**1- Maria Carolina Guerra (Fellow infectología)**

# #05899 Invasive fungal infections in solid organ transplant recipients: incidence, clinical characteristics and outcomes in a transplant centre in Latin America.

10. Immune compromise & transplant ID

10b. Infections related to solid organ transplantation

M.C. Guerra Gutierrez Maria Carolin[1], E.F. Huaier Arriazu[1], Y.P. Andrade Pino[1], A. Smud[1], L.A. Barcan[1].
[1]*Hospital Italiano de Buenos Aires - Caba (Argentina)*

## Background

Invasive fungal infections (IFI) remain a major cause of morbimortality among solid organ transplant (SOT) recipients. Their epidemiology varies by organ type, time since transplantation, and fungal species, yet regional data from South America remain limited. We aimed to describe the incidence, clinical characteristics, temporal patterns, and outcomes of IFI in SOT recipients in transplant centre in Argentina.

## Methods

We conducted a single-centre retrospective cohort study of adult SOT recipients with proven or probable IFI (EORTC/MSGERC criteria) between 2019 and 2023, assessing clinical and microbiological variables, calculating incidence based on transplants performed, and analysing survival with Kaplan–Meier curves.

## Results

A total of 45 IFI episodes occurred in 41 patients. Proven IFI accounted for 49% and probable IFI 51%. Median age 54 years; 51% female. The transplant types were kidney (32%), liver (22%), heart (14%), kidney-pancreas (14%) and lung (10%). The leading pathogens were Candida spp. (53%), Aspergillus spp. (24%) and Cryptococcus neoformans (9%). Median time from transplant to IFI was 73 days (IQR 31–380), with Candida spp. presenting predominantly early (<90 days: 77%), Aspergillus spp. showing a bimodal distribution, and Cryptococcus and other moulds presenting mainly late (>1 year: ≥66%). Incidence varied by organ: liver 4.8% (2.2–9.0), heart 4.9% (1.8–10.4), kidney 5.3% (95%CI 2.9–8.9), lung 8.3% (2.3–20.0), and kidney-pancreas 42.8% (17.7–71.1). Candida predominated across most transplant types, Aspergillus was most common in lung recipients, and cryptococcosis occurred more frequently in kidney transplant recipients. Overall mortality was 44% (95%CI 28.3–60.4) and was mainly associated with Candida and Aspergillus infections; 65% of deaths occurred within 90 days. IFI-attributable mortality was 35%. Median survival was not reached.

## Conclusions

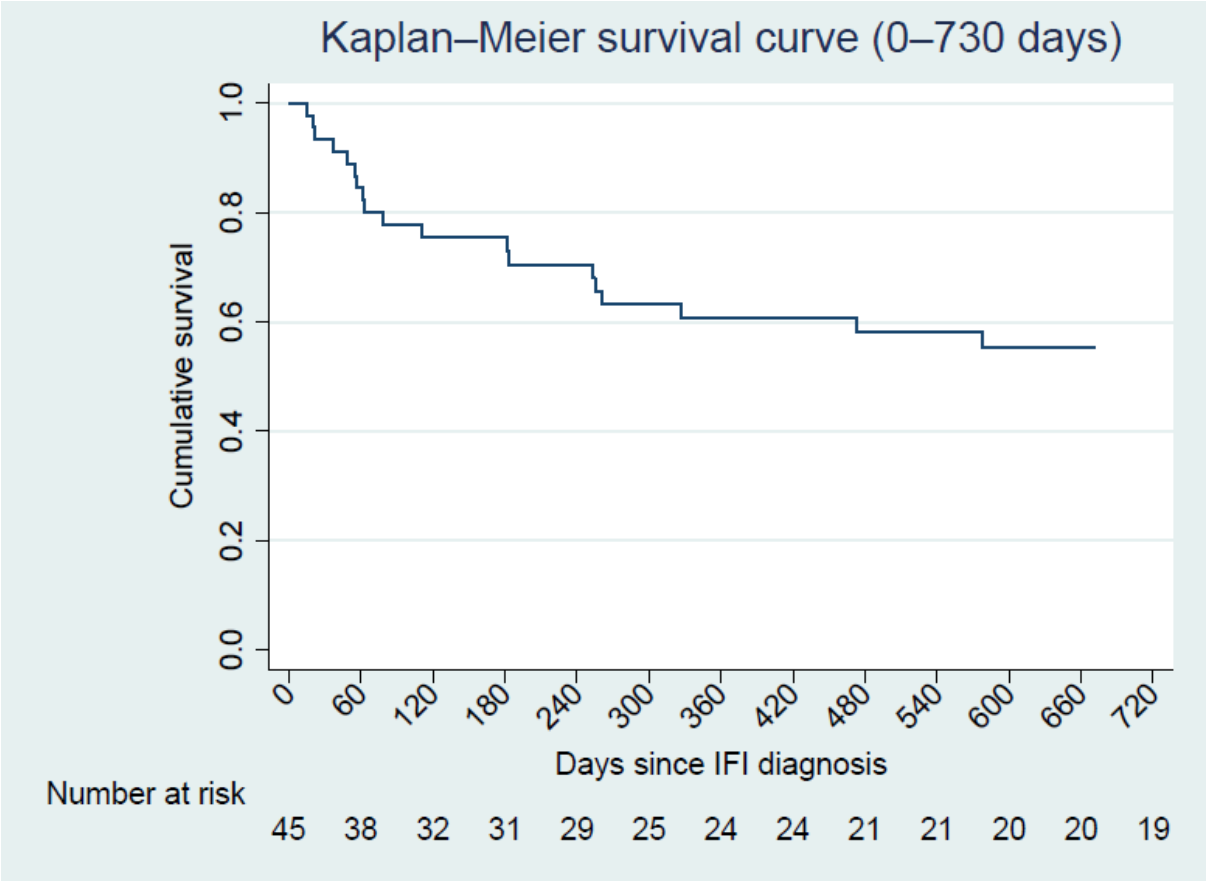
IFI in SOT recipients showed organ and species-specific patterns, with early Candida infections and late Cryptococcus and rare mould infections. Mortality remained high, particularly in Candida and Aspergillus infections. These findings highlight the need for tailored surveillance and prevention strategies in high-risk transplant populations.

Table 1. Clinical outcomes and mortality in invasive fungal infection episodes

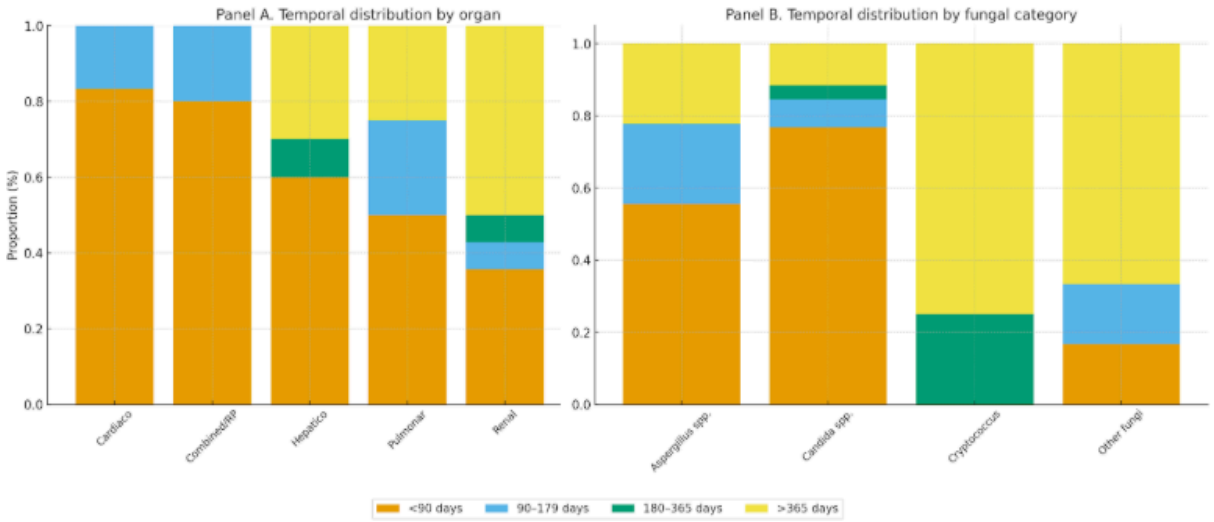
| Outcome | % (n/N) | 95% CI |
|---|---|---|
| **All-cause mortality** | 44% (20/45) | 28.3% – 60.4% |
| **90-day mortality** | 65% (13/20) | 40.8% – 84.6% |
| **IFI-attributable mortality** | 35% (7/20) | 15.4% – 59.2% |

Key message: Mortality was high and primarily associated with *Candida spp.* and *Aspergillus spp.* infections.

Figure 1. Overall survival after the first invasive fungal infection (Kaplan–Meier analysis)




Temporal distribution of invasive fungal infections and Proportion of fungal infection types by transplanted organ




**Keyword 1**
Immunocompromised hosts and transplant ID
**Keyword 2**
Fungi and clinical mycology
**Keyword 3 (Please provide your suggestion)**
Epidemiology, Mortality, Clinical outcomes.
**References, 300 characters, including spaces (if exceeding 300 characters please provide DOI number only) :**
10.3390/jcm12093238 10.1093/cid/ciz150 10.1111/1469-0691.12660
10.1016/j.bj.2024.100719 10.1016/j.riam.2016.02.005 10.1086/649858
10.1016/j.ccc.2018.08.004 10.1111/ctr.13525 10.1086/651262 (no DOI)
10.1093/mmy/myae099 10.1093/cid/ciaa1724

## Conflicts of interest

### Do any of the authors have conflicts of interest related to the studies presented in this abstract?

No