

# Transferability of *Trypanosoma cruzi* from mixed human host infection to *Triatoma infestans* and from insects to axenic culture

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© 2014 Elsevier Ireland Ltd. The etiologic agent of Chagas disease is *Trypanosoma cruzi*, a protozoan whose life cycle involves obligatory passage through vertebrate and invertebrate hosts in a series of stages. The aim of this study was to explore the transferability of mixed discrete typing units (DTUs) of *T. cruzi* present in chronic chagasic patients when passed through an invertebrate host during xenodiagnosis (XD) and then when transferred to axenic cultures to obtain *T. cruzi* isolates. DTUs of *T. cruzi* present in these two hosts and axenic cultures were identified by kDNA PCR amplification and subsequent hybridization with DTU-specific probes. Mixtures of Tc I, Tc II, Tc V and Tc VI DTUs were detected in blood samples. However as a result of XD and axenic cultures it was possible to identify mostly Tc V. We conclude that the transferability of an isolate of *T. cruzi* derived from mixed DTUs present in human blood depends upon the starved invertebrate host used for xenodiagnosis.