

# Microbiology

## *Presentation guide*

*CC = Statement of the competence for a core competence*

*E = Elements of the competence for a specific statement of competence*

*P = Performance criteria for competency; associated with a specific element of the competence*

### **Core Competence CC.5**

*Explain the principles of microbiology as they pertain to respiratory therapy*

#### **E.1 Utilize terminology associated with the mechanisms of infectious diseases**

- P1.1 Define the following terms: host, infectious disease, colonization, microflora, virulence, pathogen and saprophyte
- P1.2 Describe the concept of host-microorganism interaction

#### **E.2 Compare agents of infectious diseases**

- P2.1 Describe the structural characteristics and mechanisms of reproduction for viruses, bacteria, rickettsiae, chlamydiae, fungi and parasites
- P2.2 Differentiate modes of transmission
- P2.3 Explain the mechanism of infectious diseases using incidence, portal of entry, source of infection, symptomatology, disease source, site of infection, agent and host characteristics

#### **E.3 Explain the mechanisms of infectious diseases**

- P3.1 Differentiate between incidence and prevalence and among endemic, epidemic and pandemic
- P3.2 Describe the stages of an infectious disease
- P3.3 Identify the systemic manifestations of infectious disease
- P3.4 Describe the mechanisms and significance of antimicrobial and antiviral drug resistance
- P3.5 Explain the actions of intravenous immunoglobulin and cytokines in treatment of infectious diseases