

**EMBARGOED UNTIL DECEMBER, 19TH 2019, AT 11 AM PACIFIC TIME / 2 PM
EASTERN / 7 PM BRITISH TIME**

The Combined Use of Two Rapid Tests is Effective for Accurate Diagnosis of Chronic Chagas Disease in the Field

This strategy would facilitate the diagnosis of chronically infected individuals in endemic regions with poorly equipped laboratories

Barcelona, 17 December 2019- The **combined use of two commercially available rapid diagnostic tests is effective for accurately diagnosing chronic Chagas disease in the field**, according to a study funded by the Inter-American Development Bank (IDB) and led by the Barcelona Institute for Global Health ([ISGlobal](#)), an institution supported by “la Caixa” in collaboration with CEADES and Mundo Sano Foundation. The performance observed indicates that these tests could be used to diagnose chronic Chagas in highly endemic regions with poorly equipped laboratories.

The acute phase of infection by *Trypanosoma cruzi* – the causal agent of Chagas disease – is typically asymptomatic and goes unnoticed. **Disease diagnosis often occurs during the chronic stage**, when symptoms appear. The conventional serological tests (ELISAs) used to diagnose the disease are not practical to perform since they require equipped laboratories. In contrast, rapid diagnosis tests (RDTs) are easy to use, do not need cold storage, and require small quantities of blood.

In a [previous study](#), the research team had already suggested using two rapid tests as an alternative to serological techniques for Chagas diagnosis. “We have now taken the RDTs to the field, to test them in screening campaigns performed by mobile teams,” explains **Julio Alonso-Padilla**, ISGlobal researcher and coordinator of the study. The authors used **685 samples obtained in the Chaco region of Bolivia** to compare results from both RDTs – either combined or separately – with the standard serological tests performed in laboratory. **They found that the combined use of both RDTs had a sensitivity** (i.e. the capacity to detect positive cases) **of 97% and a specificity** (i.e. the capacity to discern negative cases) **of 96.1%, compared to the standard algorithm** (based on ELISAs).

The results, published in PLoS NTDs, showed a high prevalence of infection in the region: 44% of analysed samples were positive. **“The results of this study support the use of rapid diagnostic tests as an alternative to conventional serological methods in the Chaco and other highly endemic regions,”** says Alonso-Padilla.

Reference

Lozano D, Rojas L, Mendez S, et al. [Use of rapid diagnostic tests \(RDTs\) for conclusive diagnosis of chronic Chagas disease – field implementation in the Chaco region](#). *Plos NTDs*. doi: 10.1371/journal.pntd.0007877

About ISGlobal

The Barcelona Institute for Global Health, ISGlobal, is the fruit of an innovative alliance between "la Caixa" and academic and government institutions to contribute to the efforts undertaken by the international community to address the challenges in global health. ISGlobal is a consolidated hub of excellence in research that has grown out of work first started in the world of health care by the Hospital Clínic and the Parc de Salut MAR and in the academic sphere by the University of Barcelona and Pompeu Fabra University. The pivotal mechanism of its work model is the transfer of knowledge generated by scientific research to practice, a task undertaken by the institute's Education and Policy and Global Development departments. ISGlobal a member of the CERCA programme of the Generalitat de Catalunya.

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