

Adolescents With HIV (the Panel) to recommend liposomal amphotericin B as the preferred amphotericin formulation for treatment of visceral leishmaniasis in people with HIV **(AII)**.⁶² The optimal amphotericin B dosage has not been determined.^{62,63}

Recommended regimens include liposomal preparations of 3 to 5 mg/kg body weight administered on consecutive days or in an interrupted schedule (e.g., 4 mg/kg on Days 1–5, 10, 17, 24, 31, and 38) to achieve a total cumulative dose of 20 to 60 mg/kg body weight **(AII)**. An alternative regimen of amphotericin B deoxycholate, 0.5 to 1.0 mg/kg body weight/day intravenously (IV), to achieve a total dose of 1.5 to 2.0 g, can be administered **(BII)**.^{56,57,64–67} Pentavalent antimony (meglumine antimoniate) 20 mg/kg/day IV or intramuscular (IM) for 28 consecutive days, is an alternative **(BII)**. Pentavalent antimonial drugs require an investigator-initiated investigational new drug application in the United States (see [Instructions for Acquiring Glucantime \[Meglumine antimoniate\] for Treatment of Leishmaniasis](#)). Due to toxicity concerns with pentavalent antimonial drugs, a pregnancy test (beta-human chorionic gonadotropin [β -hCG]) should be obtained by individuals of childbearing potential prior to start of therapy, and effective contraception during treatment is advised.

Oral miltefosine monotherapy (available in the United States via www.profounda.com) is recommended as an alternative treatment option for Indian *L. donovani* visceral leishmaniasis in people with HIV^{63,68} at a dose of approximately 2.5 to 3 mg/kg daily (maximum of 150 mg daily) for 28 days **(BII)**.^{69–72} Combination therapy using miltefosine and liposomal amphotericin in the treatment of HIV-*L. donovani* visceral leishmaniasis has also shown promise. A randomized clinical trial of liposomal amphotericin 30 mg/kg total dose and miltefosine 100 mg/day for 28 days was compared to liposomal amphotericin 40 mg/kg total dose monotherapy among patients with *L. donovani* visceral leishmaniasis and HIV coinfection in Ethiopia. Parasite clearance persisting to 58 days was found in 88% of the combination treatment group versus 55% in the monotherapy group.⁷³ In India, 150 people with HIV with *L. donovani* visceral leishmaniasis received total doses of liposomal amphotericin 40 mg/kg IV versus liposomal amphotericin 30 mg/kg IV with oral miltefosine 50 mg twice daily for 14 days. At Day 210 follow-up, 7% of patients in the monotherapy arm died versus 1.3% in the combination arm.⁷⁴ These data have led the WHO to update their [2022 HIV and visceral leishmaniasis coinfection treatment guidelines](#) to conditionally recommend combination liposomal amphotericin and miltefosine treatment; those with HIV-visceral leishmaniasis coinfection in Eastern Africa (*L. donovani*) should be administered miltefosine for 28 days, and those with HIV-visceral leishmaniasis coinfection (*L. donovani*) in South East Asia should be administered miltefosine for 14 days.⁷⁵ Since miltefosine is teratogenic and is contraindicated in pregnancy, β -hCG should be checked prior to initiation and effective contraception should be continued for 5 months.⁶³

Data supporting the use of miltefosine monotherapy in people with HIV are relatively limited and restricted to Indian *L. donovani*. For visceral leishmaniasis caused by *L. infantum* (e.g., in the Americas, Europe), Pan American Health Organization guidelines recommend against miltefosine monotherapy due to lower efficacy and limited evidence.⁷⁶ Further research is also needed to confirm the efficacy of drug combinations in people with HIV to treat other *Leishmania* species and severe or refractory cases of visceral leishmaniasis in other geographic regions. Currently, there is no recommendation for combination therapy in visceral leishmaniasis due to *L. infantum*.

Cutaneous Leishmaniasis

Few systematic data are available on the efficacy of treatment for cutaneous leishmaniasis, mucosal leishmaniasis, or diffuse cutaneous leishmaniasis in people with HIV. Based on data from individuals