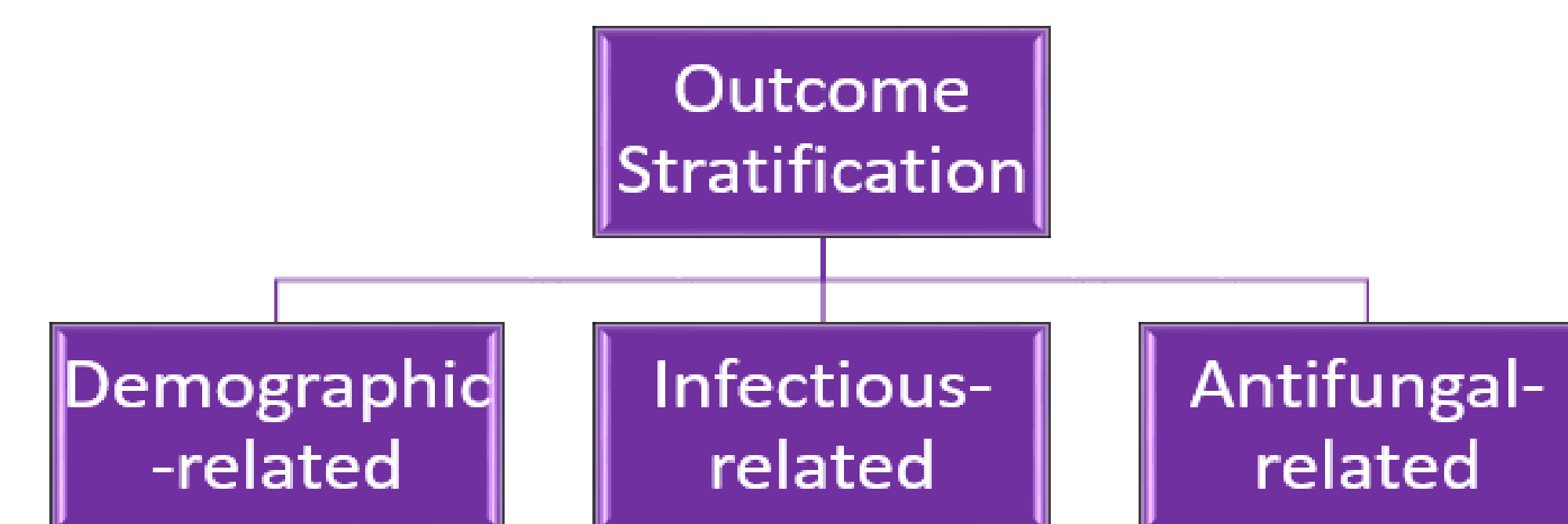


## Background

- Fungemia is associated with high rates of mortality and prolonged length of stay (LOS) within the inpatient setting
- Previous literature has evaluated risk factors associated with fungal infections and antifungal therapy among high-risk patients
- There is a paucity of literature extrapolating this information to all hospitalized patients
- The purpose of this study is to characterize infectious and antifungal outcomes in adult inpatients presenting with fungemia at a community teaching hospital

## Methods

- This was a single center, retrospective, descriptive, cohort study of the management of adult inpatients with ≥ 1 positive blood culture(s) for yeast between Jan. 2017 to Dec. 2018
- The first incidence of fungemia was analyzed per patient during the study period
- Outcomes were characterized as follows:



- Descriptive statistics were used to characterize outcome measurements

## Results

**Table 1. Demographic-related Outcomes (N=45)**

Average age in years (SD)	62 (16.8)
Female Gender, N (%)	23 (51.1)
Creatinine Clearance, N (%)	
<60 mL/min	24 (53.3)
≥60 mL/min	21 (46.7)
Total Parenteral Nutrition, N (%)	9 (20)
Central Venous Catheter, N (%)	30 (66.7)

## Results Cont.

**Table 2. Past Medical History (N=45)**

HIV, N (%)	1 (2.2)
Chronic Heart Failure, N (%)	6 (13.3)
Diabetes Mellitus, N (%)	11 (24.4)
End Stage Liver Disease, N (%)	2 (4.4)
End Stage Renal Disease, N (%)	4 (8.9)
Solid Organ Transplant, N (%)	1 (2.2)
Structural Lung Disease, N (%)	5 (11.1)
Chemotherapy < 6 mo., N (%)	6 (13.3)
Current Malignancy, N (%)	8 (17.8)
Past Malignancy, N (%)	10 (22.2)

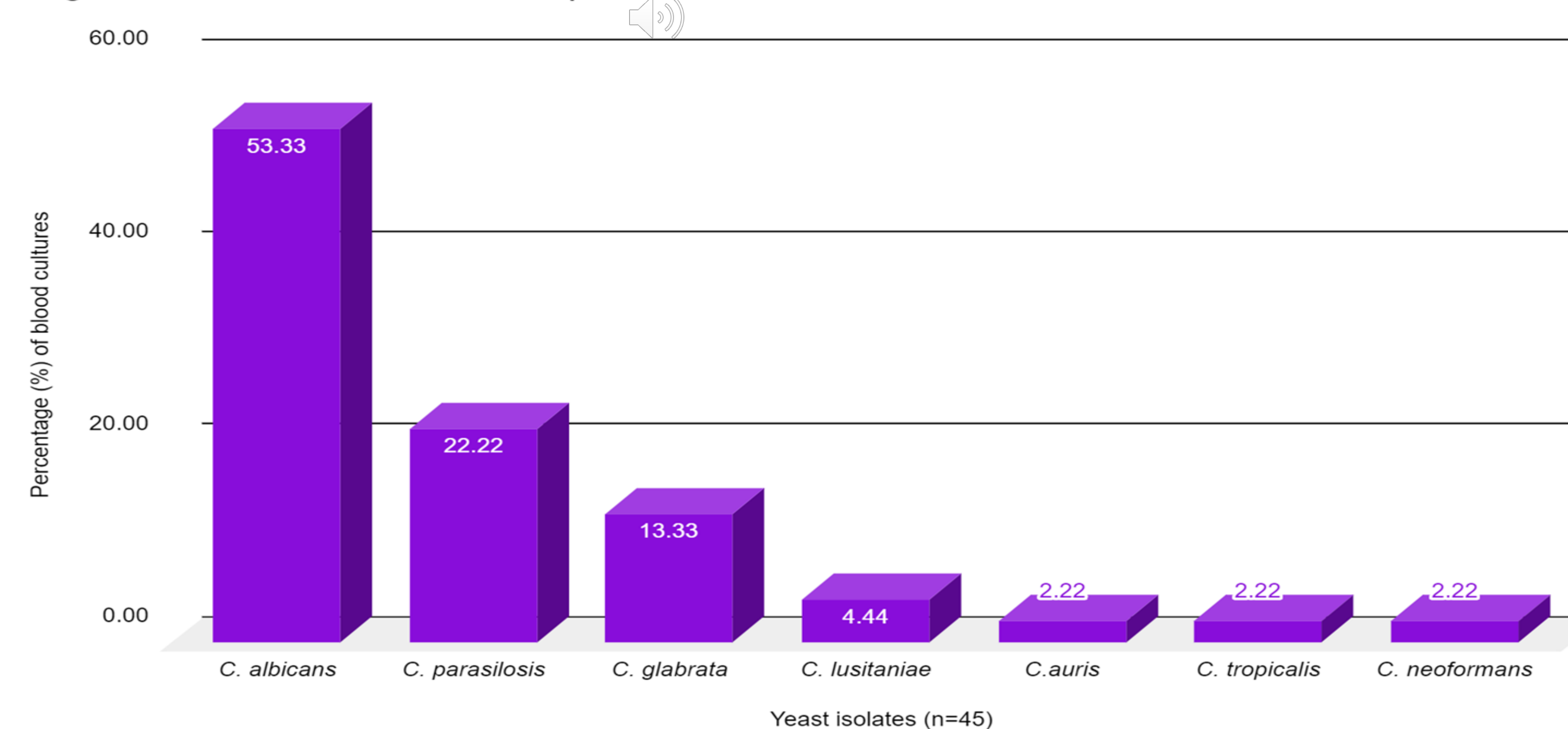
**Table 3. Antifungal-related outcomes (N=45)**

Median time to antifungal therapy from first positive blood culture, (IQR)	7.3 hours (2.8-15.6)
Total duration of antifungal therapy, median (IQR)	14 days (11.5-19)
Initial Antifungal Therapy, N (%)	
Caspofungin	26 (57.8)
Fluconazole	13 (28.9)
No antifungal agent initiated	5 (11.1)
Amphotericin B liposomal	1 (2.2)

**Table 4. Infectious-related outcomes (N=45)**

30-day mortality, N (%)	11 (24.4)
30-day readmission, N (%)	12 (26.7)
Median hospital length of stay in days (IQR)	13 (7-30)
Mean time to positive blood culture (SD)	6 hours (8.5)
Antifungal susceptibilities requested, N (%)	5 (11.1)
Suspected source of infection, N (%)	
Central line	15
Gastrointestinal	13
Urinary	7
Not documented	3
Other	3
Skin/soft tissue	2
TPN	1
Pulmonary	1
Infectious Diseases consult obtained, N (%)	39 (86.7)
Echocardiogram completed, N (%)	35 (77.8)
Endocarditis, N (%)	
Yes	3 (6.7)
No	37 (82.2)
Not determined	5 (11.1)
Ophthalmology consult obtained, N (%)	28 (62.2)
Endophthalmitis, N (%)	
Yes	3 (6.7)
No	32 (71.1)
Not determined	10 (22.2)

**Figure 1. Yeast identified from positive culture**



## Discussion

- Most patients were found to be < 65 years old and renally impaired. Central lines were implicated as the source of infection in the majority of cases. The predominant fungal pathogen isolated was *C. albicans*
- Mean time to positive blood cultures was 6 hours. Echinocandins were empirically prescribed in the majority of cases, which is in accordance with national guidelines.<sup>5</sup> Median time to antifungal therapy following positive blood cultures was 7.3 hours.
- Thirty-day mortality and readmission rates in this analysis were found to be 24.4 and 26.7%, respectively. These findings mirror estimates found in current literature.

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