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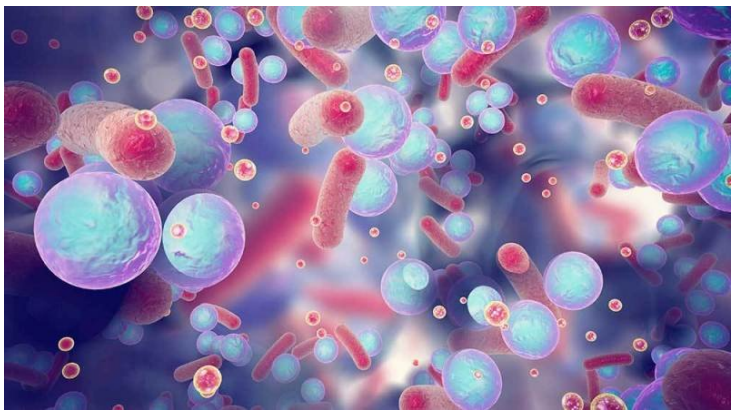
Thermo Fisher introduces new formats for antimicrobial susceptibility testing

16 July 2019 | News

New microbroth dilution plates provide gold standard-level(1) minimum inhibitory concentration (MIC) accuracy using first- and second-line treatment options



Comprehensive antimicrobial susceptibility testing (AST) for Gram negative and multidrug-resistant organisms (MDRO), including the antimicrobials eravacycline, omadacycline and plazomicin, is now available in the U.S. in off-the-shelf, standard plate formats. By providing an accurate MIC result, microbiology laboratories can reduce offline testing and improve workflow while providing the information clinicians need to help guide appropriate therapeutic decisions.

The Thermo Scientific Sensititre AST System is the first to offer eravacycline, omadacycline and plazomicin on an FDA-cleared, IVD-labeled microbroth dilution susceptibility plate for comprehensive AST using second-line MDRO therapies (Part No. MDRGN1F) with expanded dilution ranges for Gram negative organisms to better detect emerging resistance. A research-use-only format is also available with the inclusion of colistin (Part No. MDRGNX1F). In addition, the new FDA-cleared, IVD-labeled Thermo Scientific Sensititre Gram Negative GN7F AST Plate includes 24 common first-line therapies, as well as ceftazidime/avibactam and ceftolozane/tazobactam and lower dilution ranges for ciprofloxacin and levofloxacin to better test susceptibilities of *Enterobacteriaceae* and *Pseudomonas aeruginosa.*

"AST workflows for multidrug-resistant [MDR] pathogens are traditionally very complex, but the Sensititre System simplifies them significantly. It's the first and only automated system that provides all of the newer second-line drugs for MDROs that laboratories need, plus first-line therapies, to give laboratories the ability to consolidate all of their AST for Gram negative, MDR infections on a single platform," said Bernd Hofmann, vice president of marketing, microbiology, Thermo Fisher Scientific.

Through close collaboration with leading pharmaceutical companies, the Sensititre System offers one of the widest, most up-to-date selections of antimicrobials, enabling earlier access to the latest therapies for MDR infections. In addition to the new standard formats, laboratories can also create their own custom AST plates from a selection of over 300 antimicrobials, including eravacycline, omadacycline and plazomicin, in broad dilution ranges to consolidate and reduce offline testing. Omadacycline is also available on two new multi-isolate, single drug plates?one for fastidious organisms (Part No. OMADFAST) and one for non-fastidious organisms (Part No. OMADGPGN).

XERAVA™ (eravacycline, Tetraphase Pharmaceuticals) is a novel, fully synthetic fluorocycline indicated for the treatment of complicated intra-abdominal infections (cIAI) caused by susceptible microorganisms: *Escherichia coli, Klebsiella pneumoniae, Citrobacter freundii, Enterobacter cloacae, Klebsiella oxytoca, Enterococcus faecalis, Enterococcus faecium, Staphylococcus aureus, Streptococcus anginosus* group, *Clostridium perfringens, Bacteroides* species and *Parabacteroides distasonis* in patients 18 years or older.

NUZYRA™ (omadacycline, Paratek Pharmaceuticals) is a tetracycline class antibacterial indicated for the treatment of adult patients with the following infections caused by susceptible microorganisms:
Community-Acquired Bacterial Pneumonia (CABP) caused by the following: *Streptococcus pneumoniae, Staphylococcus aureus* (methicillin-susceptible isolates), *Haemophilus influenzae, Haemophilus parainfluenzae, Klebsiella pneumoniae, Legionella pneumophila, Mycoplasma pneumoniae* and *Chlamydophila pneumoniae*.

Acute Bacterial Skin and Skin Structure Infections (ABSSSI) caused by the following: *Staphylococcus aureus (methicillin-susceptible and -resistant isolates), Staphylococcus lugdunensis, Streptococcus pyogenes, Streptococcus anginosus*grp. (includes *S. anginosus, S. intermedius* and *S. constellatus*), *Enterococcus faecalis, Enterobacter cloacae* and *Klebsiella pneumoniae*.

ZEMDRI™ (plazomicin, Achaogen) is indicated in patients 18 years of age or older for the treatment of complicated urinary tract infections (cUTI), including pyelonephritis caused by the following susceptible microorganism(s): *Escherichia coli*, *Klebsiella pneumoniae*, *Proteus mirabilis* and *Enterobacter cloacae*.