

## **EMERGING and RE-EMERGING INFECTIOUS DISEASES**

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Infectious diseases described over the past 4 decades include those caused by newly discovered microbial pathogens, re-emergent infections with drug-resistant strains, and infections which have become increasingly resistant to previously successful antimicrobials. This seminar will initially consider challenges presented by the increasing problem of antibiotic-resistant microorganisms. In addition, other recent diseases, such as Zika, Ebola, and Middle East Respiratory Syndrome (MERS), will be discussed as challenges to global health. Current epidemiology and scientific evidence addressing ongoing challenges, and occupational guidelines for blood-borne pathogens (hepatitis B and C viruses and Human Immunodeficiency Virus), respiratory infections (influenza viruses, tuberculosis and pertussis), direct contact infections (including methicillin-resistant *Staphylococcus aureus* {MRSA}), and antibiotic-induced *Clostridium difficile* infection, will comprise the major portions of the seminar.

### **Learning Objectives:**

1. Describe major global and epidemiological factors which can lead to the emergence and re-emergence of infectious diseases, such as those caused by Zika and Ebola viruses.
2. Describe the challenges representative blood-borne, airborne, and contacted-mediated infections present to healthcare workers and the population
3. Understand emerging challenges and prevention issues inherent in the increasing incidence of infections caused by antibiotic-resistant microorganisms
4. Comprehend the occupational health care risks presented by these diseases
5. Apply appropriate infection control precautions to minimize the potential for cross-infection