S.
- Universal/Standard precautions should be followed at all times
- Develop good personal chemical hygiene habits by working carefully and labeling everything
- Any sample could be potentially hazardous, treat them with respect and caution

