

Hi all.

It's all probably doing your heads in at the moment.

Well, there are about 70 questions here, I'd be betting for about 10 free marks minimum.

If you haven't done all the MCQs once, start making that your absolute priority. Do the ones you get wrong five times. There is no reason not to know all the MCQs.

You'll be fine.

Ben.

Pharmacology

1. Frusemide
 - a. Not useful in preventing acute mountain sickness
 - b. Does something to Ca^{++} .
2. Allopurinol
 - a. Causes acute gout initially
 - b. Cant be used with colchicine
3. Gastrointestinal drugs
 - a. Ondansetron is a serotonin agonist
 - b. Maxolon increases lower oesophageal pressure
 - c. Maxolon is a dopamine agonist
 - d. Stemetil primarily acts on the GIT
 - e. Maxolon primarily acts on the GIT
4. Tramadol
 - a. Acts at Kappa
 - b. Naloxone completely antagonises tramadol
 - c. Ondansetron antagonises
5. Non depolarising muscle relaxants
 - a. Vec longer than panc
 - b. Panc and vec have different structure
 - c. Panc causes histamine release
 - d. Mirvacurium longer than panc
6. Anti-virals
 - a. Valacyclovir is immediately metabolised to acyclovir
 - b. AZT used as there is no resistance
 - c. AZT is an antiprotease
 - d. Valacyclovir is available topical/oral/i.v.
 - e. Acyclovir is used for CMV
7. Digoxin
 - a. Crosses BBB
 - b. Lasix doesn't interfere
8. H_2 -receptor antagonists, which is FALSE?
 - a. Cause decreased acid secondary to histamine/gastrin/ACh decrease
 - b. Can affect H_1
9. Paracetamol
 - a. Has moderate anti-inflammatory action
 - b. OD is treated by replacing sulfhydryl groups
 - c. NABQI is the major metabolite
10. Succinylcholine
 - a. Crosses BBB
 - b. Limbs affected before pharynx
 - c. Going for a walk post op improves pain
 - d. Doesn't affect autonomic ganglia
 - e. Duration of paralysis is 20 minutes
11. Serotonin
 - a. Causes vasoconstriction
 - b. Inhibits platelet aggregation
12. St John's Wort
 - a. Side effects are greater than placebo
13. Nitrates
 - a. Act via cGMP/NO
14. Fluoxetine
 - a. Inhibits P450
15. Genitourinary drugs
 - a. Opioids decrease bladder tone
 - b. Opioids do something else
 - c. Ganglion blockers increase flow
 - d. Muscurinic something

16. Adrenoceptors
 - a. Labetolol has β_1 β_2 and α
17. Ibuprofen
 - a. GI side effects (bleeds) are less than aspirin
 - b. Is COX-2 specific
18. Sodium Valproate
 - a. >80% bioavailability
 - b. not protein bound
 - c. $V_d > 10L/kg$
 - d. $T_{1/2}$ 36 hrs
 - e. Metabolised by/?renally cleared
19. Patient with pupils dilated; increased temp; tachy; confused – LEAST likely to be:
 - a. Atropine
 - b. Other atropine (daytura)
 - c. Other atropine (niteshade)
 - d. Aspirin (we all said this)
 - e. A weird benzo commonly used in the UK/Ireland for alcohol withdrawal (I'd never heard of it, this was the correct answer) (Carla says – chlordiazepoxide, aka Librium)
20. Proton pump inhibitors
 - a. Act on epithelial cells
 - b. Are not teratogenic in rats
 - c. Interfere with M^+/H^+ ATPase (the M typo was in the exam).
21. Verapamil
 - a. Block open and closed Ca channels
 - b. Causes diarrhoea
 - c. Causes skeletal muscle weakness only
22. Adenosine
 - a. $t_{1/2}$ 5 mins
 - b. Blocks SA node
 - c. Blocks K^+
 - d. Blocks Ca^{++}
23. Drugs of Abuse
 - a. MDMA doesn't change serotonin
 - b. LSD leads to dependence
 - c. THC is not dose dependant
 - d. Nicotine is not specific
 - e. GHB hyperpolarises dopanergic neurons in high doses
24. Drug Trials
 - a. Phase 3 are multicenter large trials
 - b. Phase 3 are small trial on healthy volunteers
 - c. Something about profitability
 - d. Something about five phases
25. Which bronchodilates
 - a. Ketamine
 - b. Sodium cromoglycate
26. Norfloxacin
 - a. Probenecid increases plasma concentration
27. Antibiotics
 - a. Cloxacillin is β -lactamase resistant
28. Bioavailability
 - a. Is inversely proportional to extraction ratio
 - b. PR has no first pass metabolism
 - c. Topical has first pass

Pharmacology

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44. Adrenoceptors

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- 45. Ibuprofen
 - a. GI side effects (bleeds) are less than aspirin
 - b. Is COX-2 specific
- 46. Sodium Valproate
 - a. >80% bioavailability
 - b. not protein bound
 - c. $V_d > 10L/kg$
 - d. $T_{1/2}$ 36 hrs
 - e. Metabolised by/?renally cleared
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 - d. Aspirin (we all said this)
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 - a. Cloxacillin is β -lactamase resistant
- 56. Bioavailability
 - a. Is inversely proportional to extraction ratio
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 - c. Topical has first pass

Pharmacology

1. Frusemide
 - a. Not useful in preventing acute mountain sickness
 - b. Does something to Ca^{++} reduces calcium (used for hypercal)
2. Allopurinol
 - a. Causes acute gout initially yes
 - b. Can't be used with colchicines can
3. Gastrointestinal drugs
 - a. Ondansetron is a serotonin agonist - no 5HT₃ ANTAGONIST
 - b. Maxolon increases lower oesophageal pressure
 - c. Maxolon is a dopamine agonist no Dopamine ANTAGONST
 - d. Stemetil primarily acts on the GIT no, central
 - e. Maxolon primarily acts on the GIT - central D2 Rs; GIT motility, ↓ sensitivity afferents
4. Tramadol - atypical opioid, mild μ receptor ag, also modulates GABAergic/Noradr/Adr/5HT
 - a. Acts at Kappa ? no μ
 - b. Naloxone completely antagonises tramadol - no (& this demonstrates non-opioid analgesic effects)
 - c. Ondansetron antagonises - ? no
5. Non depolarising muscle relaxants
 - a. Vec longer than panc - no Panc = longer acting
 - b. Panc and vec have different structure - ? no, both sterols
 - c. Panc causes histamine release - ? no
 - d. Mirvacurium longer than panc -no Mir = 12-18 mins; Panc = 180/more mins
6. Anti-virals
 - a. Valacyclovir is immediately metabolised to acyclovir ??? converted to acyclovir by hepatic first pass metabolism
 - b. AZT used as there is no resistance no, used in comb
 - c. AZT is an antiprotease no NRTI
 - d. Valacyclovir is available topical/oral/i.v.
 - e. Acyclovir is used for CMV ??no
7. Digoxin
 - a. Crosses BBB
 - b. Lasix doesn't interfere - does indirectly by reducing K^+
8. H₂-receptor antagonists, which is FALSE?
 - a. Cause decreased acid secondary to histamine/gastrin/ACh decrease
 - b. Can affect H₁
9. Paracetamol
 - a. Has moderate anti-inflammatory action - no
 - b. OD is treated by replacing sulfhydryl groups - yes, NAC does, mainly in the form of glutathione
 - c. NABQI is the major metabolite - no, toxic minor
10. Succinylcholine
 - a. Crosses BBB ? no (low lipid solubility; hydrolysed in plasma)
 - b. Limbs affected before pharynx ?? yes
 - c. Going for a walk post op improves pain no
 - d. Doesn't affect autonomic ganglia no
 - e. Duration of paralysis is 20 minutes no <8mins duration of action

11. Serotonin
- a. Causes vasoconstriction YES
 - b. Inhibits platelet aggregation ?no stored in granules, signalling
12. St John's Wort
- a. Side effects are greater than placebo
13. Nitrates
- a. Act via cGMP/NO
14. Fluoxetine
- a. Inhibits P450
15. Genitourinary drugs
- a. Opioids decrease bladder tone no, retention
 - b. Opioids do something else ?
 - c. Ganglion blockers increase flow ?
 - d. Muscurinic something ?
16. Adrenoceptors
- a. Labetolol has β_1 β_2 and α labetalol is not B_1 selective
17. Ibuprofen
- a. GI side effects (bleeds) are less than aspirin yes, but depends on dose
 - b. Is COX-2 specific no
18. Sodium Valproate
- a. >80% bioavailability
 - b. not protein bound highly
 - c. $V_d > 10L/kg$ no, small 0.15 L/kg
 - d. $T_{1/2}$ 36 hrs 9-18hrs
 - e. Metabolised by/?renally cleared met liver
19. Patient with pupils dilated; increased temp; tachy; confused – LEAST likely to be:
- a. Atropine
 - b. Other atropine (daytura)
 - c. Other atropine (niteshade)
 - d. Aspirin (we all said this)
 - e. A weird benzo commonly used in the UK/Ireland for alcohol withdrawal (I'd never heard of it, this was the correct answer) (Carla says – chlordiazepoxide, aka Librium)
20. Proton pump inhibitors
- a. Act on epithelial cells ?parietal
 - b. Are not teratogenic in rats – ARE teratogenic in rates, contraindic in preg
 - c. Interfere with M^+/H^+ ATPase (the M typo was in the exam) K^+/H^+
21. Verapamil
- a. Block open and closed Ca channels ?only open channel blocker
 - b. Causes diarrhoea no, constipation
 - c. Causes skeletal muscle weakness only ?no
22. Adenosine
- a. $t_{1/2}$ 5 mins no 10 seconds
 - b. Blocks SA node ?no, AV node
 - c. Blocks K^+ no increases K^+ out flux
 - d. Blocks Ca^{++} ?no

23. Drugs of Abuse

- a. MDMA doesn't change serotonin no, stim release & inhibits reuptake
- b. LSD leads to dependence no
- c. THC is not dose dependant no
- d. Nicotine is not specific ?
- e. GHB hyperpolarises dopaminergic neurons in high doses –??maybe
GHB = GABA agonist

24. Drug Trials

- a. Phase 3 are multicenter large trials YES
- b. Phase 3 are small trial on healthy volunteers - no
- c. Something about profitability
- d. Something about five phases

25. Which bronchodilates

- a. Ketamine - ?yes
- b. Sodium cromoglycate – does not

26. Norfloxacin

- a. Probenecid increases plasma concentration – competes for tubular secretion

27. Antibiotics

- a. Cloxacillin is β -lactamase resistant – yes

28. Bioavailability

- a. Is inversely proportional to extraction ratio - no
- b. PR has no first pass metabolism – no, depends on placement
- c. Topical has first pass - yes