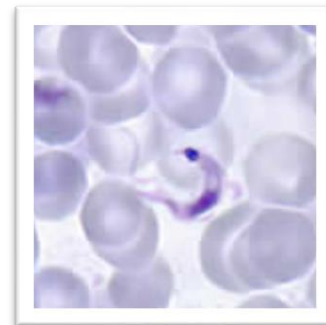


Preventing Chagas disease in transplant recipients: Donor screening and recipient monitoring

Trypanosoma cruzi, the parasite that causes Chagas disease, is most commonly transmitted to people by triatomine bugs. Vector-borne transmission of *T. cruzi* occurs mainly in rural areas of Latin America (South America, Central America, or Mexico). Chronic infection persists for life in the absence of treatment. Many infected individuals are asymptomatic and unaware that they have Chagas disease.



***Trypanosoma cruzi* parasite in a thin blood smear. (CDC Photo)**

Although less common, these parasites can also be spread via organ transplantation, from an infected donor to an uninfected recipient. Chagas disease can be more severe and even life-threatening in immunosuppressed individuals, such as transplant recipients.

Preventing donor-derived Chagas disease depends on the following:

- Recognition of risk factors in potential organ donors:
 - Born or resided in endemic areas of Latin America (Mexico, Central and South America)
 - Child of a woman who lived in an endemic area (if birth mother's infection status is positive or unknown)
 - Received blood transfusion in an endemic area
 - Previous diagnosis of Chagas disease
- Screening organ donors with risk factors for Chagas disease
- Monitoring transplant recipients of organs from infected donors for signs of acute infection

Donor screening

In a paper published in 2011, the Chagas in Transplant Working Group recommended that OPOs consider targeted screening of potential donors born in Latin America ([Screening and Treatment of Chagas Disease in Organ Transplant Recipients in the United States: Recommendations from the Chagas in Transplant Working Group](#)). Because donors are more likely to have chronic infections, serology to detect *T. cruzi*-specific antibodies is the most reliable test.

Recipient monitoring

Recipients of organs from seropositive donors should be monitored for the parasite in their blood using PCR and local examination of blood smear/buffy coat preparations. Samples should be tested as they are collected, and not batched, to allow for early detection of infection and treatment. Although limited by sample size, CDC data published in 2014 suggest that prospective monitoring identified infections early and allowed for rapid treatment before disease occurred ([Donor-Derived *Trypanosoma cruzi* Infection in Solid Organ Recipients in the United States, 2001–2011](#)).

Monitoring schedule

Months post-transplant	PCR and microscopy
0-3	Weekly
4	Biweekly
5-7	Monthly
7+	Consider additional testing
Additional testing as needed:	Unexplained febrile episode
	Increase in immunosuppressive regimen

Chemoprophylaxis is not recommended for transplant recipients from seropositive donors. Currently, only two drugs are available to treat Chagas disease: nifurtimox and benznidazole. These drugs are not approved by the Food and Drug Administration (FDA) but are available in the United States through the Centers for Disease Control and Prevention (CDC) Drug Service under FDA-approved protocols.

Serologic testing and PCR monitoring for *T. cruzi* infection are available at CDC.

Questions? Testing requests?

Contact: CDC Parasitic Diseases Branch, parasites@cdc.gov