

PHARMACOLOGY MULTI CHOICE

- 1) Which has a half life of 6 hours?
 - a) Aspirin
 - b) Digoxin
 - c) Atenolol
 - d) Diazepam

- 2) Regarding Pharmacokinetics and Pharmacodynamics, which is correct?
 - a) Diffusion is inversely proportionate to surface area and directly proportionate to thickness
 - b) The LD₅₀ is 50% of the dose that kills most people
 - c) The LD₅₀ is 50% of the dose at which toxicity occurs
 - d) Efficacy is the maximum response produced by a drug

- 3) Regarding therapeutic index (TI), which is correct?
 - a) LD₅₀ is equal to it
 - b) A small TI means the drug is safe
 - c) It compares the ED₅₀ to TD₅₀
 - d) It compares TD₅₀/ED₅₀

- 4) A young healthy man is injected with a normal dose of a drug. His dilated pupils and hypertension are caused by
 - a) Morphine
 - b) Adrenaline
 - c) Atropine
 - d) Aspirin

- 5) Regarding Ketamine, which is correct?
 - a) It has no emergence phenomena
 - b) It depresses laryngeal reflexes
 - c) It is a cardiovascular stimulant

- 6) Regarding Cimetidine, which is incorrect?
 - a) It may cause gynaecomastia
 - b) It may increase antral contractility
 - c) It's T_{1/2} is 1.9 hrs
 - d) It induces liver enzymes

- 7) All of the following induce cytochrome P450 except
 - a) Carbamazepine
 - b) Cimetidine
 - c) Rifampin
 - d) Griseofulvin
 - e) Phenytoin

- 8) Regarding pharmacodynamics in the elderly, which of the following is true?
 - a) Lignocaine has a shorter T_{1/2}
 - b) Ethanol clearance is decreased
 - c) Phase II metabolism is increased
 - d) Digoxin has a smaller V_d
 - e) There is decreased absorption of paracetamol

- 9) Regarding Pralidoxime
 - a) It cleaves organophosphate from acetylcholinesterase
 - b) It inhibits presynaptic acetylcholine release
 - c) It regenerates acetylcholine

- 10) Regarding Angiotension Converting Enzyme inhibitors, which is false?

- a) Use can produce angioneurotic oedema
 - b) Use can produce cough
 - c) They have no effect on Bradykinin
 - d) They are known to cause acute renal failure
 - e) They are contraindicated in the 2nd and 3rd trimester
- 11) Which antibiotic is not an aminoglycoside?
- a) gentamycin
 - b) tobramycin
 - c) streptomycin
 - d) neomycin
 - e) vancomycin
- 12) Regarding SSRIs
- a) They are effective in treating OCD
 - b) Paroxetine is more sedating than Tricyclics
 - c) Interaction with morphine may precipitate serotonin syndrome
 - d) Fluoxetine does not have an active metabolite
- 13) Dextropropoxyphene
- a) Is structurally related to methadone
 - b) Overdose causes death from hepatotoxicity
 - c) When combined with paracetamol is a strong anti inflammatory
- 14) Which of these side effects can be caused by loop diuretics?
- a) Ototoxicity
- 15) Adenosine
- a) Acts by blocking Ca⁺⁺ channels
 - b) Markedly depresses SA node
 - c) Decreases K⁺ conductance
 - d) T_{1/2} 10 mins
- 16) Regarding antiemetics
- a) Metoclopramide increases lower esophageal sphincter tone
 - b) Ondansetron is a dopamine agonist
 - c) Marijuana has an antiemetic effect
- 17) Regarding the T_{1/2} of Naloxone
- a) It is greater than 4 hours
 - b) It is less than 1 hour
 - c) It is between 1-2 hours
 - d) It is between 3 –4 hours
- 18) Metoclopramide
- a) Increases antral contractility
- 19) Regarding enzyme induction
- a) It is irreversible
 - b) It takes 4 months
 - c) It results in an increase in smooth ER
 - d) It causes an increase in rough ER
- 20) Regarding Theophylline toxicity
- a) Seizures are not associated with warning signs
 - b) It is associated with hyperkalemia
 - c) Overdose of slow release tablets will give a peak serum level in 6 hours
- 21) Which raises the PH of urine the most?

- a) Frusemide
 - b) Acetazolamide
 - c) Chlothiazide
 - d) Phenobarbitone
- 22) Penicillin V
- a) Can be given oral or IV
 - b) Should have the dose reduced in mild renal failure
 - c) Should be given on an empty stomach
 - d) Is effective for treating eye infections
- 23) Propofol
- a) Accumulates in the body
 - b) Can produce abnormal muscle movements
 - c) Has minimal effects on the CVS
- 24) Histamine does all of the following except
- a) Decreases systolic blood pressure
 - b) Decreases diastolic blood pressure
 - c) Decreases myocardial contractility
 - d) Increases contractility of GI muscle
- 25) Serotonin
- a) Is an appetite suppressant
 - b) Causes vascular smooth muscle dilation
 - c) Causes GI smooth muscle contraction
 - d) Causes nausea
 - e) All of the above
- 26) Regarding paracetamol toxicity
- a) Toxicity is related to glutathione consumption
 - b) It is enhanced with cimetidine
 - c) The production of the toxic metabolite is secondary to sulphation
- 27) Which is incorrect?
- a) Disinfectants clean non-living fields
 - b) Antiseptics clean living fields
 - c) Antiseptics in low dose can promote bacterial growth
 - d) Alcohol readily kills bacteria and spores
- 28) Which does not interact with warfarin?
- a) Phenobarbitone
 - b) Loop diuretics
 - c) Benzodiazepines
 - d) Cephalosporins
- 29) Hydralazine
- a) Classically has a biphasic response in BP control
 - b) Should not be used in eclampsia
 - c) Causes significant postural hypotension
 - d) Is predominantly a vasodilator
- 30) Regarding Oxygen Toxicity
- a) Occurs when breathing 50% O₂ for more than 24 hours
 - b) Only has an effect on the eye in children
 - c) Lung effects are more related to FIO₂ than PI_{O2}
 - d) Can produce CNS signs like stroke and extrapyramidal effects
 - e) CNS occur first if PO₂ increases rapidly above 3 atmospheres
- 31) Digoxin exerts its effects by

- a) Increasing intracellular calcium
- 32) Norfloxacin
 a) Cannot be used to treat travellers' diarrhoea
 b) Levels can be increased by probenecid
 c) T_{1/2} is 12 hours
- 33) Chloramphenicol
 a) Is used to treat ocular chlamydial infections
 b) Is used as a systemic treatment for genital chlamydia
 c) Reaches similar levels in CSF as in serum
 d) Causes aplastic anaemia in 1 in 2000
- 34) Sulphonamides is a structural analogue of
 a) PABA
 b) Dihydrofolate
 c) Tetrahydrofolate
 d) Folic Acid
- 35) Isoprenalin does not do which of the following
 a) Increases renin
 b) Increases glycogenolysis
 c) Increases blood glucose
 d) Increases diastolic blood pressure
- 36) Side effects of thiazide diuretics include
 a) Hypouricaemia
 b) Hypoglycaemia
 c) Hyperkalemia
 d) Hyponatremia
- 37) Regarding aspirin, which of the following is true?
 a) It has a P_{ka} of 6.5
 b) It is a reversible inhibitor of cyclooxygenase
 c) It decreases temperature by causing vasodilation
 d) At low doses, metabolism follows zero order kinetics
- 38) Aspirin
 a) Is an antipyretic, analgesic, antiinflammatory
- 39) Regarding diffusion across cell membranes
 a) Is increased for acids in an acidic medium
 b) Ionized drugs cross easily
- 40) A man who has been treated for hypothyroidism 3/12 ago, is now febrile and neutropaenic; the drug that caused this was probably:
 a) Iodine
 b) Propylthiouracil
 c) None of the above
- 41) Regarding Phenytoin
 a) Metabolism follows first order kinetics at low doses
 b) It is poorly absorbed orally
 c) It works at GABA channels
- 42) Regarding glucocorticoids, which is incorrect?
 a) They do not have any effects on a developing foetus
- 43) Which is true?

- a) Benzodiazepines have a cyclic structure
- 44) 5ml of 2% wv is equal to:
a) 10mg
b) 100mg
c) 200mg
d) 20mg
e) 40mg
- 45) Which shortens the refractory period in normal cells?
a) Amiodarone
b) Sotalol
c) Quinidine
d) Lignocaine
e) Procainamide
- 46) Which does not act on fibrinolysis?
a) Streptokinase
b) Urokinase
c) Aminocaproic acid
d) Heparin
e) TPA
- 47) What drugs do not affect warfarin metabolism?
a) Phenobarbitones
b) Rifampin
c) Cimetidine
d) Benzodiazepenes
- 48) Regarding neuromuscular blockers, which is true?
a) Gentamicin increases their efficacy
b) Gallamine is eliminated by the liver
c) Vecuronium is a NSAID
d) Doxacurium causes hypotension in a volume depleted patient
e) Suxamethonium decreases intra-ocular pressure
- 49) Local anaesthetics
a) Act on rapidly firing neurons
b) Act on largest diameter nerves first
c) Act on hyperpolarised neurons
- 50) Iron may cause the following side effects, except:
a) Reticulocytosis
b) Abdominal cramps
c) Black stools
d) Nausea
e) Thrombocytopaenia
- 51) Metoprolol
a) Has no effect on renin release
b) Is non-selective
c) Has more of a bronchoconstrictor effect than propranolol
d) T_{1/2} is 3-4 hours
- 52) Erythromycin
a) Binds to 50s ribosomal RNA and inhibits protein synthesis
- 53) Which antibiotic/s affects the cell wall (or has/have a B-lactam ring)?

- a) Doxycycline
 - b) Tetracyclines
 - c) Cephalosporins
 - d) Minocycline
- 54) Regarding Quinolones, Norfloxacin
- a) Has its plasma concentration increased by probenecid
 - b) Can be used to treat traveller's diarrhoea
 - c) Inhibits bacterial DNA synthesis
 - d) All of the above
- 55) Which of the following does not require a dose reduction in CRF?
- a) Doxycycline
 - b) Tetracycline
 - c) Gentamicin

ANSWERS

- 1) C
- 2) E
- 3) D
- 4) B
- 5) C
- 6) D
- 7) B
- 8) D
- 9) A
- 10) C
- 11) E
- 12) A
- 13) A
- 14) A
- 15) A
- 16) A & C
- 17) C
- 18) A
- 19) C
- 20) A
- 21) B
- 22) C
- 23) B
- 24) C
- 25) All of the above
- 26) A
- 27) D
- 28) C
- 29) D
- 30) ?E Can't remember why I think E, but I do.
- 31) A
- 32) B
- 33) C
- 34) A
- 35) D
- 36) D
- 37) C
- 38) A
- 39) A
- 40) B or C, depending o how you read the question, ie none of them were used to treat HYPOthyroidism. Propylthiouracil does cause fevers and neutropaenia.
- 41) A
- 42) A
- 43) A
- 44) A
- 45) D
- 46) D
- 47) D
- 48) A NB I think it depends on what the other options are. See Adam Coulson's questions, no 109. We thought Gentamicin definitely increased the duration of action, but ? efficacy
- 49) A
- 50) E
- 51) D
- 52) A
- 53) C
- 54) D
- 55) A