№ ЛД-21(ИН)

Abstract of the work program of the discipline

«Pharmacology»

The main professional educational program of higher education is the specialty program in the specialty 31.05.01 General Medicine, approved on 25.12.2020.
Form of study: full-time
The period of development of OPOP IN: 6 years
Department: Pharmacology with Clinical Pharmacology
1. The purpose of the discipline: mastering the discipline of Pharmacology
2. The place of the discipline in the structure of the OOP in: the discipline Pharmacology belongs to the mandatory part of Block 1 of the Federal State Educational Standard in the specialty 31.05.01 Medical business
3. Requirements for the results of mastering the discipline:
The process of studying the discipline is aimed at the formation and development of the competencies **of OPK-7 ID-1; PC-3 ID-2.**
As a result of studying the discipline , the student must
To know:
The content of the discipline, its tasks, the history of the development of domestic pharmacology, achievements and problems of Russian pharmacology.
The recipe, its structure. Principles of composing recipes. Forms of prescription forms. Solid, soft, liquid dosage forms. Dosage forms for injection. The rules for prescribing them in prescriptions. State Pharmacopoeia. The concept of the rules of prescription and over-the-counter medicines. Documents regulating the turnover of medicines. Rules of storage and use of medicines Definition of the concepts of pharmacokinetics and pharmacodynamics, routes of administration of medicines, features of absorption, distribution, biotransformation, excretion; factors affecting the absorption, distribution, metabolism and excretion of drugs from the body; pharmacokinetic parameters: volume of distribution (Vd), elimination rate constant (Kelim), half-elimination period (t1/2), clearance (Cl), equilibrium concentration (Css), bioavailability (F), the value of these indicators.Principles of classification of medicines, names of pharmacological groups and international nonproprietary names:-means affecting afferent innervation (local anesthetics, astringents, enveloping agents, adsorbing agents, irritating agents, expectorants of reflex action, bitterness, laxatives and choleretics of reflex action). -means affecting efferent innervation:

- agents acting on cholinergic synapses (M-cholinomimetic agents, N-cholinomimetic agents, M, N-cholinomimetic agents, anticholinesterase agents, M-holinoblocking agents, N-holinoblocking agents, ganglioblocking agents, agents blocking neuromuscular transmission);
- agents acting on adrenergic synapses (adrenomimetic agents, sympathomimetics, adrenoblocking agents, sympatholytic agents).

As well as the physico-chemical characteristics of drugs, pharmacodynamics (main effects, localization and mechanism of action), side effects, indications for use, have an idea about the pharmacokinetics of drugs of these groups, the main dosage forms, routes of administration, the order of release of drugs from the pharmacy. Principles of classification of general anesthetics, ethyl alcohol, hypnotics, antiepileptic drugs, antiparkinsonian drugs, analgesics, psychotropic drugs, antipsychotics, antidepressants, drugs for the treatment of mania, anxiolytics, sedatives, psychostimulants, nootropic drugs, analeptics, drugs that cause drug dependence. Names of pharmacological groups and international nonproprietary names.

As well as the physico-chemical characteristics of drugs, pharmacodynamics (main effects, localization and mechanism of action), side effects, indications for use, there is a presentation about the features of the pharmacokinetics of drugs of these groups, the main dosage forms, routes of administration, the order of release of drugs from the pharmacy.

Principles of classification, names of pharmacological groups and international nonproprietary names, physico-chemical characteristics:

-drugs that affect the functions of the respiratory system (respiratory stimulants, antitussive agents, expectorants, drugs used for bronchospasm, drugs used for acute respiratory failure, medicinal surfactants).

-drugs that affect the cardiovascular system (cardiotonic drugs, antiarrhythmic drugs, drugs used for coronary heart disease, drugs used for violation of cerebral circulation, hypotensive drugs, hypertensive drugs, venotropic (phlebotropic) drugs, diuretics).

-drugs that affect the functions of the digestive organs (drugs that affect appetite, drugs used in violation of the function of the gastric glands, antacids, gastroprotectors, antihelicobacteria, emetic and antiemetic agents, choleretic agents, hepatoprotectors, substitution therapy for insufficient pancreatic function, drugs that inhibit the motility of the gastrointestinal tract, drugs that enhance the motility of the gastrointestinal tract).

-means affecting the tone and contractile activity of the myometrium,

-drugs affecting the blood system (drugs that stimulate erythropoiesis, drugs used to treat hypochromic anemia, drugs that stimulate leukopoiesis, drugs that inhibit leukopoiesis, drugs that inhibit platelet aggregation, drugs that affect the thromboxane-prostacycline system, drugs that affect glycoprotein receptors, drugs that affect blood clotting, drugs that affect fibrinolysis.

As well as their pharmacodynamics (main effects, localization and mechanism of action), side effects, indications for use, have an idea about the pharmacokinetics of drugs of these groups, the main dosage forms, routes of administration, the order of release of drugs from the pharmacy.

Principles of classification of hormone preparations, their synthetic substitutes and antagonists, vitamin preparations, preparations of water-soluble vitamins, anti-atherosclerotic drugs, drugs used in obesity, anti-inflammatory drugs, names of pharmacological groups and international nonproprietary names. As well as the physico-chemical characteristics of drugs, pharmacodynamics (main effects, localization and mechanism of action), side effects, indications for use, have an idea about the pharmacokinetics of drugs of these groups, the main dosage forms, routes of administration, the order of release of drugs from the pharmacy.

Principles of classification of antiseptic and disinfectants, antibacterial chemotherapeutic agents (beta-lactams, macrolides and azalides, tetracyclines, phenicols, aminoglycosides, polymyxins, lincosamides, glycopeptides, fusidines, sulfonamide preparations, quinolone derivatives, synthetic antimicrobials of various chemical structures), anti-syphilitic agents, anti-tuberculosis agents, antiviral agents, antiprotozoal agents, antifungal agents, synthetic antifungal agents, antitumor (antiblastoma) agents, the names of their pharmacological groups and international nonproprietary names. As well as the physico-chemical characteristics of drugs, pharmacodynamics (main effects, localization and mechanism of action), side effects, indications for use, have an idea about the pharmacokinetics of drugs of these groups, the main dosage forms, routes of administration, the order of release of drugs from the pharmacy.

Be able to:

Write prescriptions for various dosage forms

Calculate the main pharmacokinetic parameters: volume of distribution (Vd), elimination rate constant (Kelim), half-elimination period (t1/2), clearance (Cl), bioavailability (F).

Write prescriptions for medicines according to the appropriate indications

Own:
The rules of prescribing prescriptions for narcotic, potent drugs, the methodology of prescribing the main prescriptions. An algorithm for evaluating the main parameters of pharmacokinetics of drugs. The algorithm for choosing the drug, dosage form and dosage regimen depending on the clinical situation

1. The total labor intensity of the discipline:
The total labor intensity of the discipline is 7 credits 252 hours

2. The main sections of the discipline:
1. Introduction to pharmacology. General recipe
2. General pharmacology.
3. Means affecting the peripheral nervous system
4. Drugs affecting the central nervous system
5. Means affecting the functions of executive bodies
6. Substances with a predominant effect on the processes of tissue metabolism, inflammation and immune processes.
7. Antimicrobial, antiviral and antiparasitic agents. Antitumor agents.

Head of the Department of Pharmacology
with clinical pharmacology,
MD, Prof.. L.Z. Bolieva