

Pharmacotherapy (Part 1 and Part 2)

Exam

1. A 70-year-old 45-kg patient is admitted to the ICU with a diagnosis of digoxin intoxication. The patient complains of nausea, blurred vision, and fatigue that have been present for 3 days. A cardiac monitor reveals a HR of 42 bpm, an irregular rhythm, and a type second-degree heart block. Current medications include digoxin 0.25 mg and furosemide 40mg for heart failure, both taken daily at 0800. The patient remains adherent to all medications despite nausea, including today's doses. Blood is drawn at 1200 with the following results:

- A. A pre-distribution digoxin concentration, which may be misinterpreted
- B. A post-distribution digoxin concentration, which indicates significant toxicity
- C. Reflects the effect of furosemide on the renal excretion of digoxin
- D. A concentration within the desirable range

Answer(s): C

2. A patient presents with palpitations and shortness of breath. A 12-lead ECG reveals a regular narrow QRS complex supraventricular tachycardia. What is the recommended first-line therapy?

- A. Adenosine
- B. Amiodarone
- C. Lidocaine
- D. Verapamil

Answer(s): A

3. A patient is being discharged on dabigatran, and the pharmacotherapy specialist is counseling the patient's caregiver about the medication. What is the best information to give the caregiver concerning the storage of dabigatran?

A. Keep dabigatran in the original container until ready for use.

B. Refrigerate an opened bottle of dabigatran to increase shelf life.

C. Discard the dabigatran bottle within 60 days of opening.

D. Place dabigatran in a weekly pill planner to aid compliance.

Answer(s): D

4. A pharmacy resident calculates the appropriate gentamicin dose and frequency for an elderly patient on hemodialysis. This skill reflects what type of residency learning?

A. Application

B. Analysis

C. Comprehension

D. Evaluation

Answer(s): A

5. A patient is started on ledipasvir-sofosbuvir. What would be the best indicator of treatment response?

A. HCV RNA below the lower limit of quantification

B. Absence of cryoglobulinemia

C. Absence of alpha-fetoprotein

D. ALT less than three times the upper limit of normal

Answer(s): A

6. A Woman with a history of poison-ivy allergic contact dermatitis presents with widespread well demarcated patches of erythema and vesicles that are oozing and Weeping. Her eyes are nearly closed, due to swelling. Which of the following drugs is most appropriate for this patient?

A. Oral prednisone Oral

B. Diphenhydramine

C. Topical triamcinolone

D. Epinephrine subcutaneous

Answer(s): C

7. Which of the following is the best initial strategy in addition to docusate sodium to prevent constipation in a 45-year-old patient initiating around-the-clock morphine therapy for chronic pain associated with malignancy?

A. Magnesium citrate

B. Psyllium

C. Senna

D. Glycerin suppository

Answer(s): C

8. A patient presents to the emergency department with an acute Ischemic stroke. The symptoms have been present for just over an hour.

A. MRI

B. Neurologic exam

C. Cerebral angiogram

D. CT scan

Answer(s): D

9. In order to assess the effect of a potential metabolic enzyme inhibitor on the clearance of warfarin, the most appropriate study design would be which of the following?

A. Double-blind, two-group parallel, controlled study

B. Randomized crossover study with a washout period between phases

C. Single-phase study with comparison of warfarin clearance to a population average in the literature

D. Single-blind (investigator only), two-group parallel, controlled study

Answer(s): D

10. A hospital requests a policy and procedure document for the monitoring and reporting of significant adverse drug reactions. Which agency requires a policy for the reporting of adverse drug reactions by hospitals?

A. Food and Drug Administration

B. Institute for Safe medication Practices

C. National Committee for Quality Assurance

D. Joint Commission

Answer(s): A

11. The pharmacotherapy specialist-directed research team in a large healthcare system plans to submit a comparative effectiveness study proposal in response to the request for proposals released under the Patient Protection and Affordable Care Act. In designing this study, which category of outcomes should be used for the primary endpoint?

A. Cost savings

B. Patient-centered health

C. Cost-effectiveness

D. Surrogate markers

Answer(s): B

12. A patient with rheumatoid arthritis has been experiencing increased pain over the last 2-3 weeks. The patient's rheumatoid arthritis has previously been controlled with methotrexate and periodic NSAID and steroid use for acute flares. However, currently this regimen is inadequate.

A. Tuberculosis

B. Hepatitis A

C. Legionella

D. Candida

Answer(s): A

13. The Joint Commission requires accredited organizations to encourage which groups to report concerns about safety?

A. Local specific disease support groups

B. Medical students rotating through organizations

C. National special interest groups

D. Patients and families

Answer(s): C

14. A 59-year-old patient who is HIV-positive is receiving darunavir and ritonavir as part of a highly active antiretroviral therapy program. Which herbal supplement is contraindicated for this patient because it would decrease darunavir concentrations?

A. Saw palmetto

B. St. John's wort

C. Kava kava

D. Echinacea

Answer(s): B

15. A 47-year-old patient with type 2 diabetes mellitus reports severe painful burning and tingling in the lower extremities. The patient has been taking ibuprofen and using topical capsaicin without relief. Which recommendation is the most appropriate therapy for this patient's peripheral neuropathy?

A. Sertraline

B. Amitriptyline

C. Lamotrigine

D. Tramadol

Answer(s): B

16. Which of the following is an advantage of a crossover-design clinical trial?

A. Smaller sample size needed

B. No carryover effect

C. No randomization needed

D. No period effect

Answer(s): C

17. In designing a clinical trial, the method utilized to deal with inherent differences between groups is to:

A. Use a control or comparison group.

B. Use blinding techniques.

C. Assign patients to groups randomly.

D. Evaluate the results using statistical methods.

Answer(s): B

18. A 13-year-old boy who has asthma, weight 32kg, height 150cm, takes inhaled salmeterol one puff twice daily and inhaled fluticasone 2 puffs twice daily. The patient must stop participation in physical education classes after a few minutes due to shortness of breath. To allow the patient to participate longer, the most effective measure would be to add which of the following?

A. An extra dose of inhaled salmeterol 30-60 minutes before class

B. An extra dose of inhaled fluticasone 1-2 hours before class

C. Inhaled albuterol 15 minutes before class

D. Inhaled cromolyn 30-60 minutes prior to class

Answer(s): C

19. A 54-year-old male patient (BSA = 1.8 m²) is being treated for head and neck cancer with the following regimen:

A. Thirty minutes before Cisplatin on day 1

B. One dose 30 minutes before Cisplatin and a repeat dose immediately before 5- fluorouracil on day 1; then repeat daily before 5-fluorouracil

C. Thirty minutes prior to Cisplatin, thereafter as needed for nausea

D. Daily prior to 5-fluorouracil infusion on days 1 through 5

Answer(s): A

20. The prophylaxis of postsurgical deep vein thrombosis was reviewed in an article published 5 years ago. A researcher wishes to identify any studies since then that have used this article as a reference. What is the most appropriate database for this search?

A. The Cochrane Collaboration

B. Science Citation Index

C. MEDLINE

D. International Pharmaceutical Abstracts

Answer(s): C
