

Abstracts of current literature on epidemiology, diagnosis, and treatment

Series Editor: Jihad Slim, MD

SINGLE-DOSE VERSUS 14-DAY FLUCONAZOLE FOR OROPHARYNGEAL CANDIDIASIS IN HIV PATIENTS

Investigators conducted a prospective, randomized, double-blind, placebo-controlled trial to compare the clinical and mycologic responses, relapse rates, and safety of single-dose (750 mg) oral fluconazole versus the standard 14-day course of oral fluconazole (150 mg/day) for treating oropharyngeal candidiasis in HIV-infected adults. Patients with confirmed oropharyngeal candidiasis were recruited from an HIV clinic (Dar es Salaam, Tanzania) between November 2006 and December 2007 and received either single-dose ($n = 110$) or 14-day fluconazole ($n = 110$). Clinical cure occurred in 105 (95.5%) patients taking 14-day fluconazole and in 104 (94.5%) patients taking single-dose fluconazole, with no significant difference in clinical efficacy between the 2 groups (odds ratio [OR], 0.825 [95% confidence interval [CI], 0.244–2.789]; $P = 0.99$). Likewise, mycologic cure occurred in 83 (75.5%) patients taking 14-day fluconazole and in 93 (84.5%) patients taking single-dose fluconazole, with no significant difference in mycologic efficacy between the 2 groups (OR, 1.780 [95% CI, 0.906–3.496]; $P = 0.129$). Drug-related adverse events were uncommon and were similar between the treatment groups. Single-dose fluconazole was as safe and effective as standard 14-day therapy in HIV-infected patients who had oropharyngeal candidiasis coinfection.

Hamza OJM, Matee MIN, Brüggemann RJM, et al. Single-dose fluconazole versus standard 2-week therapy for oropharyngeal candidiasis in HIV-infected patients: a randomized, double-blind, double-dummy trial. Clin Infect Dis 2008;47:1270–6.

EPIDEMIOLOGY AND PROGNOSIS OF HEALTH CARE-ASSOCIATED INFECTIVE ENDOCARDITIS

Researchers conducted a prospective, observational cohort study to describe the features of health care-associated infective endocarditis (HAIE) and to identify risk factors for mortality. Between 2000 and 2007, all adult patients presenting consecutively to a teaching hospital (Barcelona, Spain) with definite or possible IE were enrolled. Of 292 episodes of IE that occurred in 289 patients, 83 (28.4%) were HAIE. As compared with community-acquired IE patients, HAIE patients were older (median age \pm SD, 65.3 \pm 16.4 yr versus 57.8 \pm 17.0 yr; $P = 0.001$), had poorer health before disease onset (Charlson index \pm SD, 2.5 \pm 2.3 versus 1.7 \pm 2.1; $P = 0.006$), had more staphylococcal (55.4% versus 28.3% of cases) and enterococcal infections (22.9% versus 7.7% of cases), underwent fewer surgeries (22.9% versus 45.9% of cases; $P < 0.005$), and experienced higher in-hospital (45.8% versus 22.0%) and 1-year mortality (59.5% versus 29.6%; $P < 0.005$) rates. Stroke (OR, 8.95 [95% CI, 2.04–39.31]; $P = 0.004$), congestive heart failure (OR, 5.48 [95% CI, 1.77–17.03]; $P = 0.003$), indicated surgery not per-

formed (OR, 3.74 [95% CI, 1.22–11.45]; $P = 0.021$), and enterococcal infection (OR, 0.18 [95% CI, 0.04–0.78]; $P = 0.022$) independently predicted in-hospital death for HAIE patients. Likewise, acute renal failure (OR, 7.18 [95% CI, 1.32–39.18]; $P = 0.023$), indicated surgery not performed (OR, 7.81 [95% CI, 2.06–29.67]; $P = 0.003$), and enterococcal infection (OR, 0.18 [95% CI, 0.04–0.81]; $P = 0.026$) independently predicted 1-year mortality for HAIE patients. Overall, HAIE independently predicted in-hospital (OR, 2.83 [95% CI, 1.34–5.98]; $P = 0.007$) and 1-year mortality (OR, 2.59 [95% CI, 1.25–5.39]; $P = 0.011$). HAIE is associated with considerable mortality.

Fernández-Hidalgo N, Abmirante B, Tomos P, et al. Contemporary epidemiology and prognosis of health care-associated infective endocarditis. Clin Infect Dis 2008;47:1287–97.

TMP-SMX- AND FLUOROQUINOLONE-RESISTANT E. COLI INFECTION IN PATIENTS WITH PYELONEPHRITIS

The authors conducted a cross-sectional study of adult patients with pyelonephritis presenting to 11 US emergency departments (2001–2004) to determine the prevalence of *Escherichia coli* resistance to trimethoprim-sulfamethoxazole (TMP-SMX) and fluoroquinolones. Of 689 included cases of pyelonephritis due to a single uropathogen, *E. coli* caused 403 (94%) of 429 uncomplicated cases and 207 (80%) of 260 complicated cases. Of the uncomplicated cases, mean site rates of *E. coli* resistance were TMP-SMX, 24%; ciprofloxacin, 1%; and levofloxacin, 3%. Of 384 patients with TMP-SMX resistance, only TMP-SMX exposure within 2 days before presentation (5 [100%] of 5 isolates) and Hispanic ethnicity (57 [39%] of 145 isolates tested) were associated with *E. coli* resistance to TMP-SMX. In contrast, women who did not have these features had lower resistance rates (96 [25%] of 377 isolates presenting after day 2 and 45 [19%] of 239 isolates from non-Hispanic women). Of the complicated cases, mean site rates of *E. coli* resistance for ciprofloxacin and levofloxacin were 5% and 6%, respectively. TMP-SMX-resistant infection prevalence among patients with uncomplicated pyelonephritis may be 20% or higher in many areas of the United States. Fluoroquinolone-resistant *E. coli* infection appears to be low but is more common in patients with complicated infections. Fluoroquinolones should remain the preferred empirical treatment for women with uncomplicated pyelonephritis.

Talan DA, Krishnadasan A, Abrahamian FM, et al. Prevalence and risk factor analysis of trimethoprim-sulfamethoxazole- and fluoroquinolone-resistant Escherichia coli infection among emergency department patients with pyelonephritis. Clin Infect Dis 2008;47:1150–8.

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