

## O1013 **Five-year national surveillance of invasive candidiasis in China: species distribution and antifungal susceptibility reported from the CHIF-NET study**

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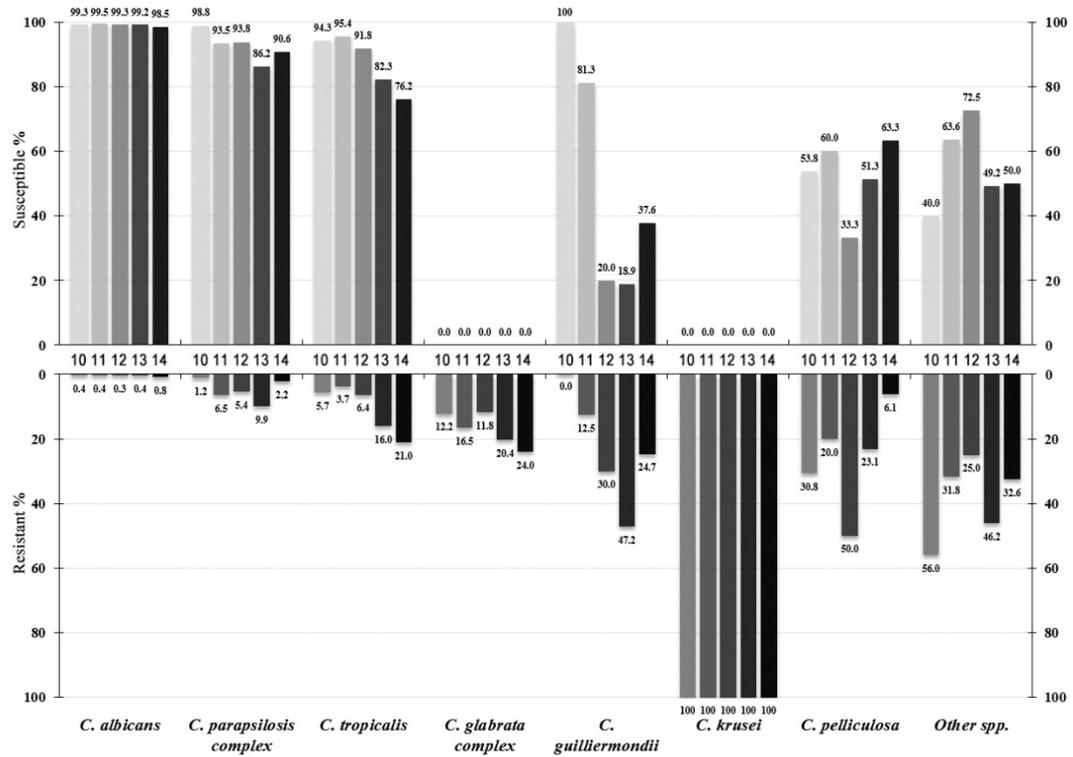
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**Background:** Nationwide epidemiology and antifungal susceptibility data of invasive candidiasis (IC) in mainland China are still limited. Here we reported the five-year surveillance results for IC from China Hospital Invasive Fungal Surveillance Net (CHIF-NET) Study.

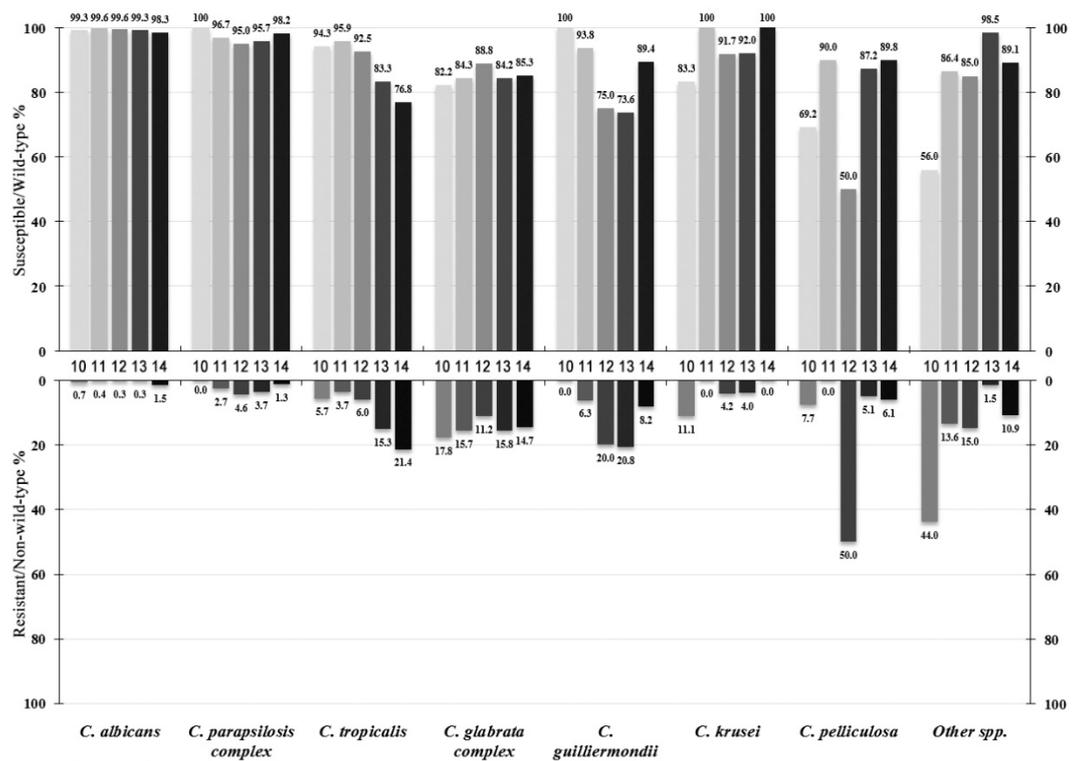
**Materials/methods:** The study comprised 65 tertiary general hospitals from 27 provinces in China, and a total of 8,829 *Candida* isolates were collected. An algorithm of matrix-assisted laser desorption/ionization time of flight mass spectrometry supplemented with rDNA internal transcribed spacer region sequencing was used to define species, and susceptibility to fluconazole and voriconazole was determined by the Clinical and Laboratory Standards Institute disk diffusion method. Thirty-two species were identified in all.

**Results:** *C. albicans* was still the most common species but accounted for less than 50% of the collection (44.9%), followed by *C. parapsilosis* complex (20.0%), *C. tropicalis* (17.2%) and *C. glabrata* complex (10.8%), while other *Candida* species were less common (<3%). However, in candidemia cases, the proportion of *C. albicans* was even lower (32.3%). *C. albicans* and *C. parapsilosis* complex isolates remained susceptible to fluconazole and voriconazole (<6% resistance), while fluconazole- and azole cross-resistant rates were high in *C. tropicalis* (13.3% and 12.9%), *C. glabrata* complex (18.7% and 14.0%) and less common *Candida* species (44.1% and 10.3%) isolates. Moreover, significant increase in resistant rates were detected in *C. glabrata* complex isolates to fluconazole (12.2% to 24.0%,  $P<0.01$ ), and *C. tropicalis* isolates to both fluconazole (5.7% to 21.0%,  $P<0.01$ ) and voriconazole (5.7% to 21.4%,  $P<0.01$ ). Geographic versions in causative species and azole susceptibilities were also noticed.

**Conclusions:** Our findings indicated that antifungal resistance have become a notable problem in China, and enhanced surveillance is warranted to closely monitoring future trends of IC epidemiology and resistance.



A. Fluconazole



B. Voriconazole