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Table 1. New antibiotic options for MRSA infections

Drug	Spectrum of activity	Administration	Development phase
Tedizolid	Gram-positive (including MRSA) and some linezolid-resistant strains	200 mg q24h IV, oral	Approved for ABSSSIs Phase III for HAP/VAP (NCT02019420)
Eravacycline	MRSA, enterococci (included vancomycin-resistant) and Enterobacteriaceae expressing ESBL, KPC and OXA	1 mg/kg q12h IV	Approved for cIAI No ongoing trials
Telavancin	MRSA and <i>S. pneumoniae</i>	10 mg/Kg q24h IV	Approved for ABSSSIs and HAP No ongoing trials
Delafloxacin	MRSA, penicillin-sensitive, penicillin-resistant, and levofloxacin-resistant <i>S. pneumoniae</i> , <i>Streptococcus pyogenes</i> and enterococci. Gram-negative pathogens including quinolone- susceptible <i>P. aeruginosa</i> . Anaerobes	IV: 300 mg q12h Oral: 450 mg q12h	Phase III for CAP (NCT02679573)
Iclaprim	MRSA, Gram-negative bacteria (like <i>Haemophilus influenzae</i> and <i>Moraxella catarrhalis</i>)	80 mg q12h	Ongoing Phase III trial for ABSSSIs (NCT02600611)
Oritavancin	<i>S. aureus</i> , including MRSA	IV 1.2g dose, one dose	Approved for ABSSSI No ongoing trials
Omadacycline	MRSA, <i>Enterococcus faecium</i> (included VRE), Gram-negative pathogens, including Ambler class A (both ESBL and KPC) and some class D-carbapenemase-producing Enterobacteriaceae, MDR <i>Acinetobacter</i> spp., <i>Moraxella catharralis</i> and <i>Stenotrophomonas maltophilia</i> , anaerobes. Not effective against <i>P.aeruginosa</i> .	200 mg single dose IV or 100 mg q12h (loading dose) followed by 100 mg q 24 h IV or 300 mg q24h oral (maintenance dose). Option of oral single loading dose 450 mg for ABSSSIs	Approved for CAP and ABSSSIs Phase II for acute pyelonephritis (NCT03757234)
Plazomicin	Gram negative pathogens, included MDR Enterobacteriaceae, <i>P.aeruginosa</i> and <i>A.baumannii</i> . No activity against MBLs-producing Gram negatives. Active against Staphylococci. Limited activity against <i>S.pneumoniae</i> and Enterococci.	15 mg/kg q24 h IV	Approved for cUTIs
Ceftaroline/avibactam	Gram positive pathogens, included MRSA; no activity against Enterococci. Gram negatives, included Ambler class A, C and some class D β - lactamase producing Enterobacteriaceae. Active against anaerobes. <i>P.aeruginosa</i> and <i>A.baumannii</i> are not susceptible.	600/600 mg q8h IV	Phase II for cUTIs (NCT01281462)
Lefamulin	Gram positives (included MRSA and VRE) and intracellular pathogens (<i>Mycoplasma</i> spp., <i>Legionella pneumophila</i> , <i>Chlamydia</i> spp., <i>Neisseria gonorrhoeae</i>).	--	Completed Phase III for CAP (NCT02813694 and NCT02559310)

Legend. MRSA: methicillin-resistant *Staphylococcus aureus*; VRE: vancomycin-resistant *Enterococcus faecium*; ESBL: Extended Spectrum Beta Lactamases; KPC: *Klebsiella pneumoniae* carbapenemases; cUTIs: complicated urinary tract infections; HAP: hospital-acquired pneumonia; VAP: ventilator-associated pneumonia; CAP: community acquired pneumonia; MDR: multidrug-resistant pathogens; ABSSSI: acute bacterial skin and skin structure infection