PHB

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Course Name	**: D. Pharm**
Year	**: Second Year**
Subject Name	**: Pharmacology**
Topic Name	**: Excretion of drugs**

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Excretion of drugs

1. Which one of the following is the principal organ for drug excretion?

a) Lungs

b) Liver

c) Kidneys

d) Sweat glands

Answer: c) Kidneys

2. Which of the following is not a category of compounds excreted in bile?

a) Drugs with bile/plasma concentration ratio approximately 1

b) Drugs with bile/plasma concentration ratio between 10-1000

c) Drugs with bile/plasma concentration ratio of less than 1

d) Drugs with bile/plasma concentration ratio above 1000

Answer: d) Drugs with bile/plasma concentration ratio above 1000

3. What is the molecular weight cut off for biliary excretion?

a) Less than 300 Dalton

b) More than 300 Dalton

c) Less than 200 Dalton

d) More than 200 Dalton

Answer: b) More than 300 Dalton

4. What is the equation for biliary clearance?

a) No such equation is there

b) Biliary excretion rate/ plasma drug concentration

c) Plasma drug concentration / biliary excretion rate

d) Plasma drug concentration / Bile flow * biliary drug concentration

Answer: b) Biliary excretion rate/ plasma drug concentration

5. For a certain drug, the bile flow rate is 0.7 ml/min, the biliary drug concentration is 2g/ml and the plasma drug concentration is 0.8g/ml. What will be the bile clearance?

a) 1.50 ml/min

b) 1.75 ml/min

c) 2.75 ml/min

d) 3 ml/min

Answer: b) 1.75 ml/min

6. In the following diagram, which organ is responsible for excretion into the small

intestine?

a) Small intestine

b) Large intestine

c) Liver

d) Kidney

Answer: c) Liver

7. Which compounds are excreted through the lungs?

a) Lipophilic

b) Gaseous

c) Liquid and hydrophilic

d) Solid less than 100 Dalton

Answer: b) Gaseous

8. What is the pH of the milk secreted by human mothers?

a) 6.4-7.6

b) 5.4-6.6

c) 7-8

d) 6-7

Answer: a) 6.4-7.6

9. What is the mechanism of drug excretion for skin excretion?

a) Active secretion

b) Glomerular secretion

c) Passive diffusion

d) Passive reabsorption

Answer: c) Passive diffusion

10. What is the mechanism of drug excretion for biliary excretion?

a) Active secretion

b) Glomerular secretion

c) Passive diffusion

d) Passive reabsorption

Answer: a) Active secretion

11. Which of the following is not a factor influencing pulmonary excretion?

a) Pulmonary blood flow

b) The solubility of volatile substance

c) Rate of respiration

d) Heart rate

Answer: d) Heart rate

12. How is renal clearance expressed mathematically?

a) Rate of urinary excretion/plasma drug concentration

b) Plasma drug concentration/rate of urinary excretion

c) 1/ Plasma drug concentration

d) 1/rate of urinary excretion

Answer: a) Rate of urinary excretion/plasma drug concentration

13. What is the driving force for glomerular filtration?

a) Concentration gradient

b) Hydrostatic pressure of plasma

c) High amount of aqueous pores

d) Hydrostatic pressure of blood flow

Answer: d) Hydrostatic pressure of blood flow

14. Which of the following compounds are used as agents to determine Glomerular Filtration Rate?

a) Calcium ion

b) Albumin

c) Creatinine

d) Calcium carbonate

Answer: c) Creatinine

15. Does the rate of urine flow influence the extent of reabsorption?

a) True

b) False

Answer: a) True

16. Drug elimination involves which of the following processes?

a) ADME

b) DME

c) ME

d) E only

Answer: c) ME

17. What is filtration fraction?

a) Fraction of plasma passing through the kidney which is filtered at glomerulus

b) Ratio of iulin clearance to PAH clearance

c) Ration of CFR to RPF

d) None of them

Answer: c) Ration of CFR to RPF

18. What is creatinine clearance used as a measurement for?

a) Glomerular filtration rate

b) Renal excretion rate

c) Passive renal excretion

d) Drug metabolism rate

Answer: a) Glomerular filtration rate

19. Which of the following is a major route of drug excretion?

A) Metabolism

B) Exhalation

C) Urine

D) Sweat

Answer: C) Urine

20. Drug excretion primarily occurs through which of the following processes?

A) Filtration

B) Absorption

C) Digestion

D) Synthesis

Answer: A) Filtration