## Federal State Budgetary Educational Institution of Higher Education "NORTH OSSETIAN STATE MEDICAL ACADEMY" of the Ministry of Health of the Russian FEDERATION



### EDUCATIONAL TRAINING PROGRAM OF THE DISCIPLINE

### "MODERN PRINCIPLES OF TREATMENT OF INFECTIOUS DISEASES"

the main professional educational program of higher education-specialty program in the specialty 31.05.01 General Medical, approved on 30.03.2022.

Form of education	Full-time
The period of development	6
Department of Pharmacology	with Clinical Pharmacology

When developing the work program, the disciplines are based on:

1. Federal State Educational Standard for the specialty 31.05.01 Medical business, approved by the Ministry of Education and Science of the Russian Federation on February 9, 2016, No. 95

Curricula of the OPOP in the specialty 31.05.01 Medical business

ЛД-16-01-17 ИН

ЛД-16-02-18 ИН

ЛД-16-03-19 ИН

ЛД-16-04-20 ИН

2. approved by the Academic Council of the Federal State Budgetary Educational Institution of the Ministry of Health of the Russian Federation on March 30, 2022, Protocol No. 6

The working program of the discipline was approved at the meeting of the Department of Pharmacology with Clinical Pharmacology dated March 21, 2022, Protocol No. 10.

The working program of the discipline was approved at the meeting of the central coordinating educational and Methodological Council dated March 22, 2022, Protocol No. 4.

The working program of the discipline was approved by the Academic Council of the Federal State Budgetary Educational Institution of the Ministry of Health of the Russian Federation on March 30, 2022, Protocol No. 6

Developers:

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### The content of the work program

- 1. name of the discipline;
- 2. the list of planned learning outcomes in the discipline, correlated with the planned results of the development of the educational program;
- 3. indication of the place of discipline in the structure of the educational program;
- 4. the volume of the discipline in credit units indicating the number of academic or astronomical hours allocated for contact work of students with the teacher (by type of training sessions) and for independent work of students;
- 5. the content of the discipline, structured by topics (sections) with an indication of the number of academic or astronomical hours allocated to them and types of training sessions;
- 6. the list of educational and methodological support for independent work of students in the discipline;
- 7. fund of evaluation funds for conducting intermediate certification of students in the discipline;
- 8. the list of basic and additional educational literature necessary for the development of the discipline;
- 9. the list of resources of the information and telecommunication network "Internet" (hereinafter referred to as the "Internet"), necessary for the development of the discipline;
- 10. methodological guidelines for students on the development of the discipline;
- 11. list of information technologies used in the implementation of the educational process in the discipline, including a list of software and information reference systems (if necessary);
- 12. description of the material and technical base necessary for the implementation of the educational process in the discipline.
- 13. conducting educational activities using e-learning and distance learning technologies

## ${\bf 2.} \quad {\bf The \ place \ of \ discipline \ in \ the \ structure \ of \ the \ educational \ program}$

<i>№№</i> p/p	Number / index of compete nce	Content discipline (or its sections)	Development result	lts	
	nec		know	Be able to	own
1	2	3	4	5	6
1.	OPK-5	Clinical and pharmacological approaches to antimicrobial therapy for infections of the upper and lower respiratory tract.	cocci, atypical microorganisms, respiratory viruses, etc.). Resistance of the main pathogens to antimicrobial drugs. Laboratory diagnostics and additional research methods. Rules for sampling material for microbiological diagnostics (sputum, blood). Pneumococcal rapid test. Characteristics of the main classes of antimicrobial drugs used in the treatment of community-acquired pneumonia (beta-lactam antibiotics, macrolides, fluoroquinolones). Etiotropic therapy of community-acquired pneumonia. The choice of initial antibiotic therapy in outpatients with community-acquired pneumonia (in patients without concomitant diseases, not taken in the last 3 months. antimicrobials and in patients with comorbidities and / or taken in the last 3 months. antimicrobial drugs). Criteria for the effectiveness of antibacterial therapy. duration of antimicrobial therapy.  The choice of an antibacterial drug in case of ineffectiveness of the initial therapy regimen VP in the outpatient setting. Choice of initial antibacterial therapy in hospitalized patients (severe and non-severe course). Criteria for the effectiveness of antibiotic therapy. Timing of evaluation. Duration of antibiotic therapy. Stepwise antibiotic therapy for community-acquired pneumonia.  causative agents of nosocomial pneumonia. The choice of an antibacterial drug depending on the timing of the onset of nosocomial pneumonia (early, late).  Antimicrobial therapy for exacerbations of COPD.	Interpret the results of the most common laboratory methods microbio- logical diag- nos- tics, to iden- tify patho- logical pro- cesses in or- gans and sys- tems; sub- stanti- ate princi- ples antimicrobial ther- apy for infections of the upper and lower respiratory tract, in- cluding nosocomial infections; - choose a rational tactics of antimicro- bial therapy.	The algorithm for choosing a drug, dosage form and dosing regimen depending on the clinical situation
		Clinical pharmacological ap- proaches to antimicro- bial therapy of urinary tract infection	Uncomplicated urinary tract infections (UTIs) (acute cystitis and urethritis, acute uncomplicated pyelonephritis in pregnancy, recurrent urinary tract infection). main pathogens. Acute uncomplicated cystitis. Indications for bacteriological examination of urine Drugs of choice. Recurrent (uncomplicated) infection of the lower urinary tract. Drugs of choice. Russian recommendations for the empirical choice of AMPs for the treatment of UTIL. Acute uncomplicated mild pyelonephritis. Acute uncomplicated severe pyelonephritis. Apostematous pyelonephritis. Kidney abscess. Tactics of antimicrobial therapy. Acute pyelonephritis of pregnant women. First line drugs. Urosepsis. Diagnostics.  Treatment strategy. Intrahospital urological infection. spectrum of pathogens. Features of therapy. Infection "foreign body", catheter - associated urinary tract infection (urethral catheter, development of biofilms inside and outside catheters, stents, artificial focus materials chronic infection in the body). Drugs of choice for the	nterpret the results of the most common methods of labora- tory microbiological diagnostics to iden- tify pathological processes in organs and si- ste- mach; sub- stanti- ate princi- ples antimicrobial ther- apy of urinary tract infections (compli-	The algorithm for choosing a drug, dosage form and dosing regimen depending on the clinical situation

		Clinical and pharmacological approaches to antimicrobial therapy of skin and soft tissue infections.	Classification of skin and soft tissue infections. Uncomplicated infections (furuncle and furunculosis, carbuncle, hidradenitis, erysipelas, cellulitis, uncomplicated abscesses). Complicated infections (traumatic, bitten, postoperative wounds, diabetic foot syndrome, bedsores, trophic ulcers, burn wounds). Microbiological diagnostics. Material collection. Etiology of skin infections and soft tissues (S. pyogenes, S. Aureus, MRSA, P. Aeruginosa, Enterobacteriaceae, анаэробы-Prevotella, Porphyromonas spp., Bacteroides, Fusobacterium spp., Peptostreptococcus. Clostridium spp.). General principles for the use of antibiotics. Principles of the rational use of antibiotics in surgery. duration of antibiotic therapy. criteria for the sufficiency of antibiotic therapy. Treatment of primary uncomplicated skin and soft tissue infections. Primary complicated infections of the skin and soft tissues (necrotizing fasciitis, pyomyositis, myonecrosis (gas gangrene). Antibiotic therapy.  Secondary infections (bites, infections of the area of surgical intervention). Antibiotic prophylaxis of infection areas of surgical intervention. Treatment of infection in the area of surgical intervention. Duration of antibacterial therapy.  Purulent-necrotic forms diabetic foot syndrome. Antibacterial therapy. Bedsores. Factors affecting the development of bedsores. Antibacterial therapy.  Burn wound infections. Therapy tactics.	boratory methods microbiological diag- nostics, to identify pathological processes	The algorithm for choosing a drug, dosage form and dosing regimen depending on the clinical situation
2.	OPK-6	Clinical and pharmacological approaches to antimicrobial therapy of infections of the upper and lower respiratory tract.	Etiology of community-acquired pneumonia (pneumococci, atypical microorganisms, respiratory viruses, etc.). Resistance of the main pathogens to antimicrobial drugs. Laboratory diagnostics and additional research methods. Rules for sampling material for microbiological diagnostics (sputum, blood). Pneumococcal rapid test. Characteristics of the main classes of antimicrobial drugs used in the treatment of community-acquired pneumonia (beta-lactam antibiotics, macrolides, fluoroquinolones). Etiotropic therapy of community-acquired pneumonia. The choice of initial antibiotic therapy in outpatients with community-acquired pneumonia (in patients without comorbidities, not taken in the last 3 months. antimicrobials and in patients with concomitant diseases and / or who have taken over the past 3 months. antimicrobials). Criteria for the effectiveness of antibacterial therapy. Duration of antimicrobial therapy.  The choice of an antibacterial drug in case of ineffectiveness of the initial therapy regimen  VP in the outpatient setting. Choice of initial antibacterial therapy in hospitalized patients (severe and non-severe course). Criteria for the effectiveness of antibiotic therapy. Timing of evaluation. Duration of antibiotic therapy. Stepwise antibiotic therapy of community-acquired pneumonia.  causative agents of nosocomial pneumonia. The choice of an antibacterial drug depending on the timing of the onset of nosocomial pneumonia (early, late).  Antimicrobial therapy for exacerbations of COPD.	nostics, to identify pathological processes	The algorithm for choosing a drug, dosage form and dosing regimen depending on the clinical situation

Clinical and pharmacological approaches to antimicrobial ferrapy of urinary	Uncomplicated urinary tract infections (UTIs) (acute cystitis and urethritis, acute uncomplicated pyelonephritis in pregnancy, recurrent infection urinary tract). main pathogens. Acute uncomplicated	Interpret the results of the most common la- boratory methods microbiological diag-	The algorithm for choosing a drug, dosage form and dos-
tract infections.	cystitis. Indications for bacteriological examination of urine Drugs of choice. Recurrent (uncomplicated) infection of the lower urinary tract. Drugs of choice. Russian recommendations for the empirical choice of AMPs for the treatment of UTIL. Acute uncomplicated mild pyelonephritis. Acute uncomplicated severe pyelonephritis. Apostematous pyelonephritis. Kidney abscess. Tactics of antimicrobial therapy. Acute pyelonephritis of pregnant women. First line drugs. Urosepsis. Diagnostics.	nostics, to identify pathological processes in organs and si-ste-mach; substantiate principles antimicrobial therapy of urinary tract infections (complicated, uncomplicated); - choose a rational	ing regimen depending on the clinical situation
	Intrahospital urological infection. spectrum of pathogens. Features of therapy. Infection "foreign body", catheter - associated urinary tract infection (urethral catheter, development of biofilms inside and outside catheters, stents, artificial focus materials chronic infection in the body). Drugs of choice for the treatment of complicated urinary tract infections (UTIs). Combination Therapy for UATIs - Current Recommendations.	tactics of antimi- crobial therapy.	
Clinical and pharmacological approaches to antimicrobial therapy of intra-abdominal infections.	The main causative agents of intra-abdominal infections. Principles of treatment of intra-abdominal infections. Uncomplicated intra-abdominal infections (without peritonitis): gastric or duodenal ulcer perforation, penetrating abdominal wounds, acute cholecystitis/cholangitis, liver abscess, acute appendicitis drugs of choice, alternative drugs. Complicated intra-abdominal infections: generalized peritonitis/abscess (primary peritonitis, secondary, postoperative, infected forms of pacreonecrosis, tertiary peritonitis). Surgical infection of the biliary tract. Penetration of antimicrobial agents into bile. The choice of an antibacterial drug. Duration of antimicrobial therapy. Criteria for the effectiveness of therapy. Prevention of intra-abdominal candidiasis. Risk factors for invasive candidiasis. Features of the treatment of intra-abdominal infections during pregnancy, lactation. Features of the treatment of intra-abdominal infections in the elderly. Features of the treatment of intra-abdominal infections in children. Antibacterial therapy in high-risk patients.	Interpret the results of the most common laboratory methods microbiological diagnostics, to identify pathological processes in organs and si-ste-mach; substantiate principles antimicrobial therapy of intra-abdominal infections (complicated, uncomplicated); - choose a rational tactics of antimicrobial therapy.	The algorithm for choosing a drug, dosage form and dosing regimen depending on the clinical situation
Clinical and pharmacological approaches to antimicrobial therapy of skin and soft tissue infections.	Classification of skin and soft tissue infections. Uncomplicated infections (furuncle and furunculosis, carbuncle, hidradenitis, erysipelas, cellulitis, uncomplicated abscesses). Complicated infections (traumatic, bitten, postoperative wounds, diabetic foot syndrome, bedsores, trophic ulcers, burn wounds). Microbiological diagnostics. Material collection. Etiology of skin infections and soft tissues (S. pyogenes, S. Aureus, MRSA, P. Aeruginosa, Enterobacteriaceae, anaerobes-Prevotella, Porphyromonas spp., Bacteroides, Fusobacterium spp., Peptostreptococcus. Clostridium spp.). General principles for the use of antibiotics. Principles of rational use of antibiotics in surgery. duration of antibiotic therapy. criteria for the sufficiency of antibiotic therapy. Treatment of primary uncomplicated skin and soft tissue infections. Primary complicated infections of the skin and soft tissues (necrotizing fasciitis, pyomyositis, myonecrosis (gas gangrene). Antibiotic therapy.  Secondary infections (bites, infections of the chipypгическоговмешательства). Антибиотикопрофилактика инфекции areas of surgical intervention. Treatment of infection in the area of surgical intervention. Duration of antibacte-	Interpret the results of the most common laboratory methods microbiological diagnostics, to identify pathological processes in organs and si-ste-mach; substantiate principles antimicrobial therapy of urinary tract infections (complicated, uncomplicated); - choose rational tactics ghjnbdjvbrhj,yjq nthfgbbb/	The algorithm for choosing a drug, dosage form and dosing regimer depending or the clinica situation

			Purulent-necrotic forms diabetic foot syndrome. Antibacterial therapy. Bedsores. Factors affecting the development of bedsores. Antibacterial therapy. Burn wound infections. Therapy tactics.		
3.	OPK-7	Clinical and pharmacological approaches to antimicrobial therapy of infections of the upper and lower respiratory tract.	Etiology of community-acquired pneumonia (pneumococci, atypical microorganisms, respiratory viruses, etc.). Resistance of the main pathogens to antimicrobial drugs. Laboratory diagnostics and additional research methods. Rules for sampling material for microbiological diagnostics (sputum, blood). Pneumococcal rapid test. Characteristics of the main classes of antimicrobial drugs used in the treatment of community-acquired pneumonia (beta-lactam antibiotics, macrolides, fluoroquinolones). Etiotropic therapy of community-acquired pneumonia. The choice of starting antibiotic therapy in outpatients with community-acquired pneumonia (in patients without comorbidities, not taken in the last 3 months. antimicrobials and in patients with comorbidities and / or taken in the last 3 months. antimicrobial drugs). Criteria for the effectiveness of antibacterial therapy. duration of antimicrobial therapy.  The choice of an antibacterial drug in case of ineffectiveness of the initial therapy regimen  VP in the outpatient setting. Choice of starting antibacterial therapy in hospitalized patients (severe and non-severe). Criteria for the effectiveness of antibacterial therapy. Timing of evaluation. Duration of antibiotic therapy. Stepwise antibiotic therapy for community-acquired pneumonia.  causative agents of nosocomial pneumonia. The choice of an antibacterial drug depending on the timing of the onset of nosocomial pneumonia (early, late). Antimicrobial therapy for exacerbations of COPD More information about this source text	Interpret the results of the most common laboratory methods microbiological diagnostics, to identify pathological processes in organs and si-ste-mach; substantiate principles antimicrobial therapy for infections of the upper and lower respiratory tract, including nosocomial infections; - choose a rational tactics of antimicrobial therapy.	The algorithm for choosing a drug, dosage form and dosing regimen depending on the clinical situation
		Clinical and pharmacological approaches to antimicrobial therapy of urinary tract infections.	Post a review Side panels.  Uncomplicated urinary tract infections (UTIs) (acute cystitis and urethritis, acute uncomplicated pyelonephritis in pregnancy, recurrent infection urinary tract). main pathogens. Acute uncomplicated cystitis. Indications for bacteriological examination of urine Drugs of choice. Recurrent (uncomplicated) infection of the lower urinary tract. Drugs of choice. Russian recommendations for the empirical choice of AMPs for the treatment of UTIL. Acute uncomplicated mild pyelonephritis. Acute uncomplicated severe pyelonephritis. Apostematous pyelonephritis. Kidney abscess. Tactics of antimicrobial therapy. Acute pyelonephritis of pregnant women. First line drugs. Urosepsis. Diagnostics. treatment strategy.  Intrahospital urological infection. spectrum of pathogens. Features of therapy. Infection "foreign body", catheter - associated urinary tract infection (urethral catheter, development of biofilms inside and outside catheters, stents, artificial materials-hearth	Interpret the results of the most common laboratory methods microbiological diagnostics, to identify pathological processes in organs and si-ste-mach; substantiate principles antimicrobial therapy of urinary tract infections (complicated, uncomplicated); - choose rational tactics ghjnbdjvbrhj,yjq nthfgbbb/	The algorithm for choosing a drug, dosage form and dosing regimen depending on the clinical situation

Clinical and pharmacological approaches to antimicrobial therapy of intra-abdominal infections.	chronic infection in the body). Drugs of choice for treatment complicated urinary tract infections (UTIs). Combination Therapy for UATIs - Current Recommendations.  The main causative agents of intra-abdominal infections. Principles of treatment of intra-abdominal infections. Uncomplicated intra-abdominal infections (without peritonitis): gastric or duodenal ulcer perforation, penetrating abdominal injuries, acute cholecystitis / cholangitis, liver abscess, acute appendicitis - drugs of choice, alternative drugs. Complicated intra-abdominal infections: widespread peritonitis / abscess (primary peritonitis, secondary, post-operative, infected forms of pacreonecrosis, tertiary peritonitis). Surgical infection of the biliary tract. Penetration of antimicrobial agents into bile. Choice of antibacterial drug. Duration of antimicrobial therapy. Criteria for the effectiveness of therapy. Prevention of intra-abdominal candidiasis. Risk factors for invasive candidiasis. Features of the treatment of intra-abdominal infections in the elderly.  Features of the treatment of intra-abdominal infections in children. Antibacterial therapy in high-risk patients.	Interpret the results of the most common laboratory methods microbiological diagnostics, to identify pathological processes in organs and si-ste-mach; substantiate principles antimicrobial therapy of intra-abdominal infections (complicated, uncomplicated); - choose a rational tactics of antimicrobial therapy.	The algorithm for choosing a drug, dosage form and dosing regimen depending on the clinical situation
Clinical and pharmacological approaches to antimicrobial therapy of skin and soft tissue infections.	Classification of skin and soft tissue infections. Uncomplicated infections (furuncle and furunculosis, carbuncle, hidradenitis, erysipelas, cellulitis, uncomplicated abscesses). Complicated infections (traumatic, bitten, postoperative wounds, diabetic foot syndrome, bedsores, trophic ulcers, burn wounds). Microbiological diagnostics. Material collection. Etiology of skin infections and soft tissues (S. pyogenes, S. Aureus, MRSA, P. Aeruginosa, Enterobacteriaceae, anaerobes-Prevotella, Porphyromonas spp., Bacteroides, Fusobacterium spp., Peptostreptococcus. Clostridium spp.). General principles for the use of antibiotics. Principles of rational use of antibiotics in surgery. duration of antibiotic therapy. criteria for the sufficiency of antibiotic therapy. Treatment of primary uncomplicated skin and soft tissue infections. Primary complicated infections of the skin and soft tissues (necrotizing fasciitis, pyomyositis, myonecrosis (gas gangrene). Antibiotic therapy.  Secondary infections (bites, infections of the area of surgical intervention). Antibiotic prophylaxis of infection areas of surgical intervention. Treatment of infection in the area of surgical intervention. Duration of antibacterial therapy.  Purulent-necrotic forms diabetic foot syndrome. Antibacterial therapy. Bedsores. Factors affecting the development of bedsores. Antibacterial therapy. Burn wound infections. Therapy tactics.	Interpret the results of the most common laboratory methods microbiological diagnostics, to identify pathological processes in organs and si-ste-mach; substantiate principles antimicrobial therapy of urinary tract infections (complicated, uncomplicated); - choose a rational tactics of antimicrobial therapy.	The algorithm for choosing a drug, dosage form and dosing regimen depending on the clinical situation

4.	OPK-8	Clinical and pharmacologi-	Etiology of community-acquired pneumonia (pneumo-	Interpret the results of	The algorithm
		cal approaches to antimi-	cocci, atypical microorganisms, respiratory viruses,	the most common la-	for choosing a
		crobial therapy of infections	etc.). Resistance of the main pathogens to antimicrobial	boratory methods	drug, dosage
		of the upper and lower res-	drugs. Laboratory diagnostics and additional research	microbiological diag-	form and dos-
		piratory tract.	methods. Rules for sampling material for microbiologi-	nostics, to identify	ing regimen
			cal diagnostics (sputum, blood).	pathological processes	depending on
			Pneumococcal rapid test. Characteristics of the main	in organs	the clinical
			classes of antimicrobial drugs used in the treatment of	and si-ste-mach; sub-	situation
			community-acquired pneumonia (beta-lactam antibiot-	stantiate principles	
			ics, macrolides, fluoroquinolones). Etiotropic therapy of	antimicrobial therapy	
			community-acquired pneumonia. The choice of starting	for infections of the up-	
			antibiotic therapy in outpatients with community-ac-	per and lower respira-	
			quired pneumonia (in patients without comorbidities,	tory tract, including	
			not taken in the last 3 months. antimicrobials and in pa-	nosocomial infections;	
			tients with concomitant diseases and / or who have taken	- choose a rational	
			over the past 3 months. antimicrobials). Criteria for the	tactics of antimi-	
			effectiveness of antibacterial therapy. Duration of anti-	crobial therapy	
			microbial therapy.		
			The choice of an antibacterial drug in case of ineffec-		
			tiveness of the initial therapy regimen		
			VP in the outpatient setting. The choice of starting anti-		
			bacterial therapy in hospitalized patients (severe and		
			non-severe course). Criteria for the effectiveness of anti-		
			biotic therapy. Terms of evaluation. duration of antibi-		
			otic therapy. Stepwise antibiotic therapy for community-		
			acquired pneumonia.		
			causative agents of nosocomial pneumonia. The choice		
			of an antibacterial drug depending on the timing of the		
			onset of nosocomial pneumonia (early, late).		
			Antimicrobial therapy for exacerbations of COPD.		

Clinical and pharmacological approaches to antimicrobial therapy for urinary tract infections.	Uncomplicated urinary tract infections (UTIs) (acute cystitis and urethritis, acute uncomplicated pyelonephritis in pregnancy, recurrent infection urinary tract). main pathogens. Acute uncomplicated cystitis. Indications for bacteriological examination of urine Drugs of choice. Recurrent (uncomplicated) infection of the lower urinary tract. Drugs of choice. Russian recommendations for the empirical choice of AMPs for the treatment of UTIL. Acute uncomplicated mild pyelonephritis. Acute uncomplicated severe pyelonephritis. Apostematous pyelonephritis. Kidney abscess. Tactics of antimicrobial therapy. Acute pyelonephritis of pregnant women. First line drugs. Urosepsis. Diagnostics. treatment strategy. Intrahospital urological infection. spectrum of pathogens. Features of therapy. Infection "foreign body", catheter - associated urinary tract infection (urethral catheter, development of biofilms inside and outside catheters, stents, artificial focus materials chronic infection in the body). Drugs of choice for the treatment of complicated urinary tract infections (UTIs). Combination therapy for UATI-current recommendations.	detection of pathologi-	The algorithm for choosing a drug, dosage form and dosing regimen depending on the clinical situation
Clinical and pharmacological approaches to antimicrobial therapy of intra-abdominal infections.	The main causative agents of intra-abdominal infections. Principles of treatment of intra-abdominal infections. Uncomplicated intra-abdominal infections (without peritonitis): gastric or duodenal ulcer perforation, penetrating abdominal injuries, acute cholecystitis / cholangitis, liver abscess, acute appendicitis - drugs of choice, alternative drugs. Complicated intra-abdominal infections: widespread peritonitis / abscess (primary peritonitis, secondary, post-operative, infected forms of pacreonecrosis, tertiary peritonitis). Surgical infection of the biliary tract. Penetration of antimicrobial agents into bile. Choice of antibacterial drug. Duration of antimicrobial therapy. Criteria for the effectiveness of therapy. Prevention of intra-abdominal candidiasis. Risk factors for invasive candidiasis. Features of the treatment of intra-abdominal infections during pregnancy, lactation. Features of the treatment of intra-abdominal infections in the elderly.  Features of the treatment of intra-abdominal infections in children. Antibacterial therapy in high-risk patients.	Interpret the results of the most common laboratory methods microbiological diagnostics, to identify pathological processes in organs and si-ste-mach; substantiate principles antimicrobial therapy of intra-abdominal infections (complicated, uncomplicated); - choose a rational tactics of antimicrobial therapy.	The algorithm for choosing a drug, dosage form and dosing regimen depending on the clinical situation

		Clinical and pharmacological approaches to antimicrobial therapy of skin and soft tissue infections.	Classification of skin and soft tissue infections. Uncomplicated infections (furuncle and furunculosis, carbuncle, hidradenitis, erysipelas, cellulitis, uncomplicated abscesses). Complicated infections (traumatic, bitten, postoperative wounds, diabetic foot syndrome, bedsores, trophic ulcers, burn wounds). Microbiological diagnostics. Material collection. Etiology of skin infections and soft tissues (S. pyogenes, S. Aureus, MRSA, P. Aeruginosa, Enterobacteriaceae, anaerobes-Prevotella, Porphyromonas spp., Bacteroides, Fusobacterium spp., Peptostreptococcus. Clostridium spp.). General principles for the use of antibiotics. Principles of rational use of antibiotics in surgery. duration of antibiotic therapy. criteria for the sufficiency of antibiotic therapy. Treatment of primary uncomplicated skin and soft tissue infections. Primary complicated infections of the skin and soft tissues (necrotizing fasciitis, pyomyositis, myonecrosis (gas gangrene). Antibiotic therapy.  Secondary infections (bites, infections of the area of surgical intervention). Antibiotic prophylaxis of infection areas of surgical intervention. Treatment of infection in the area of surgical intervention. Duration of antibacterial therapy.  Purulent-necrotic forms diabetic foot syndrome. Antibacterial therapy. Bedsores. Factors affecting the development of bedsores. Antibacterial therapy.  Burn wound infections. Therapy tactics.	Interpret the results of the most common laboratory methods microbiological diagnostics, to identify pathological processes in organs and si-ste-mach; substantiate principles antimicrobial therapy	The algorithm for choosing a drug, dosage form and dosing regimen depending on the clinical situation
5.	PC-10	Clinical and pharmacological approaches to antimicrobial therapy of infections of the upper and lower respiratory tract.	Etiology of community-acquired pneumonia (pneumococci, atypical microorganisms, respiratory viruses, etc.). Resistance of the main pathogens to antimicrobial drugs. Laboratory diagnostics and additional research methods. Rules for sampling material for microbiological diagnostics (sputum, blood).  Pneumococcal rapid test. Characteristics of the main classes of antimicrobial drugs used in the treatment of community-acquired pneumonia (beta-lactam antibiotics, macrolides, fluoroquinolones). Etiotropic therapy of community-acquired pneumonia. The choice of initial antibiotic therapy in outpatients with community-acquired pneumonia (in patients without comorbidities, not taken in the last 3 months. antimicrobials and in patients with comorbidities and / or taken in the last 3 months. antimicrobial drugs). Criteria for the effectiveness of antibacterial therapy. duration of antimicrobial therapy.  The choice of an antibacterial drug in case of ineffectiveness of the initial therapy regimen VP in the outpatient setting. Choice of initial antibacterial therapy in hospitalized patients (severe and nonsevere course). Criteria for the effectiveness of antibiotic therapy. Timing of evaluation. Duration of antibiotic therapy. Stepwise antibiotic therapy of community-acquired pneumonia.  causative agents of nosocomial pneumonia. The choice of an antibacterial drug depending on the timing of the onset of nosocomial pneumonia (early, late). Antimicrobial therapy for exacerbations of COPD	Interpret the results of the most common laboratory methods microbiological diagnostics, to identify pathological processes in organs and si-ste-mach; substantiate principles antimicrobial therapy for infections of the upper and lower respiratory tract, including nosocomial infections; - choose a rational tactics of antimicrobial therapy.	The algorithm for choosing a drug, dosage form and dosing regimen depending on the clinical situation

		Clinical and pharmacologi-	Uncomplicated urinary tract infections (UTIs) (acute	Interpret the results of	The algorithm
		cal approaches to antimi-	cystitis and urethritis, acute uncomplicated pyelonephri-	the most common la- boratory methods	for choosing a drug, dosage
		crobial therapy of urinary tract infections.		microbiological diag-	form and dos-
		tract infections.	cystitis. Indications for bacteriological examination of	nostics, to identify	ing regimen
			urine Drugs of choice. Recurrent (uncomplicated) infec-	pathological processes	depending on
			tion of the lower urinary tract. Drugs of choice. Russian	in organs	the clinical
			recommendations for the empirical choice of AMPs for	and si-ste-mach; sub-	situation
			the treatment of UTIL. Acute uncomplicated	stantiate principles	
			mild pyelonephritis. Acute uncomplicated severe pyelo-	antimicrobial therapy	
			nephritis. Apostematous pyelonephritis. Kidney abscess. Tactics of antimicrobial therapy. Acute pyelonephritis of	of urinary tract infections (complicated, un-	
			pregnant women. First line drugs. Urosepsis. Diagnos-	complicated);	
			tics.	- choose a rational	
			treatment strategy.	tactics of antimi-	
			Intrahospital urological	crobial therapy.	
			infection. spectrum of pathogens. Features of therapy.		
			Infection		
			"foreign body", catheter - associated urinary tract infec-		
			tion (urethral catheter, development of biofilms inside		
			and outside of catheters, stents, artificial materials-focus		
			chronic infection in the body). Drugs of choice for the		
			treatment of complicated urinary tract infections (UTIs).		
			Combined		
			therapy for UATI-current recommendations.		
6.	ПК-11	Клинико- фармакологиче-	Etiology of community-acquired pneumonia (pneumo-	Interpret the results of	The algorithm
		ские подходы к антимик-	coccus, atypical microorganisms, respiratory viruses, etc.). Resistance of the main pathogens to antimicro-	the most common la- boratory methods	for choosing a drug, dosage
		робной терапииинфекций	bial drugs. Laboratory diagnostics and additional re-	microbiological diag-	form and dos-
		верхних и нижних дыха- тельных путей.	search methods. Rules for sampling material for mi-	nostics, to identify	ing regimen
		пельных путеи.		pathological processes	depending on
			Pneumococcal rapid test. Characterization of the main	in organs	the clinical
			classes of antimicrobial drugs used in the treatment of	and si-ste-mach; sub-	situation
			community-acquired pneumonia (beta-lactam antibiot-	stantiate principles	
			ics, macrolides, fluoroquinolones). Etiotropic therapy	antimicrobial therapy	
			of community-acquired pneumonia. The choice of initial antibiotic therapy in outpatients with community-	for infections of the up- per and lower respira-	
			acquired pneumonia (in patients without comorbidi-	tory tract, including	
			ties,	nosocomial infections;	
			not taken in the last 3 months. antimicrobials and in	- choose a rational	
			patients	tactics of antimi-	
			with comorbidities	crobial therapy.	
			and / or taken in the last 3 months. antimicrobials).		
			Criteria for the effectiveness of anti-bacterial therapy. duration of antimicrobial therapy.		
			The choice of an antibacterial drug in case of ineffec-		
			tiveness of the initial therapy regimen		
			VP in the outpatient setting. The choice of starting an-		
			tibacterial therapy in hospitalized patients (severe and		
			non-severe course). Criteria for the effectiveness of		
			antibiotic therapy. Deadlines		
<u> </u>	+		estimates. Duration of antibiotic therapy. stepped antibiotic therapy for community-acquired pneumonia.		
			causative agents of nosocomial pneumonia. The choice of		
			an antibacterial drug depending on the timing of the onset		
			of nosocomial pneumonia (early, late).		
1			Antimicrobial therapy for exacerbations of COPD.		

	Clinical and pharmacologi-	Uncomplicated urinary tract infections (UTIs) (acute	Interpret the results of	The algorithm
	cal approaches to antimi-	cystitis and urethritis, acute uncomplicated pyelonephri-	the most common la-	for choosing a
		tis in pregnancy, recurrent infection	boratory methods	drug, dosage
	tract infections.	urinary tract). main pathogens. Acute uncomplicated	microbiological diag-	form and dos-
		cystitis. Indications for bacteriological examination of	nostics, to identify	ing regimen
		urine Drugs of choice. Recurrent (uncomplicated) infec-	pathological processes	depending on
		tion of the lower urinary tract. Drugs of choice. Russian	in organs	the clinical
		recommendations for the empirical choice of AMPs for	and si-ste-mach; sub-	situation
		the treatment of UTIL. Acute uncomplicated	stantiate principles	
		mild pyelonephritis. Acute uncomplicated severe pyelo-	antimicrobial therapy	
		nephritis. Apostematous pyelonephritis. Kidney abscess.	of urinary tract infec-	
		Tactics of antimicrobial therapy. Acute pyelonephritis of	tions (complicated, un-	
		pregnant women. First line drugs. Urosepsis. Diagnos-	complicated);	
		tics.	- choose a rational	
		treatment strategy.	tactics of antimi-	
		Intrahospital urological	crobial therapy.	
		infection. spectrum of pathogens. Features of therapy.		
		Infection		
		"foreign body", catheter - associated urinary tract infec-		
		tion (urethral catheter, development of biofilms inside		
		and		
		outside of catheters, stents, artificial materials-focus		
		chronic infection in the body). Drugs of choice for the		
		treatment of complicated urinary tract infections (UTIs).		
		Combined		
		therapy for UATI-current recommendations.		

The discipline "Modern principles of treatment of infectious diseases" belongs to the variable part of Block 1 of the Federal State Educational Standard in the specialty 31.05.01 "Medical business".

## 3. The scope of the discipline

No. n/a			Total		Term
II/a	Type of work		credits	Total hours	XII
			Type of		hours
1	2		3	4	
1	Contact work of students with the teacher (total), including:		2	72	72
2	Lectures (L)		-	12	12
3	Clinical Practical training (P	Z)	-	60	60
4	Seminars (C)		-	-	-
5	Laboratory work (LR)		-	-	-
6	Independent work of a stud	dent (SRS)	1	36	36
7	Type of intermediate	credit (H)	Test	+	+
	certification	exam (E)	1000	-	-
8	total: Total labor intensity	hours		108	108
		Z	3		3

## 4. Content of the discipline

Nº Nº	Se me ster No.	Name of the section of the academic discipline (module)	Types of educational activities, including independent work of students (in hours)				Forms of ongoing monitoring of academic performance (by semester weeks)
		•	L	PZ	SRS	in total	
		3	4	5	6	7	8
1	XII	Clinical pharmacology of antimicrobial drugs	12	-	-	-	TK, SZ, UZ

2	XII	Clinical and pharmacological approaches to the selection and use of antimicrobial drugs for upper and lower respiratory tract infections, intraabdominal infections, urinary tract infections, skin and soft tissue infections.	-	60	36	-	TK, SZ, UZ
		total:	12	60	36	108	

Note: C - interview, TK - test tasks, SZ - situational tasks, UZ - training tasks

## 5. The list of educational and methodological support for independent work of students in the discipline

No./	Semester	Name of the educational and methodological				
n	No.	development				
1	12	Bolieva L.Z., Ovsyannikova A.I., Daurova M.D. Archegova E.G.,Byazrova S.S. Chemotherapeutic agents. Educational and methodical manualVladikavkaz 2017 53 p.				

### 6. Fund of evaluation funds for the interim certification of students in the discipline

No./ n	List of competencies	Semester No.	Evaluation indicator(s)	Evaluation criterion(s)	Rating scale	Name of the FOS
1	2	3	4	5	6	7
1	OPK-5 OPK-6 OPK-7 OPK-8 PC-10 PC-11	12	cm. the standard for assessing the quality of education, approved. By order of the FGBOU IN SOGMA Ministry of Health of Russia dated 10.07.2018., №264/o	cm. the standard for assessing the quality of education, approved. By order of the FGBOU IN SOGMA Ministry of Health of Russia dated 10.07.2018., No.264/o	cm. the standard for assessing the quality of education, approved. By order of the FGBOU IN SOGMA Ministry of Health of Russia dated 10.07.2018., No.264/o	Test tickets; Test tasks; Control tasks

# 8. Перечень основной и дополнительной учебной литературы, необходимой для освоения дисциплины

## Основная литература

№			Год, место Кол-во экземпляров		мпляров	Наименование ЭБС
	Наименование	Автор (ы)	издания	в библиотек е	На кафедре	Наименование ЭБС/ссылка в ЭБС
1	2	3	4	5	6	7
1.	Клиническая фармакология: учебник.	Под ред. В.Г. Кукеса.	М.: ГЭОТАР- Медиа, 2006 2008 2013 2015	104 28 9 102		«Консультант студента» http://www.studm edlib.ru/book/ISB N9785970441961 .html

## Дополнительная литература

		Автор (ы)	Год, место издания	Кол-во экзем	мпляров	Наименование ЭБС
п/№	Наименование			в библиоте ке	на кафедр е	Наименование ЭБС/ссылка в ЭБС
1	2	3	4	5	6	
1.	Клиническая фармакология: национальное руководство.	Под ред. Ю.Б. Белоусова, В.Г. Кукеса, В.К. Лепахина, В.И. Петрова.	М.: ГЭОТАР- Медиа, 2009	-	1	-
2.	Современная антимикробная химиотерапия: руководство для врачей	Козлов С.Н., Страчунский Л.С.	М.: МИА, 2017	-	1	
3.	Клиническая фармакология и фармакотерапия в реальной врачебной практике: учебник	Петров В.И.	М.: ГЭОТАР- Медиа, 2015	3	-	«Консультант студента» http://www.studm edlib.ru/book/ISB N9785970420331 .html
4.	Рациональная антимикробная фармакотерапия: руководство для практикующих врачей	Яковлев, В.П.	М.: Литтерра, 2007	2	-	



## 9. The list of resources of the information and telecommunication network "Internet", necessary for the development of the discipline

### 1. Interregional Society of Evidence-based Medicine Specialists.

http://www.osdm.org/index.php

### 2. Moscow Center for Evidence-Based Medicine

http://evbmed.fbm.msu.ru/

### 3. Databases, information and reference and search engines:

- Standards of medical care: http://www.rspor.ru/index.php?mod1=standarts3&mod2=db1
- Protocols for the management of patients: http://www.rspor.ru/index.php?mod1=protocols3&mod2=db1
- State Register of Medicines:

### http://www.drugreg.ru/Bases/WebReestrQuery.asp

- Federal State University Scientific Center for Expertise of Medical Devices of

Roszdravnadzor. Circulation of medicines: http://www.regmed.ru

- Pharmaceutical Information Foundation: <a href="http://www.drugreg.ru">http://www.drugreg.ru</a>
- Russian Encyclopedia of Medicines (Radar): <a href="http://www.rlsnet.ru">http://www.rlsnet.ru</a>
- The Vidal Handbook. Medicines in Russia: http://www.vidal.ru
- Website of the Chief Freelance Specialist Clinical Pharmacologist of the Ministry of Health and Social Development of the Russian Federation <a href="http://www.clinpharmrussia.ru">http://www.clinpharmrussia.ru</a>
- Moscow Center for Evidence-Based Medicine. http://evbmed.fbm.msu.ru/
- Website "Formular system of Russia». http://www.formular.ru
- Interregional Association for Clinical Microbiology and Antimicrobial Chemotherapy (MCMAH). <a href="http://antibiotic.ru/iacmac/">http://antibiotic.ru/iacmac/</a>
- Chelyabinsk Regional Center for the Study of Side Effects of Drugs with programs for pharmacoeconomical analysis (ABC VEN analysis) and for the evaluation of drug interactions. http://tabletka.umi.ru
- Website of the program for clinical pharmacologists: <a href="http://pharmsuite.ru/">http://pharmsuite.ru/</a>
- European Society of Clinical Pharmacologists and Pharmacotherapists.

### http://www.eacpt.org

- American Society of Clinical Pharmacologists and Pharmacotherapists.

http://www.ascpt.org/

- U.S. Food and Drug Administration (FDA). http://www.fda.gov
- Pharmacogenetics Resource. <a href="http://www.pharmgkb.org/">http://www.pharmgkb.org/</a>
- Australian Bulletin of Adverse Drug Reactions.

http://www.tga.health.gov.au/adr/aadrb.htm

- British Monthly Bulletin on Drug Safety.

http://www.mhra.gov.uk/Publications/Safetyguidance/DrugSafetyUpdate/index.htm

- Resource on drug interaction. <a href="http://medicine.iupui.edu/flockhart/">http://medicine.iupui.edu/flockhart/</a>
- Lectures for postgraduate education "Principles of clinical Pharmacology" of the Clinical Center of the National Institutes of Health of the USA.

http://www.cc.nih.gov/researchers/training/principles.shtml

### 4. Electronic versions of magazines:

«Consilium medicum» - http://www.consilium-medicum.com/media/consilium

«Bulletin of Evidence-based Medicine» http://www.evidence-update.ru/

«Doctor» - http://www.rusvrach.ru/jornals/vrach

«Hematology and transfusiology» - <a href="http://www.medlit.ru/medrus/gemat.htm">http://www.medlit.ru/medrus/gemat.htm</a>

«Evidence-based cardiology» - http://www.mediasphera.ru/journals/dokcard

«Intensive care» - http://www.icj.ru

«Infections and antimicrobial therapy» -

http://www.consilium-medicum.com/media/infektion/index.shtml

«Problems of endocrinology» - http://www.medlit.ru/medrus/probe.htm

«Psychiatry and psychopharmacotherapy» - <a href="http://www.consilium-medicum.com/media/psycho">http://www.consilium-medicum.com/media/psycho</a>

«Pulmonology» - <a href="http://www.consilium-medicum.com/media/pulmo">http://www.consilium-medicum.com/media/pulmo</a>

«Russian Journal of Gastroenterology, Hepatology, Coloproctology» -

http://www.m-vesti.ru/rggk/rggk.html

«Russian Medical Journal» - <a href="http://www.rmj.ru">http://www.rmj.ru</a>

«Modern oncology» - http://www.consilium-medicum.com/media/onkology

«Polyclinic Doctor's Handbook» - - <a href="http://www.consilium-medicum.com/media/refer">http://www.consilium-medicum.com/media/refer</a>

«Difficult patient» - <a href="http://www.t-pacient.ru">http://www.t-pacient.ru</a>

«Pharmateca» - http://www.pharmateca.ru

### 10. Methodological guidelines for students on the development of the discipline

The training consists of classroom classes (72 hours), including a lecture course (12 hours) and practical classes (60 hours), and independent work (36 hours). In accordance with the requirements of the Federal State Educational Standard for Higher Education, the implementation of the competence approach should provide for extensive use in the educational process of active and interactive forms of classes (computer simulations, business and role-playing games, analysis of specific situations, psychological and other trainings) in combination with extracurricular work in order to form and develop professional skills of students. As part of the study of clinical pharmacology, meetings with representatives of Russian and foreign companies, state and public organizations, master classes of experts and specialists should be provided.

The proportion of classes conducted in interactive forms is determined by the main purpose (mission) of the program, the peculiarity of the contingent of students and the content of the discipline, and in general, in the educational process they should make up at least 10% of classroom classes (determined by the requirements of the Federal State Educational Standard, taking into account the specifics of the PLO). Lecture-type classes for the relevant groups of students cannot make up more than 30% of classroom classes (determined by the relevant Federal State Educational Standard).

Forms of work that form students' general cultural competencies:

- The student's work in the group forms a sense of collectivism and sociability.
- Independent work with patients contributes to the formation of deontological behavior, accuracy, discipline.
- Independent work with literature, writing case histories and writing and defending abstracts, receiving patients form the ability to analyze medical and social problems, the ability to use natural science, biomedical and clinical sciences in practice in various types of professional and social activities.
- Various types of academic work, including independent work of a student (writing and defending a medical history), contribute to mastering the culture of thinking, the ability to logically formalize its results in written and oral speech; readiness to form a systematic approach to the analysis of medical information, the perception of innovations; form the ability and readiness for self-improvement, self-realization, personal and subject reflection.
- Various types of educational activities form the ability in the conditions of the development of science and practice to re-evaluate the accumulated experience, analyze their capabilities, the ability to acquire new knowledge, use various forms of education, information and educational technologies. The main means of ensuring the development of clinical pharmacology: demonstration of patients with various diseases of internal organs, demonstration of research methods, screening of films, slides, slides, tables, posters, multimedia presentations.

The most important stage in the formation of professional competencies, the formation of stable practical skills in clinical pharmacology is the student's independent work, which consists in writing and defending a medical history.

# 11. The list of information technologies used in the implementation of the educational process in the discipline

Term	Type of occupati on L, PR,S,	Educational technologies used (active, interactive)	Number of hours	% of classes in an interactive form	List of software
12	L	A set of slides, videos for a traditional lecture	12		Microsoft Office PowerPoint; Internet Exploer
12	PZ	A set of questions and tasks for a practical task, a set of situational tasks for a PO, a set of case histories for the analysis of clinical cases.	60	20	Microsoft Office
12	WED	A set of questions and tasks for independent work	36		Microsoft Office

# 12. Description of the material and technical base necessary for the implementation of the educational process in the discipline

No /n	Name of the equipment	Quantity	Technical condition					
1	2	3	4					
	Special equipment							
1.	Computer	4	2 – satisfactory 2 – for debiting					
2.	A laptop	4	4 – satisfactory					
3.	Projector	2	1 – satisfactory 1 – requires repair					
4.	Copying equipment: scanner, copier printer	5	5– satisfactory					
5.	Uninterruptible power supply	2	For debiting					
	Tables							
6.	Thematic tables	12	4 - need to be replaced					

### 13. Conducting educational activities using e-learning and distance learning technologies

In the conditions of the introduction of restrictive measures (quarantine) associated with an unfavorable epidemiological situation, the threat of the spread of a new coronavirus infection and other force majeure events that do not allow for face-to-face training, it is possible to study this discipline or part of it using e-learning and distance learning technologies.

Teaching the discipline in the situations described above will be carried out through the development of an electronic course with access to video lectures and interactive course materials: presentations, articles, additional materials, tests and various tasks. When conducting training sessions, ongoing monitoring of academic performance, as well as intermediate certification of students, the platforms of the electronic information and educational environment of the academy and / or other e-learning systems recommended for use at the academy can be used, such as Moodle, Zoom, Webinar and others.

Lectures can be presented in the form of audio, video files, "live lectures", etc.

Seminars and practical classes can be held online on-line both in synchronous and asynchronous mode. Seminars can be held in the form of web- conferences.