

## A systematic review and meta-analysis of the relative efficacy and safety of treatment regimens for HIV-associated cerebral toxoplasmosis: is trimethoprim-sulfamethoxazole a real option?(Article)

- Hernandez, A.V.<sup>ab</sup>,
- Thota, P.<sup>c</sup>,
- Pellegrino, D.<sup>d</sup>,
- Pasupuleti, V.<sup>c</sup>,
- Benites-Zapata, V.A.<sup>e</sup>,
- Deshpande, A.<sup>fg</sup>,
- Penalva de Oliveira, A.C.<sup>h</sup>,
- Vidal, J.E.<sup>hi</sup> Email Author
- View Correspondence (jump link)

- <sup>a</sup>School of Medicine, Universidad Peruana de Ciencias Aplicadas (UPC), Lima, Peru
- <sup>b</sup>Health Outcomes and Clinical Epidemiology Section, Department of Quantitative Health Sciences, Lerner Research Institute, Cleveland Clinic, Cleveland, OH, United States
- <sup>c</sup>Department of Medicine, Case Western Reserve University, Cleveland, OH, United States

[View additional affiliations\\_](#)

[Abstract](#) [View references \(31\)](#)

**Objectives:** The objective of this study was to perform a systematic review and meta-analysis of the literature to evaluate the efficacy and safety of therapies for cerebral toxoplasmosis in HIV-infected adults. The pyrimethamine plus sulfadiazine (P-S) combination is considered the mainstay therapy for cerebral toxoplasmosis and pyrimethamine plus clindamycin (P-C) is the most common alternative treatment. Although trimethoprim-sulfamethoxazole (TMP-SMX) has potential advantages, its use is infrequent. **Methods:** We searched PubMed and four other databases to identify randomized controlled trials (RCTs) and cohort studies. Two independent reviewers searched the databases, identified studies and extracted data. Risk ratios (RRs) were pooled across studies using random-effects models. **Results:** Nine studies were included (five RCTs, three retrospective cohort studies and one prospective cohort study). In comparison to P-S, treatment with P-C or TMP-SMX was associated with similar rates of partial or complete clinical response [P-C: RR 0.87; 95% confidence interval (CI) 0.70–1.08; TMP-SMX: RR 0.97; 95% CI 0.78–1.21], radiological response (P-C: RR 0.92; 95% CI 0.82–1.03), skin rash

(P-C: RR 0.81; 95% CI 0.56–1.17; TMP-SMX: RR 0.17; 95% CI 0.02–1.29), gastrointestinal impairment (P-C: RR 5.16; 95% CI 0.66–40.11), and drug discontinuation because of adverse events (P-C: RR 0.32; 95% CI 0.07–1.47). Liver impairment was more frequent with P-S than P-C (P-C vs. P-S: RR 0.48; 95% CI 0.24–0.97). Conclusions: The current evidence fails to identify a superior regimen in terms of relative efficacy or safety for the treatment of HIV-associated cerebral toxoplasmosis. Use of TMP-SMX as preferred treatment may be consistent with the available evidence and other real-world considerations. Larger comparative studies are needed. © 2016 British HIV Association

## Reaxys Database Information

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## Author keywords

- cerebral toxoplasmosis
- HIV infection
- toxoplasmic encephalitis.

## Indexed keywords

EMTREE drug terms: antiprotozoal agentclindamycincotrimoxazolepyrimethaminesulfadiazine

EMTREE medical terms: adultcohort analysiscomplicationfemalehumanHuman immunodeficiency virus in analysismiddle agedrandomized controlled trial (topic)Toxoplasmosis, Cerebral

MeSH: AdultAntiprotozoal AgentsClindamycinCohort StudiesFemaleHIV InfectionsHumanAgedPyrimethamineRandomized Controlled Trials as TopicSulfadiazineToxoplasmosisSulfamethoxazole Drug Combination

## Chemicals and CAS Registry Numbers:

clindamycin, 18323-44-9; cotrimoxazole, 8064-90-2; pyrimethamine, 53640-38-3, 58-14-0; sulfadiazine, 547-32-0, 68-35-9;

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