

WP5 - Antimicrobial resistance genes surveillance – ATBRES

Vedoucí/ WP leader: prof. MUDr. Helena Žemličková, Ph.D.

Publikace ve vztahu k tématice WP5 za roky 2019 – 2021 uvedené v PUBMED.

Publications related to the WP5 topic for the years 2019-2021 published in PUBMED.

- [Evidence of an epidemic spread of KPC-producing Enterobacterales in Czech hospitals.](#)
Kraftova L, Finianos M, Studentova V, Chudejova K, Jakubu V, Zemlickova H, Papagiannitsis CC, Bitar I, Hrabak J. Sci Rep. 2021 Aug 3;11(1):15732. doi: 10.1038/s41598-021-95285-z. PMID: 34344951 Free PMC article.
- [Spread of Linezolid-Resistant Enterococcus spp. in Human Clinical Isolates in the Czech Republic.](#)
Mališová L, Jakubů V, Pomorská K, Musílek M, Žemličková H. Antibiotics (Basel). 2021 Feb 22;10(2):219. doi: 10.3390/antibiotics10020219. PMID: 33671753 Free PMC article.
- [Effect of Restriction of Fluoroquinolone Antibiotics on Clostridioides difficile Infections in the University Hospital Hradec Králové.](#)
Vaverková K, Kracík M, Ryšková L, Paterová P, Kukla R, Hobzová L, Špánek R, Žemličková H. Antibiotics (Basel). 2021 May 2;10(5):519. doi: 10.3390/antibiotics10050519. PMID: 34063201 Free PMC article.
- [Characterization of Haemophilus influenzae Strains with Non-Enzymatic Resistance to β-Lactam Antibiotics Caused by Mutations in the PBP3 Gene in the Czech Republic in 2010–2018.](#)
Jakubu V, Malisova L, Musilek M, Pomorska K, Zemlickova H. Life (Basel). 2021 Nov 18;11(11):1260. doi: 10.3390/life1111260. PMID: 34833138 Free PMC article.
- [Antibiotic Resistance, spa Typing and Clonal Analysis of Methicillin-Resistant Staphylococcus aureus \(MRSA\) Isolates from Blood of Patients Hospitalized in the Czech Republic.](#)
Pomorska K, Jakubu V, Malisova L, Fridrichova M, Musilek M, Zemlickova H. Antibiotics (Basel). 2021 Apr 6;10(4):395. doi: 10.3390/antibiotics10040395. PMID: 33917471 Free PMC article.
- [Insufficient repeatability and reproducibility of MALDI-TOF MS-based identification of MRSA.](#)
Paskova V, Chudejova K, Sramkova A, Kraftova L, Jakubu V, Petinaki EA, Zemlickova H, Neradova K, Papagiannitsis CC, Hrabak J. Folia Microbiol (Praha). 2020 Oct;65(5):895-900. doi: 10.1007/s12223-020-00799-0. Epub 2020 Jul 2. PMID: 32613406
- [Epidemiological situation, laboratory capacity and preparedness for carbapenem-resistant Acinetobacter baumannii in Europe, 2019.](#)
Lötsch F, Albiger B, Monnet DL, Struelens MJ, Seifert H, Kohlenberg A; European Antimicrobial Resistance Genes Surveillance Network (EURGen-Net) carbapenem-resistant Acinetobacter baumannii capacity survey group; EURGen-



National Institute of Public Health

Net carbapenem-resistant *Acinetobacter baumannii* capacity survey group. Euro Surveill. 2020 Nov;25(45):2001735. doi: 10.2807/1560-7917.ES.2020.25.45.2001735. PMID: 33183407 Free PMC article.

- [Whole genome sequencing of macrolide resistant *Streptococcus pneumoniae* serotype 19A sequence type 416.](#)
Spanelova P, Jakubu V, Malisova L, Musilek M, Kozakova J, Papagiannitsis CC, Bitar I, Hrabak J, Pantosti A, Del Grosso M, Zemlickova H. BMC Microbiol. 2020 Jul 25;20(1):224. doi: 10.1186/s12866-020-01909-1. PMID: 32711478 Free PMC article.
- [Methicillin-resistant *Staphylococcus aureus* in veterinary professionals in 2017 in the Czech Republic.](#)
Neradova K, Jakubu V, Pomorska K, Zemlickova H. BMC Vet Res. 2020 Jan 6;16(1):4. doi: 10.1186/s12917-019-2223-z. PMID: 31906922 Free PMC article.
- [The association of pili with the emergence and replacement of the major antibiotic resistant pneumococcal clones.](#)
Zemlickova H, Jakubu V, Fridrichova M, Malisova L, Martin Musilek, Trojanek M. J Microbiol Immunol Infect. 2020 Oct;53(5):690-695. doi: 10.1016/j.jmii.2019.03.007. Epub 2019 Apr 11. PMID: 31010747 Free article.
- [Epidemiological characteristics of methicillin-resistant *Staphylococcus aureus* isolates from bloodstream cultures at University Hospital in the Czech Republic.](#)
Neradova K, Fridrichova M, Jakubu V, Pomorska K, Zemlickova H. Folia Microbiol (Praha). 2020 Jun;65(3):615-622. doi: 10.1007/s12223-020-00782-9. Epub 2020 Mar 14. PMID: 32172504 Free PMC article.
- [Phenotype and Genotype Characteristics of *Staphylococcus aureus* Resistant to Methicillin/Oxacillin Carrying Gene *mecC* in the Czech Republic from 2002 to 2017.](#)
Mališová L, Jakubů V, Musílek M, Kekláková J, Žemličková H. Microb Drug Resist. 2020 Aug;26(8):918-923. doi: 10.1089/mdr.2019.0319. Epub 2020 Feb 24. PMID: 32091955 Free PMC article.
- [Integrated chromosomal and plasmid sequence analyses reveal diverse modes of carbapenemase gene spread among *Klebsiella pneumoniae*.](#)
David S, Cohen V, Reuter S, Sheppard AE, Giani T, Parkhill J; European Survey of Carbapenemase-Producing Enterobacteriaceae (EuSCAPE) Working Group; ESCMID Study Group for Epidemiological Markers (ESGEM); Rossolini GM, Feil EJ, Grundmann H, Aanensen DM. Proc Natl Acad Sci U S A. 2020 Oct 6;117(40):25043-25054. doi: 10.1073/pnas.2003407117. Epub 2020 Sep 23. PMID: 32968015 Free PMC article.
- [Attributable deaths and disability-adjusted life-years caused by infections with antibiotic-resistant bacteria in the EU and the European Economic Area in 2015: a population-level modelling analysis.](#)
Cassini A, Höglberg LD, Plachouras D, Quattrocchi A, Hoxha A, Simonsen GS, Colomb-Cotinat M, Kretzschmar ME, Devleesschauwer B, Cecchini M, Ouakrim DA, Oliveira TC, Struelens MJ, Suetens C, Monnet DL; Burden of AMR Collaborative Group. Lancet Infect Dis. 2019 Jan;19(1):56-66. doi: 10.1016/S1473-3099(18)30605-4. Epub 2018 Nov 5. PMID: 30409683 Free PMC article.

- [Epidemic of carbapenem-resistant *Klebsiella pneumoniae* in Europe is driven by nosocomial spread.](#)
David S, Reuter S, Harris SR, Glasner C, Feltwell T, Argimon S, Abudahab K, Goater R, Giani T, Errico G, Aspbury M, Sjunnebo S; EuSCAPE Working Group; ESGEM Study Group; Feil EJ, Rossolini GM, Aanensen DM, Grundmann H. *Nat Microbiol.* 2019 Nov;4(11):1919-1929. doi: 10.1038/s41564-019-0492-8. Epub 2019 Jul 29. PMID: 31358985 Free PMC article.
- [Complete Nucleotide Sequences of *mcr-4.3*-Carrying Plasmids in *Acinetobacter baumannii* Sequence Type 345 of Human and Food Origin from the Czech Republic, the First Case in Europe.](#)
Bitar I, Medvecky M, Gelbicova T, Jakubu V, Hrabak J, Zemlickova H, Karpiskova R, Dolejska M. *Antimicrob Agents Chemother.* 2019 Sep 23;63(10):e01166-19. doi: 10.1128/AAC.01166-19. Print 2019 Oct. PMID: 31332072 Free PMC article.
- [Lytic and genomic properties of spontaneous host-range Kayvirus mutants prove their suitability for upgrading phage therapeutics against staphylococci.](#)
Botka T, Pantůček R, Mašlaňová I, Benešík M, Petráš P, Růžičková V, Havlíčková P, Varga M, Žemličková H, Koláčková I, Florianová M, Jakubů V, Karpíšková R, Doškař J. *Sci Rep.* 2019 Apr 2;9(1):5475. doi: 10.1038/s41598-019-41868-w. PMID: 30940900 Free PMC article.
- [Surveillance of antibiotic resistance of *Streptococcus pneumoniae* in the Czech Republic, respiratory study results, 2010-2017.](#)
Mališová L, Urbášková P, Jakubů V, Španělová P, Kozáková J, Musílek M, Žemličková H. *Epidemiol Mikrobiol Imunol.* 2019 Spring;68(2):75-81. PMID: 31398980 (in Czech).
- [Strong correlation between the rates of intrinsically antibiotic-resistant species and the rates of acquired resistance in Gram-negative species causing bacteraemia, EU/EEA, 2016.](#)
Jarlík V, Diaz Höglberg L, Heuer OE, Campos J, Eckmanns T, Giske CG, Grundmann H, Johnson AP, Kahlmeter G, Monen J, Pantosti A, Rossolini GM, van de Sande-Bruinsma N, Vatopoulos A, Žabicka D, Žemličková H, Monnet DL, Simonsen GS; EARS-Net participants. *Euro Surveill.* 2019 Aug;24(33):1800538. doi: 10.2807/1560-7917.ES.2019.24.33.1800538. PMID: 31431208 Free PMC article.