

## NEW DRUGS IN THE TREATMENT OF BACTERIAL INFECTIONS

Pankhaniya Ritik<sup>1</sup>

Scientific advisor: Corețchi Ianoș<sup>1</sup>

<sup>1</sup>Department of Pharmacology and Clinical Pharmacology, Nicolae Testemitanu University.

**Background.** The use of antibacterials has become increasingly strained due to increased rates of resistance coupled with reduced rates of development of new agents. As a result, multi-, extensively-, and pan-drug resistant bacterial strains are now frequently encountered. **Objective of the study.** To highlight recently developed antibacterial medicines and their role in clinical practice. **Material and Methods.** From the PubMed and Scopus databases, the articles published during the years 2017-2022 were selected. **Results.** Of 11 new antibiotics that have been approved since 2017, only two – Vaborbactam + Meropenem and Lefamulin – represent a new class. Pretomanid was approved as part of a three-drug combination for the treatment of adult patients with XDR-TB and treatment of intolerant or non-responsive

MDR pulmonary TB. Cefiderocol is against to three critical priority pathogens. Ceftazidime - Avibactam licensed for carbapenemase producers. In adults, is specifically addressing the use of Fidaxomicin and Bezlotoxumab for the treatment of *C. difficile* infection. Macozinone is the antibacterial drug in pipeline developing against *M. tuberculosis* and Rindinilazole is for *C. difficile*. **Conclusion.** New antibacterial agents are mainly derivatives of existing classes. The clinical “traditional” pipeline is still insufficient against priority pathogens. There is a significant need for novel antibacterial drugs research and development.

**Keywords:** New antimicrobials, multidrug resistance, antibacterial pipeline.