

National Reference Laboratory for Meningococcal Infections

The NRL is accredited to ČSN EN ISO/IEC 17025 as a test laboratory and to ČSN EN ISO 15189 as a public health laboratory by the Czech Accreditation Institute.

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- verifies the identification of *Neisseria*, *N. meningitidis* and serogrouping results as referred by microbiology laboratories in the Czech Republic;
- performs molecular typing (MLST, PorA, FetA, PenA, MenB vaccine antigen genes) of *N. meningitidis* isolates from microbiology laboratories in the Czech Republic;
- maintains the collection of *N. meningitidis* strains from invasive meningococcal disease, healthy carriers and respiratory diseases (more than 5000 isolates collected since 1971);
- maintains the database of microbiological, epidemiological, and clinical data related to the collection of *N. meningitidis strains*;
- performs PCR detection and typing of *N. meningitidis*, *H. influenzae*, and *S. pneumoniae* from clinical specimens;
- cooperates with the NRL for Antibiotics in *N. meningitidis* antimicrobial susceptibility testing;
- organizes the nationwide invasive meningococcal disease surveillance and processes the data submitted:
- provides background data for the anti-meningococcal vaccination strategy in the Czech Republic;
- has been involved in the nationwide external quality assessment schemes (EQAS);
- provides postgraduate lecturing and training;
- participates in the international projects EMGM (European Monitoring Group on Meningococci), MenNet (Impact of Meningococcal Epidemiology and Population Biology on Public Health in Europe), IBD-LabNet (Invasive Bacterial Disease-Laboratory Network);
- reports data to The European Union Invasive Bacterial Infections Surveillance Network (EU-IBIS), The European Surveillance System (TESSy), global database of *N. meningitidis* multilocus sequence typing (MLST), global database of non-capsular antigen sequence typing and DNA sequencing of penicillin resistance genes of *N. meningitidis*, and EMERT (European Meningococcal Epidemiology in Real Time);
- has been involved in international projects on the development of the vaccine against *N. meningitidis*;
- successfully participates in the international external quality assessment schemes (EQAS).