Icahn
School of
Medicine at
Mount
Sinai

COURSE INFORMATION SHEET

Title of Course: Medical Microbiology

Academic Year: 2017-2018

Duration of Course: 8 weeks

Course Director(s):

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Mission Statement of Course:

The diagnosis, management, and prevention of infectious diseases are an integral part of medical practice, regardless of specialty. The medical microbiology course is an introduction to the principal pathogens that cause human infections. Our course ranges from the molecular to the global scale as we examine bacteria, viruses, fungi, and parasites and their impact on human health. In addition to diagnostic testing, clinical manifestations and epidemiology of these organisms, we also teach the fundamentals of treatment and prevention.

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Goals of Course:

Our main goals of the course are to introduce medically important microbes, emphasizing: Pathogenesis, Immune Response, Epidemiology, Clinical Presentation, Antimicrobial Targets, Treatment, and Prevention.

Objectives of Course:

Identify medically important microbial pathogens and explain the pathogenesis and host immune response to infection.

Describe the epidemiology of commonly encountered infections.

Formulate a syndromatic and etiologic differential diagnosis for patients presenting with common infections.

Explain common antimicrobial targets and mechanisms of drug resistance.

Explain the fundamentals of antimicrobial treatment including mechanism of action of antibiotics, spectrum of action, pharmacokinetics, and common adverse effects.

Interpret common diagnostic test relevant to infectious diseases.

Describe strategies used to prevent infections.

Work with a team to generate a differential diagnosis for a patient with an infection, and explain aspects related to epidemiology, pathogenesis, clinical findings, diagnosis, and management.