

**ABSTRACT BOOK**



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## PM303 Characterization of *Listeria monocytogenes* isolates from human clinical episodes occurring from 2013 to 2018

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**Background:** *Listeria monocytogenes* is a major foodborne pathogen in humans, responsible for listeriosis, a rare but life-threatening systemic infection among susceptible population groups: the elderly, immunocompromised individuals, pregnant women and new-borns. The consumption of contaminated food is recognized as the main transmission route to humans, and population aged over 65 accounts for most reported listeriosis cases.

**Objectives:** This work aims to obtain epidemiological data on human listeriosis cases, collected from collaborating hospitals between 2013 and 2018.

**Methods:** *L. monocytogenes* isolates were collected from volunteer hospitals and were characterized based on genosero-typing by multiplex polymerase chain reaction and on DNA macrorestriction pulsed-field gel electrophoresis (PFGE), applying the enzymes *Ascl* and *Apal*.

**Results:** Over the study period, 129 isolates of *L. monocytogenes* were recovered from human cases of listeriosis. Six cases (4.7%) corresponded to maternal/neonatal (MN) infections, covering 3 fetal losses or neonatal deaths. From the information available, 91 cases were confirmed nonmaternal/neonatal (non-MN); 54.9% occurred in patients aged over 65 years and at least 10 cases (11.0%) resulted in death.

*L. monocytogenes* isolates belonging to genosero-group IVb (serotypes 4b, 4d, and 4e) were responsible for the majority of listeriosis cases (73.6%), followed by genosero-group IIa (serotypes 1/2a and 3a) isolates (16.3%), genosero-group IIb (serotypes 1/2b, 3b, and 7) isolates (7.0%) and genosero-group IIc (serotypes 1/2c and 3c) isolates (3.1%). PFGE analysis revealed a high molecular diversity but notwithstanding, several isolates from different geographic and time distributions were grouped into major clusters, given the close PFGE-related types among them.