

## O1015 **Epidemiological changes in candidaemia in Spain: data from two prospective multicenter studies**

Celia Cardozo\*<sup>1</sup>, Paloma Merino<sup>2</sup>, Eva Calabuig<sup>12</sup>, Francesca Gioia<sup>3</sup>, Laura Escolà-Vergé<sup>4</sup>, Mario Fernandez Ruiz<sup>5</sup>, Luis Eduardo Lopez-Cortes<sup>6</sup>, Regino Rodríguez<sup>7</sup>, Francesc Marco Reverte<sup>8</sup>, Enrique Montero-Mateos<sup>9</sup>, Guillermo Cuervo<sup>10</sup>, Patricia Muñoz<sup>11</sup>, Mireia Puig-Asensio<sup>4</sup>, Pedro Puerta<sup>1</sup>, Jesus Fortun Abete<sup>3</sup>, Fernando González<sup>2</sup>, Alba Ruiz<sup>12</sup>, Alex Soriano<sup>1</sup>, Carolina Garcia Vidal<sup>1</sup>

<sup>1</sup>Hospital Clínic, <sup>2</sup>Hospital Clínico San Carlos, <sup>3</sup>Hospital Ramon y Cajal - San Modesto, <sup>4</sup>Hospital Universitario Vall D' Hebron, <sup>5</sup>Hospital Universitario 12 de Octubre, <sup>6</sup>Hospital Universitario Virgen Macarena, <sup>7</sup>Hospital Universitario de Cruces, Barakaldo, Spain, <sup>8</sup>Hospital Clínic, Barcelona, Spain, <sup>9</sup>Hospital Universitario Virgen del Rocío, Sevilla, Spain, <sup>10</sup>Hospital Universitari de Bellvitge, <sup>11</sup>Hospital General Universitario Gregorio Marañón, <sup>12</sup>Hospital Universitario y Politécnico La Fe

**Background:** Recent changes in the epidemiology of candidaemia have been reported in some countries. We aimed to identify medium-term changes in the distribution of species of *Candida* causing candidaemia in Spain, as well as in the patterns of antifungal susceptibility.

**Materials/methods:** We compared episodes of candidaemia in adult patients from May 2010 to August 2011 (first period) at 11 university hospitals in Spain, with episodes recorded from the same hospitals between September 2016 and October 2017 (second period). These data were collected from two prospective, national multicenter studies.

**Results:** A total of 603 episodes of candidaemia were documented: 385 in the first period and 218 in the second period. *Candida albicans* was the most common specie isolated (41.5%), followed by *C. parapsilosis* (21.2%) and *C. glabrata* (16.3%). Overall, 82 (13.6%) strains were considered azole-resistant. Most *C. albicans* (>98%) and *C. parapsilosis* (>94%) remained susceptible to fluconazole. Among *C. glabrata* and *C. tropicalis* isolates, 27.1% and 16% were reported as azole-resistant, respectively. Echinocandin resistance was found in 1% of isolates. Comparing both periods, species distribution changed with a decrease in proportion of episodes due to *C. albicans* (45.7 vs 33.9%;  $p=.005$ ). Conversely, episodes due to *C. glabrata* increased from 12.7% to 22.5% ( $p=.002$ ). An ongoing *C. auris* outbreak was documented in one participating hospital, causing 22 candidaemias in the second period (10.1%). Excluding patients coming from this center, *C. glabrata* had also significantly increased over both periods (12.4% vs 27.1%;  $p<.001$ ), while *C. albicans* had decreased (47.8% vs. 38.4%;  $p=.04$ ). Azole-resistant strains were more frequent in second period (13% vs 18.2%;  $p=.102$ ). There were no differences in echinocandins resistance between periods (1.04% vs 0.92%,  $p=.89$ ).

**Conclusions:** Our study showed changes in candidemia epidemiology in Spain. The rate of candidaemia caused by *C. glabrata* has risen throughout both study periods. *C. auris* has rooted

itself in one hospital, causing a nosocomial outbreak. These changes should be taken into consideration in order to optimize empirical therapies in patients with candidaemia.