



# SAFETY ALERT

RISK MANAGEMENT & SAFETY

## Lab Acquired Infection—Salmonella

**Incident Date:** June 2015  
**Category:** Lab Acquired Infection  
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### Description:

A student worker contracted Salmonella (biosafety level 2 agent). The exposure occurred when an Eppendorf tube containing the Salmonella popped open apparently releasing moisture onto the worker's shirt.

The student worker was conducting an inventory of a cryovot when he discovered the Eppendorf tube



Graphic 1. (L – R): Eppendorf tube, Cryotube, Cryovot

### Findings:

- Student worker was developing an inventory of biohazards in cryovot.
- Salmonella not in use in lab for approximately 5 years.
- Student worker was wearing nitrile gloves and eye protection.
- Student worker was not wearing a lab coat.
- Lab Manager was present in the lab.
- Per lab policy, cryotubes, not Eppendorf tubes, are to be used for storage in the cryovot.
- The lab did not have its own PPE certification at the time of this incident.
- Student worker completed initial general lab, biosafety level 1-2 and BBP training in 2013 and refresher training in 2014.
- Removal of shirt, gloves, and showering decontamination procedures were not performed.
- Student worker did not seek medical evaluation at the time of the incident.

### Root Causes

- PPE requirement regarding the wearing of a lab coat in a BSL-2 lab was not followed.
- Emergency decontamination procedures to remove any contaminated clothing (shirt and gloves) and shower were not followed.
- Student worker did not seek medical evaluation.
- No cryovot inventory list existed. No procedure existed to inventory or remove biological agents when no longer needed in the lab.
- Cryovot storage procedure requiring the use of cryotubes was not followed.

### Recommended Actions:

- Conduct a PPE Hazard Assessment and develop PPE requirements. Develop a new PPE Certification, review PPE requirements with lab personnel and have personnel sign new certification.
- Develop process to inventory and dispose of unnecessary biological agents.
- Review decontamination and medical evaluation procedures when biological agents are involved.
- Train lab personnel on specific hazards of any biological agents that are stored/used in the lab.
- Review Cryovot Storage Procedure with lab personnel.