



## New antibiotics active against Gram negative bacilli

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We are in a desperate situation with multiply resistant Gram negative bacilli. Resistance mechanisms continue to accumulate and the number of strains found to be multiply resistant continues to grow. At the same time, drug development has largely stagnated, meaning that few new drugs will become available in the years to come. Of recently released agents, doripenem is a newer carbapenem which has lower MICs than existing carbapenems against most strains of *Pseudomonas aeruginosa* (but not against most strains of *Acinetobacter baumannii*). Tigecycline is also commercially available – this antibiotic has activity against *Acinetobacter baumannii* and many *Enterobacteriaceae* but not against *P. aeruginosa*.

A number of antibiotics with activity against Gram negative bacilli are under development. These include CAZ-104 which is the combination of ceftazidime and a novel beta-lactamase inhibitor, NXL-104. This combination is in trials in patients with complicated intra-abdominal infections and complicated urinary tract infections.

ACHN 490 is a neoglycoside manufactured by Achaogen. It has also been administered to humans and has in vitro activity against many KPC producing strains. Other drugs under development include TP-434, a novel tetracycline (Tetrphase), a novel siderophore monobactam BAL 30072 (Basilea) and GSK '052 (formerly AN3365) (Anacor).