

Supplementary information S1 (table) | Resistance profiles for uropathogens

Uropathogen	Antibiotic resistance range	Genotype	Resistance Provided	Alternative treatments for resistant strains	
				Antibiotic Therapies	Combination Therapies
Gram negative					
<i>E. coli</i> ¹⁻⁴	MDR	ESBL (CTX-M)	Penicillin, cephamycin, cephalosporin,	Fosfomycin, nitrofurantoin, fluoroquinolones cefepime, ertapenem, aminoglycosides	<u>Antibiotics+ inhibitor:</u> ceftolozane/tazobactam
<i>Klebsiella spp</i> ¹⁻⁵	MDR	ESBL, KPC, Qnr	Penicillin, cephamycin, cephalosporin, carbapenem, nitrofurantoin, quinolone	Fosfomycin, polymyxin B, fluoroquinolones, tigecycline aminoglycosides, ertapenem, cefepime, tigecycline	<u>Antibiotic+ inhibitor:</u> Piperacillin/Avibactam <u>Antibiotic+ inhibitor:</u> ceftoxime/Avibactam <u>Antibiotic+ inhibitor:</u> cefepime/Avibactam
<i>Proteus spp</i> ¹	Resistant		Nitrofurantoin, methicillin	Fosfomycin	
<i>Pseudomonas spp</i> ¹	MDR	ESBL (OXA), CRE, AmpC, efflux pumps	Penicillin, cephamycin, third generation- cephalosporin, carbapenem, nitrofurantoin	aminoglycosides	<u>Antibiotics+ inhibitor:</u> ceftolozane/tazobactam <u>Antibiotics+ inhibitor:</u> BAL30072/BAL2988/ clavulanate <u>Antibiotics:</u> colitsin/amikacin
Gram positive					
<i>Enterococcus spp</i> ^{2,4,5}	MDR	Van genes, β-lactamases, PBP mutations	Cephalosporins, penicillin, trimethoprim, clindamycin, aminoglycosides, glycopeptides	Nitrofurantoin, fosfomycin, fluoroquinolones linezolid, daptomycin, tigecycline	<u>Antibiotics:</u> ampicillin/ aminoglycosides
<i>Staphylococcus saprophyticus</i> ²	Susceptible			Trimethoprim-sulfamethoxazole, ciprofloxacin	

- 1 Garau, J. Other antimicrobials of interest in the era of extended-spectrum beta-lactamases: fosfomycin, nitrofurantoin and tigecycline. *Clinical Microbiology and Infection* **14**, 198-202, doi:DOI 10.1111/j.1469-0691.2007.01852.x (2008).
- 2 Gupta, K. & Bhadelia, N. Management of urinary tract infections from multidrug-resistant organisms. *Infect Dis Clin North Am* **28**, 49-59, doi:10.1016/j.idc.2013.10.002 (2014).
- 3 Paterson, D. L. Resistance in gram-negative bacteria: Enterobacteriaceae. *American journal of infection control* **34**, S20-28; discussion S64-73, doi:10.1016/j.ajic.2006.05.238 (2006).
- 4 Chen, Y. H., Ko, W. C. & Hsueh, P. R. Emerging resistance problems and future perspectives in pharmacotherapy for complicated urinary tract infections. *Expert opinion on pharmacotherapy* **14**, 587-596, doi:10.1517/14656566.2013.778827 (2013).
- 5 Pendleton, J. N., Gorman, S. P. & Gilmore, B. F. Clinical relevance of the ESKAPE pathogens. *Expert review of anti-infective therapy* **11**, 297-308, doi:10.1586/eri.13.12 (2013).