

## **Abstract**

**In 2002, 3926 yeast isolates were isolated from 24 hospitals in Taiwan to monitor the prevalence of yeast pathogens. Among the isolates, *Candida albicans* (70%) was the most common species, followed by *Candida tropicalis* (12.4%), *Candida glabrata* (8.3%), and *Candida parapsilosis* (2.7%). Of the 258 isolates from blood, *C. albicans* (55%) was the most common species, followed by *Candida tropicalis* (19.8%), *Candida parapsilosis* (9.3%), and *Candida glabrata* (8.6%). For the 945 yeast isolates collected from hospitals and subjected to further characterization, urine (39.6%) and sputum (22.3%) were the two most common sources for the yeast isolates. As for the patients from whom the yeasts were isolated, 4.2%, 33.7%, and 62.1% were  $\leq 18$ , 19-65,  $\geq 66$  years old, respectively. Interestingly, a larger number (16.1%) of *C. parapsilosis* were isolated from patients of the pediatric department. The patients of the intensive care unit (ICU) had higher prevalence to have hospital acquired infections (HAI) by yeasts than those in the non-ICU did (28% vs. 16.9%,  $p < 0.05$ ). Also majority of the isolates from blood (47.9%) and central venous pressure catheter (39%) were accounted for causing HAI. A total of 31.7% of *C. parapsilosis* caused HAI, which is the highest percentage for causing HAI among all the *Candida* species tested. Susceptibilities to amphotericin B and fluconazole of 909 *Candida* species collected in TSARY in 2002 were determined by the broth microdilution method. Preliminary data show that the resistant rate to fluconazole has decreased from 0.5% in 1999 to 2.5% in 2002. However, the resistant rate to amphotericin B has increased from 8.4% in 1999 to 1.9% in 2002. Isolates collected in TSARYs can provide a good pool of mixture for evaluating the development of rapid diagnosis in other projects.**

**Keywords: fungal infections ; drug resistance ; molecular diagnosis ; epidemiology**