LEARNING OBJECTIVES

On completion of the chapter, the reader will be able to:

1. Define meningitis and encephalitis.

2. List, in order of relative incidence, the most common age-dependent bacterial causes of meningitis, and identify the fatality rate associated with each.

3. Analyze laboratory values of CSF components and describe the values as normal or as indicative of a specific infective condition.

4. Identify the common signs and symptoms of bacterial meningitis.

5. Select appropriate empirical therapy directed against suspected bacterial meningitis according to age group.

6. List the antibiotic of first choice and alternatives to treat meningitis secondary to *Streptococcus pneumoniae*, *Neisseria meningitidis*, and *Haemophilus influenzae*.

7. Identify general principles of chemoprophylaxis after exposure to *H. influenzae* and *N. meningitidis* index cases.

8. List the physiochemical properties associated with increased penetration of antibiotics into the CNS.

9. Classify antibiotics according to level of penetration into the CNS.

10. List three reasons why corticosteroid use in bacterial meningitis is controversial.

11. Assess the value of dexamethasone as adjunctive therapy in meningitis.

12. Discuss the role vaccination plays in the prevention of meningitis and what impact vaccination is having on the epidemiology of meningitis.

13. Select appropriate antifungal therapy to treat *Cryptococcus neoformans*.

14. List the viruses most commonly associated with encephalitis and meningoencephalitis and provide recommendations for therapy as appropriate.

15. Identify pathogens associated with CNS infection in immunocompromised patients.