Chapter 89: LEARNING OBJECTIVES

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

1. List patient populations at increased risk for developing infective endocarditis (IE).
2. Delineate bacteria that commonly cause IE as well as situations where certain bacteria are more likely.
3. Describe the sequential steps necessary to develop hematogenous spread of IE.
4. Identify the clinical manifestations of the disease, including physical findings, laboratory abnormalities, blood cultures, and other diagnostic test (e.g., echocardiography).
5. Argue the importance of correctly obtained blood cultures and state situations that may lead to “culture-negative” IE.
7. Summarize the role of nonpharmacologic approaches (i.e., surgery) in the treatment of IE and identify situations where this approach is preferred.
8. Design drug regimens for the following types of infective endocarditis: streptococci, staphylococci, enterococci, the HACEK microorganisms, and “culture-negative” IE.
9. Describe why β-lactam antibiotics are preferred for the treatment of IE and classify situations where vancomycin is appropriate.
10. Evaluate the role of penicillin skin tests in patients with a documented penicillin allergy.
11. Distinguish situations where aminoglycosides (i.e., gentamicin) should and should not be used for the treatment of IE and develop an appropriate dosing strategy based on the identified organism.
12. Summarize approaches that can be used to ensure cost-effective IE treatment, including methods to identify candidates for home health care.
13. Outline specific monitoring parameters during IE treatment, including signs and symptoms, blood cultures, microbiologic tests, serum drug concentrations, and tests that evaluate organ function.
14. Identify patients who should receive antimicrobials for IE prophylaxis as well as bacteremia-causing procedures that can lead to IE in predisposed individuals.
15. In high-risk groups receiving bacteremia-causing procedures, devise a prophylactic antimicrobial regimen and list alternative regimens in those with an immediate-type penicillin allergy.