Coccidioidomycosis is a systemic fungal infection endemic to the Southwestern United States. Disseminated infection can be life-threatening and is responsible for hospitalization and healthcare resource utilization. There are limited data evaluating factors associated with coccidioidomycosis hospitalization.

Methods. We conducted a cross-sectional study to assess sociodemographic and comorbidity factors associated with hospitalization due to coccidioidomycosis in California and Arizona compared with hospitalization for other causes. We analyzed hospital discharge data obtained from the State Inpatient Dataset (SID) for both California and Arizona for years 2005-2011. Multivariable logistic regression modeling was used to analyze factors associated with coccidioidomycosis.

Results. A total of 23,758 hospitalizations due to coccidioidomycosis occurred during the study period in the two states. Arizona had an over six-fold higher coccidioidomycosis hospitalization incidence rate compared with California, 198.9 vs. 29.6/100,000 person-years. In the multivariable model patients aged (40–49) years had a higher odds of hospitalization due to coccidioidomycosis vs. young adults (18–29) years (aOR = 1.50 [95% CI 1.43–1.59]), African Americans had higher odds of hospitalization due to coccidioidomycosis vs. Caucasians (aOR = 1.98 [95% CI 1.89–2.06]). Residing in a large rural town had a higher odds of hospitalization due to coccidioidomycosis vs. residing in an urban area (aOR = 2.28; 95% CI 2.19–2.39). Higher comorbidities were associated with an increased odds for hospitalization due to coccidioidomycosis (aOR = 1.02 [95% CI 1.02–1.03]) for each point in the Elixhauser score). Uncomplicated diabetes and chronic pulmonary disease was also associated with hospitalization due to coccidioidomycosis (aOR = 1.47 [95% CI 1.41–1.52]) and (aOR = 1.59 [95% CI 1.54–1.65]), respectively.

Conclusion. We found sociodemographic factors and comorbidities associated with hospitalizations due to coccidioidomycosis compared with hospitalization due to other causes. Identifying persons at highest risk for hospitalization with coccidioidomycosis may be helpful for future prevention efforts.

Disclosures. All authors: No reported disclosures.
frequently require greater than 1 year of therapy. Although the toxicity profile of fluconazole has been evaluated in clinical trials, there is a paucity of data regarding the tolerability of this agent with long-term therapy.

Methods. We conducted a single-center, retrospective study of adult patients (≥18 years) with proven or probable coccidioidomycosis between 2010 and 2018 receiving long-term fluconazole therapy for an extended duration (315 [61, 750]) in the CNS disease (184 [23.5, 403.5]) or the pulmonary group (214 [86, 415]) (P = 0.04).

Conclusion. Patients with disseminated cryptococcal disease without CNS involvement have higher risk for mortality than those with CNS disease. However, management strategies for these patients are informed by patients with localized pulmonary infection.

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393. Isavuconazole in the Treatment of Coccidioidal Meningitis

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Background. Patients with coccidioidal meningitis require life-long antifungal therapy and cumulative toxicity from these agents may occur. Isavuconazole is the newest triazole antifungal and has demonstrated a lower toxicity profile than voriconazole and may represent a useful therapy in meningitis, although no data regarding efficacy in coccidioidal meningitis has yet been presented.

Methods. We conducted a retrospective analysis of all coccidioidal meningitis patients treated at our centers. Data abstracted included demographic and clinical information, results of laboratory and radiographic studies, serological results, and outcomes. Responses to therapy were measured using a previously validated scoring system used in clinical trials of coccidioidal meningitis (MSG Coccidioidomycosis Scoring System).

Results. Nine patients met criteria for inclusion. Seven of nine were previously treated with voriconazole and transitioned to isavuconazole following: photodermatitis, five patients; transaminits and photodermatitis one patient; failure of therapy, one patient. Two other patients failed fluconazole therapy and were transitioned to isavuconazole as salvage therapy. All patients transitioned to isavuconazole had a complete response to therapy five patients; or were deemed partial response (stable disease), four patients.

Conclusion. Isavuconazole therapy resulted in symmetric and laboratory improvement in five of nine patients. The remaining patients exhibited clinical resolution of symptoms or continued with stable disease following adverse reactions to prior antifungal therapy. Isavuconazole may be a useful addition to the therapeutic choices currently available for coccidioidal meningitis.

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394. Outcomes in Patients With Disseminated Noncentral Nervous System Cryptococcus

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Background. Differentiating between localized and disseminated cryptococcal disease is key to the management of this infection, since induction therapy with amphotericin B and fluconazole is warranted in the latter. We compared mortality in disseminated Cryptococcus with non-central nervous system (CNS) involvement, with those with CNS involvement and localized pulmonary disease.

Methods. Demographics, predisposing factors, presentation, laboratory values, treatment and outcome data were collected retrospectively on patients hospitalized at an academic tertiary-care hospital for cryptococcal infection from 2002 to 2017. Outcomes were compared between three patient groups based on extra-pulmonary and CNS involvement. Survival analysis was performed using univariate and multivariate Cox Regression with censoring at 90 days.

Results. Of the 636 patients identified, 63 (10%) had pulmonary, 154 (49.2%) and CNS (30.4%) had disseminated non-CNS disease. At day 90, 38 (40%) from the disseminated non-CNS group had died, compared with 37 (24%) in the CNS disease and 13 (20.6%) in the pulmonary groups. After adjusting for age ≥55 years, organ transplant, end-stage liver disease (ESLD) and AIDS, 90-day mortality risk was higher in the disseminated non-CNS group compared with the pulmonary (HR 2.97 [95% CI 1.55, 5.7]) and the CNS disease group (1.84 [1.16, 2.93]; P = 0.009) (Figure 1). Median (IQR) time to diagnosis was 10 [4, 19] days and not significantly different between groups (P = 0.752). Induction therapy for 22 weeks was more common in the CNS disease (64.3%) than in the pulmonary (33.3%) or disseminated non-CNS disease group (34.7%) (P = 0.01). Median duration of therapy for those with the disseminated non-CNS (184 [23.5, 403.5]) or the pulmonary group (214 [86, 415]) (P = 0.04).

Conclusion. Comparison of patients with disseminated cryptococcal disease without CNS involvement have higher risk for mortality than those with CNS disease. However, management strategies for these patients are informed by patients with localized pulmonary infection.