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Assessment tools for midterm assessment “Pharmacology”

Curriculum	31.05.01
Specialty	General Medicine
Form of education	Full-time
Designer Department	Morphology and Physiology
Graduate Department	Internal Diseases

Sample tasks and tests

Control work - general medical prescription (Term 5)

Before the credit in the 5th semester, a control work is carried out in order to control the assimilation of knowledge by students of the lecture course, the assessment of knowledge and skills acquired during practical classes, developing professional abilities in accordance with the requirements of the qualification characteristics of a specialist. *Control work is carried out in the form of tasks according to the general medical prescription*, according to the schedule during the hours of classes in the amount provided for by the syllabus for the discipline and the teaching load of the teacher.

Write out:

1. 50.0 powder containing 20% Dermatolum, 80% Talcum.
2. 50 Phosphadenum 0.05 tablets. Assign 1 tablet 3 times a day.
3. 30.0 ointments (pastes) from Bismuthi subnitrates. To lubricate the affected areas of the skin (prescribe the ointment in percentage and expanded ways; paste - expanded)
4. Write out 90.0 liniment from Pix liquidae and Oleum Helianthi in a ratio of 1:1. Lubricate the affected area of the skin.
5. Vaginal suppositories containing 0.25 Synthomycinum. Assign 1 suppository 2 times a day for 10 days.
6. 300 ml of water solution Aethacridini lactas (1:1000) for washing wounds (expanded, percentage methods).
7. Solution Atropini sulfas for oral administration, 5 drops 3 times a day before meals for 8 days (single dose 0.08). Write out in expanded and percentage ways.
8. 6 ampoules of 1 ml of 0.05% Strophanthinum solution. Assign intravenously at 0.00025 grams per injection in 20 ml of isotonic sodium chloride solution.
9. A potion for a teenager from the infusion of Herba Adonis vernalis (single dose of raw materials 0.06), Natrii bromidum (single dose 0.3) and Codeini phosphas (single dose 0.02). Assign 1 tablespoon 2 times a day for 4 days.
10. 200.0 decoction of oak bark (Cortex Quercus) in a ratio of 1:15 for gargling.
11. Oral emulsion of Oleum Amygdalarum, 1 tablespoon 2 times a day for 3 days.
12. 15 ml Valeriana tincture. Assign 15 drops 3 times a day.
13. 40 ml Leuzea liquid extract. Assign 30 drops 3 times a day before meals.
14. 10 ml of Strychnini nitrates solution for subcutaneous injections, 1 ml 1 time per day. Write out solution in a dark-colored vial in expanded and percentage ways (single dose 0.001).

Control work - medical prescription (Pharmacotherapeutic tasks) (Term 6)

Before the exam in the 6th semester, a control work is carried out in order to control the assimilation of knowledge by students of the lecture course, to assess the knowledge and skills acquired during practical

classes, which develop professional abilities in accordance with the requirements of the qualification characteristics of a specialist. The control work is carried out in the form of tasks according to the medical prescription of the private pharmacology section, according to the schedule during the hours of classes in the amount provided for by the syllabus for the discipline and the teaching load of the teacher.

Write out:

1. Remedy for acute heart failure.
2. An agent for the treatment of angina pectoris with a selective effect on the myocardium.
3. Calcium antagonist for the treatment of angina pectoris.
4. Diuretic for the treatment of hypertension.
5. Means for relief of hypertensive crisis.
6. Antiplatelet agent for the treatment of angina pectoris.
7. Medicine for dry unproductive cough.
8. Remedy for overeating.
9. An agent for the treatment of hypothyroidism.
10. Remedy for the relief of hyperglycemic coma.
11. Antibiotic for the treatment of urogenital chlamydia.
12. Antibiotic for the treatment of tuberculosis.
13. Remedy for the treatment of herpetic infection.
14. Means for the treatment of candidiasis.

Sample tasks for the credit (Term 5)

The midterm assessment in the 5th semester takes place in the form of a credit. The credit consists of performing tasks according to a medical prescription, according to a schedule during the hours of study sessions in the amount provided for by the syllabus for the discipline and the teaching load of the teacher.

Assignment for the evaluation indicator of the descriptor "Know"	Type of task
1. The concept of the recipe. Medicinal substance (agent), dosage form, medicinal product. Drugs of lists A and B. 2. Recipe: structure, rules of compilation and prescribing. A simple and complex recipe is you. Special marks and abbreviations in the recipe. Forms of prescribing (official, manual, main). 3. Classification of dosage forms: solid, liquid, soft, extractive (galenics) and maximally purified (novogalenov). 4. General characteristics and classification of solid dosage forms. 5. Rules for prescribing simple, complex, separated and undivided powders. 6. Rules for prescribing powders from herbal medicinal raw materials. 7. Substances used as a basis for the preparation of powders for external and internal use. 8. Features of powder packaging. Rules for prescribing powders in waxed and refined paper. 9. Capsules: types, meaning. Rules for prescribing capsules. 10. Characteristics and rules for prescribing pills, granules. 11. Dosage forms with prolonged release of medicinal substance: microdrages, spanules. 12. Characteristics and rules for issuing fees. 13. Types of liquid dosage forms: solutions, infusions, decoctions, potions, emulsions, etc. 14. Classification of solutions by method of application: for external, internal use and injection. Characteristics of solvents. 15. Forms of prescriptions of solutions: expanded, abbreviated (indicating the concentration in percentages, ppm and ratio). Dosing of solutions. 16. Rules for prescribing solutions for external and internal use. 17. The form of release of solutions for injection. Rules for their discharge. 18. Rules for prescribing ampoules and vials with dry substance for injection. 19. Infusions and decoctions: preparation, shelf life, dosing, rules of discharge. 20. Medicines: composition, varieties, rules of prescribing.	theoretical

21. Emulsions: composition, varieties, preparation, shelf life, dosing, prescribing rules. 22. Suspensions, syrups, aerosols. 23. Characteristics of extraction (galenic) preparations, their representatives, dosage methods, advantages of extraction preparations over aqueous extracts. 24. Tinctures: methods of preparation, rules of prescribing. 25. Extracts: varieties, methods of preparation, rules of prescribing. 26. Maximally purified (novogalene) preparations: application, rules of discharge. 27. Ointments, pastes: substances used as a base, composition, prescribing rules, differentiated application. 28. Liniments: varieties, composition, application, rules of prescribing. 29. Suppositories: varieties, substances used as a basis, application, prescribing rules. 30. Features of prescribing official soft dosage forms.	
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Assignment for the evaluation indicator of the descriptor "Be able to"	Type of task
1. Based on the order of the Ministry of Health of the Russian Federation "On the rational prescription of medicines, the rules for prescribing prescriptions for them and the procedure for their release to pharmacy institutions (organizations)", consider the types of prescription forms and the rules for issuing various groups of drugs to them. 2. Pay attention to the dosage forms and the nature of the packaging of drugs of different pharmacological groups presented in the cathedral collection. 3. Choose the dosage form of the drug for administration, depending on the purpose of pharmacotherapy and the severity of the patient's condition. 4. Calculate the dose of the administered drug, determine the frequency and duration of its administration.	practical

Assignment for the evaluation indicator of the descriptor "Have skills of "	Type of task
Write out in the prescription on the corresponding prescription form: 1. 30 powders (in gelatin capsules) of Acidum ascorbinicum 0.03 g, Riboflavinum 0.02 g, Retinoli acetat 0.0009 g. Assign 1 capsule 3 times a day. 2. Libexinum in tablets of 0.1 g. Prescribe 1 tablet 4 times a day for 5 days. 3. 50 gr. ointment (paste) containing 10% Sulphur praecipitatum. 1% Hydrocortisonum, prepared on Vaselineum and Lanolinum in a ratio of 4:1. Apply to the skin as an anti-inflammatory agent for pink acne. 4. 100 g of liniment of the following composition: 5% Synthomycinum, 3% Acidum oleinicum and Oleum Ricini, in the amount necessary for the preparation of this volume of liniment. Apply to the affected area of the skin. 5. Rectal suppositories from Phenobarbitalum (a single dose of 0.05 g). Assign for 10 injections (prescribe in an expanded way). 6. 250 ml of 0.05% r-ra Kalii permanganas in a dark flask (in an expanded way and in a ratio). Prescribe for gastric lavage. 7. 1% r-r Promedolum in a bottle of 5 ml (unfolded). Assign 20 drops inside 2 times a day (a single dose of 0.005 g). 8. 0.5 r-r Bemegridum in ampoules of 10 ml, 10 ampoules. Assign intravenously 0.025 g per injection. 9. A mixture of radix Valerianae infusion (a single dose of 1 g of raw materials) and Natrii bromidum (a single dose of 0.2 g). Assign to 12 receptions with tablespoons. 10. 50 ml of 10% Tocopheroli acetat in peach oil (Oleum Persicorum). Assign 20 drops inside 2 times a day. 11. Decoction of bearberry leaves (Folium Uvae ursi) for oral administration of 1 tablespoon 3 times a day for 4 days. 12. Passiflorae extract liquid, 25 ml. Assign 20 drops 3 times a day. 13. 100 g of gastric collection (Species stomachicae). 1 tablespoon of the collection is infused in a glass of boiling water for 30 minutes, strain, take half a glass in the morning and evening.	practical

14. Cisplatin in bottles of 0.025 g, 6 vials. The contents of the vial should be dissolved in 10 ml of water for injection. Enter intravenously at the rate of 0.05 g of the drug per injection.	
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Sample tasks for the exam (Term 6)

Conducting midterm assessment in the 6th semester in the form of an exam. The exam tasks contain two theoretical questions, a task on a medical prescription and a task on the compatibility of medicines.

Assignment for the evaluation indicator of the descriptor "Know"	Type of task
1. The concept of pharmacology, its position in the system of medical disciplines. Basic research methods in pharmacology. Principles of dosage of medicinal substances, the main types of doses, the dependence of the action of medicinal substances on the dose. 2. Characteristics of drug administration routes: clinical use, advantages and disadvantages, possible dosage forms. 3. Local anesthetics: classification, mechanism of action, selection of drugs for various types of local anesthesia. Resorptive effect of local anesthetics. 4. Adrenaline: mechanism of action, effect on the cardiovascular system, smooth muscle organs, metabolism, application, side effects. 5. β - adrenomimetics: features of action, the use of norepinephrine, mesatone, xylometazoline, clofelin. Undesirable effects of drugs. 6. β -adrenomimetics: effect on organs with smooth muscles, cardiovascular system, metabolism. Features of the action and application of isadrin, orciprenaline, salbutamol, phenoterol, clenbuterol, salmeterol, dobutamine. 7. Ephedrine: origin, mechanism of action, effect on the central nervous system, cardiovascular system, organs with smooth muscles, application, side effects. 8. β -adrenoblockers: mechanism of action, effect on the cardiovascular system. Features of the action and use of dihydroergotoxin, tropafen, nicer-golin, prazosin, doxazosin. Side effects. 9. Classification of β -adrenoblockers. β - adrenoblockers with additional properties. Side effects of β -blockers. Mechanism and application of antiarrhythmic, hypotensive and antianginal action of β -blockers. 10. Direct cholinomimetics: classification; features of action, side effects and use of pilocarpine, aceclidine and cytitone. Anticholinesterase agents: mechanism of action, classification, main effects; features of action and application of physostigmine, proserin, galantamine, amiridine, phosphacol. Side effect. 11. Ganglioblockers: mechanism of action, effect on the cardiovascular system, organs with smooth muscles, glands; features of the action and use of pentamine, hygronium, pirylene, pachycarpine. Acute poisoning with pachycarpine: symptoms, measures of assistance. 12. Muscle relaxants: classification; mechanism of action of antidepolarizing and depolarizing substances, application. Complications with the use of myorelaxants. Synergists and antagonists of muscle relaxants. 13. The concept of anesthesia. The mechanism and types of action of anesthetic agents. 14. Sleeping pills: classification; mechanism of action, effect on sleep stages, use of phenobarbital, nosepam, nitrazepam, sodium oxybutyrate, fenibut, zopiclone. Acute barbiturate poisoning: pathogenesis, symptoms, relief measures. 15. Antiepileptic drugs: classification; mechanism of action, application, side effects of diphenine, benzonal, sodium valproate, clonazepam, ethosuximide. 16. Sedatives: mechanism and features of action of bromides and vegetable preparations, application. Bromism. 17. Narcotic analgesics: general mechanisms of analgesic action. Morphine: origin, effect on the central nervous system, cardiovascular system, organs	theoretical
with smooth muscles, application. Features of action and application of promedol, fentanyl, pentazocin, naloxone. Neuroleptic and tranquiloanalgesia.	

18. Classification, indications for use, side effects of NSAIDs.	
19. Neuroleptics: the mechanism of development of the main effects, classification. The peculiarities of action, application and undesirable effects of neuroleptics of different groups. Lithium preparations.	
40. Drugs that affect the bile-forming and biliary function of the liver. Hepatoprotectors. Classification of drugs, mechanism of action, application.	
41. Laxatives: classification, mechanism of action, drugs, application, side effects.	
42. Uterine products: mechanism, features of action, use of ergometry, prostaglandin preparations, M-cholinoblockers, tocolytics.	
43. Anti-allergic agents: classification; mechanism of action, application and features, side effects of drugs of the 1st, 2nd generations and cell membrane stabilizers.	
44. Drugs for the treatment of autoimmune conditions: classification, mechanism of action, application features, adverse reactions. Immunosuppressants and cytostatics: classification, mechanism of action, application features, non-inflammatory reactions.	
45. Characteristics of vitamin preparations: classification, application in medical practice, undesirable effects.	
46. Characteristics of thyroid hormone preparations. Antithyroid drugs.	
47. Insulin preparations: sources of production, classification, mechanism and duration of action, indications for use and side effects of insulins of different duration of action, composition and concentration. Complications of insulin therapy.	
48. Oral antidiabetic agents: the mechanism of action and especially of drugs of different groups (sulfonylurea derivatives, biguanides, glycosidase inhibitors, thiazolidinediones, glinides, DPP-4 inhibitors, GLP-1 agonists, NGL-2 inhibitors). Side effects of drugs.	
49. Preparations of systemic glucocorticoids: classification, features of pharmacokinetics, mechanism of influence on the metabolism of carbohydrates, lipids, proteins. Negative effects of systemic glucocorticoids.	
50. Preparations of sex hormones. Mechanisms of action, application in medical practice. Anabolic steroids.	
51. Derivatives of nitrofurans and quinolones of the 1st and 2nd generation: spectrum, mechanism of action, side effects. The use of furacilin, furadonin, furazolidone, nitroxoline and nalidixic acid.	
52. Anthelmintic agents: classification, mechanism of action and application of piperazine, decaris, vermorin, pyrantel, phenasal, biltricide.	
53. Drugs for the treatment of giardiasis and trichomonadosis: mechanism, spectrum and peculiarities of action, side effects of furazolidone, metronidazole.	
54. Sulfonamide preparations: spectrum, mechanism of action, classification. Features of action and application of norsulfazole, sulfacyl sodium, salazopyrin, sulfadimethoxine, phthalazole. The advantage of combined preparations of sulfonamides with trimethoprim. Side effects of sulfonamide preparations.	
55. Antiviral agents for the treatment of influenza: classification; spectrum, mechanism of action, application and undesirable effects of rimantadine, zanamivir, oseltamivir, oxolin. Interferons and interferogens.	
56. Drugs used for the treatment of herpes and HIV infection: classification, mechanism of action, undesirable effects.	
57. Antibiotics-penicillins: mechanism of action, classification, antimicrobial spectrum of drugs of different groups, features of action, interactions, side effects. Application.	
58. Combinations of beta-lactam antibiotics with beta-lactamase inhibitors: examples, meaning, spectrum of action of combinations, application, side effects.	
59. Antibiotics-cephalosporins: spectrum, mechanism, features of action, interactions, application, side effects of drugs of different generations (cefazolin, cephalexin, cefoxitin, cefuroxime, ceftazidim, cefotaxime, cefoperazone, cefoperazone / sulbactam, cefipim, ceftobiprol).	
60. Fluoroquinolones: classification, spectrum, mechanism, features of action, application, interactions, side effects.	

61. Monobactams and carbapenems: spectrum, mechanism of action. Application, side effects, interactions.	
62. Ansamycins and amphenicols: spectrum, mechanism, features of action, application, interactions, side effects. 63. Tetracyclines and lincosamides: spectrum, mechanism, features of action, preparations, application, interactions, side effects. Glycylcyclines. 64. Antibiotics-aminoglycosides: classification, spectrum, mechanism, features of action, application, interactions, side effects of streptomycin, kanamycin, gentamicin, tobramycin, netromycin, amikacin. 65. Macrolides, azalides and ketolides: classification, spectrum, mechanism, peculiarities of action of drugs of different generations, application, interactions, side effects. 66. Antibiotics-glycopeptides, oxazolidinones and cyclic lipopeptides: spectrum, mechanisms of antimicrobial action, application, interactions, side effects. 67. Antifungal agents: classification, mechanism, features of action, side effects of drugs. 68. Anti-tuberculosis drugs: classification, principles of selection of preparations, mechanism and features of action, undesirable effects.	
Assignment for the evaluation indicator of the descriptor "Be able to"	Type of task
Write in the prescriptions, justifying the choice of drugs: 1. A means for the treatment of the surgeon's hands. 2. A remedy for the relief of vascular collapse. 3. A remedy for the treatment of a hyperkinetic form of hypertension. 4. A remedy for the treatment of angina pectoris with a selective effect on the myocardium. 5. A remedy for relieving an attack of bronchospasm. 6. A means for short-term muscle relaxation in case of dislocation. 7. A remedy for the treatment of parkinsonism. 8. M-holinoblocker for the treatment of gastric ulcer. 9. M is a holinoblocker used in the treatment of bronchial asthma. 10. A remedy for the prevention of vomiting. 11. Antispasmodic agent for chronic pancreatitis. 12. Gastroprotective agent for the treatment of peptic ulcer. 13. A means of substitution therapy for chronic pancreatitis. 14. Antacid agent for hyperacid gastritis. 15. Antisecretory agent for the treatment of peptic ulcer. 16. A remedy for alcoholic toxic liver damage. 17. A remedy for the treatment of constipation. 18. A remedy for the prevention of rickets. 19. A remedy that strengthens the vascular wall. 20. A remedy with expectorant and antitussive action. 21. A remedy used for hereditary hyperbilirubinemia. 22. Anticonvulsant for the treatment of absences in epilepsy. 23. A sleeping pill for sleep disorders. 24. A remedy for neuroleptanalgesia. 25. Analgesic for pain relief of childbirth. 26. A remedy for lowering body temperature in case of fever. 27. A means to eliminate feelings of fear, anxiety, anxiety. 28. A neuroleptic with a pronounced antiemetic effect. 29. A remedy for the treatment of depression with a sedative component. 30. A remedy for astheno-depressive disorders. 31. Psychostimulant is an adaptogen of plant origin. 32. A derivative of nicotinic acid, toning the respiratory and vasomotor centers. 33. A nootropic that has a stress-protective effect. 34. A remedy for the treatment of nematodes. 35. A remedy for the treatment of opisthorchiasis. 36. Chemical antagonist in poisoning with morphine and other alkaloids. 37. An antibiotic for the treatment of streptococcal croup pneumonia.	practical

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| <ol style="list-style-type: none">38. A remedy for the treatment of systemic mycoses.39. An antibiotic for the treatment of chlamydial infections.40. An antibiotic for the treatment of syphilis.41. An antibiotic for the prevention of relapses of rheumatism.42. An antibiotic resistant to beta-lactamases of staphylococci, for the treatment of otitis media.43. An antibiotic for the treatment of infections caused by enterococcus.44. An antibiotic for the treatment of infections caused by MRSA.45. An antibiotic for the treatment of tuberculosis.46. The antibiotic is an aminoglycoside with antisynegonoid activity.47. A remedy for the treatment of infections caused by anaerobic microorganisms.48. Combined sulfonamide preparation with bactericidal action.49. A drug for the treatment of herpes infection.50. A means for the prevention and treatment of influenza.51. Cardiac glycoside in chronic heart failure.52. An antiarrhythmic agent that blocks calcium channels.53. Potassium preparation for the treatment of arrhythmia.54. A diuretic that accelerates the elimination of poison in acute poisoning.55. Diuretic for the treatment of hypertension.56. A remedy for the treatment of hypertension that reduces the formation of angiotensin.57. A remedy used sublingually to relieve a hypertensive crisis.58. A remedy for ischemic stroke.59. Antiplatelet agent is a cyclooxygenase inhibitor.60. A remedy for relieving an attack of angina pectoris.61. A remedy for the treatment of migraines.62. Direct-acting anticoagulant for the treatment of myocardial infarction.63. A remedy for the treatment of anemia.64. A remedy for the treatment of atherosclerosis.65. A means for dissolving a blood clot in myocardial infarction.66. A means for the course treatment of allergic diseases.67. A drug for the treatment of insulin-dependent diabetes mellitus.68. A remedy for the treatment of type 2 diabetes mellitus used orally. | |
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Assignment for the evaluation indicator of the descriptor "Have skills of "	Type of task
Make a conclusion about the interaction of simultaneously prescribed drugs in the body. Specify the mechanism of interaction in the body and give recommendations on the expediency of using the following combinations: 1. Almagel+ de-nol 2. Lidocaine+mezaton 3. Salbutamol+anaprilin 4. Anaprilin+verapamil 5. Propranolol+metoprolol 6. Norepinephrine+fluorotane 7. Ditolin+proserin 8. Atropine+proserin 9. Atropine+activated charcoal 10. Phenoterol+ipratropium bromide 11. Levodopa+carbidopa 12. Levodopa+cyclodol 13. Aminazine+norepinephrine 14. Haloperidol+levodopa 15. Haloperidol+cyclodol 16. Diphenhydramine+analgin 17. Amitriptyline+metacin 18. Phenobarbital+theophellin 19. Nialamide+fluoxetine 20. Morphine+atropine 21. Fentanyl+droperidol 22. Digoxin+panangin 23. Prazosin+nifedipine 24. Enalapril+hypothyazid 25. Nitrosorbide+bisoprolol 26. Hypothyazid+veroshpiron 27. Clofelin+hypothyazid 28. Heparin+protamine Sulfate 29. Acenocumarol+vikasol 30. Streptokinase+kontrikal 31. Insulin+acarbose 32. Metformin+sitagliptin 33. Budesonide+formoterol 34. Gliclazide+nifedipine 35. Isoniazid+pyridoxine 36. Methyluracil+levomycetin 37. Clindamycin+estradiol 38. Meropenem+ampicillin 39. Doxycycline+Ferric oxide sulfate 40. Ciprofloxacin+clindamycin 41. Amoxicillin+clavulanic acid 42. Vancomycin+amikacin 43. Erythromycin+benzylpenicillin 44. Rifampicin+amoxicillin 45. Ampicillin+gentamicin 46. Gentamicin+amikacin 47. Amikacin+metronidazole 48. Daptomycin+rifampicin 49. Benzylpenicillin+novocaine	practical