

Susceptibility of the main bacterial pathogens to antimicrobial agents produced by Kraspharma PJSC (*in vitro*)

	Cephalosporins								Penicillins			Carba- penems	Amino- glycosides		Fluorquinolones					Miscellaneous						
	Cefazolin	Cefuroxime	Cefotaxime	Ceftriaxone	Ceftazidime	Cefoperazone	Baccefort (cefoperazone+subactam)	Cefepime	Ampicillin	Ampicillin+Subactam	Amoxicillin+ Clavulanic acid	Imipenem+Cilastatin	Meropenem	Kanamycin	Amikacin	Ciprofloxacin	Levofloxacin	Ofloxacin	Pefloxacin	Moxifloxacin	Rifampicin	Fosfomycin	Ванкомицин	Orthocid (ticoplanin)	Selezolid (linezolid)	Sabvixin (polivmixin B)
<i>Moraxella catarrhalis</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Neisseria gonorrhoeae</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Neisseria meningitidis</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Chlamydomphila pneumoniae</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Chlamydia psittaci</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Chlamydia trachomatis</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Ehrlichia</i> spp.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Rickettsia</i> spp.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Bordetella pertussis</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Brucella</i> spp.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Campylobacter jejuni</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Francisella tularensis</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Helicobacter pylori</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Haemophilus ducreyi</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Haemophilus influenzae</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Legionella pneumophila</i>	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<i>Citrobacter</i> spp.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

	Cephalosporins								Penicillins			Carba-penems		Amino-glycosides		Fluorquinolones					Miscellaneous					
	Cefazolin	Cefuroxime	Cefotaxime	Ceftriaxone	Ceftazidime	Cefoperazone	Baccefort (cefoperazone+subactam)	Cefepime	Ampicillin	Ampicillin+Subactam	Amoxicillin+ Clavulanic acid	Imipenem+Cilastatin	Meropenem	Kanamycin	Amikacin	Ciprofloxacin	Levofloxacin	Ofloxacin	Pefloxacin	Moxifloxacin	Rifampicin	Fosfomycin	Ванкомицин	Orthocid (iteoplanin)	Selezolid (linezolid)	Sabvixin (polymyxin B)
<i>Enterobacter</i> spp.	Red	Red	Yellow	Green	Green	Green	Green	Red	Red	Red	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Red	Yellow	Red	Red	Red	Green
<i>Escherichia coli</i>	Green	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Red	Red	Red	Green
<i>Klebsiella pneumoniae</i>	Red	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Yellow	Red	Red	Red	Green
<i>Morganella morganii</i>	Red	Yellow	Green	Green	Green	Green	Green	Red	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Yellow	Red	Red	Red	Red
<i>Proteus mirabilis</i>	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Red	Red	Red	Red
<i>Proteus vulgaris</i>	Red	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Red	Red	Red	Red
<i>Providencia stuartii</i>	Red	Red	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Red	Green	Red	Red	Red	Red
<i>Salmonella</i> spp.	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Blue	Blue	Green	Green	Green	Green	Green	Red	Green	Red	Red	Red	Green
<i>Salmonella typhi</i>	Red	Blue	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Blue	Blue	Green	Green	Green	Green	Green	Red	Green	Red	Red	Red	Blue
<i>Serratia</i> spp.	Red	Red	Blue	Blue	Green	Green	Green	Red	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Red	Red	Red	Red
<i>Shigella</i> spp.	Red	Blue	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Red	Yellow	Green	Green	Green	Green	Green	Red	Green	Red	Red	Red	Green
<i>Yersinia enterocolitica</i>	Red	Red	Green	Green	Green	Green	Green	Red	Yellow	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Red	Red	Red	Yellow
<i>Yersinia pestis</i>	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Green	Green	Green	Green	Green	Red	Blue	Blue	Blue	Blue	Blue
<i>Acinetobacter</i> spp.	Red	Red	Green	Green	Green	Yellow	Green	Red	Red	Green	Green	Green	Green	Red	Green	★	Yellow	Yellow	Yellow	Yellow	Red	Red	Red	Red	Red	Green
<i>Burkholderia cepacia</i>	Red	Red	Yellow	Yellow	Yellow	Yellow	Green	Red	Red	Red	Red	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
<i>Pseudomonas aeruginosa</i>	Red	Red	Red	Red	Green	Yellow	Green	Red	Red	Red	Green	Green	Red	Green	Green	Green	Yellow	Red	Red	Yellow	Red	Yellow	Red	Red	Red	Green
<i>Stenotrophomonas maltophilia</i>	Red	Red	Red	Red	Yellow	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Yellow	Yellow	Red	Red	Green	Red	Red	Red	Red	Red	Green
<i>Aeromonas hydrophila</i>	Red	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Green	Red	Green	Red	Red	Red	Green
<i>Pasteurella multocida</i>	Red	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Green	Blue	Green	Red	Red	Green	Green

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<i>Vibrio cholerae</i>	Red	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Green	Green	Green	Green	Blue	Red	Blue	Red	Blue	Red	Blue	
<i>Enterococcus faecalis</i>	Red	Red	Red	Red	Red	Red	Red	Green	Green	Green	Green	Green	Red	S	Yellow	Green	Yellow	Red	Green	Red	Green	Green	Green	Green	Red	
<i>Enterococcus faecium</i>	Red	Red	Red	Red	Red	Red	Red	Green	Green	Green	Green	Yellow	Red	S	Red	Red	Red	Red	Yellow	Red	Yellow	Yellow	Yellow	Green	Red	
<i>Staphylococcus aureus</i> (MSSA)	Green	Green	Green	Green	Yellow	Yellow	Yellow	Green	Red	Green	Green	Green	Red	Yellow	Green	★	Green	Yellow	Green	Green	Green	Green	Green	Green	Red	
<i>Staphylococcus aureus</i> (MRSA)	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Yellow	Yellow	Yellow	Red	Yellow	Green	Green	Green	Green	Green	Red	
<i>Staphylococcus epidermidis</i> (MSSE)	Green	Green	Yellow	Yellow	Red	Yellow	Yellow	Green	Red	Green	Green	Green	Red	Yellow	Green	Green	Green	Yellow	Green	Green	Yellow	Green	Green	Green	Red	
<i>Staphylococcus epidermidis</i> (MRSE)	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Yellow	Yellow	Yellow	Red	Blue	Green	Green	Green	Green	Green	Red	
<i>Streptococcus pyogenes</i>	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Red	Yellow	Green	Yellow	Green	Green	Green	Yellow	Green	Green	Red	
<i>Streptococcus agalactiae</i>	Green	Green	Green	Red	Green	Green	Green	Green	Green	Green	Green	Green	Red	Red	Yellow	Green	Green	Yellow	Green	Green	Green	Yellow	Green	Green	Red	
<i>Streptococcus bovis</i>	Green	Green	Green	Red	Green	Green	Green	Green	Green	Green	Green	Green	Red	Red	Yellow	Green	Green	Red	Green	Green	Green	Yellow	Green	Green	Red	
<i>Streptococcus pneumoniae</i> (ПЧП)	Green	Green	Green	Red	Green	Green	Green	Green	Green	Green	Green	Green	Red	Red	Yellow	Green	Green	Red	Green	Green	Green	Yellow	Green	Green	Red	
<i>Streptococcus pneumoniae</i> (ПРП)	Red	Yellow	Green	Red	Red	Green	Green	Yellow	Green	Green	Green	Green	Red	Red	Yellow	Green	Green	Red	Green	Green	Green	Yellow	Green	Green	Red	
<i>Streptococcus viridans</i>	Green	Green	Green	Red	Green	Green	Green	Green	Green	Green	Green	Green	Red	Red	Yellow	Green	Green	Red	Green	Green	Green	Yellow	Green	Green	Red	
<i>Mycobacterium avium</i> комплекс	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Green	Yellow	Green	Yellow	Red	Green	Green	Red	Red	Red	Green	Red	
<i>Mycobacterium tuberculosis</i>	Red	Red	Red	Red	Red	Red	Red	Red	Red	3	3	3	Green	Green	Yellow	Green	Green	Red	Green	Green	Red	Red	Red	Green	Red	
<i>Nocardia</i> spp.	Blue	Red	Green	Green	Blue	Red	Red	Red	Green	Green	Green	Green	Red	Green	Yellow	Yellow	Yellow	Red	Blue	Blue	Blue	Blue	Blue	Green	Blue	
<i>Bacillus anthracis</i>	Red	Red	Red	Red	Red	Red	Red	Green	Green	Green	Green	Green	Blue	Blue	Green	Green	Green	Red	Blue	Green	Blue	Blue	Blue	Green	Blue	
<i>Corynebacterium diphtheriae</i>	Green	Blue	Green	Green	Blue	Blue	Blue	Green	Green	Green	Green	Green	Red	Red	Yellow	Green	Green	Red	Green	Green	Yellow	Green	Blue	Green	Red	

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<i>Corynebacterium jeikeium</i>																											
<i>Listeria monocytogenes</i>														S													
<i>Actinomyces israelii</i>																											
<i>Gardnerella vaginalis</i>																											
<i>Bacteroides fragilis</i>							*																				
<i>Fusobacterium</i> spp.							*																				
<i>Prevotella melaninogenica</i>							*																				
<i>Clostridium difficile</i>																											
<i>Clostridium tetani</i>																											
<i>Clostridium perfringens</i>							*																				
<i>Peptostreptococcus</i> spp.							*																				
<i>Mycoplasma genitalium</i>																											
<i>Mycoplasma hominis</i>																											
<i>Mycoplasma pneumoniae</i>																											
<i>Ureaplasma urealyticum</i>																											
<i>Borrelia burgdorferi</i>																											
<i>Borrelia recurrentis</i>																											
<i>Leptospira</i> spp.																											
<i>Treponema pallidum</i>																											



- > 60% of strains are sensitive (the drug product used to treat infections caused by pathogens is usually clinically effective)
- 30-60% of strains are sensitive (information on clinical efficacy is limited)
- <30% of strains are sensitive (the drug product is not effective)
- no information on sensitivity

Примечания:

★ - the most active agent of the group

1 – clinical significance does not mean availability of safer antimicrobial drug products with high activity against pathogens;

2 – data of clinical efficacy is unknown despite moderate activity in-vitro;

3 – *in vitro* and *in vivo* studies, as well as clinical data, have shown high microbiological and clinical efficacy of combinations of amoxicillin + clavulanic acid with carbapenems (meropenem) in therapy of tuberculosis caused by multi-drug resistant mycobacteria (MDR-TB);

S – proven synergism of action with penicillins.

References:

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3. Michalopoulos A.S., et al. The revival of fosfomycin. *Int J Infect Dis.* 2011 Nov;15(11):e732-9.
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