

prescriptions for narcotics, and zero for naloxone. HIV testing was not performed on 7 (21%) patients and 1 patient was HIV positive. Twenty-three (70%) patients were antibody positive for HCV, seven (21%) were antibody negative, three (9%) were not tested. *S. aureus* was the causal pathogen in 25 (76%) cases, with seven (19%) being methicillin resistant.

**Conclusion.** The lack of a systematic approach to management of patients with OUD admitted for endocarditis represents a missed opportunity to improve the care and outcomes of patients with OUD in regards to withdrawal, relapse prevention and harm reduction. We designed, implemented, and started to evaluate an intervention to initiate MAT in conjunction with the management of the infectious diseases complications and a standardized approach to screening these patients for HIV, hepatitis B/C and offering PrEP, HIV therapy, and/or HCV therapy where appropriate.

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### 1029. Outcome of Candida Graft Vascular Infection: Results From a Prospective Cohort

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**Background.** Candida graft vascular infections (CGVI) are rare events and little data are available in the literature. The aim of this study was to describe the characteristics and outcome of patients admitted for fungal graft vascular infections, in a reference center for CGVI treatment.

**Methods.** Patients admitted for a CGVI in our center from 1 January 2000 to 1 February 2018 were prospectively included. Clinical, biological, and outcome data were recorded.

**Results.** Two hundred patients were admitted with graft vascular infections (GVI) in our center, and 11 of them (6%) presented CGVI. They were mainly men (7; 64%), and median age was 74 years old [min-max: 39-83]. All patients had benefited from prosthetic bypass surgery prior to CGVI, and infection was considered as an early disease in six patients (55%). *Candida albicans* was found in 72% of cases. Infection was plurimicrobial in 10 patients (92%), involving *Staphylococcus aureus* in only one case and Bacille gram negatif in six (55%) cases. The management consisted in a total or partial graft replacement for five patients (45%), and surgical revision was required in four of them (30%). The empirical antifungal therapy included an echinocandin (Caspofungine) for eight patients (73%), and was changed to fluconazole or voriconazole according to antifungigram. Two patients received Amphotericin B therapy, complicated by acute kidney injury. Intensive care unit admittance was required for nine patients (82%). After the curative treatment period, antifungal therapy could not be removed in two patients and was long-continued using fluconazole. Finally, six patients (55%) died, all within the year after CGVI.

**Conclusion.** To our knowledge, we report here the biggest CGVI cohort. CGVI resulted in very high morbidity and mortality, requiring ICU admission for a long time. Despite multidisciplinary management involving anesthesiologists, surgeons, intensive care, and infectious disease physicians, outcome of CGVI patients remains poor.

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### 1030. Risk Predictive Model for Candida Endocarditis in Patients with Candidemia: A 12-year Experience in a Single Tertiary Care Hospital

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**Background.** Candida endocarditis (CE) is a rare but an invasive infection associated with a high mortality rate. The current understanding of this infection is poorly defined from case reports, case series and small cohorts. This study aimed to assess the risk factors for CE in patients with candida bloodstream infections (CBSI).

**Methods.** We conducted a retrospective analysis of all hospitalized patients diagnosed with CBSI at a large tertiary care hospital between 2002 and 2015. Data included demographics, comorbidities, laboratory parameters, and outcomes. Univariate and multivariable logistic regression analyses were used to build the predictive model.

**Results.** Of 1,873 cases of CBSI, 47 patients were identified to have CE. The most commonly isolated species were *C. albicans* (59.6%) followed by *C. parapsilosis* (16.2%). On univariate analysis, preexisting valvular disease (7.95, 95% CI [3.16, 20.02]) was associated with a higher risk of CE ( $P < 0.05$ ). Factors such as isolation of

*C. glabrata* (0.17, 95% CI [0.04, 0.68]), hematologic malignancy (0.09, 95% CI [0.01, 0.68]), and total parenteral nutrition (TPN) (0.40, 95% CI [0.17, 0.95]) were all associated with a lower risk of CE. In multivariable modeling, the factors of valvular disease (5.05, 95% CI [1.77, 14.43]), isolation of *C. glabrata* (0.19, 95% CI [0.05, 0.80]), hematologic malignancy (0.09, 95% CI [0.01, 0.66]), and total parenteral feeding (0.43, 95% CI [0.17, 1.09]) remained significant. The final model had a C-statistic of 0.82. The crude 90-day mortality for CE was 48.9%, similar to the overall CBSI mortality of 42.1%.

**Conclusion.** In a population of patients with CBSI, previous valvular disease was the only factor associated with a greater risk of development of CE. Use of TPN, hematologic malignancy, and isolation of *C. glabrata* were protective factors. A predictive model may reduce the need for expensive and sometimes invasive diagnostic imaging such as trans-esophageal echocardiography, as a subset of patients may be at low enough risk for CE not to warrant them.

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### 1031. Nationwide Temporal Trends of Candidemia Incidence Over 18 Years Within the Veteran Health Administration System

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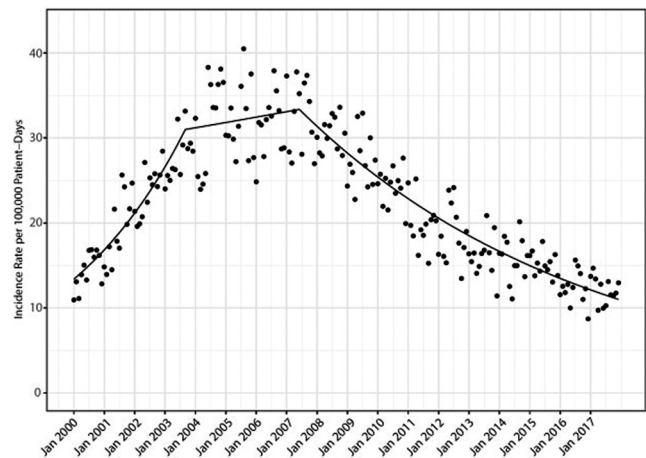
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**Background.** Bloodstream infection due to *Candida* spp. is common and associated with significant mortality and morbidity. Previous population-based studies in 2000s and early 2010s have suggested that the incidence of candidemia might be increasing, presumably due to widespread use of central lines and broad-spectrum antibiotics. However, recent trends of candidemia incidence have not been well described.

**Methods.** We conducted a retrospective cohort study of all veterans cared for in the Veterans Health Administration (VHA) system from January 2000 to December 2017 to determine the incidence of candidemia. All patients who had positive blood cultures were identified using data available in the electronic medical record data warehouse, and the number of unique patients for each month was calculated. Patient-days was used as a denominator, and the incidence rate was expressed as the number of unique patients with candidemia per patient-days for each month. Temporal trends were analyzed by joinpoint regression models to identify statistically significant changes in trend.

**Results.** Over the study period, 31,370 positive blood cultures for *Candida* spp. from 15,763 unique patients were identified. The mean monthly incidence rate was 22.5 per 100,000 patient-days (IQR: 15.6-28.4). Incidence rates were increasing in the early 2000s and relatively stable in the mid-2000s, followed by a sustained decline (figure). Joinpoint regression analysis revealed there were two statistically significant changes in slope, one in September 2003 (95% CI: 2/2002-1/2005) and another in 6/2007 (95% CI: 4/2006-3/2009).

**Conclusion.** In the VHA system, there were significant changes in temporal trends of candidemia incidence rates over 18 years, including a substantial increase in the early 2000s followed by a sustained decline in later years. The incidence rates during 2016-2017 were nearly one-third of their peak in the mid-2000s. Possible explanations for the sustained decline include prevention efforts for healthcare-associated infections, such as central-line associated bloodstream infections. Further study is needed to investigate etiologies of these changes in temporal trends to identify potential effective prevention for candidemia.



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