

North American Pharmacist Licensure Examination (NAPLEX)

1. Which of the following represents the major route of metabolism for acetaminophen?

A. Glucuronidation

B. Sulfation

C. Cytochrome P-450 oxidation

D. Direct renal excretion

E. Plasma breakdown

Answer(s): A

2. A 15-year-old presents with 6 days of nasal congestion with thin, clear rhinorrhea. She notes mild facial pain but has had no fevers. She feels her symptoms are improving.

What is the most likely cause of her symptoms?

A. *Streptococcus pneumoniae*

B. Viral

C. *Moraxella catarrhalis*

D. *Haemophilus influenzae*

E. *Staphylococcus aureus*

Answer(s): B

3. A 72-year-old woman suffers from a major depressive episode. She has a history of coronary artery disease, atrial fibrillation on anticoagulation therapy, sick sinus syndrome, glaucoma, and chronic obstructive pulmonary disease.

Which of the following medications is most appropriate for the treatment of her depression?

A. Amitriptyline

B. Nortriptyline

C. Doxepin

D. Fluvoxamine

E. Escitalopram

Answer(s): E

4. Which of these is an example of postrenal acute kidney injury (AKI)?

A. Benign prostatic hyperplasia

B. Heart failure

C. Dehydration

D. Renal vein thrombosis

Answer(s): A

5. A 20-year-old student came to the emergency department with primary complaints of palpitations, low-grade fever, and anxiety for 2 months. She reports that she is irritable and suffers severe mood swings that is interfering with her sleep and relationships (she admits to crying spells and frequent fights with friends and family). She has also lost 12 pounds in the past 2 months with no apparent alteration in her diet or physical activity (though she is happy with her weight loss). She denies any past medical problems, though her friends have always been worried that she eats too little.

Her temperature is 38.0 C (100.4 F), blood pressure is 148/62 mm Hg, pulse is 122/min and regular, and respiratory rate is 28/min. Examination reveals a bruit heard over the anterior neck,

fine tremor of the hands, and warm, moist skin. Her eyes and eyelids do not move together during finger following test (with steady head). Laboratory work is sent, including a thyroid panel, but will not be available until tomorrow morning.

Which of the following is the most appropriate initial management at this time?

A. Diltiazem therapy

B. Iodine therapy

C. Methimazole therapy

D. Propranolol therapy

E. Referral to a surgeon

Answer(s): D

6. What is the best anti-thyroid regimen in a pregnant woman who has clinically significant hyperthyroidism?

A. Stop treatment and resume post-partum

B. Propylthiouracil

C. Methimazole

D. Propylthiouracil first trimester followed by methimazole for the remainder of pregnancy

E. Methimazole first trimester followed by propylthiouracil for the remainder of pregnancy

Answer(s): D

7. Which of the following is true regarding extent of absorption of drugs?

A. After oral ingestion of drugs, the absorption of drug may be incomplete

B. Drugs which are too lipophilic cannot cross the lipid cell membrane

C. Drugs which are too hydrophilic are not soluble enough to cross the water layer adjacent to the cell

D. P-glycoprotein is an efflux transporter which is present in the enterocytes and it enhances the absorption of drug

E. Grape juice activates P-glycoprotein leading to substantial inhibition of absorption of drugs

Answer(s): A

8. Your patient is a 58-year-old male who presents with onset of severe substernal chest pain and shortness of breath. An ECG reveals an acute STEMI, and he is on his way to the cardiac catheterization suite for percutaneous coronary intervention.

Which of the following drugs used in acute coronary syndromes treated with PCI must undergo oxidation by hepatic P450 enzymes to an active form?

A. Clopidogrel

B. Ticlopidine

C. Eptifibatide

D. Aspirin

E. Warfarin

Answer(s): A

9. A patient with multibacillary leprosy is on dapsone, clofazimine, and rifampin. Which of the following is true regarding the mechanism of action of the medications listed?

A. Dapsone is bacteriostatic because of its inhibitory effects on dihydrofolate reductase

B. Dapsone is bacteriostatic because of its inhibitory effects on myeloperoxidase

C. Clofazimine is bactericidal by directly inhibiting bacterial DNA polymerase

D. Rifampin is bacteriostatic by inhibiting RNA synthesis by blocking DNA-dependent RNA polymerase

E. Rifampin is bactericidal by inhibiting RNA synthesis by blocking DNA-dependent RNA polymerase

Answer(s): E

10. You prescribe doxepin to a 37-year-old woman to treat neurotic excoriations on her arms. The patient is concerned about the side effects of this drug. Which of the following is not a side effect of doxepin:

A. Xerostomia

B. Liver toxicity

C. Somnolence

D. Urinary retention

E. Constipation

Answer(s): B

11. Which of the following illnesses is an example of a type III hypersensitivity reaction?

A. Lupus

B. Graves disease

C. Hashimoto's thyroiditis

D. Allergic rhinitis

E. Myasthenia gravis

Answer(s): A

12. Which of the following is a side effect of valproic acid?

A. Gingival hyperplasia

B. Pancreatitis

C. Kidney stones

D. Weight loss

E. Euphoria

Answer(s): B

13. A 55-year-old female is receiving chemotherapy for metastatic carcinoma. She threatens to stop her treatment because of severe nausea and vomiting. The oncologist plans to use prochlorperazine to reduce the nausea and vomiting associated with chemotherapeutic agents. What is the mechanism of action of prochlorperazine?

A. Serotonin 5-HT₃ antagonist

B. Blocking dopamine receptors

C. Cannabinoids related

D. Blockage of prostaglandins

E. H₂ receptor antagonist

Answer(s): B

14. A 27-year-old female with ovarian cancer is undergoing chemotherapy. She develops subsequent renal failure.

Which of the following drugs is most likely responsible for this?

A. Cyclophosphamide

B. Bleomycin

C. Cisplatin

D. Vinblastine

E. Vincristine

Answer(s): C

15. Your patient is a 43-year-old male who is experiencing post-operative voiding difficulty after an elective inguinal hernia repair. His post void residual volume was 280 cc.

Which of the following medications is the most appropriate choice of therapy for this patient?

A. Bethanechol

B. Oxybutynin

C. Phenylephrine

D. Finasteride

E. Imipramine

Answer(s): A

16. Which of the following statements is true regarding Drug-receptor bonds?

A. Covalent bonds of drugs with receptors are strong and mostly reversible

B. Covalent bonding is much more common than electrostatic bonding in drug-receptor interactions

C. Electrostatic bonds are stronger than covalent bonds

D. Hydrophobic bonds are weak bonds and they are important in the interactions of highly water soluble drugs with the lipids of cell membranes

E. Bond formation of between the acetyl group of aspirin and cyclo-oxygenase enzyme is a covalent bond

Answer(s): E

17. Which of the following NSAIDs is an Enolic acid derivative?

A. Ibuprofen

B. Piroxicam

C. Naproxen

D. Oxaprozin

E. Fenoprofen

Answer(s): B

18. A 67-year-old female presents to your clinic complaining of fatigue, diarrhea, headaches and a loss of appetite. Upon examination you find that she is having some cognitive difficulty. Laboratory results reveal: MCV: 109fL; Hgb: 9g/dL; MMA and homocystine are both elevated. Shilling test is positive.

What is the next best step in the management of this patient?

A. Lifelong folic acid supplementation

B. Lifelong Vitamin B12 supplementation

C. Iron supplementation for 4-6 months

D. Obtain a Coomb's test

E. Give corticosteroids and iron supplementation

Answer(s): B

19. Your patient, a 25-year-old G1P0 female at 26 weeks gestation presents due to an abnormal glucose tolerance test. One week prior, she was given 50 g of oral glucose and demonstrate a

venous plasma glucose level of 156 mg/dL one hour later.

Which of the following is the most appropriate next step of management?

A. Repeat the 50 g oral glucose challenge

B. Administer an oral, 3-hour 100 g glucose dose

C. Advise the patient to follow an American Diabetic Association diet plan

D. Begin insulin treatment

E. Order a fetal ultrasound examination

Answer(s): B

20. A 23-year-old female presents to your clinic complaining of intermittent throbbing headaches that usually last for several hours and are made worse by the presence of light. She endorses occasional nausea without vomiting during the most severe episodes. Physical examination is unrevealing, and she has no significant past medical history.

Which of the following treatments is considered an abortive therapy for this patient's underlying condition?

A. Sumatriptan

B. Gabapentin

C. Amitriptyline

D. Propranolol

E. Diltiazam

Answer(s): A
