HPRS 2300 Pharmacology  
Final Exam Review

1. Understand the mechanism of action of the following drugs:
   a. Phenothiazine antipsychotics
   b. Hydantoin antiepileptics
   c. Statin hypolipidemics
   d. Heparin
   e. Warfarin

2. Understand the therapeutic and adverse effects of the following drugs:
   a. Anticholinergics
   b. Benzodiazepines
   c. Barbiturates
   d. NSAIDs
   e. Acetaminophen
   f. Diuretics
   g. ACE Inhibitors
   h. ARBs
   i. Nitrates
   j. Beta Blockers
   k. Digoxin
   l. Antihistamines
   m. Insulin

3. What is the “mechanism of action” of a drug?
4. What is “drug action”?
5. Differentiate agonist and antagonist
6. Which routes of drug delivery provide the fastest/slowest onset of action?
7. What are the five schedules that controlled substances are assigned to?
8. Which route of administration is the safest?
9. Understand the pharmacokinetic processes and what affects them (solubility, genetics, aging, blood flow, disease, etc.).
10. Define pharmacodynamics.
11. What are the FDA pregnancy categories?
12. How can we determine whether or not drug treatment is therapeutic?
13. Understand the effects of the neurotransmitters epinephrine, acetylcholine, dopamine, GABA, serotonin, and norepinephrine. What happens when they are stimulated vs. inhibited?
14. What are the results of parasympathetic stimulation?
15. What are the results of sympathetic stimulation?
16. Why do local anesthetics sometime contain epinephrine?
17. What is the therapeutic result of blocking the reuptake of serotonin and/or norepinephrine?
18. What are effects of opioid analgesics on the central nervous system?
19. Understand the process of inflammation.
20. How do NSAIDs ease the symptoms associated with inflammation?
21. How are the cardiovascular benefits of aspirin affected if non-aspirin NSAIDS are also taken regularly?
22. What are the physiological factors that affect blood pressure?
23. Understand the renin-angiotensin-aldosterone (RAA) mechanism and what stimulates it?
24. What is the toxicity associated with the use of anticoagulants?
25. What are the considerations associated with warfarin therapy?
26. What are the functions of the electrolytes sodium, potassium, and calcium?
27. What is the purpose of hematinic drugs?
28. What substances affect the absorption of oral hematinsics?
29. Understand the allergic response and the effects of histamine.
30. What role does the autonomic nervous system play in asthma?
31. What drugs are used for their anti-inflammatory effect in treating asthma?
32. How does long-term use of NSAIDs and steroids impact the GI system?
33. What are the most common side effects of antiemetics?
34. What are the adverse effects and special cautions associated with steroid use?
35. What are the adverse effects of thyroid hormone replacement therapy?
36. What are the considerations/adverse effects associated with the use of penicillin and tetracycline?
37. What are the most serious toxic effects of chemotherapeutic agents use in the treatment of cancer?
38. 5 Calculation problems