

Supplementary Online Content

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Patient identification:

Positive *Trypanosoma cruzi* IgG criteria:

Two positive *Trypanosoma cruzi* IgG Ab [Units/volume] in Serum (most recent occurrence) by Immunoassay (laboratory Result: Positive or ≥ 1.20 optical density (OD) unit)

Indeterminate Chronic Chagas Disease

Patients with a two positive serology for *Trypanosoma cruzi* IgG, who don't have any history or evidence of cardiac injury or cardiomyopathy:

Inclusion criteria:

- Positive *Trypanosoma cruzi* IgG Ab [Units/volume] in Serum (most recent occurrence) by Immunoassay (laboratory Result: Positive or ≥ 1.20 optical density (OD) unit) x 2

Exclusion criteria:

- R93.1 Abnormal findings on diagnostic imaging of heart and coronary circulation
- I25 Chronic Ischemic Heart Disease
- I40 Acute Myocarditis
- I41 Myocarditis in diseases classified elsewhere
- I42 Cardiomyopathy
- I43 Cardiomyopathy in diseases classified elsewhere
- I44 Atrioventricular and left bundle-branch block
- I45 Other conduction disorders
- I46 Cardiac arrest
- I47 Paroxysmal tachycardia
- I48 Atrial fibrillation and flutter
- I49 Other cardiac arrhythmias
- I50 Heart failure

- I51 Complications and ill-defined descriptions of heart disease
- I52 Other heart disorders in diseases classified elsewhere
- B57.2 Chagas' disease (chronic) with heart involvement
- Z86.74 Personal history of sudden cardiac arrest
- R94.31 Abnormal electrocardiogram [ECG] [EKG]
- I5A Non-ischemic myocardial injury (non-traumatic)

To explore follow-up outcomes with this indeterminate cohort, we defined the cohort as patients with two positive serologies for *Trypanosoma cruzi* IgG who don't have any history or evidence of cardiac injury or cardiomyopathy before or up to 6 months since the instance of positive serology

Chronic Chagas Cardiomyopathy definition:

Patients with two positive serologies for *Trypanosoma cruzi* IgG, who have any history or evidence of cardiac injury or cardiomyopathy:

- Inclusion criteria: Positive *Trypanosoma cruzi* IgG Ab [Units/volume] in Serum (most recent occurrence) by Immunoassay (laboratory Result: Positive or ≥ 1.20 optical density (OD) unit) x2

AND

- R93.1 Abnormal findings on diagnostic imaging of heart and coronary circulation
- I25 Chronic Ischemic Heart Disease
- I40 Acute Myocarditis
- I41 Myocarditis in diseases classified elsewhere
- I42 Cardiomyopathy
- I43 Cardiomyopathy in diseases classified elsewhere
- I44 Atrioventricular and left bundle-branch block
- I45 Other conduction disorders
- I46 Cardiac arrest

- I47 Paroxysmal tachycardia
- I48 Atrial fibrillation and flutter
- I49 Other cardiac arrhythmias
- I50 Heart failure
- I51 Complications and ill-defined descriptions of heart disease
- I52 Other heart disorders in diseases classified elsewhere
- B57.2 Chagas' disease (chronic) with heart involvement
- Z86.74 Personal history of sudden cardiac arrest
- R94.31 Abnormal electrocardiogram [ECG] [EKG]
- I5A Non-ischemic myocardial injury (non-traumatic)

To explore follow up outcomes with this Chronic Chagas Cardiomyopathy cohort, we defined the cohort as patients with two positive serologies for *Trypanosoma cruzi* IgG, who don't have any history or evidence of the outcome of interest before or up to 6 months since the instance of positive serology

Supplementary Table S1. International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) diagnosis codes for underlying comorbidities

Code	Description
I10	Essential (primary) hypertension
N18	Chronic kidney disease (CKD)
E11	Type 2 diabetes mellitus
I30-I5A	Other forms of heart disease
D60-D64	Aplastic and other anemias and other bone marrow failure syndromes
D61	Aplastic Anemia
E78.5	Hyperlipidemia, unspecified

E66	Overweight and obesity
C00-D49	Neoplasms
K21	Gastro-esophageal reflux disease
I50	Heart failure
B57	Chagas' disease
B57.1	Acute Chagas' disease without heart involvement
G47	Sleep disorders
J40-J47	Chronic lower respiratory diseases
B57.3	Chagas' disease (chronic) with digestive system involvement
A50-A64	Infections with a predominantly sexual mode of transmission
B20-B20	Human immunodeficiency virus [HIV] disease (B20)
B78	Strongyloidiasis
K30	Functional dyspepsia
K74	Fibrosis and cirrhosis of liver
I63	Cerebral infarction
I26	Pulmonary embolism
I25.3	Left ventricular aneurysm
Z86.74	Personal history of sudden cardiac arrest
B58	Toxoplasmosis
B57.0	Acute Chagas' disease with heart involvement

B18	Chronic viral hepatitis
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Supplementary Table S2. Logical Observation Identifiers Names and Codes (LOINC) for laboratory values

Code	Description
9013	Hematocrit [Volume Fraction] of Blood
9024	Creatinine [Mass/volume] in Serum, Plasma or Blood
9020	Platelets [# /volume] in Blood
9044	Alanine aminotransferase [Enzymatic activity/volume] in Serum, Plasma or Blood
9047	Aspartate aminotransferase [Enzymatic activity/volume] in Serum or Plasma
9029	Sodium [Moles/volume] in Serum, Plasma or Blood
9046	Alkaline phosphatase [Enzymatic activity/volume] in Serum, Plasma or Blood
9083	BMI
9015	Leukocytes [# /volume] in Blood
9007	Eosinophils/100 leukocytes in Blood
9016	Lymphocytes/100 leukocytes in Blood
9073	Respiratory rate
9074	Heart rate
9014	Hemoglobin [Mass/volume] in Blood
9037	Hemoglobin A1c/

9000	Cholesterol [Mass/volume] in Serum or Plasma
9042	Ferritin [Mass/volume] in Serum, Plasma or Blood
9052	Lactate dehydrogenase [Enzymatic activity/volume] in Serum or Plasma
9003	Natriuretic peptide B [Mass/volume] in Serum, Plasma or Blood
2157-6	Creatine kinase [Enzymatic activity/volume] in Serum or Plasma
9063	C reactive protein [Mass/volume] in Serum, Plasma or Blood
9005	Troponin I. Cardiac [Mass/volume] in Serum, Plasma or Blood
9072	Natriuretic peptide. B prohormone N-Terminal [Mass/volume] in Serum, Plasma or Blood
2001	Corrected QT Interval (QTc)
2003	Left Ventricular Ejection Fraction (LVEF) (%)

Supplementary Table S3. Rx Norm codes for medications

Code	Description
CV100	BETA BLOCKERS/RELATED
CV702	LOOP DIURETICS
83367	atorvastatin
CV800	ACE INHIBITORS

6387	lidocaine
6918	metoprolol
17767	amlodipine
5470	hydralazine
CV701	THIAZIDES/RELATED DIURETICS
20352	carvedilol
CV704	POTASSIUM SPARING/COMBINATIONS DIURETICS
2599	clonidine
703	amiodarone
296	adenosine
18994	benznidazole
7421	nifurtimox
282446	posaconazole

Supplementary Table S4. Outcomes based on Current Procedural Terminology (CPT) codes, HL7 Terminology, and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) diagnosis codes

Code(s)	Description
Ill-defined and unknown cause of mortality (R99); or Deceased.	Mortality
1013659, 1013660, 1013699 1013729, 1014309, 99291	Hospitalization
I63	Stroke
I26	Pulmonary embolism

<ul style="list-style-type: none">• Atrioventricular and left bundle-branch block (I44); or• Other conduction disorders (I45); or• Cardiac arrest (I46); or• Paroxysmal tachycardia (I47); or• Atrial fibrillation and flutter (I48); or• Other cardiac arrhythmias (I49).	Arrhythmias
I25.3	Left ventricular aneurysm
Z86.74	Personal history of sudden cardiac arrest