



Lab Acquired Infections: Are YOU at risk?

In recent years there have been several notable cases of illness and/or death stemming from a lack of attention towards safety procedures on the part of laboratory workers. Regardless, lab acquired infections (LAI) continue to be a threat to workers' health and safety in academic institutions and clinical labs today. LAIs present a public health concern when a worker spreads infection to colleagues within the lab, among the workplace environment and beyond the workplace to the community, friends and family members.

A late 2010 *Salmonella typhimurium* outbreak that affected 109 people in 38 states was identified as originating from LAIs involving a common, commercially available lab strain. Some who became ill were not even lab workers themselves but rather lived with lab workers who were not infected themselves. It is assumed that lab workers involved in transmission inadvertently carried the bacteria on personal belongings such as clothes, bags, mp3 players and cell phones. The CDC has blamed lack of sufficient training as the primary reason behind this outbreak. Poor microbiological practices have also been blamed for the death of a University of Chicago researcher utilizing an attenuated BSL2 strain of *Y. pestis* in 2009. Even this past week, a researcher in San Francisco died from an apparent lab acquired meningococcal infection.

It is the responsibility of those who manage laboratory personnel to ensure proper safety procedures are established in the work space. Personnel should be informed of any risks the agents involved in the research pose to human health and receive training for their proper handling and disposal. At a minimum, all lab personnel should know the signs and symptoms related to clinical presentation of LAI for their lab. A legal precedent may soon be set after felony charges were recently filed in December 2011 against a PI and UCLA alleging that the unsafe work space, lack of safety training and lack of required PPE led to the death of a student involved in a chemical explosion. If your department would like to receive a 10-15 minute presentation on the topic of the UCLA incident, at your next faculty or staff meeting, contact Lee Poore at 257-2924.

For the health and safety of lab workers, it is imperative that management of safety practices and procedures be established and maintained at all times. Below are some aspects involved in ensuring a safe working environment for all personnel working within the research laboratories here at University of Kentucky.

- ♦ Administrative controls such as proper use of signs and labels to notify personnel of present hazards, medical surveillance including vaccinations (when applicable), and thorough training of personnel should be implemented. Online training modules can be accessed at <http://ehs.uky.edu/classes/>. Procedures specific to the laboratory including certain molecular techniques or SOPs should be handled by the PI or appointed laboratory supervisor. The Department of Biological Safety can also be contacted for consultation or custom training.
- ♦ Engineering controls should be in place such as proper use of autoclaves and biological safety cabinets, closed doors to the hallways, and proper air flow.
- ♦ Appropriate and sufficient personal protective equipment shall be used and readily available at all times
- ♦ Disinfectant procedures should be followed after work takes place and at the end of the day, as well as established waste disposal procedures must be followed
- ♦ There should be absolutely no re-use of gloves and, most importantly, always wash hands after glove removal!

For more information about the above referenced cases, please visit:

- <http://www.cdc.gov/salmonella/typhimurium-laboratory/011712/index.html>
- http://bodyodd.msnbc.msn.com/_news/2011/06/29/6975963-from-petri-dish-to-people-lab-infections-can-spread-illness-even-death
- <http://articles.latimes.com/2011/dec/28/local/la-me-1228-ucla-death-20111228>
- <http://blogs.kqed.org/newsfix/2012/05/02/lab-accident-at-san-francisco-va-leaves-man-dead-of-bacterial-meningitis/>

Biosafety Reminders:

Chairs used in laboratory work must be covered with a non-porous material that can be easily cleaned and decontaminated with appropriate disinfectant.

<http://www.cdc.gov/biosafety/publications/bmb15/>



ARE YOU FINDING PIPETTES IN THE WRONG PLACES?

If you need assistance getting everyone on the same page about disposal procedures for the various waste products generated in research labs, contact our office for a free laminated poster which outlines the proper disposal techniques for things like pipettes, autoclave trash, medical waste, etc.

Call 257-8655 or send an email to
ehsbiosafety@uky.edu

Ask for the "Waste Disposal for Researchers Poster"

50 reasons

to practice safe research



Your son's first steps

World Series tickets

The marina at that little Italian place

Falling in love

Saturday naps

Your daughter's piano recital

The front nine

The back nine

The Nobel Prize

Your fishing buddies

Sunrise in St. Thomas

Coaching your first soccer team

Your husband's backrubs

Chocolate cheesecake

Marathon training

The next Star Wars movie

Your sailboat

Your wife's laughter

Fourth of July fireworks

Your high school reunion

Homemade birthday cake

The Sunday paper

Your best friend

A new puppy

That bookseller in the 6th arrondissement

Your mom's fried chicken

The quest for the perfect cup of joe

Afternoon cookouts

The twins' graduation

Your dad's old stories

The house in the country

The view from Mt. Rainier

Spoiling your grandchildren

The NY Times crossword

Conquering the Outback

Your next big breakthrough

Being the tooth fairy

Thanksgiving with the family

WHAT ARE YOURS?

Volunteering

Presenting your next paper

Winning the chili cook-off

An African safari

Popping the question

Your pilot's license

Sushi & sake with friends

Baseball in the backyard

Snorkeling in the South Pacific

Perfecting your backhand

Being there for those who need you

**Saving one life
through research**



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Follow safety precautions. Report accidents.



University of Kentucky

Department of Biological Safety

As part of the Division of Environmental Health & Safety, the Department of Biological Safety is responsible for programs concerning the safe use of recombinant DNA, infectious agents, and potentially infectious materials such as human sourced materials in the research and teaching laboratories at the University of Kentucky. This includes training, auditing, and consulting with researchers, laboratory personnel and teaching staff concerning compliance with the federal and state laws and regulations in these areas.

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Visit us on the web!

<http://ehs.uky.edu/ehs/biosafety/>