

# Contribution to the History of Serbian Medicine: Ten Years from the Introduction of *Clostridium Difficile* into Microbiological Diagnostics in Serbia

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## SUMMARY

In Serbia, the first isolates of *C. difficile* were isolated in the Public Health Institute (PHI), Center for Microbiology in Niš, at the end of 2005.

The National Reference Laboratory for Anaerobic Infections (NRLA) in PHI Niš confirmed the toxigenic strains that caused the first three registered hospital epidemics in Serbia, in 2006 at the Clinic of Neurology, Clinical Center Niš, in 2007 at the Clinical Center of Vojvodina in Novi Sad, and in 2009 in the General Hospital in Požarevac.

In 2014, *C. difficile* species were isolated for the first time from 175 environment samples in the research studies which were conducted in NRLA of PHI Niš. In the samples of soil taken from the ground within the Clinical Center Niš, those taken from the parks at the territory of the Municipality of Niš, samples of mud and sand around the illegal sewage systems at the territory of the Municipality of Niška Banja, a small number of bacteria *C. difficile* producing the toxins (A+B+) as well as non-toxigenic isolates (A-B-) were found.

Results of the first epidemiological investigations of cases of diarrhea associated with prior antibiotic treatment applied in hospitalized patients in a number of health centers in our country, microbiological investigations done in the Public Health Institute, valuable discussions at professional and scientific meetings influenced the general attitude that isolation and identification of *C. difficile* and/or detection of toxin produced by this bacteria should be part of the routine work in the Serbian microbiological laboratories.

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