

Introduction to Pharmacology

Study Objectives

Final Exam, Exam # 5

The student should be able to

Chapter 58: Androgens

1. Describe the function of and the action of testosterone in both males and females.
2. Discuss the uses of testosterone in treatment of disease.
3. Discuss the use of anabolic steroids, and the adverse effects of these steroids.

Chapter 59: Estrogens and Progestins

4. Describe the menstrual cycle: include in your discussion the roles of estrogen, progesterone, FSH and LH, the ovarian and uterine events, and the function of the corpus luteum.
5. Discuss the action of estrogen and progesterone and their therapeutic uses.
6. Describe what HRT is and the benefits (and risks) of HRT both before and after menopause.

Chapter 61: Drug therapy of Infertility

7. Describe the causes of infertility in both males and females.
8. Discuss the drugs used to treat infertility in both males and females and describe how they work.
9. Talk about endometriosis and the drugs used in treatment of endometriosis.

Chapter 63: Review of the Immune System

10. Define and give the significance of the following: innate immunity, adaptive immunity, humoral response, cellular response, hypersensitivity response, antibody, antigen, cytokine, T helper, T cytotoxic.
11. Describe the function of both B and T lymphocytes; what are the primary differences between how each reacts with antigen? And, what specific antigens does each react against?
12. Draw the structure of an antibody molecule and define the function of the variable region and the Fc regions.
13. Discuss the unique actions of each of the 5 antibody classes.
14. Discuss the 4 ways that antibodies help to rid the body of antigen.
15. Describe the functions of the following cytokines: IL-1, IL-2, IL-4, Interferon gamma.

Chapter 64: Pediatric Immunization

16. Define vaccine and describe the following: killed vaccine, live/attenuated vaccine, toxoid vaccine, active immunization, passive immunization.
17. What are the adverse effects of immunizations?
18. Briefly describe the major characteristics of each of the following diseases: measles, mumps, rubella, diphtheria, tetanus, pertussis, polio, varicella, hepatitis B.
19. Be aware of the recommended schedule of childhood vaccinations.

Chapter 65: Immunosuppressants

20. What are the therapeutic uses of immunosuppressants?
21. Discuss the actions of: CYCLOSPORINE, GLUCOCORTICOIDS, CYCLOPHOSPHAMIDE, MONOCLONAL ANTIBODIES, RhoGAM.

Chapters 79 through 90: Microbial Drug Therapies

22. Describe how you might make a drug selective for only procaryotic cells and viruses.
23. Discuss how you determine what drug to use for a specific disease/organism.
24. Describe the major differences between a eucaryotic cell, a procaryotic cell, and a virus.
25. What is a retrovirus? Why is AIDS so difficult to treat?
26. Describe three ways that a bacteria might become resistant to antibiotics. Why are antibiotics not effective against viruses??

Drug	Mechanism of Action	Disease
Penicillin		
Ampicillin		
Vancomycin		
Cephalosporin		
Amphotericin B		
Aminoglycosides		
Gentamicin		
Erythromycin		
Tetracyclin		
Nitrofurantoin		
Rifampin		
Clotrimazole		
Bacitracin		
Sulfonamides		
Acyclovir		
Isoniazid		
Interferon alpha		
Amatadine		
Reverse Transcriptase Inhibitors		
Protease Inhibitors		
Ganciclovir		
Ketoconazole		
Polyene Antibiotics		