

Subject: Public Health Biosafety Awareness Course

Description: The target audience for this one hour program is public health professionals of all types and certifications as well as public health laboratory personnel who may be exposed to persons or specimens from persons infected with serious communicable diseases. The course is designed to increase awareness about standard and transmission based infection control practices and considers high consequence diseases such as SARS, MERS, novel influenza strains, seasonal influenza, and potential pandemic influenza strains.

Presenter: Dr. Paul McKinney, an internal medicine and public health physician who is associate dean for research at the University of Louisville School of Public Health and Information Sciences.

Course objectives:

1. Review standard and transmission based infection control procedures.
2. Review past and current/recent outbreaks of the targeted agents with a focus on the course of each disease, available vaccines, effective antimicrobial agents and consideration for preventing the transmission of disease to public health personnel.
3. Increase knowledge and awareness of the potential of the selected pathogens to cause infection in the workplace and understand the procedures needed to maintain worker safety.

Course level: Introduction/Awareness or Refresher

Domain competencies: awareness/assessment skills, public health sciences

Module 1: Infection Control

Upon completion of this module, all learners should be able to:

- a. Understand the differences between standard and transmission based precautions
- b. Understand the elements of each of these precautions including related engineering and environmental controls as well as proper use of personal protective equipment (PPE) ensembles.
- c. Recognize which pathogens require contact, droplet, or airborne precautions.

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Module 2: Coronaviruses: SARS and MERS

Upon completion of this module, all learners should be able to:

- a. Describe the epidemiology of coronaviruses causing SARS and MERS
- b. Describe factors facilitating transmission of these agents
- c. Identify typical profiles of persons at risk for these diseases
- d. Identify aerosol-producing procedures and understand the need for appropriate PPE donning and doffing techniques.

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Module 3: Novel and Pandemic Influenza

Upon completion of this module, all learners should be able to:

- a. Distinguish between the epidemiology of seasonal and pandemic influenza strains
- b. Identify high risk conditions for influenza
- c. Discuss influenza prevention, especially use of vaccines
- d. Describe treatment options for influenza
- e. Identify the use of appropriate PPE in the setting of various influenza strains.

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