

МИНИСТЕРСТВО ЗДРАВООХРАНЕНИЯ РЕСПУБЛИКИ БЕЛАРУСЬ
УЧРЕЖДЕНИЕ ОБРАЗОВАНИЯ
«ГОМЕЛЬСКИЙ ГОСУДАРСТВЕННЫЙ МЕДИЦИНСКИЙ УНИВЕРСИТЕТ»

Кафедра общей и клинической фармакологии

КЛИНИЧЕСКАЯ ФАРМАКОЛОГИЯ В ВОПРОСАХ И ОТВЕТАХ

**Учебно-методическое пособие для иностранных студентов
учреждений высшего медицинского образования,
обучающихся на английском языке
по специальности 1-79 01 01 «Лечебное дело»**

CLINICAL PHARMACOLOGY IN QUESTIONS AND ANSWERS

**Course material aid for foreign students
of higher medical educational institutions studying
in the speciality 1-79 01 01 «General Medicine»**

**Гомель
ГомГМУ
2023**

УДК 615.3 (072+076.3)=111

ББК 52.817я73-4=432.1

К49

Авторы:

*Е. И. Михайлова, А. В. Сенникова, Б. С. Ярошевич,
М. Н. Мирге, О. С. Першенкова, Г. М. Бронская, Л. И. Новогран*

Рецензенты:

*кафедра фармакологии имени профессора М. В. Кораблева
Гродненского государственного медицинского университета
(заведующий кафедрой – доктор биологических наук,
доцент В. И. Козловский);*

кандидат медицинских наук, врач-клинический фармаколог
Республиканского научно-практического центра
радиационной медицины и экологии человека

Д. И. Гавриленко

Клиническая фармакология в вопросах и ответах : учеб.-метод. пособие = *Clinical pharmacology in questions and answers : Course material aid* / Е. И. Михайлова [и др.]. – Гомель : ГомГМУ, 2023. – 221 с.
ISBN 978-985-588-282-5.

Учебно-методическое пособие является элементом единого учебно-методического комплекса. Оно представляет собой руководство для самостоятельной работы студентов, обучающихся на английском языке, по клинической фармакологии. Пособие составлено в соответствии с программой по клинической фармакологии по специальности 1-79 01 01 «Лечебное дело».

В обучающие задания введены контрольные вопросы, тестовые задания по общим и частным вопросам клинической фармакологии (фармакодинамика, фармакокинетика, взаимодействие лекарственных средств, нежелательные эффекты, показания к назначению препаратов и их дозирование, противопоказания, особенности применения препаратов у детей и беременных женщин). Даны рекомендации к их выполнению.

УДК 615.3 (072+076.3)=111

ББК 52.817я73-4=432.1

Утверждено и рекомендовано к изданию научно-методическим советом УО «Гомельский Государственный медицинский университет» в качестве учебно-методического пособия 27 апреля 2022 г., протокол № 3.

ISBN 978-985-588-282-5

© Учреждение образования
«Гомельский государственный
медицинский университет», 2023

CONTENTS

LIST OF ABBREVIATIONS	4
INTRODUCTION.....	6
Methodology for learning and passing tests in clinical pharmacology	7
Test Tasks.....	14
ANSWERS.....	212
REFERENCES.....	220

LIST OF ABBREVIATIONS

5-FU	– 5-fluorouracil
5-HT	– 5-hydroxytryptamine (serotonin)
6-MP	– 6-mercaptopurine
ACE	– angiotensin converting enzyme
ADP	– adenosine diphosphate
AH	– arterial hypertension
AIDS	– acquired immunodeficiency syndrome
AT II	– angiotensin II
AT III	– antithrombin III
ATP	– adenosine triphosphate
ATT	– anti-tubercular treatment
AV	– atrioventricular
BP	– blood pressure
CCB	– calcium channel blockers
CD	– cluster of differentiation
CHF	– chronic heart failure
CNS	– central nervous system
COX	– cyclooxygenase
CYP	– cytochrome
DM	– diabetes mellitus
DNA	– deoxyribose nucleic acid
ECG	– electrocardiogram
EDTA	– ethylenediaminetetraacetic acid
GABA	– gamma aminobutyric acid
GIT	– gastrointestinal tract
GP	– glycoprotein
HIV	– human immunodeficiency virus
HR	– heart rate
IL	– interleukine
IV	– intravenous(ly)
INH	– isonicotinic acid hydrazide
LDL	– low-density lipoprotein
LOX	– lipoxygenase
LTs	– leukotriene(s)
MAO	– monoamine oxidase
MI	– myocardial infarction
mRNA	– messenger ribonucleic acid
MRSA	– methicillin-resistant Staphylococcus aureus
NSAID	– non-steroidal anti-inflammatory drugs
PG	– prostaglandin
PGI ₂	– prostacycline

pH	– potential of hydrogen
pKa	– acid dissociation constant
PSVT	– paroxysmal supraventricular tachycardia
RBC	– red blood cells
RNA	– ribonucleic acid
T _{1/2}	– half-life period
TxA ₂	– thromboxane A ₂
tRNA	– transfer ribonucleic acid

INTRODUCTION

The teaching aid is an element of a single educational and methodological complex. It is a guide for independent work of students studying in English in the development of educational material on clinical pharmacology. The manual has been compiled in accordance with the program in clinical pharmacology in the specialty 1-79 01 01 «General Medicine» (Minsk, 2018).

The educational tasks include control questions, test tasks (MCQ's) on general and specific issues of clinical pharmacology (pharmacodynamics, pharmacokinetics, drug interactions, undesirable effects, indications for prescribing drugs and their dosage, contraindications, peculiarities of the use of drugs in children and pregnant women). Recommendations for their implementation are given.

Completing assignments will allow the student to learn:

- to work with the nomenclature of drugs and to distribute them according to pharmacotherapeutic groups;
- to use knowledge of pharmacological effects, mechanisms of action, principles of dosage of drugs for effective and safe pharmacotherapy;
- to be guided in the issues of the interchangeability of various drugs.

The manual consists of 2 parts. The first part presents a methodology for preparing, passing and evaluating tests in clinical pharmacology as well as control questions for sections of general and particular pharmacology.

The second part contains test tasks including the classification of drugs, mechanisms of action, pharmacological effects, indications and main contraindications for use, drug interactions with substances of other pharmacological groups, metabolic features, etc. It consists of 1069 test tasks of various levels of complexity.

Each question has 5 answers, one of which is correct. Correct answers are given at the end of the manual. This helps to use the test both for teaching and for self-monitoring and control of the student's knowledge in pre-examination testing.

Methodological work with the textbook will contribute to the assimilation of basic knowledge in clinical pharmacology and can become a good basis for further training in pharmacotherapy and successful passing of the qualification exam to confirm the diploma of higher education.

Methodology for learning and passing tests in clinical pharmacology

The tests are intended to be used in the process of studying educational material on clinical pharmacology as well as to control the level of knowledge of students during the exam in the subject. Knowledge of the clinical pharmacology allows to reach the required level of student training, which is necessary for working with drugs. Selected questions on relevant topics can be used for teaching and monitoring in the current and final practical sessions.

Control questions for sections of general and particular clinical pharmacology are presented in the manual. The assimilation of theoretical questions for each studied section presented in the manual will help to prepare for the successful passing of tests during the exam in clinical pharmacology.

The manual contains test items that include sections on general and particular pharmacology for generally accepted pharmacological groups. Tasks in general pharmacology contain questions on the creation of drugs, the main aspects of clinical pharmacokinetics and pharmacodynamics. Tasks in particular pharmacology include questions of classification, mechanism of action, pharmacological effects, indications for use, interactions, side effects and contraindications to the use of drugs from all major sections of specific pharmacology.

Control testing


The tests are divided into several variants, each of which contains 30 questions on different topics. Each question is followed by 5 possible answers, only one of which is correct.

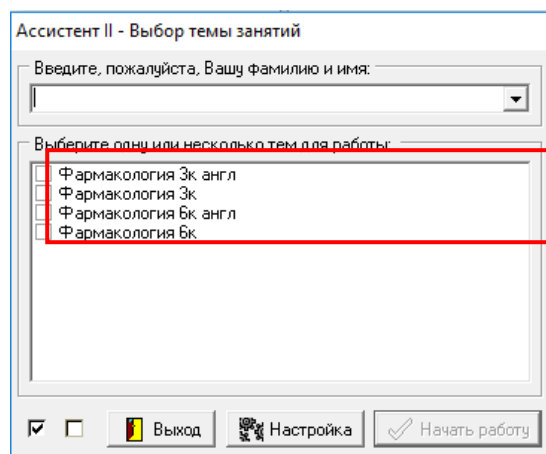
The list of correct answers to the asked questions, which help students to test themselves during independent work with tests, is presented on the last pages of the manual.

With the written version of the test the student receives a variant of the task containing 30 test questions compiled by the method of random sampling. On the exam each student after writing down their data (full name, group, course and faculty) as well as the option number and the current date on the written answer sheet, carefully reads the questions, chooses the correct answers to them and notes in written answer sheet as follows: Question # – answer. For example: 1 – a; 2 – b, ... 19 – c, etc.

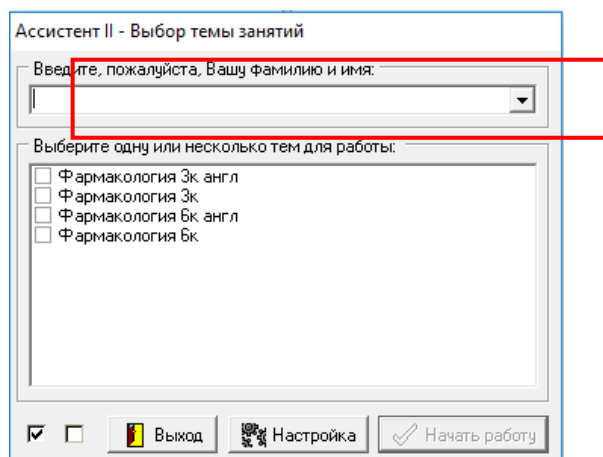
The test paper should be done with a ballpoint pen and neat, clear and readable handwriting. Blots when completing tasks are undesirable because incomprehensible answers can be interpreted in the wrong way. Teachers check the students' examination sheets, assess the correctness of the answers given by the students and give marks on a ten-point system. The checking system evaluates the number of correct answers.

Testing on a computer is carried out in the student testing program Assistant II, located on the D drive of the computer in the «Student Testing Program» folder. The order of testing on a computer is as follows:

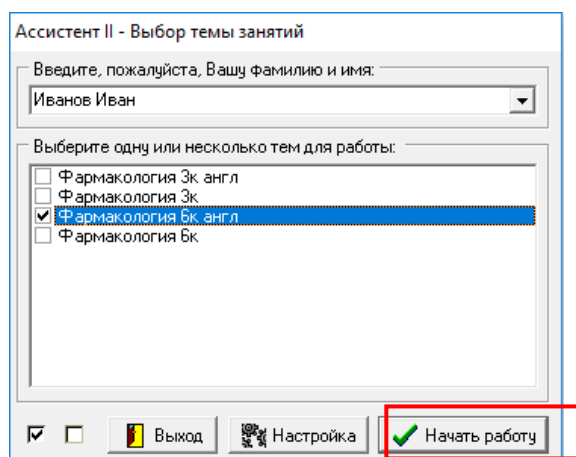
1. After the Assistant II splash screen appears, use the cursor  to select the necessary section.



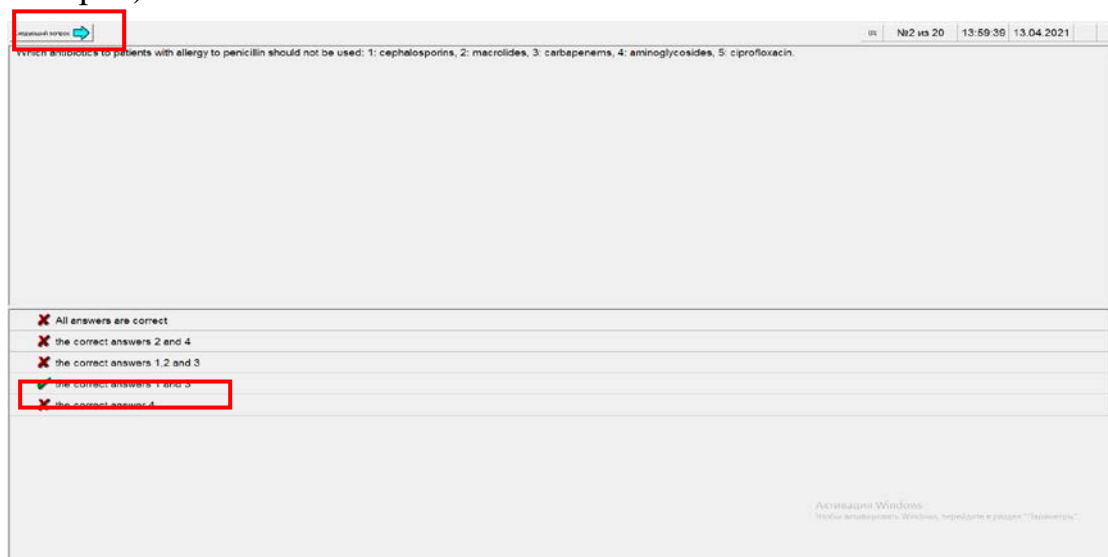
2. Enter your last and first names at the top section of the program.



3. In the lower right corner click the Get Started Button (Начать работу).

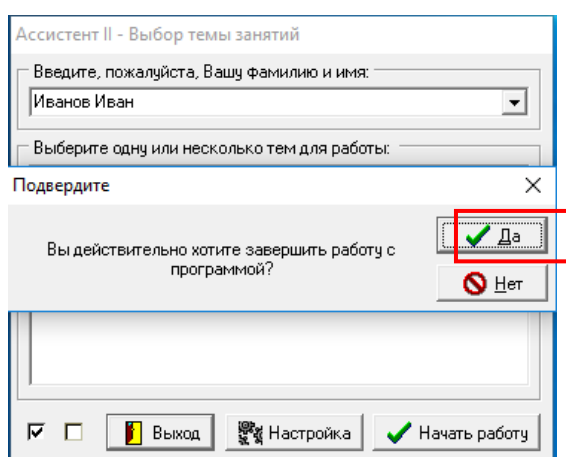


4. Choose one correct answer and click the Next Question Button (Следующий вопрос).



5. Go to the next question.

6. After answering the last question, at the end of the program, click the Yes (Да) Button.



The total testing time for answering 30 questions is 20 minutes. At the end of the testing period, unanswered questions are considered incorrect.

When giving marks for the students passed testing, the teacher focuses on the following criteria:

Score on a 10-point scale	% of correct answers
0–3	0–70
4	71–75
5	76–80
6	81–85
7	86–90
8	91–95
9	96–99
10	100

Upon receiving an unsatisfactory mark, the student must, after re-preparation, pass the test again at the time specially set for these purposes by the department.

Topics and control questions for studying

TOPIC 1: General questions of clinical pharmacology. Goals and objectives of the academic discipline «Clinical Pharmacology», stages of development, relationship with other academic disciplines. Nomenclature of medicines. Original and generic medicines. Clinical trials and state regulation of medicines. Types of drug equivalence. Basics of evidence-based medicine. The importance of evidence-based medicine principles for clinical practice. Clinical protocols for diagnosis and treatment. Rules for prescribing and dispensing medicines

Theoretical questions, based on the knowledge of which it is possible to complete the target tasks:

1. Goals and objectives of the discipline «Clinical Pharmacology», the main stages of development of clinical pharmacology, the relationship with other natural sciences and special disciplines. Clinical pharmacology as the basis for rational pharmacotherapy. Basic principles of evidence-based medicine.

2. Nomenclature of medicines (international non-proprietary and trade names). Principles for drug development.

3. Purpose, objectives and methods of clinical trials of drugs. Medical, methodological and ethical aspects of clinical trials. Ethics committee, its role and tasks. Types and phases of clinical trials. Biological and therapeutic equivalence of drugs. Principles for the study of bioequivalence of generic drugs.

4. State regulation of medicines. Pharmacological commission, its role and tasks. Prescription and non-prescription drugs. Regulation of the prescription of medicines.

TOPIC 2: Clinical pharmacokinetics and pharmacodynamics of drugs. Drug interactions. Adverse drug reactions. Identification, registration and prevention of unwanted (side) reactions. Principles of drug use in women during pregnancy and lactation, in elderly patients as well as in patients with liver and kidney diseases

Theoretical questions, based on the knowledge of which it is possible to complete the target tasks:

1. Clinical pharmacokinetics. Routes of drug administration, their characteristics. Distribution of drugs in the body. Drug metabolism. Basic pharmacokinetic parameters. Bioavailability of medicines. Factors affecting the pharmacokinetics of drugs. Features of the pharmacokinetics of drugs with long-term use.

2. Clinical pharmacodynamics and assessment of its main parameters. Dose-effect relationship. The relationship between pharmacokinetics and pharmacodynamics.

3. The combined use of drugs. Types of drug interactions. Polypharmacy.

4. Specifics of pharmacokinetics and pharmacodynamics of drugs in elderly patients, in women during pregnancy and lactation as well as in patients with liver and kidney diseases.

5. Identification, registration and prevention of unwanted (side) reactions. Notification of suspected adverse drug reactions. Informing patients about the possible manifestations of undesirable (side) reactions to drugs.

TOPIC 3: Medicines and receptors. Pharmacological and allergological history of the patient. Clinical pharmacology of antiallergic drugs. Anaphylaxis, drug anaphylactic shock. Prehospital and hospital stages of emergency medical care

Theoretical questions, based on the knowledge of which it is possible to complete the target tasks:

1. The concept of receptors, types of receptors. Types of drug interactions with receptors.

2. Mechanisms of development of immediate-type hypersensitivity reactions (urticaria, angioedema, anaphylaxis, etc.).

3. Clinical and pharmacological characteristics of the main groups of antiallergic drugs.

4. Anaphylaxis, drug anaphylactic shock. Clinical manifestation, diagnosis, and prevention of drug anaphylactic shock. Prehospital and hospital stages of emergency medical care for anaphylactic shock.

TOPIC 4: Clinical pharmacology of antibacterial drugs. The basics of rational antibiotic therapy

Theoretical questions, based on the knowledge of which it is possible to complete the target tasks:

1. Classification and clinical and pharmacological characteristics of antimicrobial drugs (β -lactam antibiotics, macrolides, aminoglycosides, glycopeptides, oxazolidinones, tetracyclines, nitroimidazoles, fluoroquinolones, nitrofurans, combined sulfanilamide drugs).

2. The tactics of choosing antimicrobial drugs for the treatment of infectious and inflammatory diseases of the respiratory system, taking into account the age characteristics of the patient, previous antibiotic therapy, the character of the disease, the presence of concomitant diseases.

3. Antibiotic resistance of bacterial pathogens when using antimicrobial drugs, the reasons for the formation, ways of overcoming and prevention of it.

4. Principles of combined antibiotic therapy. Monitoring the effectiveness and safety of anti-infective therapy.

TOPIC 5: Clinical pharmacology of antiviral, antifungal and antiprotozoal drugs. Principles of treatment for acute respiratory viral infections

Theoretical questions, based on the knowledge of which it is possible to complete the target tasks:

1. Classification of antiviral drugs. Clinical and pharmacological characteristics of anti-influenza drugs (M2 channel blockers, viral neuraminidase inhibitors, inhibitors of the fusion of the lipid envelope of the virus with the cell membrane, etc.), antiherpetic and antiretroviral drugs, interferons, vaccines. Principles of treatment for acute respiratory viral infections.

2. Modern principles of pharmacological therapy of the most common fungal and parasitic diseases.

3. Classification of antifungal drugs: for topical use – polyene antibiotics, imidazoles, allylamines, drugs of other groups; for systemic use – polyene antibiotics, imidazoles, triazoles, allylamines, pyrimidine derivatives.

4. Clinical pharmacology of the main groups of drugs used for the treatment of parasitic diseases.

TOPIC 6: Clinical pharmacology of steroids and NSAIDs, narcotic analgesics

Theoretical questions, based on the knowledge of which it is possible to complete the target tasks:

1. Clinical and pharmacological characteristics of non-steroidal anti-inflammatory drugs and glucocorticoids.

2. Narcotic analgesics. Centrally acting non-opioid drugs with analgesic activity. Analgesics with a mixed mechanism of action.

3. The tactics of using non-steroidal anti-inflammatory drugs as well as combined drugs for hyperthermic and pain syndrome.

TOPIC 7: Clinical pharmacology of drugs used in respiratory diseases

Theoretical questions, based on the knowledge of which it is possible to complete the target tasks:

1. Antitussive drugs of central, peripheral, mixed action. Expectorant and mucolytic drugs, specifics of their use.

2. Medicines for relief of broncho-obstructive syndrome (β -2-adrenomimetics, muscarinic blockers, xanthines, combined medicines).

3. Clinical and pharmacological characteristics and features of the use of drugs for basic anti-inflammatory therapy of bronchial asthma (inhalation glucocorticoids, antagonists of LT receptors, recombinant monoclonal antibodies). Use of mast cell membrane stabilizers in pediatrics.

4. Herbal medicine in pulmonology.

TOPIC 8: Clinical pharmacology of drugs used in cardiology

Theoretical questions, based on the knowledge of which it is possible to complete the target tasks:

1. Clinical pharmacology of antihypertensive drugs: diuretics, β -blockers, slow calcium channel blockers, ACE inhibitors, AT II receptor blockers, agonists of central α -2- and imidazoline receptors.

2. Drugs of other groups of antihypertensive drugs: α -blockers, inhibitors of renin synthesis, direct antagonists of aldosterone, etc. Principles of modern pharmacotherapy of AH.

3. Clinical pharmacology of antianginal and anti-ischemic drugs: β -blockers, slow CCB, nitrates, sydnonimines, cardiocytoprotectors.

4. Medicines correcting lipid metabolism (statins, fibrates, polyunsaturated fatty acids). Modern principles of the treatment of coronary heart disease.

5. Clinical and pharmacological characteristics of antiarrhythmic drugs (Vogen-Williams classification, mechanisms of antiarrhythmic action, indications and contraindications for their use, safety control).

6. Medicines used in the treatment of disorders of the cardiac conduction system.

TOPIC 9: Clinical pharmacology of drugs used in gastroenterology

Theoretical questions, based on the knowledge of which it is possible to complete the target tasks:

1. Clinical and pharmacological characteristics of antisecretory drugs (proton pump inhibitors, H₂-histamine blockers, muscarinic blockers), antacids.

2. Medicines that have a protective effect and enhance the regeneration of the mucous membrane of the gastrointestinal tract. Helicobacter pylori eradication schemes.

3. Classification of antiemetic drugs. Medicines affecting the motor function of the gastrointestinal tract.

4. Enzymatic drugs for substitution therapy. The use of choleric drugs and hepatoprotectors.

5. Antidiarrheal and laxative medicines. Medicines regulating intestinal microbiocenosis.

6. Herbal medicine for diseases of the digestive system.

TOPIC 10: Clinical pharmacology of drugs affecting the hemostatic system

Theoretical questions, based on the knowledge of which it is possible to complete the target tasks:

1. The main reasons leading to dysfunction of the blood coagulation and anti-coagulant systems. Clinical pharmacology of antiplatelet agents, direct and indirect anticoagulants, thrombolytic drugs.

2. The main drugs used to reduce the activity of the blood coagulation system: proaggregants, procoagulants, fibrinolysis inhibitors. Indications and contraindications for their use, methods for assessing effectiveness.

TOPIC 11: Clinical pharmacology of antianemic drugs

Theoretical questions, based on the knowledge of which it is possible to complete the target tasks:

1. Classification of anemias. Iron deficiency, B12 and folate deficiency anemias: etiology, clinical manifestations and principles of pharmacotherapy.

2. Clinical and pharmacological characteristics of antianemic drugs. Indications and contraindications for the use of iron-containing drugs and cyanocobalamin. Criteria for the effectiveness of pharmacological therapy.

TOPIC 12: Clinical pharmacology of drugs used for the treatment of type 2 DM and thyroid diseases

1. Clinical pharmacology of sulfonylurea derivatives, biguanides, meglitinides, thiazolidinediones and incretins. Insulin medicines. Indications and contraindications, methods of monitoring the effectiveness and safety of them.

2. Medicines for replacement therapy for hypothyroidism. Clinical pharmacology of antithyroid drugs.

Test Tasks

Choose one correct answer

1. Serum level measurement of a drug is NOT useful in...

Variants of answer:

- a) measuring of $T_{1/2}$;
- b) drug with low margin of safety;
- c) drug activated in the body;
- d) checking compliance;
- e) knowledge of volume of distribution.

2. Concentration of a drug in blood is 40 mcg/mL. Dose of the drug is 200 mg. Volume of distribution of the drug assuming minute elimination is...

Variants of answer:

- a) 5 litres;
- b) 0,5 litres;
- c) 2,5 litres;
- d) 3 litres;
- e) 1 litre.

3. A drug X has affinity to bind with albumin and Y has 150 times more affinity to bind with albumin than X. TRUE statement is that...

Variants of answer:

- a) drug X will be available more in tissues;
- b) drug Y will be more available in tissues;
- c) free content of drug X in blood will be more;
- d) toxicity of Y will be more;
- e) toxicity of 2 drugs are similar.

4. A patient presents with nephrotic syndrome and hypoalbuminemia. Protein binding of which drug is not affected by?

Variants of answer:

- a) tolbutamide;
- b) morphine;
- c) diazepam;
- d) valproate;
- e) phenazepam.

5. A drug is more likely to cause toxicity in elderly patients due to all of the following reasons, except...

Variants of answer:

- a) decreased renal excretion of drugs;
- b) decreased hepatic metabolism;

- c) increased receptor sensitivity;
- d) decreased volume of distribution;
- e) increased volume of distribution.

6. K_m of an enzyme is...

Variants of answer:

- a) dissociation constant;
- b) the normal physiological substrate concentration;
- c) the substrate concentration at half maximal velocity;
- d) numerically identical for all isozymes that catalyze a given reaction;
- e) constant of elimination.

7. Therapeutic index is a measure of a drug's...

Variants of answer:

- a) safety;
- b) potency;
- c) efficacy;
- d) toxicity;
- e) side effects.

8. ED₅₀ (effective dose) is a measure of...

Variants of answer:

- a) toxicity;
- b) safety;
- c) potency;
- d) efficacy;
- e) quality.

9. A highly ionized drug...

Variants of answer:

- a) is mainly excreted by the kidneys;
- b) can easily cross the placental barrier;
- c) is well absorbed from the intestine;
- d) accumulates in the cellular lipids;
- e) is excreted by the intestine.

10. A highly ionized drug...

Variants of answer:

- a) is mainly excreted by the kidneys;
- b) easily crosses the placental barrier;
- c) is well absorbed from the intestine;
- d) is highly protein bound;
- e) accumulates in the cellular lipids.

11. Which one of the following statements is TRUE?

Variants of answer:

- a) as the concentration of a drug increases over the therapeutic range, the bound form of the drug increases;
- b) the bound form is not available for metabolism but is available for excretion;
- c) acidic drug binds to albumin; and basic drug binds to zeta-globulin;
- d) binding sites are non-specific and one drug can displace the other;
- e) ionized drug can cross the placental barrier.

12. All statements are reasons for reducing drug, except...

Variants of answer:

- a) they are lean and their body mass is less;
- b) they have decreasing renal function with age;
- c) they have increased baroreceptor sensitivity;
- d) body water is decreased;
- e) they have decreased baroreceptor sensitivity.

13. True statement regarding inverse agonist is that...

Variants of answer:

- a) it binds to receptor and causes intended action;
- b) it binds to receptor and causes opposite action;
- c) it binds to receptor and causes no action;
- d) it binds to receptor and causes submaximal action;
- e) it binds to receptor and causes minimal action.

14. Entropy in a biological system does NOT increased because...

Variants of answer:

- a) it is an open system;
- b) it is a closed system;
- c) it is governed by vitalism;
- d) it is related to thermodynamics;
- e) it is an reduced system.

15. Which one of the following variants is TRUE regarding a system which favours oscillatory responses?

Variants of answer:

- a) proportional component;
- b) a greater effect;
- c) a lesser effect;
- d) positive feedback system;
- e) negative feedback system.

16. Regarding efficacy and potency of a drug, all statements are TRUE, except...

Variants of answer:

- a) in a clinical setup, efficacy is more important than potency;

- b) in the log dose response curve, the height of the curve corresponds with efficacy;
- c) ED50 of the drug corresponds to efficacy;
- d) drugs that produce a similar pharmacological effect can have different levels of efficacy;
- e) bioavailability is 100 % intravenously.

17. «First-pass effect» is seen with such route of administration as...

Variants of answer:

- a) oral;
- b) sublingual;
- c) intramuscular (IM);
- d) IV;
- e) subcutaneous.

18. Therapeutic index of a drug is an indicator of its...

Variants of answer:

- a) potency;
- b) safety;
- c) toxicity;
- d) efficacy;
- e) side effects.

19. All of the following statements regarding bioavailability of a drug are true, except...

Variants of answer:

- a) it is the proportion (fraction) of unchanged drug that reaches the systemic circulation;
- b) bioavailability of an orally administered drug can be calculated by comparing the Area Under the Curve (AUC) after oral and IV administration;
- c) low oral bioavailability always and necessarily mean poor absorption;
- d) bioavailability can be determined from plasma concentration or urinary excretion data;
- e) bioavailability is 100 % IV.

20. Presence of food might be expected to interfere with drug absorption by slowing gastric emptying or by altering the degree of ionisation of the drug in the stomach. Which one of the following statements is not correct example?

Variants of answer:

- a) absorption of digoxin is delayed by the presence of food;
- b) concurrent food intake may severely reduce the rate of absorption of phenytoin;
- c) presence of food enhances the absorption of hydrochlorothiazide;
- d) antimalarial drug halofantrine is more extensively absorbed if taken with food;
- e) omeprazole must be taken before meal.

21. Cardiac or central nervous system toxicity may result when standard lidocaine doses are administered to patients with circulatory failure. This may be due to the following reason:

Variants of answer:

- a) lidocaine concentration are initially higher in relatively well perfused tissues such as brain and heart;
- b) histamine receptors in brain and heart gets suddenly activated in circulatory failure;
- c) there is a sudden outburst of release of adrenaline, noradrenaline and dopamine in brain and heart;
- d) lidocaine is converted into a toxic metabolite due to its longer stay in liver;
- e) lidocaine has bad bioavailability.

22. The extent to which ionisation of a drug takes place is dependent upon pKa of the drug and the pH of the solution in which the drug is dissolved. Which one of the following statements is NOT correct?

Variants of answer:

- a) pKa of a drug is the pH at which the drug is 50 % ionized;
- b) small changes of pH near the pKa of a weak acidic drug will not affect its degree of ionization;
- c) knowledge of pKa of a drug is useful in predicting its behaviour in various body fluids;
- d) phenobarbitone with a pKa of 7,2 is largely ionized at acid pH and will be about 40 % nonionized in plasma;
- e) pKa of a drug is the pH at which the drug is 50 % nonionized.

23. Dosage of drug is determined by all following parameters, except...

Variants of answer:

- a) volume of distribution;
- b) $T_{1/2}$;
- c) lipid solubility;
- d) excretion;
- e) water solubility.

24. The maximal effect of a drug is defined by its...

Variants of answer:

- a) therapeutic index;
- b) potency;
- c) efficacy;
- d) adversity;
- e) toxicity.

25. Characteristic feature of agonist is that it...

Variants of answer:

- a) has affinity only;

- b) has affinity as well as intrinsic activity;
- c) has intrinsic activity only;
- d) has neither affinity nor activity;
- e) has activity only.

26. TRUE about efficacy and potency of drugs is that...

Variants of answer:

- a) efficacy is clinically more important than potency;
- b) height of DRC (dose-response curve) corresponds to efficacy;
- c) the amount of drugs to produce certain response is called efficacy;
- d) drugs having similar pharmacological action may have different efficacy;
- e) potency is clinically more important than efficacy.

27. On IV route of administration elimination of a drug depends on...

Variants of answer:

- a) lipid solubility;
- b) volume of distribution;
- c) clearance;
- d) drug concentration;
- e) proteins.

28. Alkalinity of urine is done in...

Variants of answer:

- a) barbiturate poisoning;
- b) lithium toxicity;
- c) alprazolam overdose;
- d) diazepam toxicity;
- e) clonidine toxicity.

29. About acidic drug TRUE is that it (is) ...

Variants of answer:

- a) best absorbed in acidic medium;
- b) best absorbed in alkaline medium;
- c) not absorbed in acidic medium;
- d) binds to α glycoprotein;
- e) binds to β glycoprotein.

30. Drug transport mechanism includes...

Variants of answer:

- a) active transport;
- b) passive transport;
- c) filtration;
- d) pinocytosis;
- e) all variants of answers.

31. IV drug duration of action depends on...

Variants of answer:

- a) protein binding;
- b) clearance;
- c) distribution volume;
- d) lipid solubility;
- e) all variants of answers.

32. TRUE about routes of drug administration is that...

Variants of answer:

- a) 80 % bioavailability by IV injection;
- b) IM administration needs sterile technique;
- c) intradermal injection produces local tissue necrosis and irritation;
- d) inhalation produces delayed systemic bio-availability;
- e) 88 % bioavailability by IV injection.

33. Volume of distribution of drugs is altered in...

Variants of answer:

- a) obesity;
- b) athletes;
- c) pregnancy;
- d) older age;
- e) neonates.

34. Drug distribution is influenced by...

Variants of answer:

- a) drug binding;
- b) drug solubility;
- c) degree of blood flow;
- d) age;
- e) nationality.

35. In drug antagonist, 1st event to occur is...

Variants of answer:

- a) deactivation of receptors;
- b) receptor configuration changes;
- c) A and B;
- d) decreasing of ensiivity;
- e) none of variants of answers.

36. TRUE regarding dose-response curve is that...

Variants of answer:

- a) it cannot determine the potency of a drug;
- b) log dose response curve is sigmoid shaped;
- c) it cannot find response to antagonist;

- d) a wide range of doses cannot be plotted;
- e) log dose response curve is delta shaped.

37. Loading dose depends on...

Variants of answer:

- a) volume of distribution;
- b) clearance;
- c) rate of administration;
- d) $T_{1/2}$;
- e) way of administration.

38. Side effects of a drug arise due to the interactions of the drug to molecules other than the target. These effects of a drug can be minimized by its high...

Variants of answer:

- a) specificity;
- b) affinity;
- c) solubility;
- d) hydrophobicity;
- e) potency.

39. Which one of the following properties of drug will enable it to be used in low concentrations?

Variants of answer:

- a) high affinity;
- b) high specificity;
- c) low specificity;
- d) high stability;
- e) low stability.

40. Loading dose depends upon...

Variants of answer:

- a) volume of distribution;
- b) plasma clearance;
- c) route of administration;
- d) $T_{1/2}$;
- e) metabolism.

41. Which one of the following drugs does NOT cause bone marrow suppression?

Variants of answer:

- a) daunorubicin;
- b) cisplatin;
- c) cyclophosphamide;
- d) vincristine;
- e) vinblastin.

42. All of the following anticancer agents cause bone marrow depression, except...

Variants of answer:

- a) chlorambucil;
- b) daunorubicin;
- c) doxorubicin;
- d) flutamide;
- e) karubicine.

43. Which one of the following conditions is a side effect of chemotherapeutic agents?

Variants of answer:

- a) dermatitis;
- b) teratogenicity;
- c) BM (bone marrow) suppression;
- d) AH;
- e) all of the mentioned conditions.

44. Non-myelosuppressive agent is...

Variants of answer:

- a) vinblastine;
- b) vincristine;
- c) bleomycine;
- d) methotrexate;
- e) daunorubicine.

45. Bone marrow aplasia is seen with all drugs, except...

Variants of answer:

- a) methicillin;
- b) chloramphenicol;
- c) α -methylhydantoin;
- d) phenylbutazone;
- e) daunorubicine.

46. Bone marrow depression is seen with chronic administration of...

Variants of answer:

- a) isoflurane;
- b) N₂O;
- c) ether;
- d) halothane;
- e) sevoflurane.

47. All of the following agents can cause hemolytic anaemia, except...

Variants of answer:

- a) isoniazid;

- b) rifampicin;
- c) «Co-trimoxazole»;
- d) propranolol;
- e) phenylhydrazin.

48. Most important side effect of dapsone is hemolytic anemia, the next adverse effect is...

Variants of answer:

- a) G-6-PD (glucose-6-phosphate-dehydrogenase) deficiency;
- b) infectious mononucleosis-like syndrome;
- c) agranulocytosis;
- d) lichenoid eruption;
- e) skin pigmentation.

49. Drug NOT causing active hepatitis is...

Variants of answer:

- a) INH;
- b) methyldopa;
- c) chlorpromazine;
- d) oxyphenacetin;
- e) paracetamol.

50. Hepatotoxic drugs are all, except...

Variants of answer:

- a) N₂O;
- b) halothane;
- c) enflurane;
- d) chloform;
- e) sevoflurane.

51. Cholestatic jaundice is caused by...

Variants of answer:

- a) INH;
- b) glibenclamide;
- c) rifampicin;
- d) chlorpropamide;
- e) nimesulide.

52. All the following medicines are used to treat hypercalcemia, except...

Variants of answer:

- a) D-penicillamine;
- b) corticosteroids;
- c) bisphosphonates;
- d) mithramycin;
- e) furosemide.

53. All the following medicines are used in management of hypercalcemia, except...

Variants of answer:

- a) mithramycin;
- b) penicillamine;
- c) bisphosphonates;
- d) steroids;
- e) furosemide.

54. Hyperglycemia can be caused by all the following medicines, except...

Variants of answer:

- a) theophylline;
- b) chlorthiazides;
- c) corticosteroids;
- d) furosemide;
- e) indapamide.

55. All of the following medicines cause hyperglycemia, except...

Variants of answer:

- a) thiazide;
- b) diazoxide;
- c) theophylline;
- d) pentamidine;
- e) furosemide.

56. Hyperkalemia is caused by...

Variants of answer:

- a) amphotericin B;
- b) ACE inhibitors;
- c) cyclosporine;
- d) granulocyte-macrophage colony-stimulating factor (GM-CSF);
- e) succinylcholine.

57. Hyperkalemia is associated with...

Variants of answer:

- a) ACE inhibitors;
- b) chlorthalidone;
- c) amphotericin B;
- d) amiodarone;
- e) rifampicin.

58. All the following drugs may cause hyperkalemia, except...

Variants of answer:

- a) cyclosporine;
- b) amphotericin;

- c) heparin;
- d) NSAIDs;
- e) spironolacton.

59. Hyperlipidemia is caused by intake of...

Variants of answer:

- a) CCB;
- b) β -blockers;
- c) methyldopa;
- d) reserpine;
- e) α -blockers.

60. Hypernatremia is caused by...

Variants of answer:

- a) prednisolone;
- b) fludrocortisone;
- c) hydrocortisone;
- d) dexamethasone;
- e) triamcinolone.

61. Which one of the following drugs does NOT cause hypokalemia?

Variants of answer:

- a) gentamicin;
- b) propranolol;
- c) amphotericin B;
- d) amiodarone;
- e) spironolactone.

62. Drug(s) which causes hypothyroidism is...

Variants of answer:

- a) carbamazepine;
- b) lithium;
- c) sulphur;
- d) methotrexate;
- e) β -agonists.

63. Intracranial pressure may be increased by all of the following drugs, except...

Variants of answer:

- a) hypervitaminosis A;
- b) corticosteroids;
- c) quinolones;
- d) aminoglycosides;
- e) nitroglycerin.

64. All of the following agents cause macrocytic anaemia, except...

Variants of answer:

- a) primaquine;
- b) methotrexate;
- c) trimethoprim;
- d) azathioprine;
- e) phenacetin.

65. Which one of the following drugs does NOT interfere with folic acid metabolism?

Variants of answer:

- a) phenytoin;
- b) gabapentin;
- c) phenobarbital;
- d) primidone;
- e) diphenin.

66. Megaloblastic anemia is a side effect of long term therapy with...

Variants of answer:

- a) diazepam;
- b) INH;
- c) phenobarbital;
- d) lithium;
- e) lidocaine.

67. Drugs causing metallic taste are...

Variants of answer:

- a) antimicrobials;
- b) ATII receptor blockers;
- c) anticancer drugs;
- d) NSAIDs;
- e) gold drugs.

68. The drug which does NOT cause myopathy is...

Variants of answer:

- a) chloroquine;
- b) betamethasone;
- c) chloramphenicol;
- d) zidovudine;
- e) lamivudine.

69. Statin-induced myopathy is NOT exacerbated by...

Variants of answer:

- a) nicotinic acid;
- b) enalapril;

- c) erythromycin;
- d) clofibrate;
- e) fenofibrate.

70. Drug-induced myopathy can be caused by all of the following drugs, except...

Variants of answer:

- a) atorvastatin;
- b) D-penicillamine;
- c) ciprofloxacin;
- d) chloroquine;
- e) lovastatin.

71. Which drug is implicated in the causation of nephrotic syndrome?

Variants of answer:

- a) gold drugs;
- b) amphotericin B;
- c) rifampicin;
- d) ibuprofen;
- e) captopril.

72. Which drug does NOT cause optic neuropathy?

Variants of answer:

- a) penicillin;
- b) INH;
- c) ethambutol;
- d) chloramphenicol;
- e) digoxin.

73. Regarding adverse reaction, all variants are correct, except...

Variants of answer:

- a) Methysergide – Retroperitoneal fibrosis;
- b) Rifampicin – Optic neuritis;
- c) Saralasin – ATII receptor antagonist;
- d) Ethambutol – Retrobulbar neuritis;
- e) Captopril – hyperkalemia.

74. Which drug(s) cause(s) osteoporosis on long-term use?

Variants of answer:

- a) estrogen;
- b) progesterone;
- c) gonadotropin-releasing hormone (GnRH) analogues;
- d) warfarin;
- e) adrenalin.

75. Drug causing osteoporosis is...

Variants of answer:

- a) vitamin K;
- b) lithium;
- c) dilantin;
- d) heparin;
- e) etidronate.

76. Osteoporosis is a recognized feature of...

Variants of answer:

- a) early menopause;
- b) heparin treatment;
- c) Marfan syndrome;
- d) thyrotoxicosis;
- e) all the mentioned variants.

77. Following drugs cause pancreatitis, except...

Variants of answer:

- a) captopril;
- b) furosemide;
- c) valproic acid;
- d) didanosine;
- e) etacrynic acid.

78. Peripheral neuropathy may occur with the use of all the following drugs, except...

Variants of answer:

- a) vincristine;
- b) cisplatin;
- c) L-Asparaginase;
- d) procarbazine;
- e) vinblastine.

79. Which one of the following drugs has maximum propensity to cause peripheral neuropathy?

Variants of answer:

- a) didanosine;
- b) zidovudine;
- c) stavudine;
- d) lamivudine;
- e) foscarnet.

80. Drug causing predominantly sensory neuropathy is...

Variants of answer:

- a) cisplatin;
- b) pyridoxine (excess of drug);

- c) Guillain-Barré syndrome (GB) syndrome;
- d) suramine;
- e) paracetamol.

81. Motor neuropathy is caused by...

Variants of answer:

- a) dapsone;
- b) cisplatin;
- c) arsenic;
- d) lead (plumbum);
- e) hypothyroidism.

82. Pleural fibrosis is caused by...

Variants of answer:

- a) phenytoin;
- b) methysergide;
- c) amiodarone;
- d) ergotamine;
- e) ranitidine.

83. Which one of the following drugs does NOT cause thrombocytopenia?

Variants of answer:

- a) chlorpropamide;
- b) phenobarbitone;
- c) quinine;
- d) thiazide;
- e) heparin.

84. Which one of the following drugs does NOT increase the serum level of theophylline?

Variants of answer:

- a) erythromycin;
- b) corticosteroids;
- c) ofloxacin;
- d) ciprofloxacin;
- e) norfloxacin.

85. Theophylline concentration is NOT interfered by...

Variants of answer:

- a) rifampicin;
- b) clarithromycin;
- c) erythromycin;
- d) ciprofloxacin;
- e) ofloxacin.

86. Therapeutic effects of theophylline is enhanced by all variants, except...

Variants of answer:

- a) cimetidine;
- b) smoking;
- c) erythromycin;
- d) CHF;
- e) warfarin.

87. Theophylline levels are increased in all variants, except...

Variants of answer:

- a) erythromycin;
- b) smoking;
- c) cimetidine;
- d) CHF;
- e) warfarin.

88. All statements are TRUE regarding treatment with aminophylline, except...

Variants of answer:

- a) it decreases the oxygen tension;
- b) its dose is to be decreased in smokers;
- c) it increases the contractility of the diaphragm;
- d) interaction with erythromycin can increase its toxicity;
- e) interaction with cimetidine can increase its toxicity.

89. A patient with COPD (chronic obstructive pulmonary disease) who is on theophylline develops severe respiratory infection. Which one of the following antibiotics should be avoided to prevent interaction with theophylline?

Variants of answer:

- a) erythromycin;
- b) ciprofloxacin;
- c) amoxicillin;
- d) cephalixin;
- e) cephalosporin.

90. Which enzyme is inhibited by aminophylline?

Variants of answer:

- a) monoamine oxidase;
- b) alcohol dehydrogenase;
- c) phosphodiesterase;
- d) cytochrome P-450;
- e) CYP2C19.

91. With which one of the following receptors theophylline has an antagonistic interaction?

Variants of answer:

- a) histamine receptors;

- b) bradykinin receptors;
- c) adenosine receptors;
- d) imidazoline receptors;
- e) α -receptors.

92. All of the following statements are TRUE about theophylline, except...

Variants of answer:

- a) increasing in dose is required in cardiopulmonary disease;
- b) increases 3,5-cyclic adenosine monophosphate (cAMP);
- c) increasing in dose is required in smokers;
- d) inhibits phosphodiesterase;
- e) increases catecholamines.

93. All the following variants affect the metabolism of theophylline, except...

Variants of answer:

- a) erythromycin;
- b) smoking;
- c) cimetidine;
- d) steroids;
- e) CHF.

94. If theophylline is used with Ciprofloxacin then...

Variants of answer:

- a) toxicity of theophylline increases;
- b) efficacy decreases;
- c) activity of ciprofloxacin increases;
- d) it decreases absorption of theophylline;
- e) it eliminates rapidly.

95. Drugs which increase level of theophylline include...

Variants of answer:

- a) ciprofloxacin;
- b) barbiturates;
- c) cimetidine;
- d) allopurinol;
- e) phenytoin.

96. The loading dose of aminophylline is:

Variants of answer:

- a) 50–75 mg/kg;
- b) 0,5–1,0 mg/kg;
- c) 2,0–3,5 mg/kg;
- d) 5–6 mg/kg;
- e) 0,9–1,7 mg/kg.

97. Which one of the following enzymes is inhibited by aminophylline?

Variants of answer:

- a) monoamine oxidase;
- b) alcohol dehydrogenase;
- c) cytochrome P-450;
- d) phosphodiesterase;
- e) CYP2C19.

98. TRUE about zafirlukast is that...

Variants of answer:

- a) it inhibits LOX pathway;
- b) it decreases the frequency equal to glucocorticoids;
- c) it blocks LT receptors;
- d) it is effective in acute BA;
- e) it is given orally.

99. All the following drugs are long acting bronchodilators, except...

Variants of answer:

- a) indacaterol;
- b) salmeterol;
- c) formoterol;
- d) adrenaline;
- e) terbutalin.

100. All variants increase blood theophylline level, except...

Variants of answer:

- a) smoking;
- b) erythromycin;
- c) allopurinol;
- d) cimetidine;
- e) cyclosporine A.

101. What is the mode of action of sodium cromoglycate?

Variants of answer:

- a) mast cell stabilizers;
- b) antihistaminic drugs;
- c) anticholinergic drugs;
- d) antiadrenergic drugs;
- e) none of the mentioned variants;

102. An asthmatic patient is on theophylline suddenly developed infection. Which one of the following antibiotics should NOT be given to prevent side effects of theophylline?

Variants of answer:

- a) ampicillin;

- b) erythromycin;
- c) cephalexin;
- d) sparfloxacin;
- e) ofloxacin.

103. The drug is NOT used in acute bronchial asthma (BA) is...

Variants of answer:

- a) salbutamol;
- b) ipratropium;
- c) montelukast;
- d) hydrocortisone;
- e) prednisolone.

104. Zileuton is...

Variants of answer:

- a) 5-lipoxygenase inhibitor (5-LOX);
- b) TxA₂ inhibitor;
- c) LT receptors antagonist;
- d) PGs synthesis inhibitor;
- e) mast cell membrane stabilizer.

105. Inhibition of 5-LOX is useful in...

Variants of answer:

- a) cardiac failure;
- b) BA;
- c) hepatic failure;
- d) arthritis;
- e) gout.

106. Which one of the following conditions is NOT an adverse effect of salbutamol?

Variants of answer:

- a) tachycardia;
- b) tolerance;
- c) hypokalemia;
- d) hypoglycemia;
- e) dizziness.

107. Which one of the following drugs is a LT antagonist?

Variants of answer:

- a) montelukast;
- b) zileuton;
- c) omalizumab;
- d) «Nedocromil»;
- e) prednisolone.

108. Ipratropium bromide is contraindicated in...

Variants of answer:

- a) BA;
- b) urinary retention;
- c) AH;
- d) peptic ulcer;
- e) COPD.

109. Tiotropium bromide is used for...

Variants of answer:

- a) treating urinary retention;
- b) treating ileus;
- c) increasing salivation;
- d) treating BA;
- e) treating myopia.

110. The following variants are all TRUE about ipratropium bromide, except...

Variants of answer:

- a) using for inhalation;
- b) decreasing of IOP (intraocular pressure);
- c) dryness of mouth;
- d) scratching in trachea;
- e) treating BA.

111. Cromolyn sodium is used for one of the following drugs:

Variants of answer:

- a) mast cell stabilizer;
- b) H₁-antihistamine drugs;
- c) phosphodiesterase inhibitors;
- d) inhibitors of cyclooxygenase;
- e) LT receptors inhibitors.

112. Steroids in BA...

Variants of answer:

- a) decrease sensitivity of bronchial epithelium to allergen;
- b) decrease inflammatory response;
- c) increase action of bronchodilators;
- d) cause potent bronchodilation;
- e) can be taken subcutaneously.

113. Salbutamol is used for...

Variants of answer:

- a) acute BA;
- b) premature labour;

- c) bronchitis;
- d) BA prevention;
- e) COPD.

114. TRUE about zafirlukast is that...

Variants of answer:

- a) it inhibits LOX pathway;
- b) it decreases the frequency equal to glucocorticoids;
- c) it blocks LT receptor;
- d) it is effective in acute BA;
- e) it is given orally.

115. Long-acting β -2 agonist is...

Variants of answer:

- a) albuterol;
- b) salmeterol;
- c) pirbuterol;
- d) orciprenaline;
- e) salbutamol.

116. Short-acting β -2 agonists are all drugs, except...

Variants of answer:

- a) orciprenaline;
- b) salmeterol;
- c) albuterol;
- d) pirbuterol;
- e) salbutamol.

117. Which one of the following drugs is used in β -blockers overdose?

Variants of answer:

- a) atropine;
- b) norepinephrine;
- c) glucagon;
- d) thyroxin;
- e) protamine.

118. Contraindication of β -blockers is...

Variants of answer:

- a) BA;
- b) CHF;
- c) tachycardia;
- d) arrhythmias;
- e) arterial AH.

119. B-blockers are used in all diseases, except...

Variants of answer:

- a) AH;
- b) thyrotoxicosis;
- c) variant angina (Prinzmetal angina);
- d) tachyarrhythmias;
- e) all the mentioned diseases.

120. Timolol can be given in all conditions, except...

Variants of answer:

- a) MI;
- b) BA;
- c) peptic ulcer;
- d) CHF;
- e) thyrotoxicosis.

121. All the statements are TRUE about β -blockers, except...

Variants of answer:

- a) atenolol has longer acting than metoprolol;
- b) labetalol has both α - and β -blocking action;
- c) carvedilol has α -agonist and selective β -1 blocking action;
- d) nadolol has longest $T_{1/2}$;
- e) propranolol is selective β -blocker.

122. Which one of the following statements is NOT TRUE about the use of β -blockers in CHF?

Variants of answer:

- a) it should be initiated at very low dose;
- b) it is most effective in new onset decompensated heart failure;
- c) slow upward titration of dose is required;
- d) carvedilol is most widely used in this condition;
- e) it should be initiated at minimal dose.

123. All of the following drugs are nonselective β -blockers with additional actions, except...

Variants of answer:

- a) carvedilol;
- b) betaxalol;
- c) dilevalol;
- d) labetalol;
- e) «Carvenal».

124. All of the following drugs are selective β -1-blockers, except...

Variants of answer:

- a) atenolol;

- b) metoprolol;
- c) labetalol;
- d) betaxolol;
- e) bisoprolol.

125. β -blocker with peripheral vasodilator action is...

Variants of answer:

- a) carvedilol;
- b) propranolol;
- c) atenolol;
- d) acebutalol;
- e) propranolol.

126. β -blockers that can be used in renal failure are all drugs, except...

Variants of answer:

- a) propranolol;
- b) pindolol;
- c) sotalol;
- d) oxyprenolol;
- e) celiprolol.

127. All the following drugs are selective β -blockers, except...

Variants of answer:

- a) atenolol;
- b) esmolol;
- c) bisoprolol;
- d) celiprolol;
- e) metoprolol.

128. Which one of the following drugs has the shortest plasma $T_{1/2}$?

Variants of answer:

- a) propranolol;
- b) esmolol;
- c) timolol;
- d) atenolol;
- e) metoprolol.

129. Which one of the following drugs does NOT cause bradycardia?

Variants of answer:

- a) propranolol;
- b) hydralazine;
- c) clonidine;
- d) reserpine;
- e) metoprolol.

130. Propranolol is indicated in all of the following conditions, except...

Variants of answer:

- a) thyrotoxicosis;
- b) variant angina (Prinzmetal angina);
- c) migraine;
- d) AH;
- e) tachyarrhythmias.

131. β -blocker drug which minimally crosses the blood – brain barrier is...

Variants of answer:

- a) propranolol;
- b) atenolol;
- c) oxprenolol;
- d) alprenolol;
- e) bisoprolol.

132. β -blocker acts by...

Variants of answer:

- a) decreasing cardiac output;
- b) decreasing HR;
- c) decreasing BP;
- d) decreasing conductivity;
- e) all the mentioned variants.

133. In a person with HR 120 beats per minute rate is reduced by...

Variants of answer:

- a) propranolol;
- b) phentolamine;
- c) phenoxybenzamine;
- d) prazosin;
- e) doxazosin.

134. Combination use of β -blockers and CCB causes...

Variants of answer:

- a) AV block;
- b) AH;
- c) hypotension;
- d) tachycardia;
- e) tachyarrhythmias.

135. Use of timolol in the eyes can cause all conditions, except...

Variants of answer:

- a) AV block;

- b) bradycardia;
- c) AH;
- d) hypotension;
- e) BA.

136. Side effect of timolol maleate is...

Variants of answer:

- a) AH;
- b) BA;
- c) depression;
- d) tachycardia;
- e) hypotension.

137. TRUE about carvedilol is that it is...

Variants of answer:

- a) α -1-, β -1-blocker;
- b) β -1-blocker;
- c) β -2-blocker;
- d) antioxidant;
- e) used in hypotension.

138. TRUE about esmolol is that it is (has) ...

Variants of answer:

- a) α -blocker;
- b) long $T_{1/2}$;
- c) not cardioselective;
- d) used in left ventricular decompensation;
- e) causes bradycardia.

139. TRUE about esmolol is that...

Variants of answer:

- a) it is β -1-, β -2-blocker;
- b) it has no intrinsic activity;
- c) it has longer $T_{1/2}$;
- d) it precipitates CHF;
- e) it is α -blocker.

140. TRUE about esmolol is that...

Variants of answer:

- a) it is a cardioselective β -blocker;
- b) it increases the airway resistance;
- c) it causes tachycardia;
- d) its $T_{1/2}$ is 4 hrs;
- e) it indicates in AV block.

141. Combined α - and β -blockers are all drugs, except...

Variants of answer:

- a) pindolol;
- b) dilevalol;
- c) «Carvenal»;
- d) labetalol;
- e) carvedilol.

142. The advantage of using cardioselective β -blockers is...

Variants of answer:

- a) less bronchoconstriction;
- b) adverse effect on lipid profile;
- c) cause of glucose intolerance;
- d) treatment of Raynaud's disease;
- e) impairment of exercise capacity.

143. High hepatic excretion ratio is seen in...

Variants of answer:

- a) propranolol;
- b) lidocaine;
- c) ampicillin;
- d) imipramine;
- e) theophylline.

144. Blood brain barrier is crossed by...

Variants of answer:

- a) dopamine;
- b) propranolol;
- c) glycopyrrolate;
- d) physostigmine;
- e) streptomycine.

145. β -blockers with intrinsic sympathomimetic properties are all drugs, except...

Variants of answer:

- a) propranolol;
- b) oxprenolol;
- c) practolol;
- d) pindolol;
- e) celiprolol.

146. Bacteriocidal in ATT is...

Variants of answer:

- a) pyrazinamide;

- b) ethambutol;
- c) PAS;
- d) rifampicin;
- e) isoniazid.

147. Bactericidal effect in ATT has...

Variants of answer:

- a) pyrazinamide;
- b) ethambutol;
- c) PAS;
- d) rifampicin;
- e) isoniazid.

148. Pyridoxine deficiency is seen in...

Variants of answer:

- a) isoniazid;
- b) chronic renal failure (CRF);
- c) CHF;
- d) alcohol;
- e) smoking.

149. Administration of which drug may lead to neuropsychiatric symptoms?

Variants of answer:

- a) cycloserine;
- b) ethionamide;
- c) rifampicin;
- d) cephalosporins;
- e) neomycin.

150. All conditions are features of ethambutol toxicity, except...

Variants of answer:

- a) retrobulbar neuritis;
- b) colour vision defects;
- c) hyperuricemia;
- d) hypercalcemia;
- e) skin rash.

151. Hyperuricemia is a side effect of...

Variants of answer:

- a) INH;
- b) rifampicin;
- c) streptomycin;
- d) pyrazinamide;
- e) ofloxacin.

152. A middle-aged old man, with chronic renal failure is diagnosed to have sputum-positive pulmonary tuberculosis. His creatinine clearance is 25 ml/min. All of the following drugs need modification in doses, except...

Variants of answer:

- a) isoniazid;
- b) streptomycin;
- c) rifampicin;
- d) ethambutol;
- e) kanamycin.

153. Orange-colored urine is due to...

Variants of answer:

- a) rifampicin;
- b) INH;
- c) pyrazinamide;
- d) ethambutol;
- e) ofloxacin.

154. A 30-year-old pregnant woman developed tuberculosis. Which one of the following antitubercular drugs should NOT be used?

Variants of answer:

- a) INH;
- b) rifampicin;
- c) streptomycin;
- d) ethambutol;
- e) amikacin.

155. Patients suffering from multidrug resistant tuberculosis can be treated with all the following drugs, except...

Variants of answer:

- a) tobramycin;
- b) amikacin;
- c) ciprofloxacin;
- d) clarithromycin;
- e) INH.

156. All of the following drugs are examples of bactericidal drugs, except...

Variants of answer:

- a) INH;
- b) rifampicin;
- c) ethambutol;
- d) pyrazinamide;
- e) rifabutine.

157. All of the following substances are drugs for ATT, except...

Variants of answer:

- a) kanamycin;
- b) cycloserine;
- c) 5-flucytosine (5-FC);
- d) ofloxacin;
- e) amikacin.

158. The treatment of contact persons of meningococcal meningitis is by:

Variants of answer:

- a) rifampicin;
- b) erythromycin;
- c) penicillin;
- d) cephalosporins;
- e) INH.

159. A diabetic female on INH and rifampicin for tuberculosis suffers deep vein thrombosis (DVT); she is started on warfarin; prothrombin time (PT) is NOT raised; next step should be...

Variants of answer:

- a) long term heparin therapy;
- b) replacement warfarin with acecoumarin;
- c) replacement rifampicin with ethambutol;
- d) using low molecular weight (LMW) heparin;
- e) replacement warfarin with klopidogrel.

160. The drug inhibiting DNA-dependent RNA polymerase in Mycobacteria tuberculosis is...

Variants of answer:

- a) INH;
- b) rifampicin;
- c) ciprofloxacin;
- d) ethionamide;
- e) amikacin.

161. Which one of the following drugs is NOT a hepatotoxic drug?

Variants of answer:

- a) ethambutol;
- b) rifampicin;
- c) INH;
- d) cycloserine;
- e) amikacin.

162. Administration of which one of the following drugs is known to result in neuropsychiatric symptoms?

Variants of answer:

- a) rifampicin;

- b) cycloserine;
- c) ethionamide;
- d) cephalosporine;
- e) ofloxacin.

163. Which antitubercular drug metabolism is under genetic control?

Variants of answer:

- a) rifampicin;
- b) INH;
- c) cyclosporine;
- d) pyrazinamid;
- e) kanamycin.

164. Drug given in the continuation phase of category II is...

Variants of answer:

- a) isoniazid;
- b) streptomycin;
- c) ethambutol;
- d) pyrazinamide;
- e) rifampicin.

165. Hepatitis is a side effect of all drugs, except...

Variants of answer:

- a) INH;
- b) rifampicin;
- c) pyrazinamide;
- d) ethambutol;
- e) paracetamol.

166. Toxicity of cycloserine is enhanced by...

Variants of answer:

- a) INH;
- b) amphotericin B;
- c) simvastatin;
- d) alcohol;
- e) ethambutol.

167. Bactericidal ATT is provided with...

Variants of answer:

- a) INH;
- b) pyrazinamide;
- c) ethambutol;
- d) para-aminosalicylic acid (PAS);
- e) rifampicin.

168. Hypothyroidism may be caused by...

Variants of answer:

- a) ethionamide;
- b) thiocetazone;
- c) ethambutol;
- d) streptomycin;
- e) INH.

169. Urine is colored by...

Variants of answer:

- a) thiamine;
- b) rifampicin;
- c) mepacrine;
- d) INH;
- e) riboflavin.

170. Cross resistance of isoniazid is seen with...

Variants of answer:

- a) rifampicin;
- b) ethionamide;
- c) cycloserine;
- d) ethambutol;
- e) amikacin.

171. All of the following variants are TRUE about therapy for tuberculosis, except...

Variants of answer:

- a) «flu-like syndrome» is usually seen in people taking rifampicin on daily basis;
- b) ethambutol accumulates in renal failure;
- c) hyperuricemia is a recognized side effect of pyrazinamide;
- d) red-green color impairment is an early sign of ethambutol-induced optic neuritis;
- e) deficiency of pyridoxine is for ethambutol.

172. Which ATT will cause transient memory loss?

Variants of answer:

- a) ethionamide;
- b) INH;
- c) ethambutol;
- d) pyrazinamide;
- e) amikacin.

173. Clinically significant drug interaction occurs between pyridoxine and all the following drugs, except...

Variants of answer:

- a) isoniazid;

- b) cyclosporine;
- c) levodopa;
- d) hydralazine;
- e) carbidopa.

174. Altered taste sensation is caused by...

Variants of answer:

- a) pefloxacin;
- b) rifampicin;
- c) ciprofloxacin;
- d) captopril;
- e) ofloxacin.

175. Which one of the following drugs is NOT a prodrug?

Variants of answer:

- a) lisinopril;
- b) enalapril;
- c) levodopa;
- d) sulindac;
- e) perindopril.

176. Altered taste sensation is caused by...

Variants of answer:

- a) pefloxacin;
- b) ciprofloxacin;
- c) captopril;
- d) rifampicin;
- e) ethambutol.

177. An elderly hypertensive has DM and bilateral renal artery stenosis.

The best management is...

Variants of answer:

- a) enalapril;
- b) verapamil;
- c) β -blockers;
- d) thiazides;
- e) α -blockers.

178. Basanti , 23-year-old pregnant woman presents with features of dilated cardiomyopathy. Which one of the following drugs one should NOT give to treat her?

Variants of answer:

- a) digoxin;
- b) ACE inhibitors;

- c) diuretics;
- d) vasodilators;
- e) nitric oxide donators.

179. Which one of the following conditions is NOT an adverse effect of ACE inhibitors?

Variants of answer:

- a) cough;
- b) hypokalemia;
- c) angioneurotic edema;
- d) skin rash;
- e) bronchospasmus.

180. Enalapril is contraindicated in all of the following conditions, except...

Variants of answer:

- a) diabetic nephropathy with albuminuria;
- b) single kidney;
- c) bilateral renal artery stenosis;
- d) hyperkalemia;
- e) CHF.

181. All conditions are side effects of lisinopril, except...

Variants of answer:

- a) dizziness;
- b) jaundice;
- c) cough;
- d) angioneurotic edema;
- e) hyperkalemia.

182. Side-effects of captopril are all conditions, except...

Variants of answer:

- a) cough;
- b) hyperkalemia;
- c) renal dysfunction;
- d) hemolytic anemia;
- e) hypotension.

183. Which one of the following variants is NOT TRUE about enalapril?

Variants of answer:

- a) it is a prodrug;
- b) it is a dipeptide;
- c) it is more effective drug than captopril;
- d) it has less adverse effects;
- e) it must metabolize in the liver.

184. Examples of prodrug are all agents, except...

Variants of answer:

- a) levodopa;
- b) omeprazole;
- c) enalapril;
- d) indomethacin;
- e) perindopril.

185. ACE inhibitors are contraindicated in...

Variants of answer:

- a) unilateral renal artery stenosis with single kidney;
- b) proteinuria with DM;
- c) MI;
- d) hypotension;
- e) CHF.

186. ACE inhibitors cause all conditions, except...

Variants of answer:

- a) dry cough;
- b) taste changes;
- c) first dose hypotension;
- d) ankle edema;
- e) angioedema.

187. All of the following agents are prodrugs, except...

Variants of answer:

- a) phenytoin;
- b) dipivefrine;
- c) enalapril;
- d) 6-MP;
- e) perindopril.

188. Drug which causes fetal renal anomalies is...

Variants of answer:

- a) enalapril;
- b) furosemide;
- c) amlodipine;
- d) phenytoin;
- e) thorasemide.

189. Action of ATII ...

Variants of answer:

- a) is systemic vasoconstriction;
- b) is systemic vasodilatation;

- c) is renal vasodilatation;
- d) decreases reabsorption of Na in proximal renal tubule;
- e) decreases HR.

190. Enalapril acts by...

Variants of answer:

- a) ACE inhibition;
- b) ATII receptor blocker;
- c) CCB;
- d) direct vasodilation;
- e) vasoconstriction.

191. A patient was started on antihypertensive medications; developed renal failure, the drug caused is...

Variants of answer:

- a) α,β -blocker;
- b) CCB;
- c) ACE inhibitor;
- d) clonidine;
- e) ATII receptor blocker (sartan).

192. All of the following conditions are the indications for use of ACE inhibitors, except...

Variants of answer:

- a) AH;
- b) MI;
- c) left ventricular dysfunction;
- d) pheochromocytoma;
- e) CHF.

193. The most significant adverse effect of ACE inhibition is...

Variants of answer:

- a) hypotension;
- b) AH;
- c) hypocalcemia;
- d) hypercalcemia;
- e) hyperuricemia.

194. Which agent is a prodrug?

Variants of answer:

- a) enalapril;
- b) clonidine;
- c) salmeterol;
- d) acetazolamide;
- e) lisinopril.

195. Which one of the following agents is NOT a prodrug?

Variants of answer:

- a) enalapril;
- b) oxcarbazepine;
- c) chloral hydrate;
- d) diazepam;
- e) perindopril.

196. Using of the following drug to treat AH with pregnancy is contraindicated...

Variants of answer:

- a) enalapril;
- b) methyldopa;
- c) nifedipine;
- d) labetalol;
- e) metoprolol.

197. Which one of the following agents is a prodrug?

Variants of answer:

- a) enalapril;
- b) neostigmine;
- c) esmolol;
- d) captopril;
- e) lisinopril.

198. All variants are TRUE about losartan, except...

Variants of answer:

- a) it is ATII antagonist;
- b) it causes hyperuricemia;
- c) it does not cause cough;
- d) long acting metabolites;
- e) group of sartans.

199. ACE inhibitors are contraindicated in bilateral renal artery stenosis because...

Variants of answer:

- a) ATII has direct effect on glomerular filtration rate (GFR);
- b) it enhances bradykinin action;
- c) hyperreninism affects renal parenchyma;
- d) it affects PGs;
- e) it affects leucotriens.

200. A 60-year-old hypertensive patient on ATII receptor antagonists (losartan) is posed for hernia repair surgery. The antihypertensive drug should be...

Variants of answer:

- a) continued till the day of operation;

- b) discontinued 24 hours preoperatively;
- c) discontinued one week preoperatively;
- d) administered in an increased dosage on the day of operation;
- e) discontinued one month preoperatively.

201. All of the following statements are TRUE regarding losartan, except...

Variants of answer:

- a) it is a competitive ATII receptor antagonist;
- b) it has a long acting metabolite;
- c) it is a prodrug;
- d) it causes hyperuricemia;
- e) it causes hyperkalemia.

202. Using of α_2 -agonist causes all conditions, except...

Variants of answer:

- a) sedation;
- b) AH;
- c) glaucoma;
- d) benign prostatic hyperplasia (BPH);
- e) myocardial ischemia.

203. Which drug has maximum nicotinic effect?

Variants of answer:

- a) bethanechol;
- b) carbachol;
- c) pilocarpine;
- d) methacoline;
- e) aceclidine.

204. Which one of the following drugs increases GIT motility?

Variants of answer:

- a) glycopyrrolate;
- b) atropine;
- c) neostigmine;
- d) fentanyl;
- e) ipratropium bromide.

205. Sympathomimetic drugs are useful in the therapy of all of the following conditions, except...

Variants of answer:

- a) acute decompensated heart failure;
- b) hypotension;
- c) AH;
- d) erectile dysfunction;
- e) bradyarrhythmia.

206. Neostigmine is a:

Variants of answer:

- a) primary ammonium compound;
- b) secondary ammonium compound;
- c) tertiary ammonium compound;
- d) quaternary ammonium compound;
- e) primary chloride compound.

207. Drug of choice in acute central anticholinergic syndrome is...

Variants of answer:

- a) neostigmine;
- b) physostigmine;
- c) tacrine;
- d) 4-aminopyridine;
- e) pylocarpin.

208. All of the following statements are TRUE, except...

Variants of answer:

- a) IV noradrenaline increases systolic and diastolic BP and causes tachycardia;
- b) IV adrenaline increases systolic, decreases diastolic BP and causes tachycardia;
- c) IV isoproterenol causes no change in systolic, decreases diastolic BP and causes tachycardia;
- d) dopamine decreases peripheral resistance and improves renal perfusion;
- e) IV adrenaline decreases systolic, decreases diastolic BP and causes tachycardia.

209. All drugs are α -adrenergic agonists, except...

Variants of answer:

- a) mephentermine;
- b) ritodrine;
- c) methoxamine;
- d) phenylephrine;
- e) «Mezaton».

210. Buprenorphine is a...

Variants of answer:

- a) partial agonist;
- b) pure antagonist;
- c) agonist-antagonist;
- d) none of the mentioned variants;
- e) strong agonist.

211. All of the following drugs are reversible anticholinesterases, except...

Variants of answer:

- a) physostigmine;

- b) ambenonium;
- c) pyridostigmine;
- d) echothiophate;
- e) neostigmin.

212. All of the following conditions are features of sympathetic stimulation of heart, except...

Variants of answer:

- a) increasing contractility;
- b) increasing HR;
- c) increasing refractory period;
- d) increasing conduction velocity;
- e) increasing automatism.

213. All drugs are classified as reversible anticholinesterases, except...

Variants of answer:

- a) ambenonium;
- b) physostigmine;
- c) pyridostigmine;
- d) echothiophate;
- e) neostigmin.

214. Maximal nicotinic effect is seen with...

Variants of answer:

- a) pilocarpine;
- b) carbachol;
- c) bethanechol;
- d) methacholine;
- e) atropin.

215. Vasomotor reversal of Dale is seen with...

Variants of answer:

- a) α -blocker;
- b) β -blocker;
- c) α -agonist;
- d) β -agonist;
- e) muscarinic agonist.

216. Cheese reaction with MAO inhibitors is due to...

Variants of answer:

- a) guanethidine;
- b) reserpine;
- c) cough remedies;
- d) tyramine;
- e) serotonin.

217. Vasomotor reversal of Dale is...

Variants of answer:

- a) stimulation of α_1 receptors;
- b) stimulation of α_2 receptors;
- c) stimulation of β_1 receptors;
- d) stimulation of β_2 receptors;
- e) stimulation of muscarinic receptors.

218. Neurochemical mechanism of analgesia is...

Variants of answer:

- a) vanilloid receptor (VR-1);
- b) nicotinic cholinergic drug;
- c) nocistatin pattern;
- d) nociceptin pattern;
- e) anandamide.

219. TRUE about tachyphylaxis is (has)...

Variants of answer:

- a) direct sympathemimetic involved;
- b) mechanism clearly understood;
- c) that ephedrine tachyphylaxis reversed with noradrenaline;
- d) indirect sympathomimetics involved;
- e) an anaphylaxis reaction.

220. α -1 adrenoreceptor stimulation produces...

Variants of answer:

- a) increasing HR;
- b) decreasing BP;
- c) decreasing HR;
- d) none of mentioned variants;
- e) bronchospasm.

221. Ganglion blockers act by...

Variants of answer:

- a) inhibition of release of acetylcholine;
- b) competing for acetylcholine receptor;
- c) preventing conduction from pre-, postganglionic fiber;
- d) inhibition of acetylcholine destruction;
- e) inhibition of α -receptors.

222. Vasomotor reversal of Dale is due to...

Variants of answer:

- a) α -blocker;
- b) β -blocker;

- c) acetylcholine inhibitor;
- d) all of the mentioned variants;
- e) nicotinic inhibitor.

223. TRUE statement is that...

Variants of answer:

- a) β_1 receptors in heart stimulate its contractions;
- b) β_2 receptors in heart stimulate its contractions;
- c) β_3 receptors are present in smooth muscles;
- d) α -receptors cause preganglionic stimulation;
- e) α_1 receptors in heart stimulate its contractions.

224. Neostigmine...

Variants of answer:

- a) is a quaternary ammonium compound;
- b) is metabolised in liver;
- c) can cross the blood brain-barrier;
- d) is prominent effect on smooth muscles;
- e) is a primary ammonium compound.

225. Which one of the following drugs is NOT an α -adrenoreceptor agonist?

Variants of answer:

- a) clonidine;
- b) phentolamine;
- c) guanabenz;
- d) guanfacine;
- e) betaxolol.

226. Neostigmine is antagonist of non-depolarizing blockers by all of the following mechanisms, except...

Variants of answer:

- a) decreasing the breakdown of acetylcholine at the motor end plate;
- b) preventing K^+ efflux from the cell;
- c) increasing the release of acetylcholine at the motor end plate;
- d) depolarization of the motor end plate;
- e) preventing Cl^- efflux from the cell.

227. Impotence is most commonly caused with...

Variants of answer:

- a) CCB;
- b) ACE inhibitors;
- c) ATII receptor antagonists;
- d) β -blockers;
- e) sartans.

228. Drug used for postoperative reversal of muscular paralysis is...

Variants of answer:

- a) neostigmine;
- b) pyridostigmine;
- c) physostigmine;
- d) tubocurarine;
- e) galanthamin.

229. All of the following conditions can be associated with β_2 agonists treatment, except...

Variants of answer:

- a) hyperkalemia;
- b) hyperglycemia;
- c) detrusor relaxation;
- d) relaxation of gut and bronchial muscles;
- e) preventing of preterm labour.

230. All of the following conditions may be associated with the use of β -agonist in preterm labour, except...

Variants of answer:

- a) hyperkalemia;
- b) hyperglycemia;
- c) tachycardia;
- d) relaxation of uterine muscles;
- e) relaxation of gut and bronchial muscles.

231. Which one of the following drugs increases serum level of digitalis drugs?

Variants of answer:

- a) probenecid;
- b) hydrochlorothiazide;
- c) amiodarone;
- d) captopril;
- e) lisinopril.

232. Which one of the following drugs is NOT indicated in digitalis poisoning?

Variants of answer:

- a) potassium;
- b) hemodialysis;
- c) phenytoin;
- d) lidocaine;
- e) digitalis-antidot.

233. Dose of digoxin is NOT altered in...

Variants of answer:

- a) old age;

- b) hepatic disease;
- c) renal disease;
- d) hypercalcemia;
- e) children.

234. Mechanism of action of digitalis is by inhibiting...

Variants of answer:

- a) Ca²⁺ channels;
- b) Na⁺/K⁺ pump;
- c) myoneural junction;
- d) Na⁺/H⁺ pump;
- e) Cl-channels.

235. Digitalis acts in atrial fibrillation by...

Variants of answer:

- a) increasing AV node refractoriness;
- b) decreasing AV node refractoriness;
- c) increasing AV node refractoriness and decreasing AV node refractoriness;
- d) blocking Na⁺/K⁺-ATPase pump;
- e) increasing Na⁺/K⁺-ATPase pump.

236. Mechanism of action (feature) of digitalis ...

Variants of answer:

- a) inhibits Na⁺/K⁺-ATPase pump;
- b) inhibits Na⁺/H⁺-ATPase pump;
- c) is in active metabolites producing in the liver;
- d) inhibits calcium concentration in blood;
- e) increases chloride concentration in blood.

237. All the following drugs are used in digoxin toxicity, except...

Variants of answer:

- a) lidocaine;
- b) hemodialysis;
- c) phenytoin;
- d) potassium;
- e) digitalis-antidot.

238. Which one of the following drugs increases effect of digitalis?

Variants of answer:

- a) furosemide;
- b) triamterene;
- c) amiloride;
- d) spironolactone;
- e) mannitol.

239. Digoxin dose has to be regulated in all conditions, except...

Variants of answer:

- a) hepatotoxicity;
- b) hyperkalemia;
- c) hypokalemia;
- d) hypoxia;
- e) old people.

240. If a patient on digitalis develops ventricular tachycardia, which one of the following drugs one should NOT use in management?

Variants of answer:

- a) amiodarone;
- b) quinidine;
- c) phenytoin;
- d) lidocaine;
- e) drugs of potassium.

241. The following drugs have significant drug interaction with digoxin, except...

Variants of answer:

- a) cholestyramine;
- b) thiazide diuretics;
- c) quinidine;
- d) amlodipine;
- e) thiazide-like diuretics.

242. A 60-year-old man with rheumatic mitral stenosis with atrial fibrillation is on therapy for a fast ventricular rate. While on treatment, he developed a regular pulse of 64 beats per minute. The most likely drug being administered was...

Variants of answer:

- a) verapamil;
- b) digoxin;
- c) carvedilol;
- d) propranolol;
- e) labetalol.

243. Digoxin is NOT indicated in...

Variants of answer:

- a) atrial flutter;
- b) atrial fibrillation;
- c) high output failure;
- d) PSVT;
- e) CHF.

244. Digoxin is contraindicated in...

Variants of answer:

- a) supraventricular tachycardia;
- b) atrial fibrillation;
- c) CHF;
- d) hypertrophic obstructive cardiomyopathy;
- e) stimulation of strength of the heart.

245. The dose of digoxin should be reduced when given along with...

Variants of answer:

- a) quinidine;
- b) rifampicin;
- c) indomethacin;
- d) antacids;
- e) captopril.

246. Digoxin toxicity can be precipitated by all drugs, except...

Variants of answer:

- a) phenytoin;
- b) quinidine;
- c) calcium;
- d) verapamil;
- e) lidocaine.

247. Digitalis has inotropic action due to...

Variants of answer:

- a) initiation of Na^+/K^+ -ATPase;
- b) trapping Ca^{2+} release;
- c) inhibiting Na^+/K^+ -ATPase;
- d) increase in intracellular K^+ ;
- e) increase in intracellular Cl^- .

248. Digoxin is used in CHF due to...

Variants of answer:

- a) hypertrophic obstructive cardiomyopathy (HOCM);
- b) high output failure;
- c) atrial fibrillation (AF) with high ventricular rate;
- d) all the mentioned variants;
- e) negative dromotropic action.

249. Which drugs interaction occurs when quinine and digoxin are given together?

Variants of answer:

- a) quinine increases excretion of digoxin;
- b) quinine displaces digoxin from protein binding sites;

- c) increasing the metabolism of digoxin;
- d) digoxin causes cinchonism;
- e) they don't interact.

250. The best drug in digoxin-induced arrhythmia is...

Variants of answer:

- a) phenytoin;
- b) lidocaine;
- c) quinidine;
- d) procainamide;
- e) ethacizin.

251. Digoxin toxicity is increased in...

Variants of answer:

- a) hypokalemia;
- b) hyperkalemia;
- c) hypercalcemia;
- d) hypermagnesemia;
- e) hypochloremia.

252. Digoxin toxicity is precipitated by all conditions, except...

Variants of answer:

- a) electrolyte disturbance;
- b) acute MI;
- c) hepatic disease;
- d) renal disease;
- e) old age.

253. Nucleoside reverse transcriptase inhibitors (NRTI) is...

Variants of answer:

- a) lamivudine;
- b) zalcitabine;
- c) nevirapine;
- d) delavirdine;
- e) ticlopidine.

254. An HIV-positive patient is on antiretroviral therapy with zidovudine, lamivudine and indinavir. He is proven to be suffering from genito-urinary tuberculosis. Which one of the following drugs should NOT be given to this patient?

Variants of answer:

- a) isoniazid;
- b) rifampicin;
- c) pyrazinamide;
- d) ethambutol;
- e) amikacin.

255. Peripheral neuropathy is seen due to all prolonged use of all drugs, except...

Variants of answer:

- a) zalcitabine;
- b) didanosine;
- c) stavudine;
- d) lamivudine;
- e) zidovudine.

256. Dineshbhali Shah suffering from AIDS is on zidovudine, lamivudine and indinavir therapy. He develops pulmonary tuberculosis for which treatment is to be started. Which one of the following drugs should be avoided in this case?

Variants of answer:

- a) rifampicin;
- b) INH;
- c) ethambutol;
- d) pyrazinamide;
- e) amikacin.

257. Which one of the following drugs will be optimum treatment in a patient of chronic hepatitis B whose serum aspartate aminotransferase (AST) levels are raised?

Variants of answer:

- a) lamivudine;
- b) lamivudine + interferons;
- c) immunoglobulins;
- d) interferons;
- e) all the mentioned variants.

258. All of the following drugs are protease inhibitors, except...

Variants of answer:

- a) nelfinavir;
- b) saquinavir;
- c) abacavir;
- d) ritonavir;
- e) indinavir.

259. Nevirapine is a...

Variants of answer:

- a) protease inhibitor;
- b) NRTI;
- c) non-nucleoside reverse transcriptase inhibitor (NNRTI);
- d) fusion inhibitor;
- e) serotonine inhibitor.

260. Nevirapine belongs to the following group:

Variants of answer:

- a) NNRTI;
- b) protease inhibitors;
- c) fusion inhibitors;
- d) NRTI;
- e) serotonine inhibitors.

261. Which anti-HIV drug does NOT cause peripheral neuropathy?

Variants of answer:

- a) lamivudine;
- b) stavudine;
- c) didanosine;
- d) zalcitabine;
- e) indinavir.

262. Zidovudine is given for HIV in pregnancy because it...

Variants of answer:

- a) decreases chance of vertical transmission;
- b) decrease severity of infection in mother;
- c) decrease severity of infection in new born;
- d) causes no benefit;
- e) has less side effects.

263. Regarding using of ritonavir in AIDS patient which one of the following variants is TRUE?

Variants of answer:

- a) it interacts with terfenadine;
- b) gastrointestinal symptoms are diagnosed;
- c) it is contraindicated in renal failure;
- d) it is NNRTI;
- e) it should not be used in AIDS patient with bleeding disorder.

264. Complication(s) of zidovudine is (are)...

Variants of answer:

- a) nausea and vomiting;
- b) anemia;
- c) steatosis;
- d) all the mentioned variants;
- e) dizziness.

265. Bone marrow depressive drug in the treatment of AIDS patient is...

Variants of answer:

- a) didanosine;

- b) zalcitabine;
- c) «Dapsone»;
- d) «Co-trimoxazole»;
- e) gancyclovir.

266. Nucleoside reverse transcriptase inhibitor is...

Variants of answer:

- a) zalcitabine;
- b) delavirdine;
- c) nevirapine;
- d) stavudine;
- e) lamivudine.

267. Mechanism of action of zidovudine is (are) ...

Variants of answer:

- a) protein synthesis;
- b) NRTI;
- c) nucleic acid synthesis;
- d) cell membranes damage;
- e) ribosomes synthesis.

268. Zidovudine has following side effects, except...

Variants of answer:

- a) decreasing platelets;
- b) megaloblastic anemia;
- c) pancreatitis;
- d) cardiomyopathy;
- e) trombocytopenia.

269. Protease inhibitor is...

Variants of answer:

- a) saquinavir;
- b) nevirapine;
- c) nelfinavir;
- d) abacavir;
- e) efavirenz.

270. Resistance to zidovudine develops due to...

Variants of answer:

- a) mutations at reverse transcriptase;
- b) increased efflux of the drug from inside the cell;
- c) increased metabolism of the drug;
- d) decreased zidovudine-5-triphosphate formation;
- e) decreased metabolism of the drug.

271. Nevirapine is...

Variants of answer:

- a) protease inhibitor;
- b) NRTI;
- c) NNRTI;
- d) fusion inhibitor;
- e) adrenergic inhibitor.

272. False about protease inhibitors in HIV is that...

Variants of answer:

- a) they are powerful enzyme inhibitors;
- b) saquinavir is the most powerful inhibitor of CYP3A4 of all the protease inhibitors;
- c) they cause hepatic toxicity;
- d) all protease inhibitors are substrates for P-glycoprotein coded by multidrug resistance mutation (MDR) gene;
- e) they can cause DM.

273. «Azidothymidine» (zidovudine) has such most common side effect as...

Variants of answer:

- a) hyperuricemia;
- b) pancreatitis;
- c) peripheral neuropathy;
- d) macrocytic anaemia;
- e) arrhythmias.

274. «Aspirin» is used in prophylaxis of MI because...

Variants of answer:

- a) it is an analgesic;
- b) of antiplatelet action;
- c) of sedative effect;
- d) of PGs inhibitory actions;
- e) of serotonergic effect.

275. «Aspirin» is used in cerebrovascular accident because it..

Variants of answer:

- a) inhibits TxA₂ synthetase;
- b) alters RBC membrane;
- c) is COX inhibition;
- d) is PG production inhibition;
- e) is LT's inhibitor.

276. Aspirin is used in MI because it...

Variants of answer:

- a) decreases TxA₂ synthesis;

- b) has analgesic effect;
- c) reduces PG synthesis;
- d) reduces cardiac work;
- e) is LT's inhibitor.

277. Prostaglandins have effects on a variety of tissues. The different prostaglandins may have different effects. Which one of the following statements is NOT correct?

Variants of answer:

- a) the human arteriolar smooth muscle is relaxed by PGE₂ and PGI₂, whereas TxA₂ and PGF_{2α} cause vasoconstriction;
- b) PGE₁ and PGI₂ inhibit platelets aggregation whereas TxA₂ facilitates aggregation;
- c) PGE₂ has marked oxytocin action, while PGF_{2α} has tocolytic action;
- d) PGE₂ is bronchodilator whereas PGF_{2α} is a bronchoconstrictor;
- e) PGE₂ has protective effect on mucous membrane of stomach.

278. Therapeutic uses of PGE₁ include all of the following conditions, except...

Variants of answer:

- a) medical termination of pregnancy;
- b) impotence;
- c) primary pulmonary AH;
- d) maintenance of patent ductus arteriosus (PDA);
- e) all the mentioned variants.

279. Misoprostol is a...

Variants of answer:

- a) PGE₁ analogue;
- b) PGE₂ analogue;
- c) PG antagonist;
- d) antiprogestin;
- e) androgen.

280. Which one of the following PGs is beneficial in NSAID-induced gastric ulcer?

Variants of answer:

- a) PGE₁ agonist;
- b) PGE₂ agonist;
- c) PGD agonist;
- d) PGF₂ agonist;
- e) PGI₂ agonist.

281. Which one of the following drugs would be removed by dialysis?

Variants of answer:

- a) digoxin;

- b) salicylates;
- c) benzodiazepines;
- d) organophosphates;
- e) digitoxin.

282. In low doses aspirin acts on...

Variants of answer:

- a) COX;
- b) TxA₂;
- c) PGI₂;
- d) LOX;
- e) leucotriens.

283. Low doses of «Aspirin» used in MI act by...

Variants of answer:

- a) TxA₂ synthetase inhibiting;
- b) COX inhibiting;
- c) releasing endothelium-derived relaxing factor (EDRF);
- d) high protein binding activity;
- e) protease inhibiting.

284. «Aspirin» is given in MI because it...

Variants of answer:

- a) decreasing PGI₂;
- b) decreasing TxA₂;
- c) decreasing histamine;
- d) decreasing fibrosis;
- e) decreasing cholesterol.

285. Drug to be given within 6 hours of MI is...

Variants of answer:

- a) «Aspirin»;
- b) metoprolol;
- c) streptokinase;
- d) diltiazem;
- e) atorvastatin.

286. «Aspirin» toxicity takes place in the next variant:

Variants of answer:

- a) tinnitus is early symptom;
- b) 10–30 g cause poisoning;
- c) hyperthermia and tachypnea are early complications;
- d) it causes thrombocytopenic purpura;
- e) all the mentioned variants.

287. Non-steroidal anti-inflammatory drugs are useful because they inhibit...

Variants of answer:

- a) COX;
- b) TxA₂;
- c) histamine;
- d) 5-HT;
- e) phospholipase.

288. In «Aspirin» mechanism of action...

Variants of answer:

- a) decreasing LOX;
- b) decreasing COX;
- c) decreasing phospholipase (PhL);
- d) increasing LOX;
- e) increasing COX.

289. Which PG is used in NSAID-induced ulcer?

Variants of answer:

- a) misoprostol;
- b) carboprost;
- c) mirtazapine;
- d) milrinone;
- e) atropin.

290. Which one of the following drugs is COX inhibitor?

Variants of answer:

- a) «Aspirin»;
- b) prednisolone;
- c) misoprostol;
- d) betamethasone;
- e) triamcinolone.

291. Which one of the following statements is NOT TRUE about NSAIDs?

Variants of answer:

- a) acetylsalicylic acid is an irreversible inhibitor of COX enzyme;
- b) salicylic acid reduces in vivo synthesis of PGs;
- c) duration of action of «Aspirin» is primarily related to the pharmacokinetic clearance of the drug from the body;
- d) antiplatelet effect of low-dose «Aspirin» is related to presystemic COX inhibition;
- e) bleeding is a side effect of «Aspirin».

292. Which one of the following drugs has covalent interaction with its target?

Variants of answer:

- a) «Aspirin»;
- b) penicillin;

- c) nitric oxide;
- d) bosentan;
- e) cephalosporin.

293. Which NSAID undergoes enterohepatic circulation?

Variants of answer:

- a) phenylbutazone;
- b) «Aspirin»;
- c) ibuprofen;
- d) piroxicam;
- e) nimesulid.

294. Mechanism of action of «Aspirin» in MI is...

Variants of answer:

- a) TxA₂ synthesis inhibition;
- b) TxA₂ synthesis stimulation;
- c) antagonist of adenosine;
- d) stimulation of PGF₂ synthesis;
- e) antagonist of serotonin.

295. Chronic thiazide therapy causes persistent hypercalcemia due to...

Variants of answer:

- a) renal tubular acidosis;
- b) Fanconi's syndrome;
- c) hypervitaminosis D;
- d) hyperparathyroidism;
- e) all the mentioned variants.

296. Glucose intolerance is seen with such drug(s) as...

Variants of answer:

- a) thiazide diuretics;
- b) β-blockers;
- c) verapamil;
- d) ACE inhibitors;
- e) α-blockers.

297. The diuretic group that does NOT require access to the tubular lumen to induce diuresis is...

Variants of answer:

- a) carbonic anhydrase inhibitors;
- b) Na⁺/Cl⁻ symport inhibitors;
- c) mineralocorticoid antagonists;
- d) Na⁺/K⁻ symport inhibitors;
- e) loop diuretics.

298. Spironolactone is contraindicated with such drug as...

Variants of answer:

- a) enalapril;
- b) atenolol;
- c) verapamil;
- d) none of the mentioned drugs;
- e) furosemide.

299. Which one of the following drugs causes increased concentration of Na^+ and Cl^- in urine with normal bicarbonate?

Variants of answer:

- a) ethacrynic acid;
- b) furosemide;
- c) acetazolamide;
- d) bumetanide;
- e) thorasemide.

300. Furosemide causes all conditions, except...

Variants of answer:

- a) hyperuricemia;
- b) ototoxicity;
- c) hypercalcemia;
- d) hypokalemia;
- e) hyperglycemia.

301. Antidiuretic hormone (ADH) acts on...

Variants of answer:

- a) proximal convoluted tubules;
- b) distal convoluted tubules;
- c) loop of Henle;
- d) collecting ducts;
- e) Bowman's capsule.

302. Furosemide and thiazides have similar features in the following variants:

Variants of answer:

- a) duration of action;
- b) site of action;
- c) effect on urate excretion;
- d) well-absorbed orally;
- e) all the mentioned variants.

303. Which drug is contraindicated in chronic renal failure?

Variants of answer:

- a) furosemide;

- b) ethacrynic acid;
- c) triamterene;
- d) bumetanide;
- e) thorasemide.

304. All the statements about triamterene are TRUE, except...

Variants of answer:

- a) saluretic effect of triamterene is more than thiazide;
- b) triamterene is often combined with thiazide;
- c) triamterene action seems amiloride one;
- d) it is a K⁺ sparing diuretic;
- e) it decreases Na⁺.

305. Potassium sparing diuretics include all drugs, except...

Variants of answer:

- a) bumetanide;
- b) triamterene;
- c) amiloride;
- d) spironolactone;
- e) all the mentioned variants.

306. Carbonic anhydrase inhibitor is given in all conditions, except...

Variants of answer:

- a) sulfonamide hypersensitivity;
- b) glaucoma;
- c) mountain sickness;
- d) epilepsy;
- e) CHF.

307. Osmotic diuretics cause all the variants, except...

Variants of answer:

- a) inhibiting renin release;
- b) increasing intravascular volume;
- c) reducing salt reabsorption in ascending limb;
- d) none of the mentioned variants;
- e) all the mentioned variants.

308. Free water clearance is decreased by...

Variants of answer:

- a) vincristine;
- b) vinblastine;
- c) chlorpropamide;
- d) furosemide;
- e) verapamil.

309. Aldosterone antagonists are NOT useful in the treatment of...

Variants of answer:

- a) AH;
- b) CHF;
- c) gynaecomastia;
- d) hirsutism;
- e) liver cirrhosis.

310. Which one of the following diuretics does NOT require its presence in the tubular lumen for its pharmacological effects?

Variants of answer:

- a) thiazide diuretics;
- b) loop diuretics;
- c) carbonic anhydrase inhibitors;
- d) aldosterone antagonists;
- e) osmotic diuretics.

311. Which one of the following statements is TRUE about furosemide?

Variants of answer:

- a) it is given only by IV route;
- b) it causes mild diuresis;
- c) it is used in pulmonary edema;
- d) it acts on proximal convoluted tubule;
- e) it is used in renal edema.

312. Which one of the following variants about thiazides is FALSE?

Variants of answer:

- a) it is used in CHF;
- b) it causes hyperglycemia;
- c) it increases uric acid concentration in serum;
- d) it increases Ca^{++} excretion in urine;
- e) it causes hyponatremia.

313. Administration of betamethasone during delivery causes all variants, except...

Variants of answer:

- a) decreasing neonatal mortality;
- b) decreasing incidence of acute respiratory distress syndrome (ARDS);
- c) decreasing incidence of intraventricular haemorrhage;
- d) decreasing incidence of hyperbilirubinemia;
- e) decreasing uterus tone.

314. All conditions are side effects of steroids given in anti-inflammatory dosages, except...

Variants of answer:

- a) DM;

- b) hyperkalemia;
- c) osteoporosis;
- d) Na⁺ and water retention;
- e) AH.

315. The lymphocytopenia seen a few hours after administration of a large dose of prednisone to a patient with lymphocytic leukemia is due to...

Variants of answer:

- a) massive lymphocytic apoptosis;
- b) bone marrow depression;
- c) activation of cytotoxic cells;
- d) stimulation of natural killer cell activity;
- e) activation of T-killers.

316. All of the following drugs have receptors which are transcription factors, except...

Variants of answer:

- a) insulin;
- b) estrogen;
- c) glucocorticoids;
- d) vitamin D;
- e) androgen.

317. Which one of the following statements is TRUE of adrenal suppression due to steroid therapy?

Variants of answer:

- a) it is not associated with atrophy of the adrenal glands;
- b) it does not occur in patients receiving inhaled steroids;
- c) it should be expected in anyone receiving > 5 mg of prednisolone daily;
- d) following cessation, the stress response normalizes after 8 weeks;
- e) it must be given at 12 o'clock.

318. All of the following statements about steroids are correct, except...

Variants of answer:

- a) it inhibits the release of arachidonic acid from vessel wall through action of phospholipase;
- b) it binds plasma membrane receptors with following internalization of influence nuclear changes;
- c) it inhibits vascular membrane permeability;
- d) it increases glucose synthesis and glycogen deposition in liver;
- e) it increases blood pressure.

319. All the following receptors belong to the steroid receptor superfamily, except...

Variants of answer:

- a) vitamin D3 receptors;

- b) thyroid receptors;
- c) retinoid receptors;
- d) epinephrine receptors;
- e) parathyroid receptors.

320. Adrenal steroids are contraindicated in all conditions, except...

Variants of answer:

- a) severe AH;
- b) osteoporosis;
- c) DM;
- d) glomerulonephritis;
- e) infections.

321. Which one of the following steroids can be administered by inhalation?

Variants of answer:

- a) beclomethasone;
- b) betamethasone;
- c) prednisolone;
- d) hydrocortisone;
- e) triamcinolone.

322. Estrogen acts on...

Variants of answer:

- a) cellular membrane receptor;
- b) cytoplasmic receptors;
- c) nuclear receptors;
- d) mitochondria;
- e) ribosomes.

323. Which one of the following drugs is presented intracellularly in muscle cells?

Variants of answer:

- a) insulin;
- b) corticosteroid;
- c) epinephrine;
- d) glucagon;
- e) adrenaline.

324. Amongst the following drugs, least glucocorticoid activity is seen with...

Variants of answer:

- a) fludrocortisone;
- b) dexamethasone;
- c) triamcinolone;
- d) betamethasone;
- e) beclomethasone.

325. Prolonged use of steroids may cause...

Variants of answer:

- a) decrease in bone matrix protein;
- b) hypoglycemia;
- c) hypotension;
- d) early healing of wound;
- e) decrease of calcium.

326. Intracellular receptor activation is by...

Variants of answer:

- a) thyrotropin;
- b) noradrenaline;
- c) estradiol;
- d) glucagon;
- e) adrenaline.

327. Reduced inflammation in airway is produced by...

Variants of answer:

- a) fluticasone;
- b) budesonide;
- c) theophylline;
- d) salbutamol;
- e) ipratropium.

328. Glucocorticoids act in inflammation by...

Variants of answer:

- a) decreasing lipocortin;
- b) increasing IL-2;
- c) increasing lipocortin;
- d) increasing C-reactive protein (CRP);
- e) increasing leucotriens.

329. Glucocorticoids cause...

Variants of answer:

- a) decreasing osteoid formation;
- b) insulin-like growth factor (IGF) stimulation;
- c) increasing Ca⁺⁺ absorption from stomach;
- d) calcification of bone;
- e) hypotension.

330. Drug(s) causing hyperglycemia is(are)...

Variants of answer:

- a) ACE inhibitors;
- b) glucocorticoids;
- c) alcohol;
- d) indomethacin;
- e) paracetamol.

331. Repolarisation of ventricles is prolonged by such antiarrhythmic drug as...

Variants of answer:

- a) amiodarone;
- b) quinidine;
- c) lidocaine;
- d) procainamide;
- e) metoprolol.

332. All statements are TRUE regarding antiarrhythmics, except...

Variants of answer:

- a) verapamil belongs to second group drugs;
- b) it is drug of choice for PSVT;
- c) it is contraindicated in complete heart block;
- d) it depresses HR;
- e) it causes bradycardia.

333. A 50-year-old man had an attack of MI and developed ventricular ectopics and low ejection fraction. Which one of the following antiarrhythmic treatment methods is to be given to him?

Variants of answer:

- a) flecainide;
- b) mexiletine;
- c) β -blockers;
- d) radio-frequency ablation technique;
- e) vinblastin.

334. Which one of the following statements is NOT TRUE about sotalol?

Variants of answer:

- a) it is a non-selective β -blocker;
- b) it prolongs action potential duration throughout the heart;
- c) it is excreted through bile following hepatic metabolism;
- d) polymorphic ventricular tachycardia is a common side effect of this drug;
- e) it causes bronchospasm.

335. Quinidine is a...

Variants of answer:

- a) Na^+ channel-blocker;
- b) K^+ channel blocker;
- c) Ca^{++} channel blocker;
- d) Cl^- channel blocker;
- e) Mg^{++} channel blocker.

336. Systemic lupus erythematosus-like (SLE-like) syndrome is most commonly associated with administration of...

Variants of answer:

- a) rifampicin;
- b) procainamide;
- c) digitalis;
- d) phenytoin;
- e) lidocaine.

337. Tocainide has all the features, except...

Variants of answer:

- a) it is used in ventricular tachycardia;
- b) it prolongs aminopropylidene bisphosphonate;
- c) it is used as lidocaine analogue;
- d) it is used orally;
- e) it decreases HR.

338. Which one of the following drugs is the drug of choice for PSVT?

Variants of answer:

- a) lidocaine;
- b) verapamil;
- c) flecainide;
- d) tocavide;
- e) ethacizine.

339. The drug of choice in PSVT is...

Variants of answer:

- a) digoxin;
- b) propranolol;
- c) lidocaine;
- d) adenosine;
- e) flecainide.

340. Drug of choice in PSVT is...

Variants of answer:

- a) verapamil;
- b) propranolol;
- c) direct current (DC) shock;
- d) digoxin;
- e) flecainide.

341. Which one of the following statements regarding adenosine is NOT TRUE?

Variants of answer:

- a) it is used in PSVT;

- b) it is administered as rapid IV injection;
- c) it has short lived side effects;
- d) disopyramide increases its therapeutic effect;
- e) hypotension is its side effect.

342. Pharmacological defibrillator is...

Variants of answer:

- a) adenosine;
- b) bretylium;
- c) lidocaine;
- d) amiodarone;
- e) metoprolol.

343. Drug producing antinuclear antibodies (ANAs) is...

Variants of answer:

- a) phenytoin;
- b) penicillin;
- c) INH;
- d) procainamide;
- e) rifampicin.

344. TRUE about quinidine is that...

Variants of answer:

- a) it increases effective refractory period;
- b) it is used in AH;
- c) it causes paradoxical tachycardia;
- d) it decreases absolute refractory period;
- e) cinchonism is seen during using.

345. Paroxysmal supraventricular tachycardia is best treated by...

Variants of answer:

- a) adenosine;
- b) lidocaine;
- c) phenytoin;
- d) quinidine;
- e) amiodaron.

346. Drug causing SLE is...

Variants of answer:

- a) INH;
- b) hydralazine;
- c) procainamide;
- d) ranitidine;
- e) methyldopa.

347. Which antiarrhythmic drug is NOT class IC agent?

Variants of answer:

- a) propafenone;
- b) tocainide;
- c) flecainide;
- d) encainide;
- e) ethacizin.

348. Drug of choice in PSVT is...

Variants of answer:

- a) adenosine;
- b) digitalis;
- c) procainamide;
- d) mexiletine;
- e) lidocaine.

349. NOT an effect of bromocriptine (is) ...

Variants of answer:

- a) dopamine agonist;
- b) increases prolactin release;
- c) decreases prolactin release;
- d) all the mentioned variants;
- e) adrenalin agonist.

350. Bromocriptine is NOT used in...

Variants of answer:

- a) induction of ovulation;
- b) galactorrhoea;
- c) post pill amenorrhoea;
- d) luteal phase defect;
- e) decreasing of estrogen.

351. Which one of the following statements is TRUE regarding drugs used in treatment of parkinsonism?

Variants of answer:

- a) amantadine causes ankle edema;
- b) levodopa is particularly effective in reducing tremors;
- c) amantadine is more effective than levodopa;
- d) antimuscarinics are effective in drug-induced parkinsonism (DIP);
- e) MAO-B drugs are effective in DIP.

352. Prolactin secretion is inhibited by...

Variants of answer:

- a) haloperidol;
- b) GABA;

- c) neurophysin;
- d) dopamine;
- e) valproat.

353. Prolactin secretion is inhibited by...

Variants of answer:

- a) dopamine antagonist;
- b) GABA;
- c) neurophysin;
- d) bromocriptine;
- e) ephedrin.

354. Antipsychotic DIP is treated by...

Variants of answer:

- a) anticholinergic drugs;
- b) levodopa;
- c) selegiline;
- d) amantadine;
- e) dopamine.

355. All the following statements regarding interactions of levodopa are correct, except...

Variants of answer:

- a) in parkinsonism, phenothiazines reduce its efficacy;
- b) it is a prodrug;
- c) pyridoxine reduces effect of levodopa in parkinsonism;
- d) domperidone blocks levodopa-induced emesis and its therapeutic potential;
- e) its side effect is orthostatic hypotension.

356. Selegiline is a selective inhibitor of...

Variants of answer:

- a) MAO-A;
- b) MAO-B;
- c) dopamine;
- d) norepinephrine-uptake;
- e) MAO-A and MAO-B.

357. A patient of parkinsonism is managed with levodopa. If vitamin B-complex is administered concurrently then...

Variants of answer:

- a) the action of levodopa in brain will be potentiated;
- b) decarboxylation of levodopa in brain will be decreased;
- c) side effects will be ameliorated;
- d) decreased efficacy will result;
- e) all the mentioned variants.

358. FALSE statement about selegiline is that...

Variants of answer:

- a) it is a MAO-A inhibitor;
- b) it does not cause cheese reaction;
- c) it may be used in on-off phenomenon;
- d) it is used in parkinsonism;
- e) it is a MAO-B inhibitor.

359. Levodopa is given along with carbidopa...

Variants of answer:

- a) to prevent peripheral decarboxylation of levodopa;
- b) to reduce side effects;
- c) to increase compliance;
- d) to increase $T_{1/2}$;
- e) to increase metabolism.

360. Amantadine acts by...

Variants of answer:

- a) inhibiting replication;
- b) inhibiting mRNA;
- c) inhibiting tRNA;
- d) inhibiting DNA;
- e) inhibiting DNA, RNA.

361. Drugs causing parkinsonism include...

Variants of answer:

- a) bromocriptine;
- b) phenothiazine;
- c) haloperidol;
- d) amantadine;
- e) carbidopa.

362. Decreased prolactin level is seen with...

Variants of answer:

- a) phenothiazine;
- b) reserpine;
- c) dopamine;
- d) verapamil;
- e) fluoxetine.

363. Treatment of Parkinson's disease includes...

Variants of answer:

- a) levodopa;
- b) mazindol;
- c) bromocriptine;

- d) acyclovir;
- e) benserazide.

364. TRUE regarding bromocriptine is that it...

Variants of answer:

- a) is natural derivative;
- b) is synthetic derivative;
- c) has α -blocking action;
- d) decreases GIT motility;
- e) acts on both D1 and D2 receptors.

365. Ropinirole is the most useful drug for the treatment of...

Variants of answer:

- a) Parkinson's disease;
- b) Wilson's disease;
- c) Hoffman's syndrome;
- d) carpal tunnel syndrome;
- e) myasthenia gravis.

366. Which drug has wide therapeutic index?

Variants of answer:

- a) digoxin;
- b) lithium;
- c) phenytoin;
- d) penicillin;
- e) phenobarbital.

367. A 70-year-old man was administered penicillin IV. Within 5 minutes, he developed generalized urticaria, swelling of lips, hypotension and bronchospasm. The first choice of treatment is to administer...

Variants of answer:

- a) chlorpheniramine injection;
- b) epinephrine injection;
- c) high dose hydrocortisone tablets;
- d) nebulized salbutamol;
- e) loratadine tablets.

368. The drug of choice for thoracic actinomycosis is...

Variants of answer:

- a) amphotericin B;
- b) penicillin;
- c) «Co-trimoxazole»;
- d) itraconazole;
- e) cephalexin.

369. Penicillin G is used for treatment of all of the following infections, except...

Variants of answer:

- a) bacterial meningitis;
- b) rickettsial infection;
- c) syphilis;
- d) anthrax;
- e) staphylococcus.

370. Cell wall synthesis is inhibited by all of the following drugs, except...

Variants of answer:

- a) amoxicillin;
- b) penicillin G;
- c) tetracycline;
- d) cefotetan;
- e) penicillin V.

371. All of the following statements regarding penicillin G are TRUE, except...

Variants of answer:

- a) they can be given orally;
- b) they are active against Gram-positive organisms;
- c) probenecid given along with penicillin G increases its duration of action;
- d) they acts by inhibition of cell wall synthesis;
- e) they are active against syphilis.

372. The drug of choice for treatment of neurosyphilis is...

Variants of answer:

- a) benzathine penicillin G;
- b) procaine penicillin G;
- c) penicillin V;
- d) tetracycline;
- e) cephazolin.

373. Which one of the following drugs is NOT penicillinase susceptible?

Variants of answer:

- a) amoxicillin;
- b) penicillin G;
- c) piperacillin;
- d) cloxacillin;
- e) penicillin V.

374. A post-operative patient developed septicemia and was empirically started on combination chemotherapy by a new resident doctor. However, when the patient did not respond even after 10 days of antibiotics treatment, the review of the charts was done. It was found that the resident doctor had started the combination of antibiotics which was mutually antagonistic in action. Which one of the following combinations is the most likely one that was given?

Variants of answer:

- a) vancomycin and amikacin;

- b) cephalexin and gentamicin;
- c) ampicillin and chloramphenicol;
- d) ciprofloxacin and piperacillin;
- e) piperacillin and azteronam.

375. All of the following drugs undergo hepatic metabolism before excretion, except...

Variants of answer:

- a) phenytoin;
- b) diazepam;
- c) penicillin G;
- d) cimetidine;
- e) warfarin.

376. All the following antibiotics act on the cell wall, except...

Variants of answer:

- a) ampicillin;
- b) bacitracin;
- c) cycloserine;
- d) griseofulvin;
- e) vancomycin.

377. Drug contraindicated in infectious mononucleosis is...

Variants of answer:

- a) ampicillin;
- b) doxycycline;
- c) atropine;
- d) gentamicin;
- e) neostigmin.

378. Treatment for penicillinase producing organism is...

Variants of answer:

- a) ampicillin;
- b) cloxacillin;
- c) methicillin;
- d) tetracycline;
- e) cephaloridine.

379. Amoxicillin clavulanic acid combination...

Variants of answer:

- a) increasing spectrum;
- b) increasing $T_{1/2}$ of amoxicillin;
- c) increasing $T_{1/2}$ of both;
- d) increasing side effects;
- e) all the mentioned variants.

380. When allergic to penicillin, such drugs are contraindicated as...

Variants of answer:

- a) monobactams;
- b) carbapenems;
- c) cephalosporins;
- d) macrolides;
- e) tetracyclins.

381. Drug NOT metabolised by liver is...

Variants of answer:

- a) penicillin G;
- b) phenytoin;
- c) erythromycin;
- d) cimetidine;
- e) warfarin.

382. Drug of choice of AH in pregnancy is...

Variants of answer:

- a) methyldopa;
- b) hydrochlorothiazide;
- c) nifedipine;
- d) labetalol;
- e) propranolol.

383. Absolutely contraindicated antihypertensive drug in pregnancy is...

Variants of answer:

- a) enalapril;
- b) diazoxide;
- c) atenolol;
- d) nifedipine;
- e) methyldopa.

384. Which antithyroid drug can be safely used in pregnancy?

Variants of answer:

- a) propylthiouracil;
- b) potassium iodide;
- c) methimazole;
- d) carbimazole;
- e) levothyroxin.

385. Use of which of the following drug is contraindicated in pregnancy?

Variants of answer:

- a) digoxin;
- b) nifedipine;
- c) amoxicillin;

- d) enalapril;
- e) methyldopa.

386. Alcohol intake during pregnancy causes all conditions, except...

Variants of answer:

- a) brachycephaly;
- b) microcephaly;
- c) hyperkinetic movements;
- d) congenital anomalies;
- e) teratogenic effect.

387. The drug of choice for the treatment of thyrotoxicosis during pregnancy is...

Variants of answer:

- a) carbimazole;
- b) iodine therapy;
- c) propylthiouracil;
- d) metimazole;
- e) "L-thyroxin".

388. Drug of choice for epilepsy in pregnancy is...

Variants of answer:

- a) carbamazepine;
- b) sodium valproate;
- c) phenobarbitone;
- d) phenytoin;
- e) carbidopa.

389. Drug contraindicated in pregnancy...

Variants of answer:

- a) clonidine;
- b) enalapril;
- c) methyldopa;
- d) hydralazine;
- e) metoprolol.

390. The antihypertensive drug contraindicated in pregnancy is...

Variants of answer:

- a) enalapril;
- b) hydralazine;
- c) clonidine;
- d) α -methyldopa;
- e) metoprolol.

391. Isotretinoin is...

Variants of answer:

- a) vitamin A analogue;
- b) used in cystic acne;
- c) safe in pregnancy;
- d) used in psoriasis;
- e) characterized by bony hyperostosis as a side effect.

392. Drug safely given in pregnancy is...

Variants of answer:

- a) antifolate;
- b) quinine;
- c) chloroquine;
- d) primaquine;
- e) tetracycline.

393. Antihypertensive drug(s) NOT contraindicated in pregnancy is (are) ...

Variants of answer:

- a) spironolactone;
- b) labetalol;
- c) Na nitroprusside;
- d) ACE inhibitors;
- e) methyldopa.

394. Carbimazole is associated with all conditions, except...

Variants of answer:

- a) choanal atresia;
- b) cleft lip and cleft palate;
- c) scalp defect;
- d) neck swelling;
- e) all the mentioned variants.

395. Which teratogen agent causes deafness?

Variants of answer:

- a) isotretinoin;
- b) chloroquine;
- c) alcohol;
- d) warfarin;
- e) amoxicillin.

396. Drug absolutely contraindicated in pregnancy is...

Variants of answer:

- a) nifedipine;
- b) enalapril;

- c) diazoxide;
- d) atenolol;
- e) methyldopa.

397. Drug contraindicated in pregnancy is...

Variants of answer:

- a) tetracycline;
- b) erythromycin;
- c) ampicillin;
- d) chloroquine;
- e) amoxicillin.

398. All of the following drugs are hallucinogens, except...

Variants of answer:

- a) lysergic acid diethylamide (LSD);
- b) phencyclidine;
- c) mescaline;
- d) methylphenidate;
- e) psilocybin.

399. Sufentanyl is a/an...

Variants of answer:

- a) analgesic drug;
- b) antibiotic;
- c) anticholinergic drug;
- d) newer antihistaminic drug;
- e) adrenergic drug.

400. Buprenorphine is partial agonist of...

Variants of answer:

- a) mu (μ)-receptor;
- b) delta (δ)-receptor;
- c) kappa (κ)-receptor;
- d) sigma (σ)-receptor;
- e) all the mentioned variants.

401. The mu (μ) opioid receptor is responsible for all the following effects, except...

Variants of answer:

- a) myosis;
- b) bradycardia;
- c) hypothermia;
- d) bronchodilation;
- e) euphoria.

402. Which one of the following actions is assigned to delta (δ)-type of opioid receptors?

Variants of answer:

- a) supraspinal analgesis;
- b) respiratory depression;
- c) euphoria;
- d) reduced GIT motility;
- e) myosis.

403. Which analgesic drug is NOT used in acute MI?

Variants of answer:

- a) morphine;
- b) pentazocine;
- c) pethidine;
- d) buprenorphine;
- e) all the mentioned variants.

404. Which one of the following statements is FALSE about pentazocine?

Variants of answer:

- a) it decreases vomiting and constipation as compared to morphine;
- b) its risk of addiction is less than that with morphine;
- c) its risk of addiction is more than that with morphine;
- d) it is agonist-antagonist;
- e) it uses for premedication.

405. Which one of the following drugs is pure agonist of opioid receptors?

Variants of answer:

- a) morphine;
- b) buprenorphine;
- c) pethidine;
- d) pentazocine;
- e) loperamid.

406. Buprenorphine is...

Variants of answer:

- a) opioid receptors agonist-antagonist;
- b) opioid receptors partial agonist;
- c) opioid receptors pure antagonist;
- d) opioid receptors partial antagonist;
- e) none of the mentioned variants.

407. Tetrahydrocannabinol is the active component of...

Variants of answer:

- a) marijuana;
- b) LSD;

- c) hashish;
- d) heroin;
- e) morphine.

408. Which statement is TRUE regarding naltrexone?

Variants of answer:

- a) it is an opioid antagonist;
- b) it is an opioid agonist;
- c) it is used in alcohol dependence;
- d) it is used as a respiratory stimulant;
- e) it is used in poisoning of digoxin.

409. TRUE about dezocine is that it...

Variants of answer:

- a) is slow acting morphine;
- b) is low potent morphine;
- c) acts via GABA;
- d) doesn't increase histamine release;
- e) acts via α -receptors.

410. Naloxone is NOT used during resuscitation of a child whose mother is on...

Variants of answer:

- a) methadone;
- b) phencyclidine;
- c) amphetamine;
- d) cocaine;
- e) marijuana.

411. Buprenorphine is...

Variants of answer:

- a) opioid receptors pure agonist;
- b) opioid receptors pure antagonist;
- c) opioid receptors partial agonist;
- d) none of the mentioned variants;
- e) opioid receptors partial antagonist.

412. Which one of the opioids has maximum plasma protein binding capacity?

Variants of answer:

- a) morphine;
- b) sufentanil;
- c) fentanyl;
- d) pethidine;
- e) naloxon.

413. The mu (μ)-receptor of the opioids is responsible for all conditions, except...

Variants of answer:

- a) analgesia;
- b) respiratory depression;
- c) sedation;
- d) diuresis;
- e) myosis.

414. Opioid agonist-antagonist is...

Variants of answer:

- a) pethidine;
- b) pentazocine;
- c) buprenorphine;
- d) methadone;
- e) morphine.

415. Effect of oral contraceptive pills is inhibited by...

Variants of answer:

- a) rifampicin;
- b) cimetidine;
- c) ethambutol;
- d) propranolol;
- e) metoprolol.

416. CYP3A4 is affected by...

Variants of answer:

- a) fexofenadine;
- b) phenytoin;
- c) carbamazepine;
- d) pantoprazole;
- e) mannitol.

417. Oral contraceptive failure occurs by intake of...

Variants of answer:

- a) rifampicin;
- b) penicillin;
- c) chloroquine;
- d) metronidazole;
- e) cephalosporins.

418. Which one of the following drugs is NOT an example of cytochrome P450 dehydrogenase inducer?

Variants of answer:

- a) phenobarbital;
- b) rifampicin;

- c) phenytoin;
- d) ketoconazole;
- e) carbamazepin.

419. All drugs induce liver microsomal enzymes, except...

Variants of answer:

- a) metyrapone;
- b) carbamazepine;
- c) glutethimide;
- d) phenobarbital;
- e) phenytoin.

420. A lady Sati getting rifampicin and warfarin develops pulmonary thromboembolism. Which one of the following variants is most suitable management in such condition?

Variants of answer:

- a) substitute warfarin for long-term heparin therapy;
- b) substitute warfarin for LMW heparin;
- c) replace warfarin for acecoumarin;
- d) replace rifampicin for ethambutol;
- e) delay rifampicin.

421. All of the following enzymes and their reactions are involved in the metabolism of xenobiotics, except...

Variants of answer:

- a) cytochrome oxidase;
- b) cytochrome P450;
- c) methylation;
- d) hydroxylation;
- e) none of the mentioned variants.

422. In a patient taking oral contraceptive, the chance of pregnancy increases after taking any of the following drugs, except...

Variants of answer:

- a) phenytoin;
- b) griseofulvin;
- c) ampicillin;
- d) cimetidine;
- e) phenobarbital.

423. Oral contraceptive failure may be seen with...

Variants of answer:

- a) rifampicin;
- b) cimetidine;
- c) propranolol;

- d) ethambutol;
- e) ampicillin.

424. Barbiturate is metabolized by...

Variants of answer:

- a) glucuronide conjugation;
- b) oxidation, dealkylation;
- c) acetylation;
- d) all the mentioned variants;
- e) sulfatation.

425. If the patient on warfarin was given phenobarbital, the result would have been as...

Variants of answer:

- a) to increase the dose of warfarin;
- b) to decrease the dose of warfarin;
- c) to increase the dose of phenobarbitone;
- d) to decrease the dose of phenobarbitone;
- e) none of the mentioned variants.

426. CYP450 inducer is...

Variants of answer:

- a) cimetidine;
- b) ketokonazole;
- c) phenobarbital;
- d) dichlorodiphenyltrichloroethane (DDT);
- e) theophylline.

427. CYP450 is inhibited by...

Variants of answer:

- a) phenobarbital;
- b) cimetidine;
- c) phenytoin;
- d) carbon tetrachloride (CCl₄);
- e) rifampicin.

428. In hepatic metabolism phase II reaction is...

Variants of answer:

- a) dealkylation;
- b) sulfonation;
- c) methylation;
- d) glucuronidation;
- e) deamination.

429. Which one of the following drugs is CYP450 inhibitor?

Variants of answer:

- a) ketoconazole;
- b) rifampicin;
- c) phenytoin;
- d) INH;
- e) ampicillin.

430. Chloroquine acts on...

Variants of answer:

- a) merozoites;
- b) blood schizont;
- c) tissue schizont;
- d) gametocytes;
- e) trophozoites.

431. Halofantrine is used for...

Variants of answer:

- a) falciparum malaria;
- b) visceral leishmaniasis;
- c) leprosy;
- d) amoebiasis;
- e) lambliosis.

432. All statements regarding chloroquine are TRUE, except...

Variants of answer:

- a) it acts only on exoerythrocytic cycle;
- b) it acts on DNA and RNA of parasite;
- c) it causes pigmentation of nails and mucosa;
- d) infected RBC have more drug;
- e) it is antimalarial drug.

433. Pyronaridine is...

Variants of answer:

- a) antimalarial drug;
- b) anti-HIV drug;
- c) antifungal drug;
- d) antibacterial drug;
- e) antiherpetic drug.

434. Which one of the following pharmacological groups is best associated with lumefantrine?

Variants of answer:

- a) antimycobacterial drugs;
- b) antifungal drugs;

- c) antimalarial drugs;
- d) antiamoebic drugs;
- e) antiviral drugs.

435. Drug of choice for malaria during pregnancy is...

Variants of answer:

- a) chloroquine;
- b) quinine;
- c) primaquine;
- d) mephaquine;
- e) hydroxichloroquine.

436. The antimalarial drug effective in pre-erythrocytic phase in liver is...

Variants of answer:

- a) proguanil;
- b) chloroquine;
- c) pyrimethamine;
- d) quinine;
- e) none of the mentioned variants.

437. Long-term use of chloroquine does NOT lead to...

Variants of answer:

- a) lichenoid eruptions;
- b) visual deterioration;
- c) T-wave changes in ECG;
- d) weight gain;
- e) depression.

438. Mefloquine should NOT be used with...

Variants of answer:

- a) quinine;
- b) verapamil;
- c) ampicillin;
- d) "Aspirin";
- e) amoxicillin.

439. Quinine given to a patient of falciparum malaria caused sweating and palpitation the likely causes...

Variants of answer:

- a) cinchonism;
- b) hyperglycemia;
- c) hypoglycemia;
- d) hypokalemia;
- e) hypomagnemia.

440. Drug-causing hypoglycemia is...

Variants of answer:

- a) diazoxide;
- b) theophylline;
- c) glucagon;
- d) 10 % glucose solution;
- e) quinine.

441. Long-term use of chloroquine causes all conditions, except...

Variants of answer:

- a) lichenification;
- b) retinitis pigmentosa;
- c) yellow discoloration of skin;
- d) corneal deposits;
- e) all the mentioned variants.

442. Which one of the following antimalarial drugs is a slow acting schizonticide?

Variants of answer:

- a) artemether;
- b) mefloquine;
- c) pyrimethamine;
- d) quinine;
- e) pyridoxine.

443. Mefloquine is contraindicated with...

Variants of answer:

- a) quinine;
- b) atenolol;
- c) enalapril;
- d) verapamil;
- e) ampicillin.

444. All drugs are inotropic agents, except...

Variants of answer:

- a) isoprenaline;
- b) amiodarone;
- c) dopamine;
- d) amrinone;
- e) milrinone.

445. Mechanism of action of epinephrine in cardiopulmonary resuscitation (CPR) is ...

Variants of answer:

- a) increase myocardial demand;
- b) increase sinoatrial (SA) node activity;

- c) peripheral vasoconstriction and directing blood flow to heart;
- d) decrease of ratio of blood flow to epicardium and endocardium;
- e) decrease SA node activity.

446. β_1 selective agonist is...

Variants of answer:

- a) terbutaline;
- b) albuterol;
- c) dobutamine;
- d) isoetharine;
- e) salbutamol.

447. Which one of the following drugs is NOT a catecholamine?

Variants of answer:

- a) epinephrine;
- b) norepinephrine;
- c) dopamine;
- d) phenylephrine;
- e) none of the mentioned variants.

448. Which one of the following drugs is NOT an inotropic drug?

Variants of answer:

- a) dopamine;
- b) isoprenaline;
- c) amrinone;
- d) amiodarone;
- e) digoxin.

449. First drug to be used in anaphylactic shock is...

Variants of answer:

- a) subcutaneous adrenaline;
- b) IV corticosteroids;
- c) theophylline;
- d) antihistaminic drugs;
- e) β -agonists.

450. In treatment of cardiac failure, dobutamine acts by all the following mechanisms, except...

Variants of answer:

- a) α -receptors agonist;
- b) β -adrenergic receptors agonist;
- c) dopamine receptors agonist;
- d) increasing force of contraction;
- e) positive inotropic action.

451. Drug of choice for cardiogenic shock...

Variants of answer:

- a) dopamine;
- b) propranolol;
- c) digitalis drugs;
- d) milrinone;
- e) amrinone.

452. Adrenaline causes vasoconstriction in all of the following organ vessels, except...

Variants of answer:

- a) gut;
- b) cerebral;
- c) cutaneous;
- d) renal;
- e) none of the mentioned variants.

453. Which one of the followings agents is drug of first choice for cardiogenic shock?

Variants of answer:

- a) dopamine;
- b) adrenaline;
- c) mephentermine;
- d) digoxin;
- e) salbutamol.

454. All drugs are endogenous catecholamines, except...

Variants of answer:

- a) epinephrine;
- b) norepinephrine;
- c) dopamine;
- d) dobutamine;
- e) none of the mentioned variants.

455. Regarding milrinone all statements are TRUE, except...

Variants of answer:

- a) when taking it thrombocytopenia is rare;
- b) it is phosphodiesterase-3 inhibitor;
- c) it has antiarrhythmic action;
- d) it is given for long duration;
- e) it has positive inotropic action.

456. Which one of the following drugs acts against *Pseudomonas aeruginosa*?

Variants of answer:

- a) piperacillin;

- b) methicillin;
- c) nafcillin;
- d) cloxacillin;
- e) oxacillin.

457. Which drug is NOT effective in pseudomonas infection?

Variants of answer:

- a) cefaclor;
- b) ceftazidime;
- c) cefotaxime;
- d) carbenicillin;
- e) piperacillin.

458. All drugs act on Pseudomonas aeruginosa, except...

Variants of answer:

- a) nafcillin;
- b) carbenicillin;
- c) azlocillin;
- d) ticarcillin;
- e) piperacillin.

459. All of the following cephalosporins have good activity against Pseudomonas aeruginosa, except...

Variants of answer:

- a) cephadroxil;
- b) cefepime;
- c) cefoperazone;
- d) ceftazidime;
- e) none of the mentioned variants.

460. Which one of the following drugs is an antipseudomonal penicillin?

Variants of answer:

- a) cephalixin;
- b) piperacillin;
- c) cloxacillin;
- d) dicloxacillin;
- e) oxacillin.

461. Which one of the following drugs is an antipseudomonal penicillin?

Variants of answer:

- a) piperacillin;
- b) amoxicillin;
- c) oxacilline;
- d) nafcillin;
- e) ampicillin.

462. Which one of the following antimicrobials has antipseudomonal action?

Variants of answer:

- a) cefopodoxime proxetil;
- b) ceforanide;
- c) cefotetan;
- d) cefoperazone;
- e) cephalexin.

463. Which one of the following drugs is NOT an antipseudomonal agent?

Variants of answer:

- a) vancomycin;
- b) ticarcillin;
- c) ceftazidime;
- d) tobramycin;
- e) piperacillin.

464. All the following drugs are used in pseudomonas infection, except...

Variants of answer:

- a) pefloxacin;
- b) imipenem;
- c) aztreonam;
- d) vancomycin;
- e) piperacillin.

465. Following drugs may be used for pseudomonas infection, except...

Variants of answer:

- a) pefloxacin;
- b) azithromycin;
- c) imipenem;
- d) ceftazidime;
- e) piperacillin.

466. Drugs effective against *Pseudomonas aeruginosa* are all ones, except...

Variants of answer:

- a) ceftazidime;
- b) cefazolin;
- c) piperacillin;
- d) cefotaxime;
- e) ticarcillin.

467. The blood culture from a patient of febrile neutropenia has grown *Pseudomonas aeruginosa*, it was found to be a producer of extended spectrum β -lactamase enzyme. The best choice of antimicrobial therapy should be...

Variants of answer:

- a) ceftazidime + amikacin;

- b) aztreonam + amikacin;
- c) cefpirome + amikacin;
- d) imipenem + amikacin;
- e) ampicillin + amikacin.

468. Selective 5-HT reuptake blocker is...

Variants of answer:

- a) desipramine;
- b) amitriptyline;
- c) fluoxetine;
- d) dothiepin;
- e) dopamin.

469. The common side effect with fluoxetine therapy is...

Variants of answer:

- a) seizure;
- b) anxiety;
- c) hypotension;
- d) loose stools;
- e) none of the mentioned variants.

470. Mechanism of tianeptin action in the brain is...

Variants of answer:

- a) selective serotonin reuptake inhibition;
- b) selective norepinephrine reuptake inhibition;
- c) selective serotonin reuptake enhancing;
- d) selective dopamine reuptake inhibition;
- e) nonselective serotonin and dopamine reuptake inhibition.

471. Which drug has the least anticholinergic side effects?

Variants of answer:

- a) imipramine;
- b) doxepin;
- c) fluoxetine;
- d) clomipramine;
- e) levodopa.

472. All drugs are used as antidepressants, except...

Variants of answer:

- a) MAO inhibitors;
- b) fluoxetine;
- c) chlorpromazine;
- d) imipramine;
- e) amitriptilin.

473. Selective serotonin reuptake inhibitor is...

Variants of answer:

- a) citalopram;
- b) fluoxetine;
- c) mirtazapine;
- d) imipramine;
- e) sertraline.

474. Selective serotonin reuptake inhibitor is...

Variants of answer:

- a) fluphenazine;
- b) fluoxetine;
- c) fluvoxamine;
- d) sertraline;
- e) flupenthixol.

475. Tianeptine is...

Variants of answer:

- a) 5-HT uptake enhancer;
- b) GABA inhibitor;
- c) norepinephrine reuptake inhibitor;
- d) MAO inhibitor;
- e) epinephrine reuptake inhibitor.

476. Drug of choice in obsessive-compulsive disorder (OCD) is...

Variants of answer:

- a) fluoxetine;
- b) imipramine;
- c) diazepam;
- d) phenazepam;
- e) carbamazepine.

477. Antidepressant that is selective 5-HT inhibitor is...

Variants of answer:

- a) fluoxetine;
- b) imipramine;
- c) desipramine;
- d) amitriptyline;
- e) selegilin.

478. Nonsedating antidepressant is...

Variants of answer:

- a) fluoxetine;
- b) mianserin;

- c) amoxapine;
- d) imipramine;
- e) amitriptilin.

479. All drugs are anxiolytics, except...

Variants of answer:

- a) fluoxetine;
- b) buspirone;
- c) diazepam;
- d) nitrazepam;
- e) mebicar.

480. Ciprofloxacin acts on...

Variants of answer:

- a) DNA histone proteins;
- b) DNA gyrase;
- c) cAMP;
- d) mRNA polymerase;
- e) 3,5-cyclic guanosine monophosphate (cGMP).

481. Photosensitivity is a side effect of...

Variants of answer:

- a) ofloxacin;
- b) ciprofloxacin;
- c) norfloxacin;
- d) pefloxacin;
- e) lomefloxacin.

482. Sparfloxacin and terfenadine can cause...

Variants of answer:

- a) ventricular arrhythmia;
- b) myopathy;
- c) electrolyte imbalance;
- d) nephropathy;
- e) all the mentioned variants.

483. Which one of the following fluoroquinolones does NOT require dose adjustment in a patient with creatinine clearance of < 50 mg/min?

Variants of answer:

- a) ciprofloxacin;
- b) trovafloxacin;
- c) lomefloxacin;
- d) sparfloxacin;
- e) norfloxacin.

484. All of the statements are TRUE about fluoroquinolones, except...

Variants of answer:

- a) they are suspected of having teratogenic potential;
- b) they cause arthropathy of limb (it can occur in children);
- c) they increase theophylline toxicity;
- d) they increase neuromuscular blocking action;
- e) they can cause photosensitivity.

485. The following variants are TRUE of fluoroquinolones, except...

Variants of answer:

- a) low toxicity to host cells;
- b) they are DNA-gyrase inhibitors;
- c) they are effective against *Pseudomonas aeruginosa*;
- d) they quickly develop resistance;
- e) they are effective against *Mycobacterium tuberculosis*.

486. Maximum amount of photosensitivity is seen with...

Variants of answer:

- a) ciprofloxacin;
- b) ofloxacin;
- c) pefloxacin;
- d) norfloxacin;
- e) none of the mentioned variants.

487. Fluoroquinolones act by inhibiting...

Variants of answer:

- a) DNA-dependent RNA synthetase;
- b) cell wall synthesis;
- c) DNA gyrase;
- d) protein synthesis;
- e) ribosome synthesis.

488. Treatment of choice for *Salmonella typhi* is...

Variants of answer:

- a) cephalexin;
- b) gentamicin;
- c) «Co-trimoxazole»;
- d) tetracycline;
- e) ciprofloxacin.

489. The drug that is resistant to penicillinase producing *Neisseria gonorrhoea* is...

Variants of answer:

- a) amoxicillin;
- b) ciprofloxacin;

- c) cefotaxime;
- d) doxycycline;
- e) azithromycin.

490. Drug(s) avoided in seizure is (are) ...

Variants of answer:

- a) ciprofloxacin;
- b) cycloserine;
- c) glucocorticoids;
- d) ketoconazole;
- e) ampicillin.

491. Therapeutic level of phenytoin in blood is...

Variants of answer:

- a) 0–9 mcg/ml;
- b) 10–19 mcg/ml;
- c) 20–29 mcg/ml;
- d) 30–39 mcg/ml;
- e) > 40 mcg/ml.

492. On chronic treatment with a drug, patient presents with gingival hyperplasia and facial hirsutism. The drug most likely causing these side effects is...

Variants of answer:

- a) phenytoin;
- b) carbamazepine;
- c) valproic acid;
- d) phenobarbital;
- e) ampicillin.

493. Adverse effect of phenytoin include the following conditions, except...

Variants of answer:

- a) lymphadenopathy;
- b) ataxia;
- c) hypercalcemia;
- d) hirsutism;
- e) headache.

494. A 30-year-old female epileptic patient on phenytoin, developed weakness and fatigue. Blood examination revealed hemoglobin Hb = 93 g/L, mean corpuscular volume (MCV) = 102 fl and mean corpuscular hemoglobin (MCH) = 40 pg/dL. What is the most probable diagnosis?

Variants of answer:

- a) heart failure;
- b) iron deficiency anaemia;

- c) phenytoin-induced agranulocytosis;
- d) megaloblastic anaemia;
- e) leukemia.

495. Granulocytopenia, gingival hyperplasia and facial hirsutism are all possible side effects of one of the following anticonvulsant drugs:

Variants of answer:

- a) phenytoin;
- b) valproate;
- c) carbamazepine;
- d) phenobarbital;
- e) lamotrigin.

496. Diplopia, ataxia, gingival hyperplasia and hirsutism are side effects of...

Variants of answer:

- a) phenobarbital;
- b) phenytoin;
- c) carbamazepine;
- d) valproic acid;
- e) lamotrigin.

497. Side effect of phenytoin is...

Variants of answer:

- a) gum hypertrophy;
- b) alopecia;
- c) subungual exostosis;
- d) onycholysis;
- e) acne rosacea.

498. Therapeutic level of phenytoin in blood is...

Variants of answer:

- a) 0–9 mg/ml;
- b) 10–19 mg/ml;
- c) 20–29 mg/ml;
- d) 30–39 mg/ml;
- e) 40–49 mg/ml.

499. Gum hyperplasia, hirsutism and granulocytopenia are caused by...

Variants of answer:

- a) phenytoin;
- b) carbamazepine;
- c) phenobarbital;
- d) lamotrigine;
- e) valproic acid.

500. Regarding phenytoin all the statements are TRUE, except...

Variants of answer:

- a) it is potent microsomal enzyme inducer;
- b) it is highly protein bound;
- c) it follows zero order kinetics at lower concentration;
- d) with increasing dose, the $T_{1/2}$ increases;
- e) it is metabolized in the liver.

501. Which one of the following drugs is NOT effective against anaerobes?

Variants of answer:

- a) penicillin;
- b) chloramphenicol;
- c) gentamicin;
- d) clindamycin;
- e) lincomycin.

502. Which one of the following drugs is NOT given in enteric fever?

Variants of answer:

- a) amikacin;
- b) «Co-trimoxazole»;
- c) ciprofloxacin;
- d) ceftriaxone;
- e) ampicillin.

503. All of the following factors are the risk of aminoglycoside renal toxicity, except...

Variants of answer:

- a) elderly person;
- b) hypokalemia;
- c) simultaneous use with penicillin;
- d) aminoglycoside administration in recent past;
- e) none of the mentioned variants.

504. Ototoxicity of aminoglycoside is increased with concurrent use of such drug as...

Variants of answer:

- a) cisplatin;
- b) furosemide;
- c) vancomycin;
- d) vincristine;
- e) erythromycin.

505. Which one of the following statements about drug causing deafness is TRUE?

Variants of answer:

- a) streptomycin causing manifested vestibulotoxic effects;

- b) salicylates causing reversible deafness;
- c) furosemide causing irreversible deafness;
- d) cisplatin causing reversible deafness;
- e) vancomycin causing irreversible deafness.

506. Creatinine clearance is < 10 mL/min. Which one of the following drugs' dose reduction is needed?

Variants of answer:

- a) amikacin;
- b) ketoconazole;
- c) lithium drugs;
- d) budesonide;
- e) theophylline.

507. Which one of the following drugs' combination shows antimicrobial synergism?

Variants of answer:

- a) penicillin + streptomycin in subacute bacterial endocarditis (SABE);
- b) ampicillin + tetracycline in endocarditis;
- c) sulphamethoxazole + trimethoprim in urinary tract infection (UTI);
- d) oxacillin+ampicillin in UTI;
- e) vancomycin+ampicillin in *Clostridiodes difficile*.

508. Mechanism of resistance to aminoglycosides...

Variants of answer:

- a) produces enzymes;
- b) is inactivation of RNA-dependent DNA polymerase;
- c) is inactivation of RNA;
- d) prevents chain elongation;
- e) decreases ribosomes.

509. Drug causing nephrotoxicity is...

Variants of answer:

- a) gentamycin;
- b) cloxacillin;
- c) phenacetin;
- d) erythromycine;
- e) ampicillin.

510. TRUE about aminoglycosides are all statements, except...

Variants of answer:

- a) they are bacteriostatic;
- b) they are distributed only extracellularly;
- c) they are excreted unchanged in urine;
- d) they are teratogenic drugs;
- e) they are embriotoxic drugs.

511. Most potent antiemetic drug used in premedication is...

Variants of answer:

- a) atropine;
- b) hyoscine;
- c) glycopyrrolate;
- d) chlorpromazine;
- e) dopamine.

512. Which one of the following drugs has been shown to offer protection from gastric aspiration syndrome in a patient with symptoms of flux?

Variants of answer:

- a) ondansetron;
- b) metoclopramide;
- c) sodium citrate;
- d) atropine;
- e) scopolamine.

513. All the following drugs are used in motion sickness, except...

Variants of answer:

- a) cyclizine;
- b) hyoscine;
- c) domperidone;
- d) meclizine;
- e) scopolamine.

514. All of the following drugs may be used for motion sickness, except...

Variants of answer:

- a) hyoscine;
- b) dicyclomine;
- c) domperidone;
- d) scopolamine;
- e) "Pipolphen".

515. Ondansetron acts by inhibiting such receptors as...

Variants of answer:

- a) 5-HT₁;
- b) 5-HT₂;
- c) 5-HT₃;
- d) neurokinin (NK);
- e) 5-HT₄.

516. Ondansetron is...

Variants of answer:

- a) 5-HT₃ antagonist;

- b) 5-HT₃ agonist;
- c) 5-HT₁ antagonist;
- d) dopamine agonist;
- e) adrenalin antagonist.

517. Ondansetron acts by...

Variants of answer:

- a) acting on chemoreceptor trigger zone (CTZ);
- b) 5-HT₁ antagonist;
- c) D1 and D2 receptors inhibitors;
- d) increasing GIT motility;
- e) 5-HT₂ agonist.

518. Antiemetic drug action is through...

Variants of answer:

- a) CTZ;
- b) H₁ agonist;
- c) D1 antagonist;
- d) olfactory apparatus;
- e) 5-HT₄ agonist.

519. All drugs are antiemetics, except...

Variants of answer:

- a) domperidone;
- b) ondansetron;
- c) phenazocine;
- d) cyclizine;
- e) metoclopramide.

520. Which one of the following 5-HT₃ receptor blockers has highest receptor affinity?

Variants of answer:

- a) ondansetron;
- b) granisetron;
- c) dolasetron;
- d) palonosetron;
- e) none of the mentioned variants.

521. Heparin effect is increased by...

Variants of answer:

- a) narcotic analgesics;
- b) NSAIDs;
- c) oral contraceptives;
- d) inhalational agents;
- e) antibiotics.

522. All of the following statements about heparin are TRUE, except...

Variants of answer:

- a) it causes alopecia;
- b) it is non-teratogenic;
- c) it releases lipoprotein lipase;
- d) it causes hypokalemia;
- e) it combines with antithrombin III.

523. All of the following drugs can cross placenta, except...

Variants of answer:

- a) phenytoin;
- b) diazepam;
- c) morphine;
- d) heparin;
- e) tetracycline.

524. Which drug does NOT cross the placental barrier?

Variants of answer:

- a) heparin;
- b) warfarin;
- c) lithium drugs;
- d) morphine;
- e) neodicumarol.

525. Haemorrhage secondary to heparine administration can be corrected by administration of...

Variants of answer:

- a) vitamin K;
- b) whole blood;
- c) heparin;
- d) ascorbic acid;
- e) warfarin.

526. Low molecular weight heparin therapy is associated with all variants, except...

Variants of answer:

- a) less risk of bleeding;
- b) single dose per day;
- c) easy filterability by glomerular capillaries;
- d) high biological interaction to plasma proteins;
- e) less risk of trombocytopenia.

527. Drug given by IV route is...

Variants of answer:

- a) heparin;

- b) pantoprazole;
- c) ranitidine;
- d) sumatriptan;
- e) neomycin.

528. NOT TRUE about heparin is that...

Variants of answer:

- a) it activates antithrombin III;
- b) small unionized molecule are not absorbed orally;
- c) protamine sulphate is always used to reverse its action;
- d) it releases lipoprotein lipase from vessel walls and tissues;
- e) protamine sulfate is its antidot.

529. Heparin is the commonly used anticoagulant in cardiac surgery. All of the following statements are TRUE about heparin, except...

Variants of answer:

- a) it is the weakest acid found in living things;
- b) nowadays most commercial preparations of heparin utilize pig intestinal slimes;
- c) it acts via antithrombin activation;
- d) it produces thrombocytopenia;
- e) it produces bleeding.

530. Thromboxane A₂ synthetase inhibition is by...

Variants of answer:

- a) «Aspirin»;
- b) prednisolone;
- c) dazoxiben;
- d) naproxen;
- e) montelukast.

531. All the following statements are TRUE of cholestyramine, except...

Variants of answer:

- a) it is one of basic ion exchange resins;
- b) it causes compensatory increase in 3-hydroxy-3-methylglutaryl coenzyme A reductase (HMG-CoA) reductase activity;
- c) it may cause constipation, steatorrhea;
- d) it is well tolerated by the patient;
- e) none of the mentioned variants.

532. What is TRUE about lovastatin?

Variants of answer:

- a) it inhibits HMG-CoA synthetase;
- b) it inhibits HMG-CoA reductase;
- c) myositis may result from its prolonged use;
- d) it decreases synthesis of cholesterol and causes lenticular opacity;
- e) it increases HMG-CoA synthetase.

533. Lovastatin causes...

Variants of answer:

- a) increased LDL receptor;
- b) decreased high-density lipoprotein (HDL) cholesterol;
- c) decreased LDL cholesterol;
- d) increased serum glutamic-oxaloacetic transaminase (SGOT) / serum glutamate pyruvate transaminase (SGPT) ratio;
- e) decreased SGOT/SGPT ratio.

534. All statements are TRUE about HMG-CoA reductase inhibitors, except...

Variants of answer:

- a) the CNS accumulation of simvastatin and lovastatin is high and less for pravastatin and fluvastatin;
- b) simvastatin is rapidly metabolised and pravastatin is least;
- c) bioavailability is minimally modified when pravastatin is taken with food;
- d) fibrinogen levels are increased by pravastatin;
- e) none of the mentioned variants.

535. Lipid lowering agents statins act in all the following ways, except...

Variants of answer:

- a) decreasing hepatic cholesterol synthesis;
- b) decreasing LDL receptors;
- c) inhibiting HMG-CoA reductase;
- d) decreasing very-low-density lipoprotein (VLDL);
- e) increasing hepatic cholesterol synthesis.

536. Which one of the following drugs acts as a HMG-CoA reductase inhibitor?

Variants of answer:

- a) gemfibrozil;
- b) clofibrate;
- c) lovastatin;
- d) probucol;
- e) nicotinic acid.

537. Antilipidemic drug(s) that prevent(s) hypercholesterolemia by inhibiting absorption is (are) ...

Variants of answer:

- a) ezetimibe;
- b) orlistat;
- c) cholestyramine;
- d) statins;
- e) clopamide.

538. Which drug inhibits initial step of cholesterol synthesis?

Variants of answer:

- a) lovastatin;
- b) gemfibrozil;
- c) probucol;
- d) cholestyramine;
- e) nicotinic acid.

539. Which one of the following statements about fibrates is FALSE?

Variants of answer:

- a) they increase lipoprotein lipase activity through peroxisome proliferator-activated receptors (PPAR)- α , and cause increased lipolysis of triglycerides;
- b) they are better absorbed when taken on empty stomach, than when taken with food;
- c) cause urticaria, rashes, alopecia, myopathy and GIT distress;
- d) they are first line of drugs in severe dyslipoproteinemias and hypertriglyceridemias;
- e) fenofibrate is one of the drugs in this group.

540. 3-hydroxy-3-methylglutaryl coenzyme A reductase reductase is inhibited by...

Variants of answer:

- a) lovastatin;
- b) gemfibrozil;
- c) clofibrate;
- d) nicotinic acid;
- e) clopamide.

541. Methotrexate is used in high doses in...

Variants of answer:

- a) osteosarcoma;
- b) retinoblastoma;
- c) rhabdomyosarcoma;
- d) Ewing sarcoma;
- e) HIV.

542. Leucovorin is given with...

Variants of answer:

- a) methotrexate;
- b) cytosine arabinoside;
- c) 6-MP;
- d) thiotepa;
- e) vinblastin.

543. All of the following statements about methotrexate are TRUE, except...

Variants of answer:

- a) folic acid enhances the action of methotrexate;
- b) methotrexate inhibits dehydrofolate reductase;
- c) non-proliferative cells are resistant to methotrexate;
- d) methotrexate is used in treatment of psoriasis;
- e) methotrexate side effects are anemia and leukopenia.

544. Antifolate immunosuppressant is...

Variants of answer:

- a) 5-FU;
- b) methotrexate;
- c) cyclophosphamide;
- d) cisplatin;
- e) vinblastin.

545. Methotrexate acts by...

Variants of answer:

- a) inhibition of dihydrofolate reductase;
- b) aldose dehydrogenase stimulating;
- c) glutathione reductase stimulating;
- d) inhibition of sterol synthesis;
- e) glutathione stimulating.

546. Dose adjustment is needed if bilirubin is > 1,5 mg/dL in...

Variants of answer:

- a) methotrexate;
- b) ansacrine;
- c) rifampicin;
- d) tolcapone;
- e) vinblastin.

547. Methotrexate is most useful in...

Variants of answer:

- a) abruptio placentae;
- b) ectopic pregnancy;
- c) placenta accreta;
- d) trophoblastic disease;
- e) sarcoma Caposhi.

548. Which one of the following variants about methotrexate is TRUE?

Variants of answer:

- a) it inhibits dihydrofolate reductase;
- b) it inhibits folate synthetase;

- c) it is not absorbed orally;
- d) folic acid antagonizes its toxicity;
- e) it inhibits pyridoxal phosphate.

549. Which drug is an antimetabolite?

Variants of answer:

- a) cyclosporine;
- b) methotrexate;
- c) etoposide;
- d) vinblastine;
- e) vinkristin.

550. The new agent pemetrexed, useful in breast cancer, belongs to pharmacological group as...

Variants of answer:

- a) antitumor antibiotic drugs;
- b) alkylating agents;
- c) hormonal agents;
- d) antimetabolites;
- e) antihormonal agents.

551. Dosage adjustment is NOT needed in renal failure in...

Variants of answer:

- a) INH;
- b) ethambutol;
- c) rifampicin;
- d) streptomycin;
- e) warfarin.

552. Dose of which drug(s) is NOT decreasing in CRF?

Variants of answer:

- a) rifampicin;
- b) gentamicin;
- c) tetracycline;
- d) cephalosporins;
- e) amikacin.

553. All drugs are nephrotoxic, except...

Variants of answer:

- a) lithium drugs;
- b) gentamicin;
- c) chlorpromazine;
- d) cephalosporins;
- e) amikacin.

554. Which one of the following antitubercular drugs does NOT need to be adjusted in presence of renal failure?

Variants of answer:

- a) rifampicin;
- b) INH;
- c) ethambutol;
- d) pyrazinamide;
- e) none of the mentioned variants.

555. Which one of the following antibiotics is least nephrotoxic?

Variants of answer:

- a) streptomycin;
- b) gentamycin;
- c) polymixin B;
- d) doxycycline;
- e) kanamycin.

556. All the following drugs cause renal failure, except...

Variants of answer:

- a) cephaloridine;
- b) amphoterecin B;
- c) cefoperazone;
- d) gentamicin;
- e) polymixin B.

557. Drug(s) NOT given in renal failure is (are) ...

Variants of answer:

- a) amphotericin B;
- b) NSAIDs;
- c) mikacin;
- d) ethambutol;
- e) amoxicillin.

558. Which one of these antibiotics is safe in renal failure?

Variants of answer:

- a) cephalixin;
- b) tetracycline;
- c) nitrofurantoin;
- d) gentamicin;
- e) doxycycline.

559. Which one of the following drugs' dosage interval should be maximal in a patient with creatinine clearance < 10?

Variants of answer:

- a) amikacin;

- b) rifampicin;
- c) vancomycin;
- d) amphoterecin B;
- e) amoxicillin.

560. Dose of all drugs is reduced in renal failure, except...

Variants of answer:

- a) INH;
- b) rifabutin;
- c) ethambutol;
- d) kanamycin;
- e) polymixin B.

561. Prothrombin time of a patient is 26 sec, control PT is 13 sec and sensitivity index is 1,41. What will be the international normalized ratio (INR) of this patient?

Variants of answer:

- a) 26 / 13;
- b) $(26 / 13) \times 1,41$;
- c) $(26 / 13) \times 1,41$;
- d) $(26 / 13) / 1,41$;
- e) $(26 / 13) + 1,41$.

562. Drug(s) which cause malformation in the fetus include...

Variants of answer:

- a) heparin;
- b) warfarin;
- c) valproic acid;
- d) steroids;
- e) phenytoin.

563. In a warfarin-treated patient skin necrosis is found in...

Variants of answer:

- a) protein C deficiency;
- b) protein S deficiency;
- c) antithrombin III (AT III) deficiency;
- d) protein G deficiency;
- e) vitamin K deficiency.

564. TRUE about vitamin K is that...

Variants of answer:

- a) it needs for synthesis of factors II, VII, IX and X;
- b) it doesn't require exposure to sunlight;
- c) it causes hemolytic anemia;
- d) $T_{1/2}$ is less than 6 hrs;
- e) it is a fat soluble vitamin.

565. Warfarin-induced skin necrosis is seen in...

Variants of answer:

- a) protein C deficiency;
- b) protein S deficiency;
- c) hemophilia;
- d) AT III deficiency;
- e) none of the mentioned variants.

566. Anticoagulant effect of warfarin is increased by all of the following drugs, except...

Variants of answer:

- a) cimetidine;
- b) phytonadione;
- c) amiodarone;
- d) phenylbutazone;
- e) none of the mentioned variants.

567. A patient of thrombosis of hepatic veins has been receiving coumarin therapy for a duration of three years. Recently, she has developed bleeding tendency. How it should be reversed the effect of coumarin?

Variants of answer:

- a) protamine injection;
- b) vitamin K injection;
- c) infusion of fibrinogen;
- d) whole blood transfusion;
- e) infusion of fibrinolytic drugs.

568. Urgent reversal of warfarin therapy can be done by administration of...

Variants of answer:

- a) cryoprecipitates;
- b) platelet concentrates;
- c) fresh frozen plasma;
- d) packed RBC;
- e) none of the mentioned variants.

569. All the following drugs are used for thromboprophylaxis, except...

Variants of answer:

- a) heparin;
- b) warfarin;
- c) «Aspirin»;
- d) antithrombin;
- e) enoxaparin.

570. Oral anticoagulants are stopped prior to surgery for at least...

Variants of answer:

- a) 1–2 days;

- b) 3–5 days;
- c) 8–10 days;
- d) 6–8 days;
- e) 1 hour.

571. Ethosuximide is used in the treatment of...

Variants of answer:

- a) tonic-clonic seizure;
- b) absence seizure;
- c) myoclonic seizure;
- d) simple partial seizure;
- e) atonic seizure.

572. A patient with recent-onset primary generalized epilepsy develops drug reaction and skin rash due to phenytoin sodium. The most appropriate course of action is...

Variants of answer:

- a) shift to clonazepam;
- b) restart phenytoin sodium after 2 weeks;
- c) shift to sodium valproate;
- d) shift to ethosuximide;
- e) shift to valproic acid.

573. What is the treatment of choice for myoclonic epilepsy in children?

Variants of answer:

- a) phenytoin;
- b) phenobarbital;
- c) sodium valproate;
- d) ethosuximide;
- e) valproic acid.

574. Which one of the following antiepileptic drugs acts by the release of the inhibiting transmitter GABA?

Variants of answer:

- a) valproic acid;
- b) diazepam;
- c) ethambutol;
- d) phenytoin;
- e) carbamazepine.

575. Drugs used in generalized tonic-clonic seizure (GTCS) is...

Variants of answer:

- a) ethosuximide;
- b) sodium valproate;
- c) lamotrigine;

- d) propofol;
- e) kordiamin.

576. Which one of the following antiepileptic agents acts on the GABAergic system to decrease the uptake of GABA into neurons and glial cells?

Variants of answer:

- a) vigabatrin;
- b) progabide;
- c) gabapentin;
- d) tiagabine;
- e) valproic acid.

577. Prolonged use of which one of the following anticonvulsants can produce weight loss?

Variants of answer:

- a) gabapentin;
- b) oxcarbazepine;
- c) topiramate;
- d) valproic acid;
- e) none of the mentioned variants.

578. All of the following antiepileptic agents act via Na⁺ channel, except...

Variants of answer:

- a) vigabatrin;
- b) phenytoin;
- c) valproate;
- d) lamotrigine;
- e) clonazepam.

579. Vigabatrin is a new antiepileptic agent acts by...

Variants of answer:

- a) GABA-antagonist;
- b) GABA-agonist;
- c) N-methyl-D-aspartate (NMDA)-antagonist;
- d) carbonic anhydrase inhibiting;
- e) aldosterone inhibiting.

580. H₁ blocker with least sedative effect is...

Variants of answer:

- a) chlorpheniramine;
- b) promethazine;
- c) terfenadine;
- d) diphenhydramine;
- e) all the mentioned variants.

581. The H₁-receptor agonist causes...

Variants of answer:

- a) inhibition of H₁ receptor-induced wakefulness;
- b) increase in H₁-mediated gastrin secretion;
- c) inhibition of H₁-mediated bronchoconstriction;
- d) negative chronotropic effect on atria;
- e) negative dromotropic effect on atria.

582. A highway truck driver has profuse rhinorrhea and sneezing. Which one amongst the following drugs one should prescribe him?

Variants of answer:

- a) pheniramine;
- b) promethazine;
- c) dimenhydrinate;
- d) cetirizine;
- e) cordiamin.

583. Central neural system effect of H₁-receptor blockers is...

Variants of answer:

- a) dizziness;
- b) delirium;
- c) insomnia;
- d) hallucination;
- e) headache.

584. Recent antihistaminic drug in allergic rhinitis is:

Variants of answer:

- a) azelastine;
- b) fexofenadine;
- c) chlorpheniramine maleate;
- d) desloratidine;
- e) imipramin.

585. Which one(s) of the following drugs is (are) secreted in breast milk?

Variants of answer:

- a) antihistaminic drugs;
- b) antithyroid drugs;
- c) penicillin;
- d) diazepam;
- e) antiepileptic drugs.

586. Which one of the following drugs is NOT a 2nd generation antihistaminic drug?

Variants of answer:

- a) loratadine;

- b) acrivastatine;
- c) cyclizine;
- d) azelastatin;
- e) cetirizine.

587. Which one of the following drugs is NOT a 2nd generation antihistaminic drug?

Variants of answer:

- a) cyclizine;
- b) fexofenadine;
- c) loratadine;
- d) atorvastatine;
- e) azelastatin.

588. Which one(s) of the following drugs is (are) NOT given for sedation but has sedation as side effect?

Variants of answer:

- a) antihistaminic and antidepressant drugs;
- b) phenytoin;
- c) cyclosporine and macrolides;
- d) amphotericin B;
- e) gryseofulvin.

589. Zolpidem...

Variants of answer:

- a) acts on benzodiazepine receptors α_1 and α_2 ;
- b) is not reversed by flumazenil;
- c) causes sedation less than diazepam;
- d) causes only sedation and hypnosis;
- e) has duration of action less than diazepam.

590. Inverse agonist of benzodiazepine receptor is...

Variants of answer:

- a) phenobarbital;
- b) flumazenil;
- c) β -carboline;
- d) gabapentin;
- e) valproic acid.

591. TRUE about benzodiazepines is that...

Variants of answer:

- a) it is GABA agonist;
- b) it is antagonizing release of GABA;
- c) lorazepam is shorter-acting than temazepam;

- d) atropine is its antagonist;
- e) diazepam is long-acting drug.

592. Which statement is TRUE regarding benzodiazepines?

Variants of answer:

- a) they are GABA antagonists;
- b) diazepam is a short-acting benzodiazepine;
- c) diazepam causes lesser respiratory depression;
- d) nitrazepam is metabolized in liver;
- e) diazepam has higher abuse potential than midazolam.

593. Mechanism of action of GABA is on...

Variants of answer:

- a) G protein;
- b) tyrosine kinase;
- c) phosphatidylinositol-4,5-bisphosphate (PIP) / diacylglycerol (DAG);
- d) 5-HT;
- e) muscarinic receptors.

594. Antagonist to diazepam is...

Variants of answer:

- a) phenargan;
- b) flumazenil;
- c) domperidone;
- d) bromocriptine;
- e) protamine.

595. Drug used in uncomplicated alcohol withdrawal is...

Variants of answer:

- a) diazepam;
- b) clonidine;
- c) propranolol;
- d) methadone;
- e) metoprolol.

596. All drugs act through GABA receptors, except...

Variants of answer:

- a) benzodiazepines;
- b) barbiturates;
- c) zopiclone;
- d) promethazine;
- e) diazepam.

597. Which one of the following statements is TRUE regarding benzodiazepines?

Variants of answer:

- a) they alter sleep pattern more than sedatives;

- b) all benzodiazepines have pharmacologically active metabolites;
- c) they induce liver enzymes;
- d) if taken in higher doses they are less toxic than other sedatives;
- e) they are used for improving of memory.

598. The following drugs are the benzodiazepines of choice in elderly and those with liver disease, except...

Variants of answer:

- a) lorazepam;
- b) oxazepam;
- c) temazepam;
- d) diazepam;
- e) clonazepam.

599. The following statements regarding benzodiazepines are true, except...

Variants of answer:

- a) they bind to both GABA-A and GABA-B receptors;
- b) they have active metabolites;
- c) they decrease nocturnal gastric secretion in human being;
- d) they are extensively metabolized by CYP enzymes;
- e) they are used like hypnotic drugs.

600. Concomitant administration of clonazepam with ... can precipitate absence status.

Variants of answer:

- a) sodium valproate;
- b) phenobarbital;
- c) carbamazepine;
- d) phenytoin;
- e) zopiclon.

601. Which one of the following drugs is NOT a CCB?

Variants of answer:

- a) verapamil;
- b) pirenzepine;
- c) felodipine;
- d) nitrendipine;
- e) isradipine.

602. Nifedipine and β -blocker are given together...

Variants of answer:

- a) to decrease pedal edema due to nifedipine;
- b) to overcome increased sympathetic activity of nifedipine;
- c) to provide anti-CHF action of propranolol;
- d) to provide antiarrhythmic effect of nifedipine;
- e) to increase BP.

603. Verapamil is used in all conditions, except...

Variants of answer:

- a) angina pectoris;
- b) atrial fibrillation;
- c) ventricular tachycardia;
- d) none of the mentioned variants;
- e) all the mentioned variants.

604. All statements are TRUE about CCBs, except...

Variants of answer:

- a) diltiazem does not cause tachycardia;
- b) hyperkalemia may occur with nifedipine;
- c) verapamil is good antiarrhythmic drug;
- d) nifedipine may be given in CHF;
- e) nifedipine may be given in hypertensive crisis.

605. Verapamil is contraindicated in all conditions, except...

Variants of answer:

- a) PSVT with AV block;
- b) variant angina;
- c) β -adrenergic toxicity;
- d) digitalis toxicity;
- e) bradycardia.

606. Racemic mixture of two enantiomers with different pharmacokinetic and pharmacodynamic properties is seen in...

Variants of answer:

- a) dilantin;
- b) digoxin;
- c) verapamil;
- d) «Octreotide»;
- e) none of the mentioned variants.

607. Which one of the following drugs causes constipation?

Variants of answer:

- a) propranolol;
- b) verapamil;
- c) nitroglycerin;
- d) captopril;
- e) neostigmin.

608. All of the following drugs are CCBs, except...

Variants of answer:

- a) nimodipine;

- b) verapamil;
- c) flunarizine;
- d) pirenzepine;
- e) isradipin.

609. Drug(s) causing constipation is (are) ...

Variants of answer:

- a) verapamil;
- b) quinidine;
- c) MAO inhibitors;
- d) tricyclic antidepressants;
- e) ferrous sulphate.

610. Treatment of whooping cough is...

Variants of answer:

- a) rifampicin;
- b) tetracycline;
- c) erythromycin;
- d) ampicillin;
- e) polymixin B.

611. A patient on terfenadine therapy takes some antibiotics and develops arrhythmia. The likely antibiotic is...

Variants of answer:

- a) erythromycin;
- b) penicillin;
- c) tetracycline;
- d) metronidazole;
- e) cephalosporin.

612. A patient on cisapride for Barrett's ulcer suffers from pneumonia. The physician prescribes erythromycin. Which one of the following statements is correct?

Variants of answer:

- a) increase dose of cisapride is needed;
- b) increase dose of erythromycin is needed;
- c) it is increased risk of ventricular arrhythmias;
- d) it is decreased bioavailability of cisapride;
- e) none of the mentioned variants.

613. A patient with sinusitis, on terfenadine for a long time, develops cough and upper respiratory tract infection (URTI). His physician prescribes him erythromycin. The expected side effect is...

Variants of answer:

- a) cardiac arrhythmia;
- b) allergic reaction;

- c) low terfenadine level;
- d) rashes all over body;
- e) bleeding.

614. Drug of choice for prophylaxis in diphtheria is...

Variants of answer:

- a) erythromycin;
- b) doxycycline;
- c) tetracycline;
- d) clindamycin;
- e) polymixin B.

615. The group of antibiotics which possess additional anti-inflammatory and immunomodulatory activities is...

Variants of answer:

- a) tetracyclines;
- b) polypeptide antibiotics;
- c) fluoroquinolones;
- d) macrolides;
- e) aminoglycosides.

616. Mechanism of action of erythromycin is interference with...

Variants of answer:

- a) transcription;
- b) translation;
- c) translocation;
- d) transduction;
- e) transmission.

617. Which one of the following drugs acts on motilin receptors?

Variants of answer:

- a) erythromycin;
- b) tetracycline;
- c) norfloxacin;
- d) chloramphenicol;
- e) polymixin B.

618. Combination of terfenadine and erythromycin causes...

Variants of answer:

- a) torsades de pointes;
- b) increase metabolism of terfenadine;
- c) increase toxicity of terfenadine;
- d) synergistic effect of terfenadine;
- e) no interference.

619. Fastest acting drug in leprosy is...

Variants of answer:

- a) rifampicin;
- b) dapsone;
- c) clofazimine;
- d) ethionamide;
- e) ampicillin.

620. Drug causing ichthyosis and hyperpigmentation, when used in leprosy is...

Variants of answer:

- a) rifampicin;
- b) dapsone;
- c) clofazimine;
- d) ethionamide;
- e) ampicillin.

621. Dapsone is used in the treatment of all conditions, except...

Variants of answer:

- a) rhinosporidiosis;
- b) actinomycetoma;
- c) dermatitis herpetiformis;
- d) leprosy;
- e) candidosis.

622. In leprosy, the best bacteriocidal agent is...

Variants of answer:

- a) clofazimine;
- b) dapsone;
- c) rifampicin;
- d) ethionamide;
- e) ampicillin.

623. Side effects of clofazimine are all ones, except...

Variants of answer:

- a) skin pigmentation;
- b) GIT disturbance;
- c) ichthyosis;
- d) anemia;
- e) photosensibilization.

624. The most effective drug against *M. leprae* is...

Variants of answer:

- a) dapsone;
- b) rifampicin;

- c) clofazamine;
- d) prothionamide;
- e) erythromycin.

625. Most common complication of dapsone is...

Variants of answer:

- a) hemolysis;
- b) hepatitis;
- c) renal failure;
- d) eczema;
- e) headache.

626. Skin pigmentation occurs with such drug as...

Variants of answer:

- a) clofazimine;
- b) minocycline;
- c) sulfonamides;
- d) gold drugs;
- e) rifampicin.

627. Thalidomide can be used in...

Variants of answer:

- a) MI;
- b) Erythema Nodosum Leprosum (ENL);
- c) Wernicke's encephalopathy;
- d) epilepsy;
- e) vomiting.

628. Which non-depolarizing agent is a ganglion blocker?

Variants of answer:

- a) atracurium;
- b) pancuronium;
- c) d-tubocurarine;
- d) gallamine;
- e) pipecuronium.

629. Vecuronium acts on...

Variants of answer:

- a) cerebral cortex;
- b) myoneural junction;
- c) muscle fibres;
- d) spinal cord;
- e) pancreas.

630. Suxamethonium causes...

Variants of answer:

- a) jaundice;
- b) splenomegaly;
- c) atrial fibrillation;
- d) muscle fasciculation;
- e) dizziness.

631. Fasciculations are caused by...

Variants of answer:

- a) vecuronium;
- b) suxamethonium;
- c) atracurium;
- d) pancuronium;
- e) pipecuronium.

632. Which one of the following drugs is used to reverse the effect of d-tubocurarin?

Variants of answer:

- a) atropine;
- b) neostigmine;
- c) physostigmine;
- d) organophosphorus;
- e) platyphillin.

633. Shortest acting neuromuscular blocking agent is...

Variants of answer:

- a) pancuronium;
- b) atracurium;
- c) mivacurium;
- d) vecuronium;
- e) d-tubocurarin.

634. TRUE about pseudocholinesterase is that...

Variants of answer:

- a) it is presented in neuromuscular junction;
- b) its level is increased in pregnancy;
- c) it metabolizes succinylcholine;
- d) it is inhibited with organophosphorus;
- e) it destroys adrenalin.

635. The action of non-competitive muscle blockers is affected by...

Variants of answer:

- a) hypocalcemia;

- b) hyponatremia;
- c) hyperthermia;
- d) all the mentioned variants;
- e) none of the mentioned variants.

636. Central muscle relaxants act by...

Variants of answer:

- a) decreased nerve conduction;
- b) inhibiting spinal polysynaptic reflexes;
- c) block conduction across neuromuscular junction (NMJ);
- d) CNS depression;
- e) decreased muscle excitation.

637. A patient of peptic ulcer was prescribed ranitidine and sucralfate in the morning hours. Why is this combination incorrect?

Variants of answer:

- a) ranitidine combines with sucralfate and prevents its action;
- b) combination of these two drugs produces serious side effects like agranulocytosis;
- c) ranitidine decreases the gastric pH so sucralfate is not able to act;
- d) sucralfate inhibits absorption of ranitidine;
- e) ranitidine is metabolized rapidly due to sucralfate.

638. A patient is taking 40 mg of famotidine one time per day as well as sucralfate and antacid drug tablets three times per day. This treatment is incorrect because...

Variants of answer:

- a) sucralfate decreases the absorption of famotidine;
- b) sucralfate increases the toxicity of famotidine;
- c) sucralfate decreases absorption of antacids;
- d) sucralfate polymerises only when gastric pH is less than 4;
- e) sucralfate increases absorption of antacids.

639. Proton pump inhibitors (PPIs) are most effective when they are given...

Variants of answer:

- a) after meal;
- b) shortly before meal;
- c) along with H₂ blockers;
- d) during prolonged fasting periods;
- e) during meal.

640. Food does NOT interfere in absorption of...

Variants of answer:

- a) cimetidine;
- b) ranitidine;

- c) famotidine;
- d) none of the mentioned variants;
- e) all the mentioned variants.

641. Antiulcer drug is...

Variants of answer:

- a) pirenzepine;
- b) methylcellulose;
- c) ciprofloxacin;
- d) pyrimethamine;
- e) ethambutol.

642. TRUE statement about omeprazole is that...

Variants of answer:

- a) it may cause leiomyosarcoma;
- b) it is a nitrosourea;
- c) it may induce carcinoid tumours in rats;
- d) it is more frequently used by the IV route than orally;
- e) it is given after meal.

643. Prostaglandins are NOT indicated in...

Variants of answer:

- a) patent ductus arteriosus (PDA);
- b) labour;
- c) gastric ulcer;
- d) paralytic ileus;
- e) gastritis.

644. In antacid preparation aluminum hydroxide is added with magnesium salt because...

Variants of answer:

- a) magnesium causes constipation;
- b) it counteracts constipating effect of aluminum hydroxide;
- c) it counteracts the diarrhea action of aluminum;
- d) aluminum salt causes diarrhea;
- e) it counteracts the constipating effect of magnesium salt.

645. A 30-year-old male patient presented with massive haemetemesis. Upper GIT endoscopy shows a 2x2 cm ulcer on the posterior aspect of the first part of the duodenum. Bleeding vessel is seen but could not be controlled endoscopically. Patient's pulse rate is 100, BP is 110/70 mmHg, Hb is 100 g/L after blood transfusion. What will be the next line of management?

Variants of answer:

- a) IV pantoprazole;
- b) partial gastrectomy including the bleeding segment;

- c) duodenotomy, with ligation of bleeding vessel and truncal vagotomy with pyloroplasty;
- d) duodenotomy and ligation of bleeding vessel with truncal vagotomy and antrectomy;
- e) partial gastrectomy.

646. Androgen receptor blocking drug is...

Variants of answer:

- a) tamoxifen;
- b) cyproterone acetate;
- c) mifepristone;
- d) nalondrone;
- e) spironolacton.

647. The drug NOT used in prostatic carcinoma is...

Variants of answer:

- a) finasteride;
- b) diethylstilbestrol;
- c) testosterone;
- d) flutamide;
- e) tamoxiphen.

648. TRUE statement is that...

Variants of answer:

- a) clomiphene acts as antiestrogen both on pituitary and hypothalamus;
- b) danazol increases follicle stimulating hormone (FSH) and luteinizing hormone (LH) both;
- c) methimazole inhibits thyroxine release from thyroid;
- d) cyproterone is a potent antiandrogen;
- e) none of the mentioned variants.

649. A patient is having benign prostatic hyperplasia. He is having a BP 180/110 mmHg and a serum creatinine of 3,5 mg/dL. Which one of the following drugs is NOT to be used to treat him?

Variants of answer:

- a) prazosin;
- b) enalapril;
- c) amlodipine;
- d) metoprolol;
- e) propranolol.

650. Which one of the following substances is the most potent androgen?

Variants of answer:

- a) dihydroepiandrosterone;
- b) dihydrotestosterone;

- c) androstendione;
- d) testosterone;
- e) tamoxiphen.

651. Finasteride is a...

Variants of answer:

- a) 5- α reductase inhibitor;
- b) phosphodiesterase (PDE) inhibitor;
- c) α -1 blocker;
- d) androgen receptor blocker;
- e) α -2 blocker.

652. Selective α -blocker is...

Variants of answer:

- a) prazosin;
- b) terazosin;
- c) tamsulosin;
- d) indoramine;
- e) clonidine.

653. Androgen antagonists include...

Variants of answer:

- a) cyproterone;
- b) spironolactone;
- c) cimetidine;
- d) progesterone;
- e) minocycline.

654. Which one of the following substances is the most effective androgen?

Variants of answer:

- a) prolactin;
- b) clomiphen;
- c) ethynilestradiol;
- d) testosterone;
- e) tamoxiphen.

655. Which one of the following drugs is cardiotoxic?

Variants of answer:

- a) methotrexate;
- b) cyclophosphamide;
- c) adriamycin;
- d) vincristine;
- e) neostigmine.

656. A 58-year-old woman has been diagnosed with locally advanced breast cancer and has been recommended for chemotherapy. She has five years' history of MI and CHF. Which antineoplastic drug(s) should be best avoided?

Variants of answer:

- a) anthracycline;
- b) alkylating agent;
- c) platinum compound;
- d) bisphosphonates;
- e) antibiotics.

657. Which is the most active single chemotherapeutic agent in the treatment of leiomyosarcoma?

Variants of answer:

- a) adriamycin;
- b) doxorubicin;
- c) methotrexate;
- d) cisplatin;
- e) aztreonam.

658. A cardiotoxic drug is...

Variants of answer:

- a) adriamycin;
- b) cyclophosphamide;
- c) 5-FU;
- d) all the mentioned variants;
- e) none of the mentioned variants.

659. All the following drugs are examples of cardiotoxic drugs, except...

Variants of answer:

- a) cyclophosphamide;
- b) 5-FU;
- c) adriamycin;
- d) cisplatin;
- e) none of the mentioned variants.

660. Adriamycin is classified as:

Variants of answer:

- a) antibiotic;
- b) antimetabolite;
- c) 5-FU antagonist;
- d) vinca alkaloid;
- e) plant alkaloid.

661. A patient with cancer received extreme degree of radiation toxicity. Further history revealed that the dose adjustment of a particular drug was missed during the course of radiotherapy. Which one of the following drugs required a dose adjustment in that patient during radiotherapy in order to prevent radiation toxicity?

Variants of answer:

- a) vincristine;
- b) dactinomycin;
- c) cyclophosphamide;
- d) 6-MP;
- e) methotrexate.

662. The chemotherapeutic agent most commonly administered by continuous infusion is...

Variants of answer:

- a) cytarabine;
- b) 5-FU;
- c) cisplatin;
- d) etoposide;
- e) methotrexate.

663. TRUE about alkylating agents is that they...

Variants of answer:

- a) are dose-limiting mucosities;
- b) cause dose-limiting myelosuppression;
- c) damage DNA (crosslinking of DNA);
- d) cause secondary carcinoma;
- e) act on S phase.

664. Melphalan is used in...

Variants of answer:

- a) multiple myeloma;
- b) Wilm's tumour;
- c) neuroblastoma;
- d) retinoblastoma;
- e) papilloma.

665. A patient with Hodgkin's lymphoma is having a single cervical lymphnode. Biopsy showed lymphocyte predominant variant. Which one of the following variants is the treatment of choice?

Variants of answer:

- a) chemotherapy with radiotherapy;
- b) chemotherapy only;
- c) radiotherapy only;

- d) no treatment;
- e) none of the mentioned variants.

666. Which one of the following drugs is NOT an alkylating agent?

Variants of answer:

- a) cyclophosphamide;
- b) 5-FU;
- c) busulfan;
- d) chlorambucil;
- e) none of the mentioned variants.

667. Sterility is caused by...

Variants of answer:

- a) vinca alkaloids;
- b) alkylating agents;
- c) antimetabolites;
- d) actinomycin D;
- e) methotrexate.

668. Alkylating agent is...

Variants of answer:

- a) vincristin;
- b) actinomycin D;
- c) chlorambucil;
- d) 5-FU;
- e) cyclophosphamide.

669. Alkylating agents include...

Variants of answer:

- a) doxorubicin;
- b) chlorambucil;
- c) vinblastine;
- d) busulphan;
- e) methotrexate.

670. Sustained neutropenia is seen with...

Variants of answer:

- a) vinblastin;
- b) cisplatin;
- c) carmustine;
- d) none of the mentioned variants;
- e) all the mentioned variants.

671. Drug used in treatment of carcinoma thyroid is...

Variants of answer:

- a) doxorubicin;
- b) 5-FU;
- c) methotrexate;
- d) vinblastine;
- e) azatioprin.

672. Cyclosporin acts on...

Variants of answer:

- a) CD8 cells;
- b) CD4 cells;
- c) B-lymphocytes;
- d) T-lymphocytes;
- e) CD1 cells.

673. Cyclosporin is active against...

Variants of answer:

- a) CD4+ lymphocytes;
- b) CD8+ lymphocytes;
- c) CD14+ lymphocytes;
- d) B-lymphocytes;
- e) CD10+ lymphocytes.

674. Which one of the following drugs inhibits transcription?

Variants of answer:

- a) cyclosporin;
- b) rapamycin;
- c) 5-FU;
- d) cyclophosphamide;
- e) all the mentioned variants.

675. Cyclosporin acts by inhibiting the proliferation of...

Variants of answer:

- a) IL-1;
- b) IL-2;
- c) IL-6;
- d) macrophages;
- e) IL-3.

676. AH is seen with all drugs, except...

Variants of answer:

- a) erythropoietin;
- b) cyclosporine;

- c) NSAIDs;
- d) levodopa;
- e) dopamine.

677. Following drugs are immunosuppressive agent(s), except...

Variants of answer:

- a) cyclosporin;
- b) cefaclor;
- c) azathioprine;
- d) steroids;
- e) methotrexate.

678. Complication of cyclosporine is...

Variants of answer:

- a) AH;
- b) pulmonary fibrosis;
- c) hirsutism;
- d) none of the mentioned variants;
- e) all the mentioned variants.

679. Drug inhibiting IL-2 is...

Variants of answer:

- a) cycloserine;
- b) cyclosporine;
- c) anti-CD3 monoclonal antibody OKT3;
- d) tacrolimus;
- e) tamoxiphen.

680. Long-term use of lithium causes...

Variants of answer:

- a) peripheral neuropathy;
- b) hypothyroidism;
- c) anaemia;
- d) jaundice;
- e) hyperthyroidism.

681. Lithium is used in a pregnant woman. Which one of the following congenital anomalies occur in fetus?

Variants of answer:

- a) tetralogy of Fallot;
- b) tricuspid atresia;
- c) Ebstein's anomaly;
- d) pulmonary stenosis;
- e) microcephalia.

682. Which one of the following diuretics decrease the renal lithium clearance?

Variants of answer:

- a) acetazolamide;
- b) hydrochlorothiazide;
- c) furosemide;
- d) spironolactone;
- e) amilorid.

683. Pre-treatment evaluation for lithium therapy should include...

Variants of answer:

- a) fasting blood sugar;
- b) serum creatinine;
- c) liver function tests;
- d) platelet count;
- e) anaemia.

684. All of the following variants are parts of the treatment of lithium toxicity, except...

Variants of answer:

- a) treating dehydration;
- b) ingestion of polystyrene sulfonate;
- c) hemodialysis;
- d) using an antagonist;
- e) using an agonist.

685. Lithium monitoring is performed because of...

Variants of answer:

- a) low therapeutic efficacy;
- b) very low therapeutic index;
- c) adverse effects;
- d) long $T_{1/2}$;
- e) no excretion.

686. Low therapeutic range is seen in...

Variants of answer:

- a) lithium;
- b) erythromycin;
- c) phenytoin;
- d) propranolol;
- e) tricyclic antidepressant.

687. The following statements are TRUE for therapy with lithium, except...

Variants of answer:

- a) it is used in bipolar disorder;

- b) thiazides are useful in treating lithium-induced diabetes insipidus;
- c) regular measurements of blood concentration of lithium is necessary;
- d) Na⁺ is a specific antidote for lithium intoxication;
- e) none of the mentioned variants.

688. Which one of the following drugs does NOT reduce preload on heart?

Variants of answer:

- a) glyceryl trinitrate;
- b) isosorbid dinitrate;
- c) ACE inhibitor;
- d) hydralazine;
- e) nitroglycerin.

689. Long-term use of nitrates lead to decreased effect because of...

Variants of answer:

- a) development of resistance;
- b) -SH group in the enzyme;
- c) decreased oral absorption;
- d) increased resistance;
- e) increased metabolism.

690. All of the following statements about antianginal action of nitrates are TRUE, except...

Variants of answer:

- a) it decreases myocardial O₂ consumption;
- b) it decreases both pre- and afterload;
- c) it decreases total coronary flow;
- d) it causes favourable redistribution of coronary flow;
- e) it dilates arteries and veins.

691. Most powerful coronary vasodilator is...

Variants of answer:

- a) adenosine;
- b) CO₂;
- c) hypoxia;
- d) AH;
- e) triptophan.

692. K⁺ channel opener is...

Variants of answer:

- a) verapamil;
- b) nicorandil;
- c) Na nitroprusside;
- d) amrinone;
- e) diltiazem.

693. About the use of nitrates all variants are TRUE, except...

Variants of answer:

- a) they are not given in hypertrophic cardiomyopathy (HOCM);
- b) they can be given in acute MI;
- c) they can be given in CHF and acute left ventricular failure (LVF);
- d) they don't cause methemoglobinemia;
- e) they can be given in all types of angina pectoris.

694. Arteriolar dilators used in treatment of congestive cardiac failure (CCF) include...

Variants of answer:

- a) hydralazine;
- b) nifedipine;
- c) prazosin;
- d) enalapril;
- e) nitrates.

695. Role of nitrates in CCF is in...

Variants of answer:

- a) direct inotropic action;
- b) decreasing preload;
- c) decreasing afterload;
- d) coronary vasodilation;
- e) positive dromotropic effect.

696. All drugs are predominant arteriolar dilators, except...

Variants of answer:

- a) diazoxide;
- b) minoxidil;
- c) hydralazine;
- d) Na nitroprusside;
- e) none of the mentioned variants.

697. A 6-year-old child presents with malignant AH. The drug of choice is...

Variants of answer:

- a) Na nitroprusside;
- b) sublingual nifedipine;
- c) furosemide;
- d) enalapril;
- e) minoxidil.

698. The mechanism of action of Na nitroprusside is...

Variants of answer:

- a) increased cAMP;

- b) increased guanylate cyclase;
- c) calcium channel blockage;
- d) K⁺ channel opener;
- e) K⁺ channel blocker.

699. All the following drugs decrease the preload, except...

Variants of answer:

- a) glyceryl trinitrate;
- b) ACE inhibitors;
- c) hydralazine;
- d) Na nitroprusside;
- e) nitroglycerin.

700. Predominant arteriolar dilators include all the following drugs, except...

Variants of answer:

- a) Na nitroprusside;
- b) diazoxide;
- c) hydralazine;
- d) minoxidil;
- e) none of the mentioned variants.

701. Mechanism of action of Na nitroprusside in cyanides poisoning is in...

Variants of answer:

- a) producing methemoglobinemia;
- b) increasing blood flow to liver;
- c) increasing blood flow to heart;
- d) increasing blood flow to kidneys;
- e) increasing blood flow to lungs.

702. All of the following drugs can induce methemoglobinemia, except...

Variants of answer:

- a) nitroglycerin;
- b) procaine;
- c) prilocaine;
- d) phenytoin;
- e) isosorbide dinitrate.

703. Which one of the following statements about hydralazine is NOT TRUE?

Variants of answer:

- a) it causes direct relaxation of blood vessels;
- b) it causes dilatation of both arteries and veins;
- c) postural hypotension is not a common problem;
- d) it increases plasma renin activity;
- e) it decreases BP.

704. The drug for acne vulgaris is...

Variants of answer:

- a) minocycline;
- b) cis-retinoic acid;
- c) etretinate;
- d) rifampicin;
- e) dapsone.

705. Which of the following drug combinations can be given with dose adjustment?

Variants of answer:

- a) levodopa + metoclopramide;
- b) gentamicin + furosemide;
- c) ferrous sulphate + tetracycline;
- d) clonidine + chlorpromazine;
- e) tetracycline + gentamicin.

706. All of the following statements about adverse effects of tetracyclines are TRUE, except...

Variants of answer:

- a) they may lead to discolouration of teeth;
- b) they are a common cause of superinfections;
- c) they may precipitate liver damage;
- d) they are not known to be teratogenic;
- e) they can cause photosensibilization.

707. Mechanism of action of tetracycline is in...

Variants of answer:

- a) binding to A site and inhibits attachment of tRNA;
- b) inhibiting peptidyl transferase;
- c) causing misreading of mRNA;
- d) causing termination of peptide chain elongation;
- e) causing membrane inhibition.

708. Drug clinically interacting with ribosomes to interfere with translation in bacteria is...

Variants of answer:

- a) tetracycline;
- b) erythromycin;
- c) puromycin;
- d) oligomycin;
- e) ampicillin.

709. Antibiotic resistance by enzyme inactivation is seen in...

Variants of answer:

- a) penicillin;

- b) fluoroquinolones;
- c) tetracycline;
- d) aminoglycosides;
- e) none of the mentioned variants.

710. Which one of the following drugs causes pseudotumour cerebri?

Variants of answer:

- a) sparfloxacin;
- b) tetracycline;
- c) gentamicin;
- d) clofazimine;
- e) amoxicillin.

711. Tetracycline inhibits protein synthesis by...

Variants of answer:

- a) inhibiting initiation and causing misreading of mRNA;
- b) binding to 30S ribosomal subunit and inhibiting binding of aminoacyl tRNA;
- c) inhibiting peptidyl transferase activity;
- d) inhibiting translocation;
- e) inhibiting transmitters.

712. Which drug is NOT a 3rd generation cephalosporin?

Variants of answer:

- a) ceftriaxone;
- b) cefotaxime;
- c) ceftizoxime;
- d) cefuroxime;
- e) cefepime.

713. All of the following antibacterial agents act by inhibiting cell wall synthesis, except...

Variants of answer:

- a) carbapenems;
- b) monobactams;
- c) cephamycins;
- d) nitrofurantoin;
- e) penicillins.

714. Advantage of 3rd generation cephalosporins over 1st and 2nd generation cephalosporins is that they are...

Variants of answer:

- a) β -lactamase sensitive;
- b) not orally administered;

- c) effective against gram-positive bacteria;
- d) effective against gram-negative bacteria;
- e) against MRSA.

715. Which variant is TRUE regarding cefepime?

Variants of answer:

- a) it is 4th generation cephalosporin;
- b) once-a-day dose is sufficient;
- c) it has antipseudomonal action;
- d) its dose should be reduced in liver pathology;
- e) it is a prodrug.

716. Which one(s) of the following antibiotics act(s) by inhibiting cell wall synthesis?

Variants of answer:

- a) cefepime;
- b) aminoglycosides;
- c) erythromycin;
- d) doxycycline;
- e) azithromycin.

717. Which one of the following drugs is a 4th generation cephalosporin?

Variants of answer:

- a) ceftriaxone;
- b) cefaclor;
- c) cefepime;
- d) cefuroxime;
- e) ceftobiprole.

718. Which antibiotic acts by inhibiting cell wall synthesis?

Variants of answer:

- a) cefepime;
- b) lomefloxacin;
- c) erythromycin;
- d) tetracycline;
- e) doxycycline.

719. Gout is NOT caused by...

Variants of answer:

- a) chlorthalidone;
- b) sulfinpyrazone;
- c) «Aspirin»;
- d) pyrazinamide;
- e) indapamide.

720. A patient receiving allopurinol requires dose reduction of...

Variants of answer:

- a) 6-MP;
- b) cyclophosphamide;
- c) azathioprine;
- d) cimetidine;
- e) ranitidine.

721. Granulomatous hepatitis is caused by using of...

Variants of answer:

- a) allopurinol;
- b) methyldopa;
- c) furazolidone;
- d) amiodarone;
- e) ursodesoxycholic acid.

722. Mechanism of action of allopurinol is...

Variants of answer:

- a) increasing uric acid excretion;
- b) decreasing uric acid synthesis;
- c) both of variants;
- d) none of the mentioned variants;
- e) decreasing uric acid excretion.

723. Drug inhibiting formation of purines is...

Variants of answer:

- a) 5-FU;
- b) 6-MP;
- c) hydroxyurea;
- d) methotrexate;
- e) cytosine arabinoside.

724. Allopurinol prevents conversion of...

Variants of answer:

- a) hypoxanthine to xanthine;
- b) xanthine to hypoxanthine;
- c) hypoxanthine to uric acid;
- d) xanthine to uric acid;
- e) xanthine to urine.

725. Which one of the following drugs is known to cause granuloma in the liver?

Variants of answer:

- a) allopurinol;

- b) nifedipine;
- c) tetracycline;
- d) methyl testosterone;
- e) amlodipine.

726. Gynaecomastia is side effect of all drugs, except...

Variants of answer:

- a) ranitidine;
- b) cimetidine;
- c) spironolactone;
- d) ketoconazole;
- e) digitalis drugs.

727. Gynaecomastia is a side effect of all drugs, except...

Variants of answer:

- a) digitalis drugs;
- b) ketoconazole;
- c) rifampicin;
- d) spironolactone;
- e) cimetidine.

728. Drug causing hirsutism and gynaecomastia is...

Variants of answer:

- a) spironolactone;
- b) rifampicin;
- c) penicillin;
- d) bumetanide;
- e) tetracycline.

729. Gynaecomastia may be associated with administration of...

Variants of answer:

- a) ranitidine;
- b) cimetidine;
- c) terfenadine;
- d) omeprazole;
- e) anaprilin.

730. Gynaecomastia may be caused by all drugs, except...

Variants of answer:

- a) cimetidine;
- b) ranitidine;
- c) ketoconazole;
- d) spironolactone;
- e) digoxin.

731. Gynaecomastia is caused by...

Variants of answer:

- a) clomiphene citrate;
- b) tamoxifen;
- c) spironolactone;
- d) testosterone;
- e) amilorid.

732. Gynaecomastia is caused by...

Variants of answer:

- a) spironolactone;
- b) rifampicin;
- c) thiazide;
- d) propranolol;
- e) verapamil.

733. Extrapyramidal syndrome-like condition is side effect of using of...

Variants of answer:

- a) haloperidol;
- b) clozapine;
- c) tetracycline;
- d) ketoconazole;
- e) valproic acid.

734. A 30-year-old manic patient was prescribed haloperidol one week back. For last two days he has become restless and kept pacing in the room for a day. Once during examination hand tremors were diagnosed. He is most likely suffering from...

Variants of answer:

- a) anhedonia;
- b) dystonia;
- c) restless legs syndrome;
- d) akathisia;
- e) none of the mentioned variants.

735. The most common side effect expressed with treatment with haloperidol is...

Variants of answer:

- a) hypotension;
- b) akathisia;
- c) dryness of mouth;
- d) tic disorder;
- e) nausea.

736. Which one of the following drugs is NOT used in anxiety?

Variants of answer:

- a) risperidone;
- b) selective serotonin reuptake inhibitor (SSRI);
- c) clonazepam;
- d) buspirone;
- e) diazepam.

737. Oculogyric crisis is known to be produced by all of the following drugs, except...

Variants of answer:

- a) trifluoperazine;
- b) atropine;
- c) perchlorperazine;
- d) perphenazine;
- e) none of the mentioned variants.

738. The most common side effect of chronic use of phenothiazines is...

Variants of answer:

- a) akathisia;
- b) tardive akinesia;
- c) tardive dyskinesia;
- d) muscular dystonia;
- e) disphagia.

739. The most common side effect associated with chronic use of phenothiazines is...

Variants of answer:

- a) akathisia;
- b) parkinsonism;
- c) tardive dyskinesia;
- d) muscular dystonia;
- e) disphagia.

740. Which one of the following statements regarding mycophenolate mofetil is incorrect?

Variants of answer:

- a) it is a prodrug;
- b) it is a selective uncompetitive and reversible inhibitor;
- c) it also inhibits calcineurin;
- d) it selectively inhibits lymphocytes proliferation;
- e) none of the mentioned variants.

741. All statements about immunosuppressants are TRUE, except...

Variants of answer:

- a) tacrolimus inhibits calcineurin pathway;
- b) steroids bind to cytosolic receptors and heat shock proteins;
- c) mycophenolate inhibits purine synthesis via guanosine monophosphate (GMP) dehydrogenase;
- d) sirolimus block kinase in the IL-2 receptor pathway;
- e) they are used in transplantation of organs.

742. Tacrolimus is used in...

Variants of answer:

- a) organ transplantation;
- b) bronchial asthma;
- c) diabetic diarrhea;
- d) chemotherapeutic agent;
- e) allergic reaction.

743. Tacrolimus is a...

Variants of answer:

- a) macrolide antibiotic;
- b) immunoglobulin antibody;
- c) non-depolarising muscle relaxant;
- d) opioid analgesic;
- e) NSAIDs.

744. Adverse effect of tacrolimus include all of the following conditions, except...

Variants of answer:

- a) neurotoxicity;
- b) tardive dyskinesia;
- c) DM;
- d) hirsutism;
- e) AH.

745. Which one of the following statements about tacrolimus is NOT TRUE?

Variants of answer:

- a) it is macrolide antibiotic;
- b) it is indicated for the prophylaxis of organ transplant rejection;
- c) glucose intolerance is its well-recognized side effect;
- d) it can be safely administered with any nephrotoxic drug;
- e) it provides immunosuppression.

746. Nephrotoxicity is a side effect of such immunosuppressive drug as...

Variants of answer:

- a) sirolimus;
- b) tacrolimus;

- c) mycophenolate mofetil;
- d) azathioprine;
- e) none of the mentioned variants.

747. Lactic acidosis is a side effect of...

Variants of answer:

- a) phenformin;
- b) metformin;
- c) chlorpropamide;
- d) glibenclamide;
- e) amlodipine.

748. All statements regarding oral hypoglycemic agent are TRUE, except...

Variants of answer:

- a) it is effective only after total pancreatectomy;
- b) metformin causes lactic acidosis;
- c) it causes release of insulin from β -cells;
- d) it is used in adults with DM;
- e) it can be used in type 1 DM.

749. All statements about metformin are TRUE, except...

Variants of answer:

- a) it causes little or no hypoglycemia in non-diabetic subjects;
- b) it acts by increased insulin secretion;
- c) it increases peripheral utilisation of glucose and decreases absorption of glucose from intestine;
- d) when given with alcohol, it increases risk of lactic acidosis;
- e) none of the mentioned variants.

750. Which one of the following statements about biguanides is NOT TRUE?

Variants of answer:

- a) they don't stimulate insulin release;
- b) they decrease hepatic glucose production;
- c) renal dysfunction is not a contraindication for their use;
- d) they can be combined with sulfonylureas;
- e) none of the mentioned variants.

751. Biguanides act by all the following processes, except...

Variants of answer:

- a) decreasing insulin release from pancreas;
- b) increasing glycolysis;
- c) decreasing gluconeogenesis;
- d) increasing insulin binding to its receptors;
- e) none of the mentioned variants.

752. Which one(s) of the following drugs is (are) to be discontinued on the day of surgery?

Variants of answer:

- a) atenolol;
- b) amlodipine;
- c) metformin;
- d) statins;
- e) allopurinol.

753. Therapeutic drug monitoring is advised with all agents, except...

Variants of answer:

- a) metformin;
- b) phenytoin;
- c) tacrolimus;
- d) cyclosporine;
- e) none of the mentioned variants.

754. Tolerance occurs to all side effects of morphine, except...

Variants of answer:

- a) sedation;
- b) constipation;
- c) pain relieving;
- d) euphoric effect;
- e) vomiting.

755. Which one of the following statements about morphine is TRUE?

Variants of answer:

- a) it has tolerance to all its actions except sedation and euphoria;
- b) it has tolerance to all side effects except constipation and miosis;
- c) it is a peripherally acting analgesic;
- d) it has no abuse potential;
- e) it has no toxicity.

756. The effective and safe drug for intractable pain in terminal cancer stage is...

Variants of answer:

- a) injectable pethidine;
- b) injectable ketamine;
- c) oral «Brufen»;
- d) oral morphine;
- e) oral paracetamol.

757. The drug(s) NOT used for analgesia in a head injury patient is (are) ...

Variants of answer:

- a) morphine;
- b) NSAIDs;

- c) rofecoxib;
- d) acetaminophen;
- e) analgin.

758. Morphine can be used in all the following conditions, except...

Variants of answer:

- a) head injury;
- b) asthma;
- c) hypothyroidism;
- d) diabetes mellitus;
- e) MI.

759. Established routes of administration of morphine include...

Variants of answer:

- a) inhalation;
- b) rectal;
- c) subcutaneous;
- d) IV;
- e) all the mentioned variants.

760. Morphine cannot be given in such route as...

Variants of answer:

- a) intramuscular (IM);
- b) transdermal;
- c) epidural;
- d) subarachnoid;
- e) oral.

761. Drug of choice for MRSA is...

Variants of answer:

- a) amoxicillin-clavulanate;
- b) vancomycin;
- c) flucloxacillin;
- d) clindamycin;
- e) erythromycin.

762. Drug(s) not used in MRSA is (are)...

Variants of answer:

- a) penicillin;
- b) linezolid;
- c) teicoplanin;
- d) quinupristine-dalfopristine;
- e) ceftobiprole.

763. Which one of the following drugs is NOT administered for MRSA?

Variants of answer:

- a) cefaclor;
- b) cotrimoxazole;
- c) ciprofloxacin;
- d) levofloxacin;
- e) erythromycin.

764. Which one of the following drugs is NOT administered for MRSA?

Variants of answer:

- a) cefaclor;
- b) vancomycin;
- c) ciprofloxacin;
- d) linezolid;
- e) teicoplanin.

765. Which one of the following drugs is NOT administered for MRSA?

Variants of answer:

- a) cefaclor;
- b) «Co-trimoxazole»;
- c) ciprofloxacin;
- d) vancomycin;
- e) teicoplanin.

766. Which one of the following statements is most correct regarding resistance to methicillin in MRSA?

Variants of answer:

- a) resistance is produced as a result of alteration in penicillin-binding proteins (PBP);
- b) resistance is produced by production of β -lactamase;
- c) resistance is mediated by plasmids;
- d) expression of resistance is enhanced by incubating at 37 °C during susceptibility testing;
- e) none of the mentioned variants.

767. All of the following statements are TRUE about methicillin resistance in MRSA, except...

Variants of answer:

- a) resistance is produced as a result of altered PBP's;
- b) resistance may be produced by hyperproduction of β -lactamase;
- c) resistance is primarily mediated/transmitted via plasmids;
- d) resistance may be missed at incubation temperature of 37 °C during susceptibility testing;
- e) none of the mentioned variants.

768. «Mala-N» contains...

Variants of answer:

- a) ethinylestradiol (0,3 mg);
- b) norethisterone (1 mg);
- c) d-norgestrel (0,5 mg);
- d) d-norgestrel (0,3 mg);
- e) d-norgestrel (0,7 mg).

769. Absolute contraindication to oral contraceptives (OC) pills is...

Variants of answer:

- a) epilepsy;
- b) migraine;
- c) renal failure;
- d) thromboembolism;
- e) headache.

770. Oral contraceptives pills cause in liver...

Variants of answer:

- a) cholangiocarcinoma;
- b) adenoma;
- c) cirrhosis;
- d) atrophic changes;
- e) all the mentioned variants.

771. Drug causing cholestatic jaundice is...

Variants of answer:

- a) estrogen;
- b) cyclosporin;
- c) INH;
- d) phenothiazine;
- e) ethambutol.

772. Women receiving estrogen therapy have an increased risk of developing all of the following cancer diseases, except...

Variants of answer:

- a) breast cancer;
- b) endometrial carcinoma;
- c) carcinoma of gall bladder;
- d) hepatocellular carcinoma;
- e) none of the mentioned variants.

773. Oral contraceptives pills should NOT be used with...

Variants of answer:

- a) rifampicin;
- b) INH;

- c) streptomycin;
- d) pyrazinamide;
- e) bisoprolol.

774. A lady taking «Centchroman» misses four consecutive doses of it. The advised variant is...

Variants of answer:

- a) to use drug in normal dosage;
- b) to use drug in normal dosage with male barrier method of contraception;
- c) to use double dose for two days;
- d) to take four tablets immediately;
- e) to use double dose for one week.

775. All variants regarding prazosin are TRUE, except...

Variants of answer:

- a) it causes first dose effect;
- b) impairing glucose tolerance;
- c) it is selective α -1 blocker;
- d) it is an antihypertensive drug;
- e) its side effect is hypotension.

776. NOT TRUE about prazosin is that...

Variants of answer:

- a) it is α -2 presynaptic blocker;
- b) it is orally effective;
- c) it is metabolised in liver;
- d) its first dose effect may occur;
- e) its side effect is hypotension.

777. Postural hypotension is common with...

Variants of answer:

- a) prazosin;
- b) labetalol;
- c) Na nitroprusside;
- d) captopril;
- e) enalapril.

778. Most commonly postural hypotension is seen with...

Variants of answer:

- a) prazosin;
- b) nifedipine;
- c) atenolol;
- d) ACE inhibitors;
- e) sartans.

779. Selective α -1 antagonists are all the following drugs, except...

Variants of answer:

- a) prazosin;
- b) terazosin;
- c) butoxamine;
- d) tamsulosin;
- e) none of the mentioned variants.

780. Antihypertensive drug that plays beneficial or neutral role in lipid metabolism is...

Variants of answer:

- a) prazosin;
- b) propranolol;
- c) furosemide;
- d) losartan;
- e) chlorthiazide.

781. First dose hypotension is caused by...

Variants of answer:

- a) prazosin;
- b) clonidine;
- c) Na nitroprusside;
- d) propranolol;
- e) enalapril.

782. Pulmonary fibrosis is a side effect of all drugs, except...

Variants of answer:

- a) busulphan;
- b) phenytoin;
- c) sulphonamide;
- d) d-penicillamine;
- e) bisoprolol.

783. Pneumopathy is a side effect of all drugs, except...

Variants of answer:

- a) α -methyldopa;
- b) busulphan;
- c) melphalan;
- d) nitrofurantoin;
- e) mileran.

784. Pulmonary fibrosis is a side effect of...

Variants of answer:

- a) methotrexate;
- b) vincristine;

- c) bleomycine;
- d) cyclophosphamide;
- e) none of the mentioned variants.

785. Pulmonary fibrosis is the most common complication after treatment with...

Variants of answer:

- a) 6-MP;
- b) vincristine;
- c) bleomycine;
- d) adriamycine;
- e) busulphan.

786. Pulmonary infiltration may be seen with all of the following drugs, except...

Variants of answer:

- a) 5-FU;
- b) bleomycine;
- c) busulphan;
- d) cyclophosphamide;
- e) vinkristin.

787. All the following drugs cause pulmonary fibrosis, except...

Variants of answer:

- a) busulfan;
- b) methotrexate;
- c) doxorubicin;
- d) bleomycine;
- e) vinkristin.

788. Drug causing pulmonary fibrosis is...

Variants of answer:

- a) bleomycine;
- b) mitoxantrone;
- c) buspirone;
- d) nitrofurantoin;
- e) bleomycine.

789. Folic acid metabolism is inhibited by...

Variants of answer:

- a) sulfonamides;
- b) methotrexate;
- c) nitrous oxide (NO);
- d) trimethoprim;
- e) 5-flucytosine (5-FC).

790. Which one of the following drugs is contraindicated in patients with allergy to sulphonamides?

Variants of answer:

- a) levobunolol;
- b) bimatoprost;
- c) brinzolamide;
- d) brimonidine;
- e) none of the mentioned variants.

791. All of the following drugs are topically used sulphonamides, except...

Variants of answer:

- a) sulphacetamide;
- b) sulphadiazine;
- c) silver sulphadiazine;
- d) mafenide;
- e) none of the mentioned variants.

792. Which one of the following statements is NOT TRUE regarding sulphonamides?

Variants of answer:

- a) sulfasalazine is absorbed well from GIT;
- b) crystalluria can occur with sulfonamide administration;
- c) sulfonamide administration to newborns may cause kernicterus;
- d) sulfonamides are of value in treatment of infections due to *Nocardia* species;
- e) indication of sulfasalazine is Crohn's disease.

793. Drug of choice for *Pneumocystis carinii* is...

Variants of answer:

- a) «Co-trimoxazole»;
- b) erythromycin;
- c) penicillin;
- d) metronidazole;
- e) ampicillin.

794. All statements about «Co-trimoxazole» are TRUE, except...

Variants of answer:

- a) resistance is delayed due to drugs in combination;
- b) the ratio of trimethoprim and sulphamethoxazole is equal 1:5;
- c) it has similar pharmacokinetics for both components;
- d) trimethoprim increases absorption of sulphamethoxazole;
- e) it acts against MRSA.

795. In a patient with *Listeria meningitis* who is allergic to penicillin, the antimicrobial of choice is...

Variants of answer:

- a) vancomycin;

- b) gentamicin;
- c) «Co-trimoxazole»;
- d) ceftriaxone;
- e) ampicillin.

796. Which one of the following substances is NOT a prodrug?

Variants of answer:

- a) levodopa;
- b) phenobarbital;
- c) sulphasalazine;
- d) bacampicillin;
- e) enalapril.

797. All the following antimicrobial agents are used topically, except...

Variants of answer:

- a) clotrimazole;
- b) griseofulvin;
- c) nystatin;
- d) miconazole;
- e) chloramphenicol.

798. All of the following drugs act on cell membrane, except...

Variants of answer:

- a) nystatin;
- b) griseofulvin;
- c) amphotericin B;
- d) polymixin B;
- e) levorin.

799. Which one of the following drugs is NOT an antifungal agent?

Variants of answer:

- a) cyclopiroxolamine;
- b) ketoconazole;
- c) undecylenic acid;
- d) clofazimine;
- e) nystatin.

800. A patient taking ketoconazole and Terfenadine both, is prone for...

Variants of answer:

- a) cardiac arrhythmia;
- b) toxicity of ketoconazole;
- c) CCF;
- d) all the mentioned variants;
- e) none of the mentioned variants.

801. Drug(s) causing Addison's disease is (are) ...

Variants of answer:

- a) ketoconazole;
- b) aminoglutethimide;
- c) cyclosporine;
- d) glucocorticoids;
- e) paracetamol.

802. Which drug would treat dermatophytosis and candidal infections both?

Variants of answer:

- a) ketoconazole;
- b) griseofulvin;
- c) nystatin;
- d) amphotericin B;
- e) terbinafine.

803. Mebendazole is used in all of the following variants, except...

Variants of answer:

- a) hook worm;
- b) round worm;
- c) strongyloides;
- d) *Trichuris trichiura*;
- e) *Ascaris lumbricoides*.

804. Albendazole may be used for treatment of all of the following conditions, except...

Variants of answer:

- a) *Enterobius*;
- b) ascariasis;
- c) ankylostoma;
- d) schistosomiasis;
- e) ascariidosis.

805. Mebendazole is effective for all of the following variants, except...

Variants of answer:

- a) cysticercosis;
- b) *Trichuris trichiura*;
- c) *Trichinella*;
- d) *Ascaris*;
- e) hook worm.

806. Broad-spectrum antihelminthic drug is...

Variants of answer:

- a) niclosamide;
- b) praziquantel;

- c) albendazole;
- d) mebendazole;
- e) pyrantel pamoate.

807. Which drug is NOT given in *Taenia solium* infection?

Variants of answer:

- a) niclosamide;
- b) praziquantel;
- c) albendazole;
- d) flubendazole;
- e) mebendazole.

808. Drug of choice in tapeworm infestation is...

Variants of answer:

- a) niridazole;
- b) niclosamide;
- c) albendazole;
- d) praziquantel;
- e) none of the mentioned variants.

809. Which one of the following substances is a prodrug?

Variants of answer:

- a) clopidogrel;
- b) "Aspirin";
- c) dipyridamole;
- d) captopril;
- e) clonidine.

810. All of the following drugs are GP IIb/IIIa antagonists, except...

Variants of answer:

- a) abciximab;
- b) clopidogrel;
- c) tirofiban;
- d) eptifibatide;
- e) none of the mentioned variants.

811. Dipyridamole acts by...

Variants of answer:

- a) adenosine uptake inhibition;
- b) inhibiting TxA_2 ;
- c) stimulating PGI_2 synthesis;
- d) inhibiting PGI_2 synthesis;
- e) inhibiting PGI_1 synthesis.

812. Coronary steal phenomenon is caused by...

Variants of answer:

- a) dipyridamole;
- b) diltiazem;
- c) propranolol;
- d) verapamil;
- e) «Aspirin».

813. All of the following statements about ticlopidine are TRUE, except...

Variants of answer:

- a) it directly interacts with platelet membrane and GP IIb/IIIa receptors;
- b) its onset of action is delayed;
- c) its duration of action is long;
- d) it is used as an alternative to aspirin in patients with cerebrovascular disease;
- e) it inhibits ADP receptors.

814. Dipyridamole acts by...

Variants of answer:

- a) TxA₂ synthesis inhibition;
- b) antagonising the uptake of adenosine by platelet;
- c) calcium channel blocking property PGI₂ stimulation;
- d) inhibiting ADP receptors;
- e) interacting with platelet membrane and GP IIb/IIIa receptors.

815. Side effects of the cisplatin include all of the following conditions, except:

Variants of answer:

- a) nausea and vomiting;
- b) nephrotoxicity;
- c) blindness;
- d) ototoxicity;
- e) myelosuppression.

816. Which one of the following conditions is a common side effect of cisplatin?

Variants of answer:

- a) diarrhea;
- b) vomiting;
- c) pulmonary fibrosis;
- d) alopecia;
- e) blood stool.

817. Drug causing deafness is...

Variants of answer:

- a) cisplatin;

- b) deferroxamine;
- c) mustine hydrochloride;
- d) adriamycin;
- e) vinkristin.

818. Anticancer drug having highest emetogenic potential is...

Variants of answer:

- a) cisplatin;
- b) vincristine;
- c) methotrexate;
- d) busulfan;
- e) methotrexate.

819. Which one of the following drugs is associated with untoward side effect of renal tubular damage?

Variants of answer:

- a) cisplatin;
- b) streptozotocin;
- c) methysergide;
- d) cyclophosphamide;
- e) methotrexate.

820. Which one of the following chemotherapeutic agents is associated with secondary leukemia?

Variants of answer:

- a) vinblastine;
- b) etoposide;
- c) cisplatin;
- d) bleomycine;
- e) doxorubicin.

821. Skin pigmentation is caused by...

Variants of answer:

- a) cyclophosphamide;
- b) dactinomycin;
- c) methotrexate;
- d) busulphan;
- e) vinblastine.

822. Haemorrhagic cystitis is caused by...

Variants of answer:

- a) cyclophosphamide;
- b) busulphan;
- c) prednisolone;
- d) melphalan;
- e) none of the mentioned variants.

823. Sodium 2-mercaptoethanesulfonate (mesna) is used as a protective agent in...

Variants of answer:

- a) radiotherapy;
- b) cancer chemotherapy;
- c) lithotripsy;
- d) hepatic encephalopathy;
- e) all the mentioned variants.

824. Sterile haemorrhagic cystitis is caused by...

Variants of answer:

- a) busulfan;
- b) ketoprofen;
- c) methicillin;
- d) cyclophosphamide;
- e) vinkristin.

825. Mesna is given with cyclophosphamide to...

Variants of answer:

- a) increase absorption;
- b) decrease excretion;
- c) prevent haemorrhagic cystitis;
- d) decrease metabolism;
- e) increase metabolism.

826. Cyclophosphamide is used in all conditions, except...

Variants of answer:

- a) Burkitt's lymphoma;
- b) Hodgkin's lymphoma;
- c) choriocarcinoma;
- d) ovarian cancer;
- e) autoimmune diseases.

827. Antagonist of benzodiazepines is...

Variants of answer:

- a) nalorphine;
- b) carbamazepine;
- c) naloxone;
- d) flumazenil;
- e) valproic acid.

828. Flumazenil is...

Variants of answer:

- a) diazepam antagonist;

- b) diazepam reverse agonist;
- c) agonist at benzodiazepine receptors;
- d) SSRI;
- e) inhibitor of MAO-B.

829. Flumazenil is...

Variants of answer:

- a) benzodiazepine agonist;
- b) benzodiazepine antagonist;
- c) adrenergic blocking agent;
- d) cholinesterase inhibitor;
- e) muscarinic blocker.

830. Flumazenil is...

Variants of answer:

- a) benzodiazepine antagonist;
- b) benzodiazepine agonist;
- c) adrenergic blocking agent;
- d) opiate antagonist;
- e) muscarinic blocker.

831. Benzodiazepine antagonist is...

Variants of answer:

- a) flumazenil;
- b) naloxone;
- c) furazolidone;
- d) naltrexone;
- e) «Ferrum lek».

832. Which one of the following drugs is a benzodiazepene antagonist?

Variants of answer:

- a) flumazenil;
- b) butorphanol;
- c) naltrexone;
- d) pralidoxime;
- e) verapamil.

833. Eterncept acts by...

Variants of answer:

- a) blocking tumor necrosis factor;
- b) blocking bradykinin synthesis;
- c) inhibiting COX-2;
- d) blocking LOX;
- e) blocking gluconeogenesis.

834. Imatinib acts by inhibition of...

Variants of answer:

- a) tyrosine kinase;
- b) glutathione reductase;
- c) thymidile synthetase;
- d) protein kinase;
- e) bradykinin.

835. Imatinib used in chronic myeloid leukemia (CML) acts by...

Variants of answer:

- a) inhibiting fusion protein translocation via tyrosine kinase;
- b) blocking the action of P-glycoprotein;
- c) competitive inhibition of ATP binding site of tyrosine-protein kinase;
- d) receptor tyrosine kinase inhibition;
- e) blocking ADP receptors.

836. Imatinib is used in the treatment of...

Variants of answer:

- a) CML;
- b) myelodysplastic syndrome (MDS);
- c) acute lymphocytic leukemia (ALL);
- d) gastrointestinal stromal tumor (GIST);
- e) ileus cancer.

837. Which one of the following drugs is the established biological therapy for Crohn's disease?

Variants of answer:

- a) anti-TNF- α -antibody (TNF – tumor necrosis factor);
- b) IL-1 antagonist;
- c) IL-6 antagonist;
- d) IL-8 antagonist;
- e) IL-10 antagonist.

838. Denosumab is a monoclonal antibody against receptor activator of nuclear factor kappa- β ligand (RANKL) receptor is used in the treatment of...

Variants of answer:

- a) rheumatoid arthritis;
- b) osteoporosis;
- c) osteoarthritis;
- d) SLE;
- e) acute rheumatic fever.

839. All conditions are contraindications for use of streptokinase in management of MI, except...

Variants of answer:

- a) active peptic ulcer;

- b) coagulopathy;
- c) type 2 DM;
- d) hypotension;
- e) none of the mentioned variants.

840. All statements about streptokinase and urokinase are TRUE, except...

Variants of answer:

- a) streptococcus infection causes beneficial dual effect;
- b) it reduces risk of arterial and venous thrombosis;
- c) its control is processed with thrombin time;
- d) its mechanism of action is plasmin activating thrombin;
- e) it causes bleeding.

841. Treatment of choice in a patient of acute pulmonary embolism with right ventricular hypokinesia and compromised cardiac output but normal blood pressure is...

Variants of answer:

- a) thrombolytic agent;
- b) low molecular weight heparin (LMWH);
- c) warfarin;
- d) IV filters;
- e) enoxaparin.

842. Drug(s) NOT used in myocardial infarction is (are)...

Variants of answer:

- a) inhibitors of platelet aggregation;
- b) thrombolytics;
- c) anticoagulants;
- d) inhibitors of plasminogen activator;
- e) heparin.

843. Among following drugs least anaphylaxis is seen with...

Variants of answer:

- a) streptokinase;
- b) urokinase;
- c) anisolated streptokinase;
- d) tissue plasminogen activator (tPA);
- e) none of mentioned variants.

844. All drugs are fibrinolytics, except...

Variants of answer:

- a) streptokinase;
- b) urokinase;

- c) alteplase;
- d) epsilon-aminocaproic acid;
- e) tenecteplase.

846. Which drug is NOT acetylated?

Variants of answer:

- a) INH;
- b) dapsone;
- c) hydralazine;
- d) metoclopropamide;
- e) cimetidine.

846. Which drug is not acetylated?

Variants of answer:

- a) INH;
- b) dapsone;
- c) hydralazine;
- d) metoclopropamide;
- e) cimetidine.

847. All of the following drugs are metabolized by acetylation, except...

Variants of answer:

- a) INH;
- b) hydralazine;
- c) procainamide;
- d) metoclopramide;
- e) cimetidine.

848. All drugs are metabolized by acetylation, except...

Variants of answer:

- a) hydralazine;
- b) INH;
- c) procainamide;
- d) chlorpromazine;
- e) cimetidine.

849. All of the following drugs are metabolised by acetylation, except...

Variants of answer:

- a) INH;
- b) sulfonamides;
- c) ketoconazole;
- d) hydralazine;
- e) cimetidine.

850. Amiodarone causes all conditions, except...

Variants of answer:

- a) hyperthyroidism;
- b) pulmonary fibrosis;
- c) hyperuricemia;
- d) hypothyroidism;
- e) skin pigmentation.

851. Which one of the following conditions is NOT an adverse effect of chronic amiodarone therapy?

Variants of answer:

- a) pulmonary fibrosis;
- b) hypothyroidism;
- c) hyperthyroidism;
- d) systemic lupus erythematosus;
- e) skin pigmentation.

852. Rapidly progressive pulmonary fibrosis is observed in...

Variants of answer:

- a) paracetamol poisoning;
- b) kerosene poisoning;
- c) amiodarone poisoning;
- d) chloroquine toxicity;
- e) morphine poisoning.

853. Which one of the following antiarrhythmic drugs causes prolonged repolarization of ventricles and effective refractory period (ERP)?

Variants of answer:

- a) amiodarone;
- b) propranolol;
- c) verapamil;
- d) quinidine;
- e) nifedipine.

854. All ones of the following conditions are side effects of amiodarone, except...

Variants of answer:

- a) pulmonary fibrosis;
- b) corneal microdeposits;
- c) thyroid dysfunction;
- d) osteoporosis;
- e) photosensibilization.

855. Which one of the following drugs is the treatment of choice for cryptococcal meningitis?

Variants of answer:

- a) fluconazole;

- b) itraconazole;
- c) fluocytosine;
- d) amphotericine B;
- e) griseofulvine.

856. The antimicrobial agent which inhibits the ergosterol biosynthesis is...

Variants of answer:

- a) ciprofloxacin;
- b) amphotericin B;
- c) 5-fluorocytosine (5-FC);
- d) griseofulvin;
- e) ofloxacin.

857. Drug(s) causing hypokalemia is (are)...

Variants of answer:

- a) amphotericin B;
- b) insulin;
- c) cyclosporine;
- d) carbenoxolone;
- e) NSAIDs.

858. Location of amphotericin B effect is...

Variants of answer:

- a) cell membrane;
- b) cytoplasm;
- c) nucleus;
- d) mitochondria;
- e) ribosomes.

859. Which one of the following conditions is caused by amphotericin B?

Variants of answer:

- a) hypokalemia;
- b) hyperkalemia;
- c) hypermagnesemia;
- d) hyponatremia;
- e) hypochloremia.

860. Effects of atropine are all ones, except...

Variants of answer:

- a) bronchoconstriction;
- b) tachycardia;
- c) mydriasis;
- d) CNS stimulation;
- e) paralysis of accommodation.

861. All conditions are TRUE of atropine, except...

Variants of answer:

- a) mydriasis;
- b) increasing HR;
- c) myosis;
- d) rubor;
- e) constipation.

862. Atropine causes...

Variants of answer:

- a) decreased cardiac output;
- b) heart block;
- c) AH;
- d) miosis;
- e) sweating.

863. Mechanism of action of atropine in poisoning is...

Variants of answer:

- a) reactivation of choline-esterase;
- b) acting on central and peripheral postganglionic receptors;
- c) acting on central and peripheral cholinergic receptors;
- d) acting on peripheral cholinergic receptors only;
- e) acting on adrenaline receptors.

864. Which one(s) of the following drugs doesn't (don't) produce central anticholinergic syndrome?

Variants of answer:

- a) atropine sulphate;
- b) glycopyrrolate;
- c) antihistaminics;
- d) tricyclic antidepressants;
- e) platyphylline.

865. Mechanism of action of clonidine in opioid withdrawal syndrome is...

Variants of answer:

- a) β -blocking effect;
- b) inhibition of opioid receptor;
- c) action on α -2 presynaptic nerve ending;
- d) postsynaptic action;
- e) α -1 inhibiting effect.

866. Which one of the following statements is NOT TRUE about the use of clonidine in the treatment of AH?

Variants of answer:

- a) reduction of central sympathetic outflow;

- b) increase in low-density lipoprotein (LDL) cholesterol on prolonged use;
- c) sedation and xerostomia are its common side effects;
- d) it can be combined with vasodialators;
- e) its side effect is withdrawal syndrome.

867. True statements about clonidine are all ones, except...

Variants of answer:

- a) it increases parasympathetic outflow;
- b) it decreases sympathetic outflow by blocking central α receptor;
- c) it is used in AH;
- d) prazosin is used to antagonize side effects of clonidine;
- e) it stimulates α -2 receptors.

868. Clonidine is...

Variants of answer:

- a) α -1 selective agonist;
- b) α -2 selective agonist;
- c) α -1 selective antagonist;
- d) α -2 selective antagonist;
- e) β -2 agonist.

869. Which one of the following antihypertensive drugs is devoid of any central action?

Variants of answer:

- a) clonidine;
- b) methyldopa;
- c) propranolol;
- d) indapamide;
- e) "Clopheline".

870. When a drug is evaluated for its usefulness in controlled conditions, it is termed as a trial signifying...

Variants of answer:

- a) efficacy;
- b) effectiveness;
- c) efficiency;
- d) effect modification;
- e) none of the mentioned variants.

871. Phase II in a clinical drug trial is performed to assess...

Variants of answer:

- a) therapeutic efficacy;
- b) maximal tolerated dose;

- c) maximal lethal dose;
- d) toxicity;
- e) side effects.

872. In which of the following phases of clinical trial of drug ethical clearance is NOT required?

Variants of answer:

- a) phase I;
- b) phase II;
- c) phase III;
- d) phase IV;
- e) phase V.

873. At pharmacological doses unwanted unavoidable effects are called as...

Variants of answer:

- a) side effects;
- b) idiosyncratic reaction;
- c) toxicity;
- d) pharmacogenetics;
- e) tolerance.

874. Good clinical practice (GCP) is observed in all trials, except...

Variants of answer:

- a) preclinical trials;
- b) phase I trials;
- c) phase II trials;
- d) phase IV trials;
- e) phase III trials.

875. Patient taking antipsychotic drugs has temperature of 40 °C and BP 150/100 and abnormal behavior. What is the most possible diagnosis?

Variants of answer:

- a) aggravation of psychosis;
- b) parkinsonism;
- c) dystonia;
- d) neuroleptic malignant syndrome (NMS);
- e) akathisia.

876. Patient taking antipsychotic drugs has temperature of 38 °C and BP 160/105 and extrapyramidal disorders. What is the most possible diagnosis?

Variants of answer:

- a) aggravation of psychosis;
- b) parkinsonism;

- c) atonia;
- d) neuroleptic malignant syndrome (NMS);
- e) akathisia.

877. A female suffering from psychosis and taking phenothiazines complains on sudden onset of high grade fever, muscle rigidity and altered sensorium. The most possible diagnosis is...

Variants of answer:

- a) malignant hyperthermia;
- b) NMS;
- c) tardive dyskinesia;
- d) akathisia;
- e) idiosyncrasia.

878. All of the following conditions may be seen with NMS, except...

Variants of answer:

- a) hypothermia;
- b) altered consciousness;
- c) muscle rigidity;
- d) involuntary movements;
- e) none of the mentioned variants.

879. One of risperidone side effects is associated with the risk of...

Variants of answer:

- a) cerebrovascular accidents;
- b) extrapyramidal side effects (EPS) clinical features;
- c) agranulocytosis;
- d) diabetes insipidus;
- e) gout.

880. Which one of the following statements is NOT TRUE?

Variants of answer:

- a) if drug is administered rectally it follows third-order kinetics;
- b) if drug administered IM it follows zero-order kinetics;
- c) if drug administered IV it follows first-order kinetics;
- d) bioavailability is lower after oral administration;
- e) bioavailability is higher after IV administration.

881. For drugs with first-order kinetics the time required to achieve steady state levels can be predicted from...

Variants of answer:

- a) volume of distribution;
- b) $T_{1/2}$;

- c) clearance;
- d) loading dose;
- e) all the mentioned variants.

882. TRUE statement regarding first-order kinetics is (that) ...

Variants of answer:

- a) it is independent of plasma concentration;
- b) a constant proportion of plasma concentration is eliminated;
- c) $T_{1/2}$ increases with dose;
- d) clearance decreases with dose;
- e) all the mentioned variants.

883. Zero-order kinetics at a higher dose is observed with...

Variants of answer:

- a) phenytoin;
- b) heparin;
- c) probenecid;
- d) lithium;
- e) atenolol.

884. On higher doses zero-order kinetics is observed with...

Variants of answer:

- a) phenytoin;
- b) propranolol;
- c) lithium;
- d) probenecid;
- e) none of the mentioned variants.

885. Pharmacogenetics is associated with...

Variants of answer:

- a) variability of enzyme action;
- b) environmental influence;
- c) individual variability in oral absorption;
- d) different mechanisms of actions in different individuals;
- e) different dose response curve (DRC) in different individuals.

886. All conditions are pharmacogenetic ones, except...

Variants of answer:

- a) glucose-6-phosphate dehydrogenase (G6PD) deficiency;
- b) warfarin sensitivity;
- c) malignant hypothermia;
- d) adenosine deaminase deficiency (ADA);
- e) pseudocholinesterase deficiency.

887. New drug study and development can be performed by...

Variants of answer:

- a) pharmacogenetics;
- b) molecular modelling;
- c) pharmacokinetics;
- d) pharmacodynamics;
- e) pharmacoeconomics.

888. All conditions are pharmacogenetic ones, except...

Variants of answer:

- a) ADA;
- b) malignant hyperpyrexia;
- c) coumarin insensitivity;
- d) G6PD deficiency;
- e) pseudocholinesterase deficiency.

889. TRUE about teratogenicity of a drug are all statements, except...

Variants of answer:

- a) it is genetically predetermined;
- b) environment influences it;
- c) it is related to the dose of the teratogenic drug;
- d) it affects specifically at a particular phase of development of fetus;
- e) it penetrates through the placental barrier.

890. A child complains on nocturnal enuresis. The drug given to treat this condition is...

Variants of answer:

- a) imipramine;
- b) clomipramine;
- c) fluoxetine;
- d) haloperidol;
- e) carbamazepine.

891. An idiopathic epileptic patient takes phenytoin and tricyclic antidepressant. He becomes easily fatigued and lethargic. His Hb 8.2 gm%, thin layer chromatography (TLC) 9600 cmm. serum bilirubin 0.6, alanine aminotransferase (ALT) 25 IU/L. The next investigation provided is...

Variants of answer:

- a) MCV;
- b) gamma-glutamyl transferase (GGT) assay;
- c) chest X-ray;
- d) urine culture;
- e) level of glucose.

892. A patient ingested some unknown substance and presented with myoclonic jerks seizures, tachycardia and hypotension. The ECG showed a heart rate of 120/min with QRS interval of 0,16 sec. The atrial blood revealed a pH of 7,25, PCO₂ of 30 mmHg and HCO₃ of 15 mmol/L. The most likely cause of poisoning is ingestion of...

Variants of answer:

- a) Amanita phalloides;
- b) ethylene glycol;
- c) imipramine;
- d) phencyclidine;
- e) digoxin.

893. Dry mouth during antidepressant therapy is caused by blockade of...

Variants of answer:

- a) muscarinic acetylcholine receptors;
- b) serotonergic receptors;
- c) dopaminergic receptors;
- d) GABA receptors;
- e) adrenaline receptors.

894. All the following drugs displace imipramine from protein binding sites, except...

Variants of answer:

- a) aspirin;
- b) propranolol;
- c) glibenclamide;
- d) lithium;
- e) amoxicillin.

895. Carbamazepine is NOT used in...

Variants of answer:

- a) mania;
- b) partial seizure;
- c) trigeminal neuralgia;
- d) migraine;
- e) alcohol withdrawal syndrome (AWS).

896. Regarding adverse reaction of anticonvulsants, all statements are TRUE, except...

Variants of answer:

- a) phenobarbital – cardiovascular system (CVS) defect;
- b) carbamazepine – breech presentation of fetus;
- c) phenytoin – gum hyperplasia;
- d) sodium valproate – neural tube defect;
- e) lamotrigine – hepatotoxicity.

897. Which one of the following drugs is NOT an antiepileptic agent?

Variants of answer:

- a) phenytoin;
- b) topiramate;
- c) flunarizine;
- d) carbamazepine;
- e) lamotrigine.

898. Which statement is TRUE about carbamazepine?

Variants of answer:

- a) it is used in trigeminal neuralgia;
- b) carbamazepine is an enzyme inhibitor;
- c) it can cause megaloblastic anemia;
- d) it is the drug of choice for status epilepticus;
- e) it is used in epilepsy.

899. All of the following statements are TRUE about nitrates, except...

Variants of answer:

- a) they release NO;
- b) they cause vasodilatation;
- c) they decrease AV conduction;
- d) they have high first pass metabolism;
- e) they decrease preload and afterload.

900. The nitrate which does NOT undergo first pass metabolism is...

Variants of answer:

- a) isosorbide mononitrate;
- b) nitroglycerine;
- c) pentaerythritol tetranitrate;
- d) isosorbide dinitrate;
- e) none of the mentioned variants.

901. First pass metabolism is observed in...

Variants of answer:

- a) lidocaine;
- b) propranolol;
- c) salbutamol;
- d) dipyridamol;
- e) erythromycin.

902. Cause for less bioavailability is...

Variants of answer:

- a) high first pass metabolism;

- b) increased absorption;
- c) IV drug administration;
- d) high solubility;
- e) none of the mentioned variants.

903. All of the following drugs are contraindicated in patients with G6PD deficiency, except...

Variants of answer:

- a) «Co-trimoxazole»;
- b) furazolidone;
- c) nalidixic acid;
- d) ceftriaxone;
- e) all the mentioned variants.

904. All of the following drugs can cause hemolytic anaemia in G6PD deficiency, except...

Variants of answer:

- a) primaquine;
- b) sulphonamide;
- c) penicillin;
- d) aspirin in large dosage;
- e) all the mentioned variants.

905. Drug that is avoided in G6PD deficiency is...

Variants of answer:

- a) chloramphenicol;
- b) quinidine;
- c) nitrofurantoin;
- d) dapsone;
- e) streptomycin.

906. In G6PD deficiency, the drug does NOT cause hemolysis is...

Variants of answer:

- a) rifampicin;
- b) primaquine;
- c) furazolidone;
- d) «Co-trimoxazole»;
- e) all the mentioned variants.

907. All drugs are short and rapid acting insulins, except...

Variants of answer:

- a) lispro;
- b) aspart;

- c) glargine;
- d) glulisine;
- e) «Chumulin P».

908. All of the following hormones have cell surface receptors, except...

Variants of answer:

- a) adrenalin;
- b) growth hormone;
- c) insulin;
- d) thyroxine;
- e) none of the mentioned variants.

909. TRUE about lispro insulin is...

Variants of answer:

- a) its action is faster and shorter in duration than regular insulin;
- b) it is given 15 min prior to meal;
- c) its source is lamb;
- d) its action is faster and longer in duration than regular insulin;
- e) its duration is 1 hour.

910. Newer insulins are...

Variants of answer:

- a) acidic substances;
- b) alkaline substances;
- c) neutral substances;
- d) monomers;
- e) isomers.

911. Local anaesthetic drug which does NOT cause vasodilation is...

Variants of answer:

- a) lidocaine;
- b) cocaine;
- c) bupivacaine;
- d) tetracaine;
- e) novocaine.

912. Which one of the following drugs is NOT an amide?

Variants of answer:

- a) procaine;
- b) lidocaine;
- c) bupivacaine;
- d) mepivacaine;
- e) articaine.

913. Local anaesthetics act by inhibiting...

Variants of answer:

- a) influx of K⁺;
- b) efflux of K⁺;
- c) influx of Na⁺;
- d) efflux of Na⁺;
- e) efflux of Cl⁻.

914. Which one of the following drugs is NOT an amide?

Variants of answer:

- a) lidocaine;
- b) procaine;
- c) mepivacaine;
- d) dibucaine;
- e) articaine.

915. Treatment of choice of acute migraine is...

Variants of answer:

- a) ergotamine;
- b) sumatriptan;
- c) propranolol;
- d) paracetamol;
- e) bisoprolol.

916. Administration of ergotamine is contraindicated in...

Variants of answer:

- a) DM;
- b) anemia;
- c) ischemic heart disease (IHD);
- d) Postpartum hemorrhage (PPH);
- e) migraine.

917. Drug(s) using for prophylaxis of migraine is (are) ...

Variants of answer:

- a) flunarizine;
- b) cinnarizine;
- c) β -blockers;
- d) sodium valproate;
- e) carbamazepine.

918. Triptans in migraine effect on...

Variants of answer:

- a) 5-HT_{1A};
- b) 5-HT_{1B/1D};

- c) 5-HT_{1F};
- d) 5-HT₃;
- e) 5-HT₄.

919. All of the following drugs are used in pheochromocytoma, except...

Variants of answer:

- a) prazosin;
- b) metyrosine;
- c) atenolol;
- d) Na nitroprusside;
- e) doxazosin.

920. The following drugs cause hypertensive crisis in phaeochromocytoma, except...

Variants of answer:

- a) phenoxybenzamine;
- b) propranolol;
- c) saralasin;
- d) captopril;
- e) prazosin.

921. Which one of the following drugs is NOT given in a patient with pheochromocytoma?

Variants of answer:

- a) atenolol;
- b) prazosin;
- c) Na nitroprusside;
- d) metyrosine;
- e) terazosine.

922. All of the following drugs are useful IV therapy for hypertensive emergencies, except...

Variants of answer:

- a) fenoldopam;
- b) urapidil;
- c) enalapril;
- d) nifedipine;
- e) perindopril.

923. All of the following drugs can precipitate porphyria, except...

Variants of answer:

- a) steroids;
- b) griseofulvin;
- c) estrogen;

- d) penicillin;
- e) none of the mentioned variants.

924. Administration of barbiturates is contraindicated in...

Variants of answer:

- a) anxiety disorders;
- b) acute intermittent porphyria (AIP);
- c) kernicterus;
- d) refractive status epilepticus;
- e) gastritis.

925. A young lady on oral contraceptive pills (OCP) develops severe abdominal pain and frank psychosis. The most possible cause is...

Variants of answer:

- a) hysteria;
- b) porphyria;
- c) thrombosis;
- d) mesenteric infarction;
- e) ulcer.

926. In porphyria the drug with minimal side effects is...

Variants of answer:

- a) barbiturate;
- b) ketamine;
- c) sodium valproate;
- d) midazolam;
- e) pethidine.

927. Drug which acts by intercalating with DNA is...

Variants of answer:

- a) actinomycin D;
- b) tetracycline;
- c) bleomycine;
- d) doxorubicin;
- e) azithromycin.

928. Anticancer antibiotic is...

Variants of answer:

- a) vancomycin;
- b) actinomycin D;
- c) bleomycine;
- d) mithramycin;
- e) midecamycin.

929. The antibiotic that inhibits protein synthesis by premature chain termination and structurally resembles an aminoacyl-tRNA is...

Variants of answer:

- a) tetracycline;
- b) chloramphenicol;
- c) puromycin;
- d) erythromycin;
- e) none of the mentioned variants.

930. Dimercaprol is used in treating all the variants of poisoning, except...

Variants of answer:

- a) lead poisoning;
- b) organic mercury poisoning;
- c) cadmium poisoning;
- d) arsenic poisoning;
- e) chloride poisoning.

931. Drug containing two sulfhydryl groups in a molecule is...

Variants of answer:

- a) dimercaprol;
- b) EDTA;
- c) pencillamine;
- d) none of the mentioned variants;
- e) all the mentioned variants.

932. Which pair of the following antidotes is correctly matched?

Variants of answer:

- a) dimercaprol – iron;
- b) calcium disodium EDTA – arsenic;
- c) penicillamine – copper;
- d) desferrioxamine – lead;
- e) flumazenil – barbiturates.

933. Pain is caused by injection of...

Variants of answer:

- a) ketamine;
- b) methohexitone;
- c) diisopropyl alcohol;
- d) thiopentone;
- e) heparin.

934. The mechanism of action of barbiturates on cerebrum is...

Variants of answer:

- a) scavenging of radicles;

- b) increasing basal metabolic rate (BMR) in active area of brain;
- c) acting on Cl-channel complex;
- d) decreasing intracranial pressure;
- e) activating muscarinic receptors.

935. Short $T_{1/2}$ of thiopental is conditioned with...

Variants of answer:

- a) rapid excretion;
- b) rapid redistribution;
- c) rapid metabolism;
- d) all of the mentioned variants;
- e) rapid absorption.

936. All of the following statements are true, except...

Variants of answer:

- a) PCs and LTs are derived from arachidonic acid;
- b) COX-1 is an inducible enzyme;
- c) COX-2 is induced by cytokines at areas of inflammation;
- d) LTs cause smooth muscles constriction;
- e) TxA₂ is produced due to COX-1.

937. COX pathway is inhibited by...

Variants of answer:

- a) «Aspirin»;
- b) indomethacin;
- c) betamethasone;
- d) calcitonin;
- e) diclofenac.

938. Which drug is a selective COX-2 inhibitor?

Variants of answer:

- a) ketorolac;
- b) tolmetin;
- c) nabumetone;
- d) oxaprozin;
- e) «Aspirin».

939. Drug useful for treatment of *H. pylori* is...

Variants of answer:

- a) bismuth sulphate;
- b) tetracycline;
- c) metronidazole;
- d) ranitidine;
- e) albendazole.

940. Drug NOT used in *H. pylori* is...

Variants of answer:

- a) metronidazole;
- b) omeprazole;
- c) mosapride;
- d) amoxicillin;
- e) tetracycline.

941. All drugs can be used in the treatment of *H. pylori* infection, except...

Variants of answer:

- a) omeprazole;
- b) metronidazole;
- c) amoxicillin;
- d) mosapride;
- e) tetracycline.

942. Which one of the following drugs is least likely to cause interstitial nephritis on chronic use?

Variants of answer:

- a) methicillin;
- b) cephalothin;
- c) heparin;
- d) ampicillin;
- e) cephalexin.

943. Interstitial nephritis is most commonly diagnosed with...

Variants of answer:

- a) methicillin;
- b) ampicillin;
- c) amoxicillin;
- d) cloxacillin;
- e) vancomycin.

944. Drug-induced interstitial nephritis is caused by...

Variants of answer:

- a) methicillin;
- b) cloxacillin;
- c) azlocillin;
- d) piperacillin;
- e) amoxicillin.

945. Diagnosis of myasthenia gravis is by using...

Variants of answer:

- a) edrophonium;

- b) neostigmine;
- c) succinylcholine (SCh);
- d) atropine;
- e) platyphylline.

946. Test for myasthenia gravis is...

Variants of answer:

- a) SCh;
- b) edrophonium;
- c) atracurium;
- d) d-tubocurarine (DTC);
- e) flumazenil.

947. Agent used as a diagnostic test for myasthenia gravis is...

Variants of answer:

- a) phentolamine;
- b) edrophonium;
- c) echothiophate;
- d) glucagon;
- e) insulin.

948. Which one of the following statements is NOT TRUE about nesiritide?

Variants of answer:

- a) it is a brain natriuretic peptide (BNP) analogue;
- b) it is used in acutely decompensated heart failure (ADHF);
- c) it has significant oral absorption;
- d) it has a short $T_{1/2}$;
- e) it acts on adrenergic receptors.

949. Nesiritide is...

Variants of answer:

- a) brain natriuretic peptide analogue;
- b) endothelin receptor antagonist;
- c) Gp IIb / IIIa antagonist;
- d) TNF- α antagonist;
- e) ADP receptors blocker.

950. Mechanism of action of pralidoxime is...

Variants of answer:

- a) direct activation of cholinergic receptors;
- b) reactivation of cholinesterase;
- c) inactivation of cholinesterase;
- d) inhibition of acetyl choline;
- e) ADP receptors blocker.

951. Pralidoxime acts by...

Variants of answer:

- a) reactivating cholinesterase enzyme;
- b) promoting synthesis of cholinesterase;
- c) promoting synthesis of acetylcholine;
- d) direct action on cholinergic receptors;
- e) ADP receptors blocking.

952. Which one of the following agents is paired incorrectly?

Variants of answer:

- a) hemicholinium, prevents the release of acetylcholine (ACh) from storage vesicle;
- b) botulinum, increases the ACh release;
- c) pralidoxime, reactivates acetylcholinesterase (AChE);
- d) vesamicol, inhibits the uptake of choline;
- e) organophosphorous, inhibits AChE.

953. All of the following drugs are hormonal agents used against breast cancer, except...

Variants of answer:

- a) letrozole;
- b) exemestane;
- c) taxol;
- d) tamoxifen;
- e) cisplatin.

954. TRUE about tamoxifen is that it...

Variants of answer:

- a) binds to estrogen receptors;
- b) provides estrogen production;
- c) increases FSH production;
- d) provides LH secretion;
- e) inhibits adrenal glands.

955. Women receiving tamoxifen should be periodically screened with...

Variants of answer:

- a) mammography;
- b) Papanicolaou (Pap) smear;
- c) cancer antigen-125 (CA-125) level sampling;
- d) endometrial layer sampling;
- e) bones checking.

956. In a patient of known prolonged congenital QT syndrome and intermittent torsade de pointes, which one of the following variants should be prescribed?

Variants of answer:

- a) magnesium sulphate;

- b) metoprolol;
- c) cardiac pacing;
- d) isoprenaline;
- e) nifedipine.

957. Drug implicated for prolonging QT interval in a premature baby is...

Variants of answer:

- a) domperidone;
- b) metoclopramide;
- c) cisapride;
- d) omeprazole;
- e) nifedipine.

958. Antlarrhythmic drug causing torsade de pointes is...

Variants of answer:

- a) quinidine;
- b) dysopyramide;
- c) procainamide;
- d) lidocaine;
- e) metoprolol.

959. Antimitotic drug of plant source is...

Variants of answer:

- a) vincristine;
- b) isotretinoin;
- c) bleomycine;
- d) methotrexate;
- e) none of the mentioned variants.

960. Metaphase arrest is caused by...

Variants of answer:

- a) griseofulvin;
- b) vincristine;
- c) paclitaxel;
- d) colchicine;
- e) etoposide.

961. Which one of the following statements is false regarding vincristine?

Variants of answer:

- a) it is an alkaloid;
- b) its use is associated with neurotoxicity;
- c) it does not cause alopecia;
- d) it is a useful drug for induction of remission in acute lymphoblastic leukaemia (ALL);
- e) all the mentioned variants.

962. Most common side effect of 5-FU is...

Variants of answer:

- a) GIT toxicity;
- b) bone marrow depression;
- c) cardiotoxicity;
- d) neurotoxicity;
- e) nephrotoxicity.

963. Mucositis is caused by...

Variants of answer:

- a) 5-FU;
- b) methotrexate;
- c) paclitaxel;
- d) cisplatin;
- e) etoposide.

964. Which one of the following statements is FALSE about acyclovir?

Variants of answer:

- a) it inhibits DNA synthesis and viral replication;
- b) it is effective against influenza;
- c) it has low toxicity for host cells;
- d) renal impairment necessitates its dose reduction;
- e) it acts against herpes virus.

965. Mechanism of acyclovir resistance is...

Variants of answer:

- a) thymidine kinase (TK);
- b) DNA-dependent RNA polymerase (DdRP);
- c) spectrum;
- d) side effects;
- e) low activity.

966. Drug causing hypercoagulability is...

Variants of answer:

- a) L-asparaginase;
- b) busulfan;
- c) melphalan;
- d) 5-FU;
- e) aminocaproic acid.

967. Pancreatitis is a known side effect with administration of...

Variants of answer:

- a) L-asparaginase;
- b) corticosteroids;

- c) cyclophosphamide;
- d) vincristine;
- e) bisoprolol.

968. Bisphosphonates act by...

Variants of answer:

- a) increasing the osteoid formation;
- b) increasing the mineralization of osteoid;
- c) decreasing the osteoclast-mediated resorption of bone;
- d) decreasing the parathyroid hormone secretion;
- e) decreasing the osteoid formation.

969. Bisphosphonates are used in all of the following conditions, except...

Variants of answer:

- a) postmenopausal osteoporosis;
- b) steroid-induced osteoporosis;
- c) hypervitaminosis D;
- d) malignancy-associated hypercalcemia;
- e) all the mentioned variants.

970. Which one of the following antibiotics is an antitumour peptide?

Variants of answer:

- a) bleomycine;
- b) doxorubicine;
- c) vancomycin;
- d) L-asparaginase;
- e) teicoplanin.

971. A 35-year-old patient has lung cancer, with a past history of lung disease. Which drug should NOT be given?

Variants of answer:

- a) bleomycine;
- b) vinblastin;
- c) mithramycin;
- d) adriamycin;
- e) methotrexate.

972. Mechanism of action of chloramphenicol is...

Variants of answer:

- a) preventing binding of tRNA to ribosomes;
- b) polypeptide elongation;
- c) protein chain elongation;
- d) inhibiting cell wall synthesis;
- e) inhibiting ribosomes.

973. Mechanism of action of chloramphenicol is...

Variants of answer:

- a) binding to 50S subunit;
- b) preventing chain elongation;
- c) misreading of DNA;
- d) binding to nuclear proteins;
- e) inhibiting ribosomes.

974. Common side effect of cisapride is...

Variants of answer:

- a) abdominal cramps;
- b) diarrhea;
- c) headache;
- d) convulsions;
- e) ulcer.

975. All agents are examples of gastrokinetic drugs, except...

Variants of answer:

- a) cisapride;
- b) domperidone;
- c) erythromycin;
- d) none of the mentioned variants;
- e) «Motilium».

976. Clindamycin acts by inhibiting...

Variants of answer:

- a) cell wall synthesis;
- b) protein synthesis;
- c) cell membrane synthesis;
- d) glucose utilization;
- e) inhibiting ribosomes.

977. Clindamycin acts by inhibiting...

Variants of answer:

- a) protein synthesis;
- b) DNA gyrase;
- c) cell wall synthesis;
- d) lysosomal enzyme;
- e) ribosomes.

978. Mechanism of action of clomiphene citrate is...

Variants of answer:

- a) binding to estrogen receptors and causing negative feedback at hypothalamus;
- b) binding estrogen receptors and preventing negative feed back at hypothalamus;

- c) binding to progesterone receptors;
- d) acting as progesterone agonist;
- e) acting as progesterone antagonist.

979. Which one of the following drugs is an aromatase inhibitor?

Variants of answer:

- a) tamoxifen;
- b) letrozole;
- c) danazol;
- d) taxane;
- e) clozapine.

980. All conditions are side effects of clozapine, except...

Variants of answer:

- a) granulocytopenia;
- b) seizures;
- c) sedation;
- d) extrapyramidal side effects;
- e) dry mouth.

981. The major difference between typical and atypical antipsychotics is that...

Variants of answer:

- a) the latter cause minimal or no increase in prolactin;
- b) the former cause tardive dyskinesia;
- c) the former are available as parenteral preparations;
- d) the latter cause substantial sedation;
- e) the latter have IV administration.

982. Pupil fails to dilate by giving cocaine in...

Variants of answer:

- a) central sympathetic paralysis;
- b) central parasympathetic paralysis;
- c) peripheral parasympathetic paralysis;
- d) peripheral sympathetic paralysis;
- e) none of the mentioned variants.

983. A drug addict was transported to narcotic drug addiction department of local hospital. He had jet black tongue and black teeth. The most possible drug addiction is of...

Variants of answer:

- a) diazepam;
- b) cannabis;
- c) cocaine;
- d) heroin;
- e) morphine.

984. In a chronic alcoholic patient all of the following drugs should be avoided, except...

Variants of answer:

- a) cefamandole;
- b) metronidazole;
- c) chlorpropamide;
- d) beclomethasone;
- e) none of the mentioned variants.

985. Drug used to treat abstinence from alcohol is...

Variants of answer:

- a) clonidine;
- b) disulfiram;
- c) chlordiazepoxide;
- d) naltrexone;
- e) acamprosate.

986. Ganciclovir is used in treatment of...

Variants of answer:

- a) adenovirus;
- b) cytomegalovirus;
- c) Epstein-Barr virus (EBV);
- d) arenavirus;
- e) virus of flu.

987. Treatment of chorioretinitis in AIDS patient is...

Variants of answer:

- a) valaciclovir;
- b) ganciclovir;
- c) rivabirin;
- d) amantadine;
- e) cidofovir.

988. Which one of the following drugs acts by hypomethylation?

Variants of answer:

- a) gemcitabine;
- b) capecitabine;
- c) decitabine;
- d) cytosine arabinoside;
- e) gemfibrosil.

989. Gemcitabine is effective in...

Variants of answer:

- a) head and neck cancers;
- b) pancreatic cancer;

- c) small cell lung cancer (SCLC);
- d) soft tissue sarcoma;
- e) none of the mentioned variants.

990. Which drug is NOT used in erectile dysfunction?

Variants of answer:

- a) PGE₂;
- b) vardenafil;
- c) phenylephrine;
- d) alprostadil;
- e) avanafil.

991. The following drugs may be used in erectile dysfunction, except...

Variants of answer:

- a) phenylephrine;
- b) apomorphine;
- c) alprostadil;
- d) PGE₁ analogues;
- e) avanafil.

992. TRUE about methyl alcohol poisoning is that...

Variants of answer:

- a) ethyl alcohol is used;
- b) formation of formic acid produces blindness;
- c) activated carbon dioxide is given in all cases;
- d) gastric lavage is performed;
- e) fomepizole inhibits the formation of formic acid.

993. The man in unconsciousness is transported into hospital suffering from methyl alcohol poisoning. All of the following statements are correct, except...

Variants of answer:

- a) Kussmaul breathing could be expected to be a symptom of the condition;
- b) papilloedema would be consistent with this form of intoxication;
- c) bicarbonates in plasma might be very low;
- d) methyl alcohol would be metabolised to acetaldehyde;
- e) none of the mentioned variants.

994. Which one of the following statements is NOT TRUE about mebendazole?

Variants of answer:

- a) it is safe in pregnancy;
- b) it is broad-spectrum antihelminthic drug;
- c) it has relatively low systemic bioavailability;
- d) it is active against both larva and adult worm;
- e) it acts against hook worm.

995. Best drug for anaerobic infection is...

Variants of answer:

- a) metronidazole;
- b) imipenem;
- c) aztreonam;
- d) clotrimazole;
- e) vancomycin.

996. Inhaled nitric oxide is used...

Variants of answer:

- a) for stabilizing systemic hemodynamics;
- b) in case of jaundice;
- c) to prevent CNS complication;
- d) for reducing pulmonary AH;
- e) for prevention of atherosclerosis.

997. Drugs which increases nitric oxide are all agents, except...

Variants of answer:

- a) glycerine trinitrate;
- b) hydralazine;
- c) Na nitroprusside;
- d) fenoldopam;
- e) isosorbide dinitrate.

998. Drug used in obesity is...

Variants of answer:

- a) orlistat;
- b) sibutramine;
- c) omeprazol;
- d) indapamide;
- e) furosemide.

999. All the following drugs are used in obesity, except...

Variants of answer:

- a) orlistat;
- b) sibutramine;
- c) olestra;
- d) neuropeptide Y agonist;
- e) metformin.

1000. N-acetyl cysteine is an antidote for poisoning due to...

Variants of answer:

- a) paracetamol;

- b) datura;
- c) «Aspirin»;
- d) propranolol;
- e) morphine.

1001. A 20-year-old female weighing about 55 kg is admitted to an emergency department having consumed 10 g of paracetamol (acetaminophen), together with alcohol, 6 hours before her serum paracetamol level was reported as 400 µg/mL. Which one of the following variants is correct in this case?

Variants of answer:

- a) gastric lavage is necessary;
- b) administration of activated carbon dioxide is required;
- c) abnormalities of kidney function are likely to be present;
- d) hepatotoxicity is likely to arise;
- e) bad absorption is likely to arise.

1002. Pentostatin acts by inhibiting...

Variants of answer:

- a) RNA-dependent DNA polymerase enzyme;
- b) aldolase enzyme;
- c) adenosine deaminase enzyme;
- d) adenyl cyclase enzyme;
- e) ribosomes.

1003. Dextran is a good plasma expander but it has such side effect as...

Variants of answer:

- a) blood group matching;
- b) thrombocytopenia;
- c) microcirculation formation;
- d) stacks or aggregations of RBC;
- e) none of the mentioned variants.

1004. All statements about plasma expanders are TRUE, except...

Variants of answer:

- a) dextran interferes with platelet aggregation;
- b) albumin has 69 amino acids;
- c) $T_{1/2}$ of albumin is 13 hours;
- d) amylopectin is one of their components;
- e) albumin is indicated in ascites.

1005. Which one of the following drugs is used in therapy of toxoplasmosis?

Variants of answer:

- a) artensenate;
- b) thiacetazone;

- c) ciprofloxacin;
- d) pyrimethamine;
- e) doxycycline.

1006. Drug used in toxoplasmosis is...

Variants of answer:

- a) pyrimethamine;
- b) ribovarin;
- c) ganciclovir;
- d) tetracycline;
- e) ciprofloxacin.

1007. Antiviral agent of choice in a child with bronchiolitis is...

Variants of answer:

- a) vidarabin;
- b) ribavirin;
- c) acyclovir;
- d) amantadine;
- e) valacyclovir.

1008. Aerosolized ribavirin is used in the treatment of bronchiolitis with...

Variants of answer:

- a) respiratory syncytial virus (RSV);
- b) H. influenza;
- c) pneumococcus;
- d) streptococcus;
- e) meningococcus.

1009. Which one of the following agents is the drug of choice for syndrome of inappropriate antidiuretic hormone secretion (SIADH)?

Variants of answer:

- a) demeclocycline;
- b) vasopressin;
- c) thiazide diuretic;
- d) chlorpropamide;
- e) furosemide.

1010. SIADH is caused by all drugs, except...

Variants of answer:

- a) vincristine;
- b) vinblastine;
- c) actinomycin D;
- d) cyclophosphamide;
- e) none of the mentioned variants.

1011. A newborn baby developed cleft lip and cleft palate and atrial septal defect. Which one(s) of the following drugs is (are) likely to be consumed by the mother so as to cause such type of congenital anomalies?

Variants of answer:

- a) digoxin;
- b) methanol;
- c) ACE inhibitors;
- d) isotretinoin;
- e) amoxicillin.

1012. Excessive intake of which of the following vitamins is associated with increased risk of congenital malformations?

Variants of answer:

- a) vitamin A;
- b) biotin;
- c) folic acid;
- d) vitamin K;
- e) vitamin B1.

1013. All of the following statements about an α -glucosidase inhibitor (AGI) are TRUE, except...

Variants of answer:

- a) it reduces intestinal absorption of carbohydrates;
- b) it is effective in both type 1 and 2 DM;
- c) hypoglycemia is its common and serious side effect;
- d) it can be used with other oral hypoglycemic agents;
- e) the example of AGIs is acarboza.

1014. In antibiotic-associated colitis, organism is infected with...

Variants of answer:

- a) clostridium difficile (C. difficile);
- b) pseudomonas;
- c) staphylococcus;
- d) enterococcus;
- e) streptococcus.

1015. The substance effective against free radicals is...

Variants of answer:

- a) vitamin C;
- b) vitamin E;
- c) vitamin A;
- d) glutathione;
- e) iron.

1016. A 50-year-old male suffering from renal failure underwent kidney transplant. He was prescribed a nucleotide derivative following the organ transplant. The nucleotide derivative of therapeutic importance in this organ transplant is...

Variants of answer:

- a) azathioprine;
- b) 5-FU;
- c) cytarabine;
- d) allopurinol;
- e) methotrexate.

1017. Bacitracin acts on...

Variants of answer:

- a) cell wall;
- b) cell membrane;
- c) nucleic acid;
- d) ribosomes;
- e) enzyme.

1018. Chemical debridement is...

Variants of answer:

- a) benzoic acid;
- b) EDTA;
- c) boric acid;
- d) all the mentioned variants;
- e) none of the mentioned variants.

1019. Bostentan is...

Variants of answer:

- a) serotonin uptake inhibitor;
- b) endothelin receptor antagonist;
- c) LT modifier;
- d) calcium sensitizer;
- e) bradykinin inhibitor.

1020. Which one(s) of the following drugs don't (doesn't) bind to GABA receptor chloride channels?

Variants of answer:

- a) ethanol;
- b) clozapam;
- c) zolpidem;
- d) buspirone;
- e) benzodiazepins.

1021. The patient with DMis treated with an oral hypoglycemic agent. He develops dilutional hyponatremia. Which one of the following drugs could be responsible for this effect?

Variants of answer:

- a) chlorpropamide;
- b) tolazamide;
- c) glyburide;
- d) glimepiride;
- e) none of the mentioned variants.

1022. All of the following statements about competitive inhibitors are TRUE except...

Variants of answer:

- a) they resemble chemically with the agonist;
- b) they bind the same receptors;
- c) they reduce potency;
- d) their maximum level is not reached by increasing the concentration of the drug;
- e) all the mentioned variants.

1023. Difference between action of diethylcarbamazine and ivermectin in a case of scrotal filariasis is that...

Variants of answer:

- a) diethylcarbamazine acts more effectively on microfilariae than ivermectin;
- b) diethylcarbamazine acts only on microfilariae and ivermectin acts only on adults;
- c) diethylcarbamazine acts on both microfilariae and adults while ivermectin acts on adults only;
- d) diethylcarbamazine acts on adults and ivermectin acts on microfilariae;
- e) diethylcarbamazine acts more effectively than ivermectin on microfilariae.

1024. The most appropriate drug used for chelation therapy in beta thalassemia major is...

Variants of answer:

- a) oral desferrioxamme;
- b) oral deferiprone;
- c) intramuscular EDTA;
- d) oral succimer;
- e) unithiol.

1025. Which one of the following drugs is known to cause vaginal adenocarcinoma in female offspring when given to a pregnant woman?

Variants of answer:

- a) chlorpropamide;
- b) progesterone;
- c) diethylstilbestrol;

- d) chloramphenicol;
- e) clozapine.

1026. About diphtheria TRUE is that...

Variants of answer:

- a) capsulated bacteria cause infection;
- b) ratio of carriers and clinical cases is one;
- c) it is caused with gram-positive and motile bacteria;
- d) lysogenic phase causes disease;
- e) it is caused with gram-negative bacteria.

1027. Filgrastim is used in treatment of...

Variants of answer:

- a) anemia;
- b) neutropenia;
- c) malaria;
- d) filariasis;
- e) thromboembolism.

1028. The primary mechanism of action of fluoride on topical application is...

Variants of answer:

- a) conversion of hydroxyapatite to fluoroapatite by replacing the OH⁻ ions;
- b) inhibition of plaque bacteria;
- c) forming a reservoir in saliva;
- d) improvement in tooth morphology;
- e) inhibition of Bacillus anthracis.

1029. Antidote for ethylene glycol poisoning is...

Variants of answer:

- a) methyl violet;
- b) fluconazole;
- c) fomepizole;
- d) ethyl alcohol;
- e) flumazenil.

1030. Receptor mediation is NOT observed in...

Variants of answer:

- a) alcohol;
- b) antipsychotics;
- c) general anesthesia drugs;
- d) benzodiazepams;
- e) propofol.

1031. A diabetic patient developed cellulitis due to Staphylococcus aureus, which was found to be methicillin resistant on the antibiotic sensitivity testing. All the following antibiotics will be appropriate, except...

Variants of answer:

- a) vancomycin;

- b) imipenem;
- c) teicoplanin;
- d) linezolid;
- e) ceftobiprole.

1032. Immunomodulator which is (are) used for treatment of genital warts is (are)...

Variants of answer:

- a) podophyllin;
- b) imiquimod;
- c) prednisolone;
- d) interferons;
- e) NSAIDs.

1033. Interferon is used in treatment of all conditions, except...

Variants of answer:

- a) chronic myeloid leukemia (CML);
- b) polymyositis;
- c) hairy cell leukemia;
- d) hepatitis C;
- e) nausea.

1034. Which one of the following drugs is topoisomerase 1 inhibitor?

Variants of answer:

- a) doxorubicin;
- b) irinotecan;
- c) etoposide;
- d) vincristine;
- e) methotrexate.

1035. Ketanserin is...

Variants of answer:

- a) 5-HT₂ reuptake blocker;
- b) antipsychotic drug;
- c) useful in movement disorder;
- d) antitussive drug;
- e) MAO inhibitor.

1036. All statements are TRUE regarding ketorolac, except...

Variants of answer:

- a) respiratory depression is a side effect;
- b) it is more potent than aspirin;
- c) its effect is prolonged;
- d) this is an analgesic;
- e) it has central action.

1037. Dose of ketotifen is...

Variants of answer:

- a) 4–5 mg per day;
- b) 10 mg per day;
- c) 5–10 mg per day;
- d) none of the mentioned variants;
- e) 30 mg per day.

1038. Mechanism of action of lanatoprost in glaucoma is...

Variants of answer:

- a) increasing uveoscleral flow of aqueous;
- b) increasing trabecular absorption;
- c) decreasing aqueous formation;
- d) unknown;
- e) none of the mentioned variants.

1039. TRUE about lactulose is that...

Variants of answer:

- a) it increases blood ammonia level;
- b) it is 10 % absorbed from gut;
- c) it is osmotic laxative drug;
- d) disaccharide of lactose and sucrose are its structural components;
- e) it is indicated in liver encephalopathy.

1040. Which one of the following drugs is NOT used to treat leishmaniasis?

Variants of answer:

- a) cyclosporine;
- b) ketoconazole;
- c) pentamidine;
- d) amphotericin B;
- e) solusurmin.

1041. Mg⁺⁺ is administered in:

Variants of answer:

- a) AV block;
- b) cardiac arrhythmia;
- c) syncope;
- d) constipation;
- e) ulcer.

1042. Milk-alkali syndrome may be caused by using of...

Variants of answer:

- a) calcium carbonate;
- b) magnesium sulphate;

- c) aluminium trisilicate;
- d) aluminium hydroxide;
- e) ammonium chloride.

1043. Which one of the following chemotherapeutic drugs has selective action on hypoxic tumor cells?

Variants of answer:

- a) mitomycin C;
- b) cisplatin;
- c) doxorubicin;
- d) 5-FU;
- e) teicoplanin.

1044. Amatoxins in mushroom poisoning acts by inhibiting...

Variants of answer:

- a) DNA;
- b) mRNA;
- c) adenosine;
- d) G-proteins;
- e) ribosomes.

1045. A patient has hepatic encephalopathy. The drug used of gut sterilization in this patient is...

Variants of answer:

- a) neomycin;
- b) netilmycin;
- c) bleomycine;
- d) none of the mentioned variants;
- e) all the mentioned variants.

1046. TRUE about octreotide are all statements, except...

Variants of answer:

- a) it is active orally;
- b) it suppresses growth hormone secretion;
- c) it is useful for variceal bleeding;
- d) it is useful in secretory diarrhea;
- e) none of the mentioned variants.

1047. Regarding oxytocin is TRUE that it...

Variants of answer:

- a) is secreted by anterior pituitary;
- b) acts on myoepithelial cells of breast;
- c) causes contraction of uterus during labour;
- d) may cause retention of water;
- e) has sympatholytic activity.

1048. Mechanism of action of paclitaxel is...

Variants of answer:

- a) inhibition of DNA synthesis;
- b) topoisomerase 2 inhibition;
- c) inhibition of tubulin;
- d) stabilisation of tubules;
- e) inhibition of ribosomes.

1049. Pentamidine therapy causes all conditions, except...

Variants of answer:

- a) upper lobe infiltrates;
- b) cavitation;
- c) extrathoracic manifestation;
- d) pneumothorax;
- e) skin itching.

1050. Which one(s) of the following drugs inhibit(s) mitosis by forming microtubules?

Variants of answer:

- a) vinca alkaloids;
- b) docetaxel;
- c) etoposide;
- d) colchicine;
- e) argatroban.

1051. In treatment of papillary carcinoma thyroid, radioiodine destroys the neoplastic cells mostly by...

Variants of answer:

- a) X-rays;
- b) β -particles;
- c) γ -rays;
- d) α -particles;
- e) γ -particles.

1052. All of the following variants are advantages of using raloxifen over estrogen in women in postmenopause, except...

Variants of answer:

- a) reducing of fracture rates;
- b) avoiding of endometrial hyperplasia;
- c) reducing of venous thrombosis risk;
- d) reducing of breast carcinoma risk;
- e) none of the mentioned variants.

1053. Which one of the following drugs is NOT used in scabies?

Variants of answer:

- a) benzene hexachloride (BHC);

- b) permethrin;
- c) ciclopirox olamine;
- d) crotamiton;
- e) all the mentioned variants.

1054. Which one of the following antidiabetics is used safely in renal failure?

Variants of answer:

- a) metformin;
- b) glimeperide;
- c) glibenclamide;
- d) rosiglitazone;
- e) repaglinide.

1055. Drug of choice of ulcerative colitis is...

Variants of answer:

- a) 5-aminosalicylic acid;
- b) sucralfate;
- c) metronidazole;
- d) sulfasalazine;
- e) «Co-trimoxazole».

1056. All the following drugs may be used to relieve urinary spasms after urological procedures, except...

Variants of answer:

- a) darifenacin;
- b) oxybutynin;
- c) tolterodine;
- d) tiotropium;
- e) none of the mentioned variants.

1057. TRUE about metabolism of vitamin D in kidneys is that...

Variants of answer:

- a) conversion of 25-hydroxycholecalciferol to 1,25-dihydroxycholecalciferol;
- b) formation of 25-hydroxylase;
- c) its activated form is deactivated;
- d) none of the mentioned variants;
- e) it is soluble in water.

1058. Adenosine deaminase inhibitor is...

Variants of answer:

- a) pentostatin;
- b) TxA₂;
- c) cladribine;
- d) flumazenil;
- e) protamine.

1059. All following drugs are dihydrofolate reductase (DHFR) antagonists, except...

Variants of answer:

- a) methotrexate;
- b) cytosine arabinoside;
- c) pentamidine;
- d) pyrimethamine;
- e) trimetoprim.

1060. Doses of all the following drugs require no or minor adjustment in renal failure, except...

Variants of answer:

- a) doxycycline;
- b) vancomycin;
- c) chloramphenicol;
- d) clindamycin;
- e) none of the mentioned variants.

1061. Mebendazole is used in all conditions, except...

Variants of answer:

- a) cysticercosis;
- b) ascariasis;
- c) trichuriasis;
- d) shistosomiasis;
- e) hook worm infection.

1062. Peripheral neuropathy is a side effect of...

Variants of answer:

- a) bleomycine;
- b) busulphan;
- c) cisplatin;
- d) doxorubicin;
- e) ampicillin.

1063. Digitalis acts in atrial fibrillation by...

Variants of answer:

- a) increasing AV node refractoriness;
- b) decreasing atrial contractility;
- c) inhibiting Na^+K^+ -ATPase pump;
- d) inhibiting Na^+H^+ -ATPase pump;
- e) decreasing Na^+H^+ -ATPase pump.

1064. Antiandrogen is...

Variants of answer:

- a) mifepristone;

- b) clomiphene citrate;
- c) flutamide;
- d) tamoxifen;
- e) progesterone.

1065. Even in large dosages used in malaria, quinine doesn't cause toxicity because...

Variants of answer:

- a) it enters in fat cells;
- b) it increases α -1 acid glycoprotein in plasma;
- c) it is deposited in infected RBC's;
- d) it is excreted rapidly in urine;
- e) it has bad absorption.

1066. Hand foot syndrome is an adverse effect of...

Variants of answer:

- a) 5-FU;
- b) bleomycine;
- c) etoposide;
- d) actinomycin D;
- e) vancomycin.

1067. Drug excretion through kidney depends on all processes, except...

Variants of answer:

- a) high blood flow in kidneys;
- b) molecular weight of drug;
- c) lipid solubility of drug;
- d) plasma protein binding of drug;
- e) water solubility of drug.

1068. Drug causing least physical dependence is...

Variants of answer:

- a) alprazolam;
- b) fluoxetine;
- c) dextropropoxyphene;
- d) pentazocine;
- e) morphine.

1069. Hemorrhagic cystitis is caused by...

Variants of answer:

- a) cyclophosphamide;
- b) cyclosporine;
- c) bleomycine;
- d) cisplatin;
- e) methotrexate.

ANSWERS

№ question	Correct answers	№ question	Correct answers	№ question	Correct answers	№ question	Correct answers
1	c	39	d	77	a	115	b
2	a	40	a	78	c	116	b
3	a	41	b	79	c	117	a
4	b	42	d	80	a	118	a
5	d	43	e	81	a	119	c
6	c	44	c	82	b	120	b
7	a	45	a	83	b	121	c
8	c	46	b	84	b	122	b
9	a	47	d	85	b	123	b
10	a	48	b	86	b	124	c
11	d	49	c	87	b	125	a
12	c	50	a	88	b	126	c
13	b	51	d	89	a	127	d
14	a	52	a	90	c	128	b
15	d	53	b	91	c	129	b
16	c	54	a	92	a	130	b
17	a	55	c	93	d	131	b
18	b	56	b	94	a	132	d
19	c	57	a	95	a	133	a
20	c	58	b	96	d	134	a
21	a	59	b	97	d	135	c
22	b	60	b	98	a	136	b
23	b	61	b	99	d	137	a
24	c	62	b	100	a	138	e
25	b	63	d	101	a	139	b
26	a	64	a	102	b	140	a
27	a	65	b	103	c	141	a
28	a	66	c	104	a	142	a
29	a	67	a	105	b	143	a
30	d	68	c	106	d	144	b
31	e	69	b	107	a	145	a
32	b	70	c	108	b	146	a
33	a	71	a	109	d	147	a

№ question	Correct answers	№ question	Correct answers	№ question	Correct answers	№ question	Correct answers
34	a	72	a	110	b	148	a
35	a	73	b	111	a	149	b
36	b	74	c	112	a	150	d
37	a	75	b	113	a	151	d
38	a	76	e	114	a	152	c
153	a	193	a	233	b	273	d
154	c	194	a	234	b	274	b
155	a	195	d	235	a	275	a
156	c	196	a	236	a	276	a
157	c	197	a	237	b	277	c
158	a	198	b	238	a	278	c
159	d	199	a	239	a	279	a
160	b	200	a	240	b	280	a
161	d	201	d	241	d	281	b
162	b	202	a	242	b	282	a
163	b	203	b	243	c	283	b
164	a	204	c	244	d	284	b
165	d	205	d	245	a	285	a
166	a	206	d	246	a	286	a
167	a	207	b	247	c	287	a
168	a	208	a	248	c	288	b
169	b	209	b	249	b	289	a
170	b	210	a	250	b	290	a
171	a	211	d	251	a	291	c
172	b	212	c	252	c	292	a
173	b	213	d	253	a	293	d
174	d	214	b	254	b	294	a
175	a	215	a	255	d	295	d
176	c	216	d	256	a	296	a
177	b	217	d	257	a	297	c
178	b	218	a	258	c	298	a
179	b	219	d	259	c	299	a
180	a	220	a	260	a	300	c
181	b	221	c	261	a	301	d
182	d	222	a	262	a	302	d

№ question	Correct answers	№ question	Correct answers	№ question	Correct answers	№ question	Correct answers
183	b	223	a	263	a	303	c
184	d	224	a	264	d	304	a
185	a	225	b	265	c	305	a
186	d	226	c	266	a	306	a
187	a	227	d	267	b	307	d
188	a	228	a	268	c	308	d
189	a	229	a	269	a	309	c
190	a	230	a	270	a	310	d
191	d	231	c	271	c	311	c
192	d	232	b	272	b	312	d
313	d	353	d	393	b	433	a
314	b	354	a	394	b	434	c
315	a	355	d	395	a	435	a
316	a	356	b	396	b	436	a
317	c	357	d	397	a	437	d
318	b	358	a	398	d	438	a
319	d	359	a	399	a	439	c
320	d	360	a	400	a	440	e
321	a	361	b	401	d	441	b
322	b	362	c	402	a	442	c
323	b	363	a	403	b	443	a
324	c	364	b	404	c	444	b
325	a	365	a	405	a	445	b
326	a	366	d	406	b	446	c
327	a	367	b	407	a	447	d
328	c	368	b	408	a	448	d
329	a	369	b	409	d	449	a
330	b	370	c	410	a	450	c
331	d	371	a	411	c	451	a
332	a	372	b	412	b	452	b
333	c	373	d	413	d	453	a
334	c	374	c	414	b	454	d
335	a	375	c	415	a	455	c
336	b	376	d	416	b	456	a
337	b	377	a	417	a	457	a

№ question	Correct answers	№ question	Correct answers	№ question	Correct answers	№ question	Correct answers
338	b	378	b	418	d	458	a
339	d	379	a	419	a	459	a
340	a	380	c	420	d	460	b
341	d	381	a	421	a	461	a
342	b	382	a	422	d	462	d
343	d	383	a	423	a	463	a
344	a	384	a	424	d	464	d
345	a	385	d	425	a	465	b
346	a	386	a	426	c	466	b
347	b	387	c	427	b	467	d
348	a	388	c	428	b	468	c
349	b	389	b	429	a	469	d
350	c	390	a	430	b	470	c
351	a	391	a	431	a	471	c
352	d	392	c	432	a	472	c
473	a	513	c	553	c	593	a
474	b	514	c	554	a	594	b
475	a	515	c	555	d	595	a
476	a	516	a	556	c	596	d
477	a	517	a	557	a	597	d
478	a	518	a	558	a	598	d
479	a	519	c	559	c	599	a
480	b	520	d	560	b	600	a
481	d	521	b	561	c	601	b
482	a	522	d	562	b	602	b
483	b	523	d	563	a	603	c
484	d	524	a	564	a	604	b
485	d	525	c	565	a	605	b
486	c	526	d	566	b	606	c
487	c	527	a	567	b	607	b
488	e	528	b	568	c	608	d
489	b	529	a	569	d	609	a
490	a	530	c	570	d	610	c
491	b	531	d	571	b	611	a
492	a	532	b	572	c	612	c

№ question	Correct answers	№ question	Correct answers	№ question	Correct answers	№ question	Correct answers
493	c	533	a	573	c	613	a
494	d	534	d	574	a	614	a
495	a	535	b	575	b	615	d
496	b	536	c	576	d	616	c
497	a	537	a	577	c	617	a
498	b	538	a	578	a	618	a
499	a	539	b	579	b	619	a
500	c	540	a	580	c	620	c
501	c	541	a	581	a	621	e
502	a	542	a	582	c	622	c
503	c	543	a	583	a	623	d
504	a	544	b	584	a	624	b
505	a	545	a	585	a	625	a
506	a	546	a	586	c	626	a
507	a	547	d	587	a	627	b
508	a	548	a	588	a	628	c
509	a	549	b	589	c	629	b
510	a	550	d	590	c	630	d
511	b	551	c	591	a	631	b
512	b	552	a	592	d	632	b
633	c	673	a	713	d	753	a
634	c	674	a	714	d	754	b
635	a	675	b	715	a	755	b
636	b	676	d	716	a	756	d
637	d	677	b	717	c	757	a
638	d	678	a	718	a	758	a
639	b	679	b	719	b	759	b
640	a	680	b	720	a	760	d
641	a	681	c	721	a	761	b
642	c	682	b	722	b	762	a
643	a	683	b	723	b	763	a
644	b	684	d	724	a	764	a
645	c	685	b	725	a	765	a
646	b	686	a	726	a	766	a
647	c	687	d	727	c	767	c

№ question	Correct answers	№ question	Correct answers	№ question	Correct answers	№ question	Correct answers
648	d	688	d	728	a	768	b
649	b	689	b	729	b	769	d
650	b	690	c	730	b	770	b
651	a	691	c	731	c	771	a
652	c	692	b	732	a	772	c
653	a	693	d	733	a	773	a
654	d	694	a	734	d	774	b
655	c	695	b	735	b	775	b
656	a	696	d	736	a	776	a
657	b	697	a	737	b	777	a
658	d	698	b	738	c	778	a
659	d	699	c	739	c	779	c
660	a	700	a	740	c	780	a
661	b	701	a	741	c	781	a
662	a	702	d	742	a	782	b
663	a	703	b	743	a	783	a
664	a	704	a	744	b	784	c
665	a	705	c	745	d	785	c
666	b	706	d	746	b	786	a
667	b	707	a	747	a	787	c
668	c	708	a	748	a	788	a
669	b	709	c	749	b	789	a
670	c	710	b	750	c	790	c
671	a	711	b	751	a	791	b
672	b	712	d	752	c	792	a
793	a	833	a	873	a	913	c
794	d	834	a	874	a	914	b
795	c	835	c	875	d	915	b
796	b	836	a	876	d	916	c
797	b	837	a	877	b	917	a
798	b	838	b	878	a	918	b
799	d	839	d	879	b	919	c
800	a	840	a	880	a	920	a
801	a	841	a	881	b	921	a
802	a	842	d	882	b	922	d

№ question	Correct answers	№ question	Correct answers	№ question	Correct answers	№ question	Correct answers
803	c	843	d	883	a	923	d
804	d	844	d	884	a	924	b
805	a	845	d	885	a	925	b
806	c	846	d	886	d	926	d
807	a	847	d	887	a	927	a
808	d	848	d	888	a	928	b
809	a	849	c	889	a	929	c
810	b	850	c	890	a	930	c
811	a	851	d	891	a	931	a
812	a	852	c	892	c	932	c
813	a	853	a	893	a	933	d
814	b	854	d	894	d	934	c
815	c	855	d	895	d	935	b
816	b	856	b	896	b	936	b
817	a	857	a	897	c	937	a
818	a	858	a	898	a	938	c
819	a	859	a	899	c	939	a
820	c	860	a	900	a	940	c
821	a	861	c	901	a	941	d
822	a	862	a	902	a	942	c
823	b	863	c	903	d	943	a
824	d	864	b	904	c	944	a
825	c	865	c	905	a	945	a
826	c	866	b	906	a	946	b
827	d	867	d	907	c	947	b
828	a	868	b	908	d	948	c
829	b	869	d	909	a	949	a
830	a	870	a	910	c	950	b
831	a	871	a	911	b	951	a
832	a	872	d	912	a	952	a
953	c	983	c	1013	c	1043	a
954	a	984	d	1014	a	1044	b
955	d	985	b	1015	a	1045	a
956	b	986	b	1016	a	1046	a
957	c	987	b	1017	a	1047	b

№ question	Correct answers	№ question	Correct answers	№ question	Correct answers	№ question	Correct answers
958	a	988	c	1018	a	1048	d
959	a	989	b	1019	b	1049	d
960	b	990	c	1020	d	1050	b
961	c	991	a	1021	a	1051	b
962	a	992	a	1022	d	1052	c
963	a	993	d	1023	d	1053	c
964	b	994	a	1024	b	1054	b
965	a	995	a	1025	c	1055	a
966	a	996	d	1026	d	1056	d
967	a	997	d	1027	b	1057	a
968	c	998	a	1028	a	1058	a
969	c	999	d	1029	c	1059	b
970	a	1000	a	1030	c	1060	b
971	a	1001	d	1031	b	1061	d
972	a	1002	c	1032	b	1062	c
973	a	1003	a	1033	b	1063	a
974	b	1004	c	1034	b	1064	c
975	c	1005	d	1035	a	1065	b
976	b	1006	a	1036	a	1066	a
977	a	1007	b	1037	d	1067	b
978	b	1008	a	1038	a	1068	b
979	b	1009	a	1039	c	1069	a
980	d	1010	c	1040	a		
981	b	1011	d	1041	b		
982	d	1012	a	1042	a		

REFERENCES

1. *Visovsky, C.* Introduction to clinical pharmacology / C. Visovsky, Ch. Zambrovski, Sh. Hoster. – 10th ed. – Mosby : Elsevier, 2021. – 416 p.

2. *Visovsky, C.* Study guide for introduction to clinical pharmacology / C. Visovsky, Ch. Zambrovski, Sh. Hoster. – 10th ed. – Mosby : Elsevier, 2021. – 144 p.

3. *Kharkevitch, D. A.* Pharmacology: translation for Russian textbook, 12th ed. «Pharmacology» (2017) [Электронный ресурс] / D. A. Kharkevitch. – 2nd ed. – М. : ГЭОТАР-Медиа, 2019. – 680 с. – Режим доступа: <https://www.rosmedlib.ru/book/ISBN9785970449851.html>. – Дата доступа: 03.11.2021.

4. Кратко о лекарственных средствах : учеб.-метод. пособие для студентов 3 и 6 курсов факультета иностранных студентов, учреждений высшего мед. образования : в 2 ч. = Drugs in short : partical workbook for 3 and 6 year students Faculty for International Students of medical higher educational institutions : in 2 parts / Е. И. Михайлова [и др.]. – Гомель : ГомГМУ, 2020. – Ч. 1. – 56 с. – Режим доступа: <http://elib.gsmu.by/xmlui/handle/GomSMU/7128>. – Дата доступа: 03.11.2021.

5. Кратко о лекарственных средствах : учеб.-метод. пособие для студентов 3 и 6 курсов факультета иностранных студентов, учреждений высшего мед. образования : в 2 ч. = Drugs in short : partical workbook for 3 and 6 year students Faculty for International Students of medical higher educational institutions : in 2 parts / Е. И. Михайлова [и др.]. – Гомель : ГомГМУ, 2020. – Ч. 2 – 76 с. – Режим доступа: <http://elib.gsmu.by/xmlui/handle/GomSMU/7129>. – Дата доступа: 03.11.2021.

6. Основы фармакологии = Essentials of Pharmacology : учеб. пособие для иностранных студентов учреждений высш. образования по специальностям «Лечеб. дело», «Педиатрия» / В. И. Козловский [и др.]. – Минск : Выш. шк., 2019. – 286 с.

7. Фармакология в вопросах и ответах. Сборник тестов : учеб.-метод. пособие для студентов 3 курса фак-та по подготовке специалистов для заруб. стран мед. вузов = Pharmacology in questions and answer. Tests : study guide for the third-year students of the faculty on preparation of experts for foreign countries of higher educational medical institutions / Е. И. Михайлова [и др.]. – Гомель : ГомГМУ, 2018. – 2-е изд. перераб. и доп. – 88 с. – Режим доступа: <https://elib.gsmu.by/handle/GomSMU/3830>. – Дата доступа: 03.11.2021.

8. Rang and Dale's Pharmacology / J. M. Ritter [et al.]. – 9th ed. – Edinburg : Elsevier, 2020. – 789 p. : ill., tab.

9. Ситуационные задачи по фармакологии [Электронный ресурс] = Pharmacology : case studies : для студентов фак. иностр. учащихся с англ. яз. обучения (специальность 1-79 01 01 «Лечеб. дело») / В. И. Козловский [и др.] ; УО «Гродн. гос. мед. ун-т», Каф. фармакологии имени профессора М. В. Кораблева. – 2-е изд., перераб. и доп. – Гродно : ГрГМУ, 2020. – 1 электрон.

опт. диск (CD-ROM). – Систем. требования: PC класса не ниже Pentium IV; Windows XP и выше; ОЗУ 512 Mb; DVD-ROM 16-х и выше. – Загл. с этикетки диска (ОБ).

10. Фармакология = Pharmacology : практикум для специальности «Лечеб. дело» / Н. А. Бизунок [и др.]. – 5-е изд., перераб. – Минск : БГМУ, 2020. – 155 с.

11. Фармакология = Pharmacology : тесты для специальности «Лечеб. дело» / А. В. Волчек [и др.]. – 2-е изд., испр. – Минск : БГМУ, 2020. – 105 с.

12. Clinical pharmacy and therapeutics / С. Whittlesea, К. Hodson. – 6th ed. – Beijing : Elsevier, 2019. – 1094 p. : ill., col. phot., tab.

Учебное издание

Михайлова Елена Ивановна
Сенникова Алина Викторовна
Ярошевич Божена Сергеевна и др.

**КЛИНИЧЕСКАЯ ФАРМАКОЛОГИЯ
В ВОПРОСАХ И ОТВЕТАХ**

(на английском языке)

Учебно-методическое пособие

Редактор *А. Ю. Крохмальник*
Компьютерная верстка *А. М. Терехова*

Дата подписания к использованию 02.06.2023.
Гарнитура «Times New Roman». Объем издания 1,9 Мб.
Уч.-изд. л. 5,97. Заказ № 241

Издатель и полиграфическое исполнение:
учреждение образования «Гомельский государственный медицинский университет».
Свидетельство о государственной регистрации издателя,
изготовителя, распространителя печатных изданий № 1/46 от 03.10.2013.
ул. Ланге, 5, 246000, Гомель.