

# INFECTION CONTROL IN LABORATORY RESEARCH 2015

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# Research Labs

## Increased Risk of Occupational Infections?

Lab Safety Programs to Aid in Infection Prevention  
Employee Health

### Basic self-care

- Nutrition
- Sleep
- Exercise
- Hygiene – Bathing, Dental Care, Care of Clothing, Hand Hygiene
- Precautions – Physical Exams, Hand Hygiene, Avoiding Risky Behaviors, etc.
- Vaccinations – Standard (tetanus, pertussis, etc.) and special (Flu, Hep. B)
- Care after Exposure– Cleans Wound, Call Needle Stick Hotline, Seek Appropriate Medical Care, etc.

# Risk Assessment of Work Area

A Risk Assessment is performed to aid in the selection, provision, and use of safety equipment and practices which aid in protecting lab workers and the environment from exposure to infectious or other harmful products (chemicals) that are collected processed, used, stored or disposed of in the facility.

# Risk Assessment

- Done prior to onset of research
- Reviewed annually or more frequently when project changes occur
- Includes:
  - identification of known infectious or potentially infectious agents or materials,
  - the activities that can result in exposure to an agent,
  - the likelihood of exposure,
  - and probable consequences of infection

# What can be done to protect yourself:

- Know the agent
- Assess the containment level
- Use Standard Precautions
- Participate in initial and on-going training
- Prepare (or read and understand) written protocols prior to the start of a project or procedure

# Good Work Practices

- Routinely conduct inspections- check lab for hazards, cleanliness, properly labeled containers (including H<sub>2</sub>O)
- Review procedures- be prepared for the unexpected
- Accident reporting (no blame)-lessons should be learned, debrief with supervisor and fellow employees to prevent future occurrence

# Good Lab Practices

All persons entering the lab must be advised of potential hazards and meet specific entry/exit requirements

Lab staff must be provided medical surveillance and immunizations for agents handled or potentially present in the lab

Potentially infectious materials must be placed in durable leak-proof containers during collection, handling processing, storage or transport

# Good Lab Practices (Cont.)

- **Wash hands frequently** while working and before leaving the lab area (even if gloves are worn and removed)
- **Personal Protective Equipment**
  - **Gloves**
    - Change gloves frequently
    - Remove gloves before opening doors, using computer key boards or phones that will be used by others,
    - NEVER wear gloves into the restrooms or conference room

**Lab coats** should be worn while working in the lab and **NEVER** wear lab coats out of the lab area

**Masks and laboratory safety glasses/goggles** (face and/or respiratory protection) should be worn as stated in the Research Protocol or SOP, or more frequently if deemed necessary



# Good Lab Practices (Cont.)

Dispose of lab trash appropriately

Place in biohazard waste container

Do not allow to overflow

Lab personnel are responsible to transport and place trash  
**IN RED** bins

Disposal of sharps

Recap needles **ONLY** when necessary - use safe procedures (one handed, or cap holder)

**NO TWO HANDED RE-CAPPING**

All sharps must be placed in approved sharps containers. Don't leave sharps laying on the bench!

# Good Lab Practices (Cont.)

- Food and Drink
  - Should only be stored and consumed in designated locations
  - Never throw food or beverage waste in lab trash
- Incidents that may result in exposure must be immediately evaluated and treated according to procedures described in the Laboratory Biosafety Manual . All such incidents must be reported to the Lab supervisor.

# Good Lab Practices (Cont.)

Equipment and lab surfaces should be decontaminated after spills, splashes or other potential contamination AND at the end of each work day.

Equipment must be cleaned before being sent for repair, maintenance or removal from the lab

Vacuum lines- Building and laboratory vacuum systems must be protected during vacuum filtration or aspiration procedures.

High Efficiency Particulate Air (HEPA) disposable cartridges must be used to prevent fluid and aerosol contamination of vacuum lines and vacuum pumps.

HEPA disposable cartridge filters are available from several scientific supply vendors.

Vacuum lines must be off when not in use.

# If you have an exposure:

- Percutaneous
  - If the site is bleeding, allow to bleed
  - Wash with antimicrobial soap and water
- Cutaneous (Skin)
  - Flush for several minutes with cold running water
- Notify Supervisor
- Notify the Needlestick hotline 410 447-STIK (7845)  
(they will send you to Occupational Health during normal hours of operation or to Emergency Department.)

# Recommended Reading Materials

- VA Research Service Laboratory Safety Manual
- VA Research Service Infection Control Plan
- Biosafety in Microbiological and Biomedical Laboratories, CDC/NIH
- Bloodborne Pathogens Regulations, OSHA
- Occupational Health and Safety in the Care and Use of Research Animals, ILAR