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### The exotic *Salmonella* London prefer medical surgical staff

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**Introduction:** The most frequent food and waterborne diseases affecting huge amount of people annually is due to *Salmonella enterica subsp. enterica* according to data from ECDC, CDC and WHO. In the summer of 2018 salmonella outbreak was recorded on the territory of the city of Ruse, affecting only medical surgical staff of two different healthcare establishments. The etiological agent of this outbreak is an exotic serotype for Bulgaria - S. London. The confirmation of epidemiological relatedness of the *Salmonella* isolates was made in the National Reference Laboratory of Pathogenic Diseases of the NCIPD through phenotypic and genetic methods.

**Materials & Methods:** The total number of the surveyed persons (medical surgical staff of the two healthcare establishments) is 144. From 18 (18/144) of the tested suspicious persons were isolated etiological agent S. London, 2 of them (2/18) have had an acute clinical form and 16 (16/18) were asymptomatic. The serotype of isolates is phenotype confirmed as O:E: 1, v : 1,6 by anti-salmonella serums (BUL-BIO, NCIPD, Bulgaria). X-bal I PFGE analysis has been carried out to provide genetic evidence of the epidemiological relatedness of the salmonella isolates.

**Results & Discussion:** The profiles of the PFGE analysis have shown that S. London isolates are epidemically related. The epidemic link between the affected medical surgical staff of two different healthcare establishments is determined by common factors - the food delivered in the two medical establishments is prepared by the same company, some of the affected persons are working in both medical establishments. There are no reported cases of laboratory confirmed salmonellosis among hospitalized patients in the affected surgical departments.



### Recent Publications

1. Maria Pavlova and V Velev, et al. (2018) Advantages of eva green real-time mpcr with culture and immunochromatographic methods for differentiating *C. jejuni* / coli directly from feces. Acta Medica Mediterranea 34: 1027 pp. 1027-1030.
2. Maria Pavlova, V Velev and M Karageorgiev, et. al., (2018) Investigation of *Salmonella enteritidis* outbreak in four kindergartens. Le Infezioni in Medicina 26(4): 316-320.
3. Pavlova M and Velev V, et. al., (2017) Optimization of Eva Green real-time mPCR for differentiating *C. jejuni/coli* directly from feces. Bratislava Medical Journal 118(11):702-704.
4. Pavlova M and Dobrova E, et. Al., (2016) Comparative study of methods for detection of *Clostridium difficile* directly from stool. Problems of Infectious and Parasitic Disease 44(2):36-40.

### Biography

Maria Pavlova is a senior assistant at the National Reference Laboratory of Enteropathogenic Diseases. She has experience in research, teaching and development of rapid molecular methods for diagnosis of campylobacteriosis and salmonellosis direct from stool. Optimization and application of genetic methods for typing and detection of food- and water-borne epidemics. She has been a National Coordinator of Salmonellosis and Campylobacteriosis for the European Centre for Disease Prevention and Control. She is a research project leader and participant in two more.

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