



**Pan American  
Health  
Organization**

Regional Office of the  
World Health Organization



**Doctors without Borders (Spain)**

OPS/DPC/CD/353/05

Original: Spanish

**PAHO/MSF Regional Consultation  
on the  
Organization and Structure of Health Care  
for the Sick or Infected by *Trypanosoma cruzi*  
(Chagas Disease)**

**(Montevideo, Uruguay, 13–14 October 2005)**



**with the collaboration of the  
French-Speaking Community of Belgium**



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Original Catalog Reference:

Organización Panamericana de la Salud, Editor.  
Organización y estructura de la atención médica del enfermo o infectado por *Trypanosoma cruzi* (enfermedad de Chagas).  
Consulta Técnica Regional OPS/MSF sobre organización y estructura de la atención médica del enfermo o infectado por  
*Trypanosoma cruzi* (enfermedad de Chagas), 2005 Oct.13–14, Montevideo, Uruguay.  
Montevideo: OPS; 2005. (OPS/DPC/CD/353/05)

Chagas Disease / *Trypanosoma cruzi* / Health service administration / Medical attention / Medical care

ISBN: 9974-7945-1-X

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### I. Background

Since 1991, the development of subregional initiatives to control Chagas disease, as well as advances in knowledge in terms of its diagnosis and management, lead to the ethical need and operational imperative to structure the diagnosis, attention, and treatment of this illness.

In most of the endemic countries of the Americas, a particularly delicate, troubling, and alarming situation exists in the limited and inequitable access to the limited therapeutic resources currently available for the etiological treatment of Chagas disease. Given this situation, a proposal was made for PAHO and MSF to hold a regional technical Consultation on the organization and structure of medical care for persons ill from or infected by *Trypanosoma cruzi* (Chagas disease), with the following **OBJECTIVES** :

- ➔ Define the scope and structure of medical care for Chagas patients, in terms of diagnosis, management, and treatment.
- ➔ Develop alternative and optional models of attention in tune with the health structures in the countries.
- ➔ Outline the care provided to Chagas patients according to its evolutionary biopathological stage within the individual levels of the medical care complex.
- ➔ Establish aspects of concern in the areas of pediatric, mother-child, and transfusion care as well as those of greater complexity.
- ➔ Define diagnostic needs and scope.
- ➔ Establish both the scope and the facilities that these patients should have within the health-care systems.
- ➔ Define the total panorama of patient availability and access to the etiological treatment of this disease.
- ➔ Plan concepts and frameworks on the cost, impact, and effectiveness of developing a component for Chagas morbidity and care.
- ➔ Establish the needs for operational research and for management so as to make progress in developing medical care schemes for this group of patients.

This consultation, held in the city of Montevideo from 13 to 14 October 2005, intends to prepare a conceptual guide for review and dissemination in 2006, with the collaboration of the five subregional intergovernmental initiatives for Chagas disease control.

## II. Conclusions and Recommendations

### II.1 Conceptual Aspects

1. Incorporating the morbidity and medical care component into the subregional initiatives for Chagas disease control, as well as into national programs in countries where *T. cruzi* infection is endemic, is both timely and necessary. Such implementation should neither divert nor debilitate the epidemiological surveillance or fundamental control activities aimed at stopping transmission (be it vectoral, transfusional or vertical).
2. We are now at a point in time where the situation is both new and different from that of 1990, at which time the subregional initiatives for Chagas disease control were created. The current scientific and technological developments warrant the improvement and enhancement of medical care, beyond the ethical mandate that this action implies, for the 12 to 18 million infected persons in the Region.
3. Care of infected patients needs to be integrated within health-care systems (public, social security, and private alike) as a regular and sustainable component of Chagas disease prevention, control, and surveillance activities.
4. In countries where *T. cruzi* infection is endemic, there should be a guarantee for infected persons and patients to have universal, quality access to care, in accordance with what each country establishes for its population.
5. Continued work is needed to achieve universal donor screening at all blood banks.
6. Guaranteed communication of positive serological result to donors and to the health system is necessary so that the persons affected can receive the necessary medical care. Every case detected as a result of screening should be confirmed with serological retesting in a diagnostic laboratory.
7. Regional and national quantitative data on infected persons and Chagas patients are needed to provide support for decision-making and for designing medical care strategies.

### II.2 Medical Attention

8. The natural history of Chagas disease and the frequency of its different phases and forms guide patient care planning in health services according to the degree of complexity required for each case.
9. Primary care in particular does not exclude any reference to the levels of complexity that follow for each case. Such derivation should be planned and correctly carried out.
10. It is recommended that every person infected by Chagas be within the scope of possibilities by a general or family practitioner or clinician close to his/her place of residence.
11. The different health subsystems should organize care for those infected by *T. cruzi* who come fall the responsibility of state medical care persons without coverage.

12. Recurrence through immunosuppression—either pathological (VIH/SIDA, etc.) or therapeutic (immunosuppressive treatments, transplants, etc.)—is an emerging element in problems related to *T. cruzi* infection.
13. The general practitioner in countries where *T. cruzi* infection by is endemic should be well familiarized with the disease and be kept up-to-date on any knowledge related to it, in order to provide proper care; this includes the following:
  - confirming its etiological diagnosis;
  - requesting complementary studies;
  - defining its clinical form;
  - initiating and/or providing follow-up for the prescribed treatment;
  - evaluating the prognosis;
  - determining the type of physical activity in which the patient may safely engage;
  - determining whether intervention by a specialist is needed.
14. Promote collaboration among ministries of health, universities, and scientific societies to carry out continuous medical education and training programs on the subject.
15. Any report of a positive result for Chagas infection to the patient and as well as follow-up requires a correct process of communication and physician-patient counseling that generates the infected person's confidence and adherence by adequately providing sufficient appropriate information in a timely manner.
16. In Chagas care provision, there are regional variations that gravitate *vis-à-vis* their clinical form and pathology; these variations should be taken into account when designing health-care systems and setting priorities.
17. The indeterminate form of Chagas is the most frequent and should be correctly diagnosed in accordance with the level of complexity of the health-care center.
18. A proposal favoring equity and the adaptation of Chagas patient care is the creation of referral and counter-referral systems.
19. Currently the criterion for curing *T. cruzi* infection is the negativization of conventional serology. This negativization occurs early in acute cases and in chronic cases in the post treatment stage where it can be delayed for several years.
20. There should be a guarantee of both symptomatic and physiopathological treatment for all patients.

### **II.3 Diagnostics**

21. The diagnosis of this parasitosis has different modalities in accordance with the phase of the infection:
  - a) in the acute phase (vectoral, transfusional, transplacental), by using direct parasitological techniques or demonstrated a seroconversion;
  - b) in the chronic phase, by using serological methods;
  - c) in reactivations, by using parasitological methods.
22. The serology for *T. cruzi* should be systematically carried out on all pregnant women in countries where the infection is endemic. If the mother is seropositive,
  - a) a search for the infection should be carried out in the newborn;
  - b) her other children should be examined for this parasitosis;
  - c) all infected children should then be treated.

23. In its organization and procedures, Chagas disease care should consider indigenous populations as well as other ethnic groups, in order to guarantee coverage, equity with the rest of the population, and sufficient and adequate quality.

#### **II.4 Treatment**

24. Care systems as well as levels of care for *T. cruzi* patients should diagnose this pathology early, in order to optimize treatment opportunities.
25. In patients in the acute phase of the disease, regardless of mode of transmission (vectoral, transplacental, etc.), and only recently in the chronic phase (especially children and adolescents) Nifurtimox and Benznidazole have proven to be effective (PAHO, 1998).
26. In chronic infection among adults, these drugs are being evaluated in order to demonstrate their effectiveness in curing the infection and preventing morbidity and mortality, with no conclusive results to date.
27. In order to improve the quality of patient care, it is fundamental that an international workshop be held to reach consensus on the basic points for establishing a standard clinical research protocol, in order to evaluate the effectiveness of new trypanocidal candidates.

#### **II.5 Access to Diagnosis and Treatment**

28. Reviewing and implementing strategies that guarantee access to diagnostic methods for Chagas disease is recommended, in order to guarantee quality at minimal cost. Continuing the search for new methods and simplification are also recommended, in order to facilitate their use in currently available primary care.
29. There is expressed concern at this time about the availability of drugs for etiological treatment of Chagas disease. Multilateral and international negotiation mechanisms should be established in order to facilitate this process, with the intervention by the governments, PAHO, and other organizations (DNDi, SPS, etc.).
30. It is important to consolidate an adequate information circuit in order to better quantify the real need for treatment and to be able to exert greater pressure with demand data to guarantee its availability.
31. The process of technology transfer for the production of Benznidazole should be both accompanied and sustained by PAHO and the countries involved. Production by the Roche Laboratory during the time required for this transfer process should be ensured.
32. Multilateral pressure should be put on Bayer to keep producing and distributing Nifurtimox.
33. From all areas (care, scientific, and institutional alike), the search for alternatives to provide etiological treatment for Chagas disease should be continued. Research and the production of new pediatric and delayed elimination formulations should also be stimulated.
34. With respect to specific treatments, it is recognized that there have been advances in knowledge, management, and indications in that area. However, it is necessary to emphasize that the drugs currently at hand are not ideal in terms of patient safety and effectiveness, which warrants both stimulus and efforts to acquire new and more effective drugs, with less toxicity and fewer side effects.

## II.6 Situation in Countries where the Infection Is Not Endemic

35. Countries where the Chagas disease/infection is not endemic should consider the presence of people infected by *T. cruzi* from endemic areas. Care should be organized, their role as blood donors should be examined, and clinical-therapeutic management of congenital transmission by infected pregnant women should be organized.
36. Countries where Chagas disease/infection is not endemic but that receive Latin American migration should organize a network of centers specialized in subjects related to this infection, with the goal of obtaining consensus on treatment protocols and control strategies.
37. Networks in countries where the Chagas disease/infection is not endemic should maintain continuous contact with those existing in countries where it is endemic, in order to promote joint research strategies.

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**This consultation was co-organized by**



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