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Paper Poster Session
Fungemia

Changing trends of candidaemia in Colombian tertiary care hospitals from 2008 to 2014

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Background: Candidemia is the most common fungal infection and considerable source of morbidity and mortality in critically ill and hospitalized patients. *Candida albicans* was the most common cause of candidemia worldwide. In Colombia between 2001 and 2007 *C. albicans* represented 50% of all mycotic bloodstream isolates. However a shift toward non-*albicans* candida species has been reported in other countries.

Material/methods: Data from 39 tertiary care hospitals in Colombia were collected from a microbiology surveillance network using Whonet 5.6 database registries from 2008 to 2014. Incidence of candidemia over time was reported. Frequencies of bloodstream isolates were described according to location of adult and pediatric patients (Intensive Care Units –ICU- and non-ICU services). Only the first positive blood culture isolate for each patient was used.

Results: A total of 2994 bloodstream isolates due to candida infection were analyzed. In all groups the most frequent isolated organisms were *C.albicans*, *C.parapsilosis*, *C.tropicalis*, *C.glabrata* and *C.famata*. During the seven-year period of study, *Candida non-albicans* represented 56% of the adult ICU isolates, 54% of adults Non-ICU, 66% of pediatric and neonatal ICU and 62% of pediatric and neonatal non-ICU. Increase of non-*albicans* species of *Candida* was seen across 2008 to 2014 period been the most frequent mycotic bloodstream isolates in all four groups. However the main change in this trend was observed in adults ICU (48% in 2008 to 61% in 2014).

Conclusion: In Colombia there is a change in trends of candidemia from previous data. We found an increasingly role of non-*albicans* species of *Candida* in all groups studied. This finding has a clinical and epidemiological impact as these species show diminished susceptibility to common antifungals and represents a challenge for diagnostic and therapeutic approach.

Table 1. Frequency of Candidemia by type of ward between 2008 to 2014 in Colombian tertiary care hospitals.

Microorganism	Adult ICU		Adult Non ICU		Neonatal and Pediatric ICU		Neonatal and Pediatric Non-ICU	
	n	%	n	%	n	%	n	%
<i>Candida albicans</i>	528	43.96	389	46.09	197	34.20	132	35.39
<i>Candida parapsilosis</i>	281	23.40	175	20.73	173	30.03	129	34.58
<i>Candida tropicalis</i>	181	15.07	144	17.10	57	9.90	41	10.99
<i>Candida glabrata</i>	73	6.08	56	6.65	7	1.22	6	1.61
<i>Candida famata</i>	26	2.16	9	1.07	26	4.51	13	3.49
<i>Candida krusei</i>	24	2.00	21	2.49	8	1.39	5	1.34
<i>Candida guilliermondii</i>	23	1.91	10	1.19	22	3.82	9	2.41
<i>Candida sp.</i>	20	1.67	7	0.83	41	7.12	14	3.75
<i>Candida lusitanae</i>	7	0.58	9	1.07	23	3.99	14	3.75
Other species	38	3.16	24	2.85	22	3.82	10	2.68
Total	1201	100	844	100	576	100	373	100

Figure 1. Trends in bloodstream isolates of *Candida albicans* and non-*albicans* *Candida* species from 2008 to 2014.



