## Supplementary Material

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### Supplementary table S1. Search Strategy for LILACS database, Date of the Last Search: April 22nd, 2021

| # | Query                                                                 | Total |
|---|----------------------------------------------------------------------|-------|
| 1 | ("Rheumatic Fever") OR ("Fiebre Reumatica") OR ("Rheumatic Heart Disease") OR ("Cardiopatia Reumatica") | 960   |
| 2 | Date Filter: 1990 - 2021                                             | 734   |

### Supplementary table S2. Search Strategy for SciELO database, Date of the Last Search: April 22nd, 2021

| # | Query                                                                 | Total |
|---|----------------------------------------------------------------------|-------|
| 1 | ("Rheumatic Fever") OR ("Fiebre Reumatica") OR ("Rheumatic Heart Disease") OR ("Cardiopatia Reumatica") | 279   |
| 2 | Date Filter: 1990 - 2021                                             | 261   |

### Supplementary table S3. Search Strategy for PubMed database, Date of the Last Search: April 22nd, 2021

| # | Query                                                                                                                                                                                                 | Total |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| 1 | "Rheumatic Fever"[Mesh] OR "Rheumatic Heart Disease"[Mesh] OR "Rheumatic Fever" OR "Rheumatic Heart Disease"                                                                                         | 24,760|
| 2 | "Caribbean Region"[Mesh] OR "Latin America"[Mesh] OR "South America"[Mesh] OR "Central America"[Mesh] OR ("Americas"[Mesh] NOT "North America"[Mesh]) OR "Mexico"[Mesh] OR “Antigua and Barbuda” OR “Argentina” OR “Aruba” OR “Bahamas” OR “Barbados” OR “Belize” OR “Bolivia” OR “Brazil” OR “Virgin Islands” OR “Cayman Islands” OR “Chile” OR “Colombia” OR “Costa Rica” OR “Cuba” OR “Curacao” OR “Dominica” OR “Dominican Republic” OR “Ecuador” OR “El Salvador” OR “French Guiana” OR “Grenada” OR “Guadeloupe” OR “Guatemala” OR “Guyana” OR “Haiti” OR “Honduras” OR “Jamaica” OR “Martinique” OR “Mexico” OR “Nicaragua” OR “Panama” OR “Paraguay” OR “Peru” OR “Puerto Rico” OR “Saint Barthelemy” OR “St. Martin” OR “St. Kitts and Nevis” OR “St. Lucia” OR “St. Vincent and the Grenadines” OR “Suriname” OR “Trinidad and Tobago” OR “Turks and Caicos Islands” OR “Uruguay” OR “Venezuela” | 907,984|
| 3 | #1 AND #2                                                                                                                                  | 643   |
| 4 | Date Filter Applied: 1990/1/1 - 2021/12/31                                                                                                 | 494   |

### Supplementary table S4. Search Strategy for EMBASE database, Date of the Last Search: April 22nd, 2021

| # | Query                                                                 | Total |
|---|----------------------------------------------------------------------|-------|
| 1 | #1 AND #2                                                                 | 643   |
|   |   |
|---|---|
| 1 | 'rheumatic fever'/exp OR 'rheumatic heart disease'/exp |
| 2 | 'South and Central America'/exp OR 'Caribbean'/exp OR ('Americas' NOT 'North America') OR 'Mexico'/exp OR 'Antigua and Barbuda' OR 'Argentina' OR 'Aruba' OR 'Bahamas' OR 'Barbados' OR 'Belize' OR 'Bolivia' OR 'Brazil' OR 'Virgin Islands' OR 'Cayman Islands' OR 'Chile' OR 'Colombia' OR 'Costa Rica' OR 'Cuba' OR 'Curacao' OR 'Dominica' OR 'Dominican Republic' OR 'Ecuador' OR 'El Salvador' OR 'French Guiana' OR 'Grenada' OR 'Guadeloupe' OR 'Guatemala' OR 'Guyana' OR 'Haiti' OR 'Honduras' OR 'Jamaica' OR 'Martinique' OR 'Mexico' OR 'Nicaragua' OR 'Panama' OR 'Paraguay' OR 'Peru' OR 'Puerto Rico' OR 'Saint Barthelemy' OR 'St. Martin' OR 'St. Kitts and Nevis' OR 'St. Lucia' OR 'St. Vincent and the Grenadines' OR 'Suriname' OR 'Trinidad and Tobago' OR 'Turks and Caicos Islands' OR 'Uruguay' OR 'Venezuela' |
| 3 | #1 AND #2 |
| 4 | Years published Filter Applied: 1990 - 2021 |
## Supplementary Table S5. Characteristics of included studies

| Reference | Country (ies) | Study design | Objective | Study period | Setting | Topic | Total n | Population characteristics |
|-----------|---------------|--------------|-----------|--------------|---------|-------|---------|-------------------------------|
| Alves Meira et al., 1995 [18] | Brazil | Cross-sectional | “To determine the prevalence of RF among children of a public high school in Belo Horizonte, Brazil.” | March - December 1992 | School | X | 550 | Age range: 10 – 20 years Female: 319 (58%) Male 231 (42%) |
| Bach et al., 1996 [19] | Martinique and Guadeloupe | Cross-sectional | “To report how the Martinique/Guadeloupe eradication program was set up and results over 10 years” | 1982 - 1992 | School, hospital | X | X | N/A | N/A |
| Beaton et al., 2016[20] | Brazil | Cross-sectional | “To test the ability of nonexperts with a variety of echocardiography experience to interpret RHD screening echocardiograms using handheld echocardiography after a brief, asynchronous, standardized, computer-based training course on image interpretation.” | N/A | School | X | X | N/A | N/A |
| Berrios et al., 1993 [21] | Chile | Cohort | “To assess the safety of discontinuing prophylaxis with antimicrobial agents in patients judged to be at relatively low risk for recurrence of ARF” | July 1982 - September 1988 | Community | X | X | 59 | Age range: 15 – 44 Mean age: 24.5 Female: 40 (67.8%) Male: 19 (32.2%) |
| Canale et al., 2011[22] | Brazil | Cohort | “To report the mid-term clinical results and heart rate of patients undergoing bipolar radiofrequency ablation concomitant with mitral valve surgery of rheumatic origin at National Institute of Cardiology, Rio de Janeiro” | January 2008 - December 2009 | Hospital (SC) | X | | 53 | Surgical population Mean age ± SD: 49.3 ± 10.7 Female: 34 (64%) Male: 19 (36%) |
| Casalino et al., 2015[23] | Brazil | Cross-sectional | “To evaluate the performance of additive, logistic, and EuroSCORE II in predicting in-hospital mortality in a cohort of patients with valvular heart disease and a predominant rheumatic etiology submitted to surgical procedure in a tertiary” | February - December 2009 | Hospital (SC) | X | | 247 with RHD (Total: 440) | Surgical population Mean age ± SD: 51 ± 12 Female: 150 (60.3%) |
| Study Authors | Country | Study Type | Summary | Reference Dates | Setting | Sample Size | Surgical Population | Characteristics |
|---------------|---------|------------|---------|-----------------|---------|-------------|---------------------|------------------|
| Chavez et al., 2017 [24] | Brazil | Cohort | To evaluate the cardiac rate at hospital discharge and a one-year postoperative follow-up period as well as factors associated with the occurrence of sinus rhythm at the end of the first year with patients presenting RHD and indication for mitral valve surgery concomitant with surgical ablation of AF | January 2013 - December 2014 | Hospital (SC) | X | 103 | Surgical population: Mean age ± SD: 50.76 ± 10.7, Female: 78 (76%), Male: 25 (24%) |
| Cruz et al., 2019 [25] | Brazil | Cohort | To identify predictors of unfavorable outcome in children and adolescents submitted to mitral valvuloplasty secondary to RHD | March 2011 - January 2017 | Hospital (SC) | X | 54 | Surgical Population: Mean age ± SD: 10.5 ±3.2, Female: 29 (53.7%), Male: 25 (46.3%) |
| de Araújo Fonseca et al., 2020 [26] | Brazil | Cross-sectional | To characterize Brazilian hospital admissions distribution classified by the ICD-10 in adults between 2008 and 2017, as well as to analyze the incidence of hospital admissions, the regional distribution, and to observe the temporal trend of hospital admissions and mortality rate due to CVD in Brazil | 2008 - 2017 | Hospital nationwide (MC) | X | 11,345,821 | (n of CVD admissions) N/A |
| Defiló Ricart et al., 1991 [27] | Dominican Republic | Cross-sectional | To establish the number of ARF cases and their clinical characteristics throughout 20 years | November 1969 - December 1989 | Hospital (SC) | X | 19,483 | (n of admissions) N/A |
| Durães et al., 2013 [28] | Brazil | Cohort | To determine the contemporary incidence of thromboembolic events in rheumatic patients early after isolated aortic and mitral bio prosthesis replacement and perform a comparison between isolated use of aspirin with no-antiplatelet therapy | January 2010 - July 2012 | Hospital (SC) | X | 184 | Surgical population: Mean age ± SD: 45 ± 16 (aspirin group); 42 ± 15 (no intervention group), Female: 94 (51%), Male: 90 (49%) |
| Fernandes et al., 2015 [29] | Brazil | Cross-sectional | To identify potential associations between surgical variables and in-hospital mortality of patients with RHD who have undergone DVR | January 2007 - December 2011 | Hospital (SC) | X | 104 | Surgical population: Mean age ± SD: 38.04 ± 14.4, Female: 44 (42.3%), Male: 60 (57.7%) |
| Figueiredo et al., 2019 [30] | Brazil | Cross-sectional | To analyze the historical series of mortality rates and disease costs, projecting future trends to offer new data that may justify the need to implement a public health program for ARF | 1998 - 2016 | Population | X | N/A | N/A |
| Giachetto et al., 1994 [31] | Uruguay | Cross-sectional | To analyze the clinic and epidemiologic aspects of ARF at Hospital | January 1990 - December 1993 | Hospital (SC) | X | 8,082 | (n of admissions) 5% Characteristics of ARF cases (n=58) |
| Authors                  | Country | Study Type | Study Description                                                                 | Start Date | End Date | Population | Sample Size | Mortality Rate | Cause of Death | Age Range | Gender Distribution |
|-------------------------|---------|------------|------------------------------------------------------------------------------------|------------|----------|------------|-------------|----------------|----------------|------------|---------------------|
| Haddad and Silva, 2000  | Brazil  | Cross-sectional | To describe mortality due to CVD in women during the reproductive age (15 to 49 years) in the state of São Paulo, Brazil, from 1991 to 1995  | 1991-1995 |          | Population | X           | 71,041 deaths - 22.8% CVD deaths | Age range: 15 – 49 Female: 100% |
| Haddad and Bittar, 2005 | Brazil  | Cross-sectional | To assess the most frequent diagnosis of patients admitted to a hospital specializing in CVD and their evolution in a 15-year period, from June 1988 to June 2003  | June 1988- June 2003 | Hospital (SC) | X           | N/A         | N/A            | N/A            |
| Isaacura and Granero, 1998 | Venezuela | Cross-sectional | To present the mortality tendency of ARF and RHD in Venezuela from 1955 - 1994  | 1955-1994 |          | Population | X           | N/A            | N/A            | N/A            |
| Jatene et al., 2000    | Brazil  | Cohort | To evaluate the efficacy of the Cox maze procedure in the treatment of rheumatic AF associated with surgical treatment of the mitral valve in consecutive patients."  | July 1991 - June 1994 | Hospital (SC) | X           | 55          | Mean age: 51.5 Female: 47 (85.5%) Male: 8 (14.5%) |
| Lavitola et al., 2010  | Brazil  | RCT  | To evaluate whether the aspirin therapy can be used in patients with RMVD and AF as an effective alternative to warfarin, in a population at risk for thromboembolic events presenting treatment adherence difficulties when submitted to warfarin therapy."  | N/A | Hospital (SC) | X           | 229         | Adult population only Female: 180 (78.6%) Male: 49 (21.4%) |
| Lolio et al., 1991     | Brazil  | Cross-sectional | To present the general results on deaths by age, gender, and cause, as well as to study deaths for CVD"  | July - December 1986 | Population | X           | 953 deaths – 23.6% CVD deaths | Age range: 10-49 Female: 100% |
| Luque et al., 2006     | Chile   | Cross-sectional | To evaluate the epidemiological changes of allergic, autoimmune, and infectious diseases in Chile between 1950 and 2003."  | 1978-1998 |          | Population | X           | N/A            | N/A            | N/A            |
| Meira et al., 2005     | Brazil  | Cohort | To study the progress of valvar disease by means of clinical and echocardiographic evaluations and to identify the independent variables that predict severe chronic valvar disease"  | August 1983 - December 1998 | Hospital (SC) | X           | 258         | Mean age ± SD at first ARF attack: 9 ± 2.6 |
| Mejia et al., 2018     | Brazil  | Cohort | To evaluate the predictive performance of six different risk scores: the 2000 Bernstein-Parsonnet, EuroSCORE II,  | May 2010 - July 2015 | Hospital (SC) | X           | 2919         | Surgical population Mean age ± SD: - Survived: 51.2 ± 14.9 - Death: 54.4 ± 17.4 |
| Study                          | Country | Study Type     | Aim                                                                 | Start Date - End Date | Setting                  | N      | Notes                                                                               |
|-------------------------------|---------|----------------|----------------------------------------------------------------------|-----------------------|--------------------------|--------|-------------------------------------------------------------------------------------|
| Meneguz-Moreno et al., 2018   | Brazil  | Cohort         | “To assess very long-term outcomes after successful PBMV”            | August 1987 - July 2010 | Hospital (SC)            | X      | 1582 Surgical population Mean age ± SD: 36.44 ± 12.77 Female: 1362 (86.1%) Male: 220 (13.9%) |
| Millard-Bullock, 2012         | Jamaica | Cross-sectional| To present the experience of the ARF and RHD control program in Jamaica | 1975-1985, 1989-1995   | Hospital (MC)            | X      | X Survey A: 1079 Survey B: 512                                                      | N/A |
| Miranda et al., 2014          | Brazil  | Cross-sectional| “To assess the prevalence of RHD according to physical examination and Doppler echocardiography in students at a public school of Belo Horizonte” | May 2010 - November 2011 | School                   | X      | 267 Age range: 6-16 Female: 140 (52.4%) Male: 127 (47.6%)                          |     |
| Mota et al., 2015             | Brazil  | Cohort         | “To analyze the profile of long-term evolution of patients with rheumatic valvar lesions and the outcomes after the control of recurrences, which followed the implementation of the Prevention Program for RF-UFMG” | July 1977 - February 2000 | Hospital (SC)            | X      | 702 Mean age ± SD at admission: 10.3 ± 3.1 Female: 50.4% Male: 49.6%               |     |
| Nascimento et al., 2018       | Brazil  | Cross-sectional| “To evaluate the impact of these measures by comparing the participation rate and prevalence and pattern of latent RHD between public schools, private schools, and primary care centers in school-aged children.” | October 2014 - December 2016 | School, primary care centers | X      | 12048 Median age (IQR): 13 (11-15) Female: 6675 (55.4%) Male: 5373 (44.6%)         | Pregnant only Mean age ± SD: 26.8 ± 7.5 |
| PROVAR study                  | Brazil  | Cross-sectional| “To evaluate the feasibility of integrating the PROVAR+ strategy into Brazilian prenatal PC, and to assess the prevalence of pre-existing HD in this population” | January 2018 - January 2019 | Community               | X      | X                                                                                |     |
| Nostrand et al., 2020         | Barbados| Cross-sectional| “To determine the existing trend in the incidence of ARF in Barbados” | January 1971 - December 1990 | Population               | X      | 258100 (Census 1991) 56057 (School population) 66829 (Childhood < 19 y)            | N/A |
| Nordet et al., 2008           | Cuba    | Cross-sectional| “To report how the Pinar del Rio project was planned and implemented, and present the results of the 15-year plan” | January 1986 - December 2001 | School (Prevalence Population (Incidence, Burden) | X      | X X                                                                                |     |
| Study                          | Country | Study Design   | Aim                                                                 | Study Period            | Setting                  | N                  | Mean Age ± SD                  | Gender Distribution                      |
|-------------------------------|---------|----------------|----------------------------------------------------------------------|-------------------------|--------------------------|---------------------|--------------------------------|------------------------------------------|
| Nunes et al., 2013[49]        | Brazil  | Cohort         | “To determine the incremental prognostic value of Cn and its independent contribution to pulmonary artery pressure in a substantial population of patients with MS.” | 2007 - 2011             | Hospital (SC)            | X                  | 128                           | Mean age ± SD: 42.6 ± 11.2               |
|                              |         |                |                                                                      |                         |                          |                     |                               | Female: 116 (90.6%) Male: 12 (9.4%)   |
| Oliveira et al., 2020[50]     | Brazil  | Cluster randomiz ed trial | “To evaluate the effectiveness of transmission and retention of knowledge resulting from an educational process on pharyngitis, ARF and RHD in Brazilian public schools, comparing the results of two teaching methods” | 2016 - 2017             | School                  | X                  | 1301 (90 clusters)             | Mean age ± SD: 15.2 ± 1.9                |
|                              |         |                |                                                                      |                         |                          |                     |                               | - Group 1: 15.1 ± 2.0 Female: 677 (52%) Male: 624 (48%) |
| Paar et al., 2010[51]         | Nicaragua | Cross-sectional | “To establish the true prevalence of RHD in the population using physical examinations and Doppler echo criteria” | 2006 - 2009             | Community               | X                  | Pediatric: 3150 Adults: 489 |                                        |
|                              |         |                |                                                                      |                         |                          |                     |                               | Pediatric - Mean age: 9.5 Female: 1531 (49%) Male: 1619 (51%) |
|                              |         |                |                                                                      |                         |                          |                     |                               | Adult: Mean age: 26.8 Female: 305 (62%) Male: 184 (38%) |
| Pato et al., 2015[52]         | Brazil  | Cross-sectional | “To determine the additional value of RHD in predicting morbidity after cardiac valve surgery in the current era of heart valve disease treatment” | June 2010 - June 2011   | Hospital (SC)           | X                  | 32 with RHD (total n: 164) | Surgical population                   |
|                              |         |                |                                                                      |                         |                          |                     |                               | Mean age ± SD: 45.9 ± 14.0             |
|                              |         |                |                                                                      |                         |                          |                     |                               | Female: 22 (69%) Male: 10 (31%)       |
| Ribeiro et al., 2012[53]      | Brazil  | Cross-sectional | “To determine the incidence and the most common etiologies for valvular heart dysfunctions requiring surgical intervention in Salvador, Brazil.” | January 2002 - December 2005 | Population             | X                  | 296 with RHD (total n: 491) | Surgical population                   |
|                              |         |                |                                                                      |                         |                          |                     |                               | Median age: 37 (25 - 48) Female: 167 (56%) Male: 129 (44%) |
| Study Id | Country | Study Type | Objective | Start Year - End Year | Setting (Type) | No. of Discharges/Admissions | ARF Cases | AD (n of admissions or years) | Population Size | Characteristics | Age Range | Sex Distribution |
|----------|---------|------------|-----------|-----------------------|----------------|------------------------------|-----------|-----------------------------|----------------|---------------|-----------|--------------------|
| Salinas Mondragón et al., 1995 [54] | Peru | Cross-sectional | "To report the results of our research on ARF/RHD and prove that ARF/RHD is still a health problem for children and adults in the country" | 1989 - 1993 | Hospital (SC) | X | X | 1074 discharges 66 due to ARF/RHD (Burden) | N/A | | | |
| Seguel et al., 2008 [55] | Chile | Cohort | "To evaluate results of MVR with preservation of the posterior leaflet in patients with RHD" | 1990 - 2004 | Hospital (SC) | X | | 212 | Surgical population Mean age: - Veil preservation: 45.53 - No preservation: 43.66 Female: 168 (79.2%) Male: 44 (20.8%) | | | | |
| Severino et al., 2011[56] | Brazil | Cohort | "To assess factors associated with reoperation and mortality in patients undergoing only conservative procedures in rheumatic mitral valve cause." | January 1994 - December 2005 | Hospital (SC) | X | | 104 | Surgical population Mean age ± SD: 32.73 ± 14.74 Female: 82 (78.8%) Male: 22 (21.2%) | | | | |
| Silva et al., 2010 [57] | Brazil | Cross-sectional | "To analyze the frequency of patients with RF admitted to Joana de Gusmão Children’s Hospital, in Florianopolis, in southern Brazil, and their characteristics, between 1986 and 2006" | January - December of 1986 1991, 1996, 2001 and 2006 | Hospital (SC) | X | | 1986: 4206 1991: 5206 1996: 5196 2001: 6777 2006: 8203 (n of admissions) ARF cases: 99 | | | | |
| Soto Lopez et al., 2001 [58] | Mexico | Cross-sectional | "To assess the incidence of ARF" | 1994 – 1999 | Hospital (SC) | X | | Total ARF cases: 67 Total admissions (5-20-year-old): 3392 | Mean age: 19.2 Female: 39 (58%) 28 (42%) | | | |
| Souza et al., 1990 [59] | Brazil | Cross-sectional | "To estimate the occurrence of several serological groups of beta-hemolytic streptococci in clinical specimens of the oropharynx, in schoolchildren in the city of Rio de Janeiro and to describe the occurrence of RF and its different clinical forms and interrelationship between clinical and laboratory data." | N/A | School Community | X | | 972 | Age range: 3 – 15 Female: 457 (47%) Male: 515 (53%) | | | |
| Spitzer et al., 2015[60] | Peru | Cross-sectional | "To evaluate the implications of different classifications of RHD on estimated prevalence and to systematically assess the importance of incidental findings from echocardiographic screening among schoolchildren in Peru" | April 2014 - May 2014 | School | X | X | 1023 | Median age (IQR): 11(8-13) Female: 513 (50.1%) Male: 510 (49.9%) | | | |
| Stokes Baltazar, 2007 [61] | Guatemala | Cross-sectional | "To describe the incidence and characteristics of ARF in Izabal, Guatemala" | March 2000 - March 2005 | Hospital (SC) | X | | 3422 (n of admissions) ARF cases: 246 | Female: 152 (61.8%) Male: 94 (38.2%) | | | |
| Travancas et al., 2009[62] | Brazil | Cohort | "To assess the outcomes in children and adolescents with RF of the implantation of mechanical valve" | January 1996 - December 2005 | Hospital (SC) | X | | 73 | Surgical population Mean age ± SD: 14.4 ± 2.96 Female: 34 (47.9%) | | | |
| Study | Country | Study Type | Setting | Objective | Year | Cohort Size | Male | Female | Mean Age ± SD |
|-------|---------|------------|---------|-----------|------|-------------|------|--------|---------------|
| Vasconcelos et al., 2021[63] | Brazil | Cohort | Hospital (SC) | “To assess the incidence and predictors of stroke in a large cohort of patients with RHD on preventive strategies.” | September 2010 - August 2019 | 515 | Mean age ± SD: 46 ± 12 | Female: 438 (85%) | Male: 77 (15%) |
| WHO Cardiovascular Diseases Unit, 1992[64] | Bolivia, El Salvador, Jamaica | Cross-sectional | School Community | This paper presents the report from the Phase I of the WHO Programme for the prevention of ARF/RHD in 16 developing countries. | May 1986 - March 1990 | For prevalence data: 22,328 | N/A |
| Zabal et al., 1992[65] | Mexico | Cohort | Hospital (SC) | To assess the long-term evolution of 155 patients under 16 years in whom a mechanical or biological prosthesis was implanted for mitral valve disease secondary to RF | N/A | 155 | Mean age: - Group 1: 13.2 | - Group 2: 13.6 | - Group 3: 13.1 | - Group 4: 12.3 | Age range: 6 - 15 |

**Abbreviations:** AF: Atrial fibrillation; ARF: Acute rheumatic fever; Bur.: Burden of RHD; Cn: Net atrioventricular compliance; CVD: Cardiovascular Disease; DVR: Double Valve Replacement; Epi.: Epidemiology of Acute/RHD; HD: Heart diseases; ICD: International Classification of Diseases; IQR: Interquartile range; MC: Multicenter; MVR: Mitral Valve Replacement; MS: Mitral Stenosis; Prev./Scre.: Preventive/Screening strategies for RHD; PBMV: Percutaneous Balloon Mitral Valvuloplasty; PROVAR: Rheumatic Valve Disease Screening Program; PROVAR+: Programa de Rastreamento de Valvopatia Reumática e outras Doenças Cardiovasculares; RCT: Randomized controlled trial; RF: Rheumatic fever; RHD: Rheumatic heart disease; RMVD: Rheumatic Mitral Valve Disease; SD: Standard deviation; SC: Single Center; UFMG: Federal University of Minas Gerais; WHO: World Health Organization
Table S6. Risk of bias assessment for cross-sectional studies (AXIS - Appraisal Tool for Cross-Sectional Studies [15])

|    | Q1  | Q2  | Q3  | Q4  | Q5  | Q6  | Q7  | Q8  | Q9  | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 | Q16 | Q17 | Q18 | Q19 | Q20 | Tot. |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Alves Meira et al., 1995 [18] | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No  | No  | Yes | Yes | Yes | Yes | Yes | No  | No  | DK  | Yes | 15  |
| Bach et al., 1996 [19]       | Yes | Yes | No  | Yes | Yes | Yes | No  | Yes | Yes | No  | No  | No  | No  | Yes | Yes | Yes | No  | No  | DK  | DK  | 11  |
| Beaton et al., 2016 [20]     | Yes | Yes | No  | Yes | Yes | Yes | No  | Yes | Yes | Yes | DK  | No  | Yes | Yes | Yes | Yes | No  | Yes | 16  |
| Casalino et al., 2015 [23]   | Yes | Yes | No  | Yes | Yes | Yes | No  | Yes | Yes | Yes | Yes | No  | Yes | Yes | Yes | Yes | Yes | Yes | No  | Yes | 19  |
| de Araujo Fonseca et al., 2020 [26] | Yes | Yes | No  | Yes | Yes | No  | Yes | Yes | Yes | No  | No  | No  | No  | Yes | Yes | Yes | No  | No  | Yes | Yes | 16  |
| Defilipo Ricart et al., 1991 [27] | No  | DK  | No  | Yes | Yes | No  | Yes | No  | No  | No  | No  | DK  | No  | Yes | Yes | No  | DK  | No  | Yes | DK  | 8   |
| Ferrandes et al., 2015 [29]  | Yes | Yes | No  | Yes | Yes | No  | Yes | Yes | Yes | Yes | DK  | No  | Yes | Yes | Yes | No  | No  | Yes | No  | 15  |
| Figueredo et al., 2019 [30]  | Yes | Yes | No  | Yes | Yes | No  | Yes | Yes | Yes | No  | No  | Yes | Yes | Yes | Yes | No  | No  | Yes | No  | 15  |
| Giachetto et al., 1994 [31]  | Yes | Yes | No  | Yes | Yes | No  | Yes | No  | No  | No  | No  | DK  | No  | Yes | Yes | Yes | No  | No  | Yes | No  | DK  | 9   |
| Haddad and Silva, 2000 [33]  | Yes | Yes | No  | Yes | Yes | No  | Yes | No  | Yes | No  | No  | Yes | Yes | Yes | Yes | Yes | No  | DK  | DK  | 14  |
| Haddad and Bittar, 2005 [32] | Yes | Yes | No  | Yes | Yes | DK  | Yes | Yes | Yes | Yes | No  | DK  | No  | Yes | Yes | Yes | No  | No  | DK  | 14  |
| Isaacura and Granero, 1998 [34] | Yes | Yes | No  | Yes | Yes | No  | Yes | No  | Yes | No  | No  | No  | No  | Yes | Yes | Yes | No  | DK  | DK  | 12  |
| Loli et al., 1991 [37]       | Yes | Yes | No  | Yes | Yes | No  | Yes | No  | Yes | No  | No  | No  | Yes | Yes | Yes | No  | No  | DK  | 14  |
| Luque et al., 2006 [38]      | Yes | Yes | No  | Yes | Yes | No  | Yes | No  | No  | No  | No  | No  | Yes | Yes | Yes | No  | No  | DK  | 12  |
| Millard-Bullock, 2012 [42]   | No  | DK  | No  | Yes | Yes | No  | Yes | No  | No  | No  | No  | DK  | No  | Yes | Yes | No  | DK  | DK  | 8   |
| Miranda et al., 2014 [43]    | Yes | Yes | Yes | Yes | Yes | DK  | Yes | Yes | Yes | Yes | Yes | DK  | Yes | Yes | Yes | Yes | Yes | Yes | No  | Yes | 17  |
| Nascimento et al., 2021 [45] | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No  | 19  |
| Nascimento, Sable et al., 2018 [46] | Yes | Yes | No  | Yes | Yes | No  | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No  | Yes | Yes | Yes | No  | Yes | 16  |
| Noah et al., 1994 [47]      | Yes | Yes | No  | Yes | Yes | No  | Yes | No  | Yes | No  | No  | No  | DK  | No  | Yes | Yes | Yes | Yes | DK  | DK  | 11  |
| Nordet et al., 2008 [48]    | Yes | Yes | No  | Yes | Yes | No  | Yes | No  | Yes | No  | No  | No  | Yes | Yes | Yes | No  | DK  | DK  | 12  |
| Paar et al., 2010 [51]      | Yes | Yes | No  | Yes | Yes | No  | Yes | Yes | Yes | No  | No  | Yes | No  | Yes | Yes | Yes | No  | No  | Yes | 17  |
| Pato et al., 2015 [52]      | Yes | Yes | No  | Yes | Yes | No  | Yes | Yes | Yes | Yes | No  | Yes | Yes | Yes | No  | Yes | No  | Yes | 17  |
| Ribeiro et al., 2012 [53]   | Yes | Yes | No  | Yes | Yes | No  | Yes | Yes | Yes | Yes | No  | Yes | Yes | Yes | No  | Yes | No  | Yes | 16  |
| Salinas Mondruguén et al., 1995 [54] | Yes | Yes | No  | Yes | Yes | No  | Yes | Yes | Yes | No  | Yes | Yes | Yes | No  | DK  | DK  | 12  |
| Silva et al., 2010 [57]     | Yes | Yes | No  | Yes | Yes | No  | Yes | Yes | No  | Yes | No  | Yes | Yes | Yes | Yes | Yes | No  | Yes | 16  |
| Soto López et al., 2001 [58] | Yes | Yes | No  | Yes | Yes | No  | Yes | No  | Yes | No  | Yes | DK  | No  | Yes | Yes | Yes | No  | DK  | 11  |
| Souza et al., 1990 [59]     | Yes | Yes | No  | Yes | Yes | No  | Yes | No  | Yes | No  | No  | DK  | No  | Yes | Yes | Yes | No  | No  | DK  | 12  |
| Spitzer et al., 2015 [60]   | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No  | Yes | Yes | Yes | Yes | Yes | No  | Yes | 20  |
Stokes Baltazar, 2007[61] | No | Yes | No | Yes | Yes | Yes | No | Yes | No | Yes | DK | No | Yes | Yes | Yes | DK | DK | 11
---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---
WHO Cardiovascular Diseases Unit, 1992[64] | Yes | Yes | No | Yes | Yes | Yes | No | Yes | No | No | DK | No | Yes | Yes | Yes | No | No | DK | 11

¹Total score ranges from 0 – 20. A point was awarded for each positive aspect (“Yes” for Q1-12,14-18, and 20; “No” for Q13 and 19)

**Abbreviations:** DK: Don’t know, Q: Question, Tot.:Total

|   | Selection¹ | Comparability¹ | Outcome¹ | Total¹ |
|---|---|---|---|---|
| Berrios et al., 1993 [21] | *** | ** | 5 |
| Canale et al., 2011[22] | *** | ** | 5 |
| Chavez et al., 2017[24] | *** | *** | 6 |
| Cruz et al., 2019[25] | *** | ** | 5 |
| Durães et al., 2013[28] | ***** | ** | **** | 9 |
| Jatene et al., 2000[35] | ***** | ** | **** | 9 |
| Meira et al., 2005 [39] | *** | *** | 6 |
| Mejia et al., 2018[40] | ***** | *** | 7 |
| Meneguz-Moreno et al., 2018[41] | *** | * | *** | 6 |
| Mota et al., 2015[44] | ***** | ** | **** | 9 |
| Nunes et al., 2013[49] | *** | *** | 6 |
| Seguel et al., 2008 [55] | ***** | ** | *** | 8 |
| Severino et al., 2011 [56] | *** | ** | **** | 6 |
| Travancas et al., 2009 [62] | ***** | * | **** | 8 |
| Vasconcelos et al., 2021 [63] | ***** | *** | 7 |
| Zabal et al., 1992[65] | ***** | * | *** | 8 |

¹Selection: 0-4 stars; Comparability: 0-2 stars; Outcome: 0-3 stars; Total 0-9 stars
Table S8. Risk of bias assessment for randomized controlled trials (The Cochrane RoB 2.0 tool and The Cochrane RoB 2.0 tool for Cluster Randomized Trials[16,17])

| Study                                      | Randomization Process | Timing of identification or recruitment of participants in a cluster-randomized trial* | Deviations from Intended Interventions | Missing Outcome Data | Measurement of the Outcome | Selection of the Reported Result | Overall Bias |
|--------------------------------------------|-----------------------|--------------------------------------------------------------------------------------|----------------------------------------|----------------------|-----------------------------|----------------------------------|--------------|
| Lavitola et al., 2010\(^1\) [36]           | Some concerns         | N/A                                                                                  | Some concerns                          | Low                  | Low                         | Some concerns                     | Some concerns |
| Oliveira et al., 2020\(^2\) [50]           | Some concerns         | Low                                                                                  | Some concerns                          | Low                  | Low                         | Some concerns                     | Some concerns |

\(^*\)Only included in the Cochrane RoB 2.0 tool for Cluster Randomized Trials; just applicable to Oliveira et al. 2020 [50]
\(^1\)Assessed using The Cochrane RoB 2.0 tool (introduced in 2016 and last edited on August 22, 2019)
\(^2\)Assessed using The Cochrane RoB 2.0 tool for Cluster Randomized Trials (introduced in 2020 and last edited on March 18, 2021)

**Abbreviations:** N/A: Not Applicable.
# Supplementary Table S9. Burden of Rheumatic Heart Disease per included studies

| Reference                  | County | Period       | n     | Age             | Burden of RHD<sup>*</sup> | Need for intervention<sup>1</sup> | HF  | AFib | IE  | Stroke | EE  | PH  |
|----------------------------|--------|--------------|-------|-----------------|----------------------------|-----------------------------------|-----|------|-----|--------|-----|-----|
| Figueiredo et al., 2019    | BR     | 1998-2016   | N/A   | N/A             | 1998: 5.77                  | NR                                | NR  | NR   | NR  | NR     | NR  | NR  |
| Haddad and Silva, 2000<sup>33</sup> | BR     | 1991-1995   | N/A   | Range: 15–49    | 1.58/100,000 women          | NR                                | NR  | NR   | NR  | NR     | NR  | NR  |
| Lavitola et al., 2010      | BR     | N/A         | 229   | N/A             | NR                         | NR                                | NR  | NR   | NR  | 29 (12.7%) | 10 (4.4%) | NR  |
| Lolio et al., 1991<sup>37</sup> | BR     | 1986        | 953   | Range: 10-49    | 2.6 per 100,000 women (15-44 years) | NR                                | NR  | NR   | NR  | NR     | NR  | NR  |
| Nunes et al., 2013         | BR     | 2007-2011   | 128   | Mean ± SD: 42.6 ± 11.2 | Follow up (22-month): 1 (0.8%) | Baseline: 35 (27%) | Follow-up: 44 (34.4%) | NR | 18 (14%) | NR  | NR     | NR  | NR  |
| Vasconcelos et al., 2021   | BR     | 2010-2019   | 515   | Mean ± SD: 46 ± 12 | 32 (6.2%) | Prior PMV: 130 (25%) | Follow-up: 105 (21.5%) | NR | 155 (30%) | NR  | Baseline: 92 (18%) | Follow-up: 27 (5.2%) | Incidence: 1.47 strokes per 100 patient-years | NR  | NR  |
| Nordet et al., 2008        | CU     | 1986-1996   | 134 (1986-90) | 193 (1991-96) | Range: 5-25 | 1986-1990: 6 (4.5%) | 1986-1990: 15 (11.2%) | NR | 1986-1996: 0 | NR  | NR     | NR  | NR  |
| Salinas Mondragón et al., 1995 | PE    | 1989-1993   | 66    | N/A             | 4 (6%)                    | 8 (12.1%)                        | NR  | 15 (23%) | 1 (1.5%) | NR     | 11 (16.7%) |
| Author(s) and Year | Country | Study Period | Mean ± SD | Rate per 100,000 | Conditions | Baseline (1%) | Postop. (7.5%) | NR | NR | NR | NR | NR | NR |
|------------------|---------|--------------|-----------|-----------------|-------------|--------------|--------------|---|---|---|---|---|---|
| Canale et al., 2011 [22] | BR | 2008-2009 | 53 | Mean ± SD: 49.3 ± 10.7 | Intraoperative: 7 (13%) | NR | NR | NR | Baseline: 1 (1.9%) | Baseline: 4 (7.5%) | NR | NR |
| Casalino et al., 2015 [23] | BR | 2009 | 247 | Mean ± SD: 51 ± 12 | Intraoperative: 30 days: 8 (7.8%) Late (1-year): 0 | NR | NR | NR | Baseline: 131 (53.1%) | Baseline: 11 (10.5%) Postop.: 1 (1%) | NR | 142 (57.5%) |
| Chavez et al., 2017 [24] | BR | 2013-2014 | 103 | Mean ± SD: 50.76 ± 10.7 | In-30 days: 0 | NR | NR | NR | NR | NR | NR |
| Cruz et al., 2019 [25] | BR | 2011-2017 | 54 | Mean ± SD: 10.5 ± 3.2 | 2-month: 0 | Reintervention: 3 (5.6%) Postoperative: 4 (7.4%) | 0 | NR | NR | NR | NR | Preop.: 38 (77.6%) Postop.: 7 (18.4%) |
| Durães et al., 2013 [28] | BR | 2010-2012 | 184 | Mean ± SD: 45 ± 16 42 ± 15 | 3-month: 0 | NR | NR | NR | NR | 5 (2.7%) | NR |
| Fernandes et al., 2015 [29] | BR | 2007-2011 | 104 | Mean ± SD: 38.04 ± 14.4 | In-hospital: 20 (19.2%) | Prior surgery: 38% Reintervention: 24 (23.07%) | NR | 28/100 (28%) | NR | NR | NR |
| Jatene et al., 2000 [35] | BR | 1991-1994 | 55 | Mean: 51.5 | 30 days: 3 (5.4%) Follow-up (38.5 & 41.1 months): 4 (7.3%) | NR | NR | NR | NR | NR | Baseline: 28 (16.4%) Postop.: 7 (12.7%) |
| Mejia et al., 2018 [40] | BR | 2010-2015 | 2919 | Mean ± SD: 51.2 ± 14.9 54.4 ± 17.4 | In-hospital/<30 days: 99 (3.51%) | Reoperation: -First: 813 (27.9%) -Second: 432 (14.8%) | NR | NR | NR | NR | NR | NR |
1. Need for intervention includes any surgical (initial or reoperation) or percutaneous intervention (initial or reintervention).
2. Studies that assessed data on female population of childbearing age only.
3. Studies that assessed solely surgical or percutaneously intervened RHD patients.
4. Reported as impaired left ventricular ejection fraction on echocardiography only.
5. Pulmonary hypertension diagnosis was based on echocardiographic findings.
6. Additional variables on burden of RHD:

| Source                        | Location | Time Frame | Count | Mean ± SD | In-hospital (%) | Baseline (%) | Reoperation (%) | Baseline: | In-hospital: | Baseline: | Reoperation: |
|-------------------------------|----------|------------|-------|-----------|---------------|--------------|----------------|-----------|-------------|-----------|--------------|
| Meneguz-Moreno et al., 2018[41] | BR       | 1987-2010  | 1582  | Mean ± SD: 36.44 ± 12.77 | 0.6%          | NR           | NR             | NR        | NR          | NR        | NR          |
| Pato et al., 2015 [52]        | BR       | 2010-2011  | 32    | Mean ± SD: 45.9 ± 14.0 | In-hospital: 3 (10%) | Baseline: 20 (63%) | NR            | NR        | 5 (16%)     | NR        | NR          |
| Ribeiro et al., 2012 [53]     | BR       | 2002-2005  | 296   | Median (IQR): 37 (25 - 48) | Mean annual in-hospital due to RHD surgery: 0.25 per 100,000 | Baseline: 89 (30%) | Mean annual incidence of open-heart surgery for RHD: 2.86 per 100,000 | NR        | NR          | NR        | NR          |
| Severino et al., 2011 [56]    | BR       | 1994-2005  | 104   | Mean ± SD: 32.73 ± 14.74 | Operative & In-hospital: 0 | Reoperation: 12 (11.5%) | NR            | NR        | NR          | NR        | NR          |
| Travancas et al., 2009[62]    | BR       | 1996-2005  | 73    | Mean ± SD: 14.4 ± 2.96 | Operative: 2 (2.7%) | Reoperation: 9/71 (12.7%) | NR            | NR        | 2/71 (2.8%) | 3/71 (4.2%) | NR          |
| Seguel et al., 2008[55]       | CL       | 1990-2004  | 212   | Mean: 45.53 43.66 | Operative: 20 (9.4%) | Reoperation: 10 (4.7%) | NR            | NR        | NR          | 11 (7.1%) | NR          |
| Zabal et al., 1992[65]        | MX       | N/A        | 155   | Range: 6-15 | NR           | NR           | NR             | 11 (7.1%) | NR          | NR        | NR          |

1 “Need for intervention” includes any surgical (initial or reoperation) or percutaneous intervention (initial or reintervention).
2 Studies that assessed data on female population of childbearing age only.
3 Studies that assessed solely surgical or percutaneously intervened RHD patients.
4 Reported as impaired left ventricular ejection fraction on echocardiography only.
5 Pulmonary hypertension diagnosis was based on echocardiographic findings.
6 Additional variables on burden of RHD:
1. **Need for hospitalization:** Nordet et al. [48]: 1986-1990: 55/134 (41.4%), 1991-1996: 16/193 (8.3%)
2. **Need for anticoagulation:** Vasconcelos et al. [63]: 183 (36%); Pato et al. [52]: 15 (60%)
3. **Anticoagulated-related complications:** Lavitola et al. [36]: Gynecological or gastrointestinal bleeding: 44/119 (36.9%); Travancas et al. [62]: **Bleeding:** 7/71 (9.9%);
   Zabal et al. [65]: **Intracranial hemorrhage leading to death:** 1/36 (2.8%)

**Abbreviations:** AFib: Atrial fibrillation; BR: Brazil; CL: Chile; CU: Cuba; EE: Embolic events; IE: Infective endocarditis; IQR: Interquartile Range; N/A: Not available; NR: Not reported; MX: Mexico; PBMV: Percutaneous Balloon Mitral Valvuloplasty; PE: Peru; PH: Pulmonary hypertension; PMV: Percutaneous Mitral Valvuloplasty; Preop.: Preoperative; Postop.: Postoperative; RHD: Rheumatic Heart Disease; SD: Standard Deviation; VE: Venezuela
| Section and Topic | Item # | Checklist item                                                                                                                                                                                                 | Location where item is reported |
|------------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| TITLE            | 1      | Identify the report as a systematic review.                                                                                                                                                                 | Pg. 1                          |
| ABSTRACT         | 2      | See the PRISMA 2020 for Abstracts checklist.                                                                                                                                                               | Pg. 2                          |
| INTRODUCTION     | 3      | Describe the rationale for the review in the context of existing knowledge.                                                                                                                                   | Pg. 3                          |
|                  | 4      | Provide an explicit statement of the objective(s) or question(s) the review addresses.                                                                                                                                 | Pg. 3                          |
| METHODS          | 5      | Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.                                                                                                  | Pg. 4                          |
|                  | 6      | Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.   | Pg. 4                          |
|                  | 7      | Present the full search strategies for all databases, registers and websites, including any filters and limits used.                                                                                         | Sup Table S1 – S4              |
|                  | 8      | Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process. | Pg. 4                          |
|                  | 9      | Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process. | Pg. 4-5                        |
|                  | 10a    | List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect. | Pg. 4-5                        |
|                  | 10b    | List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.                             | Pg. 4-5                        |
|                  | 11     | Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process. | Pg. 5                          |
|                  | 12     | Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.                                                                            | N/A                            |
|                  | 13a    | Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)). | Pg. 5                          |
|                  | 13b    | Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.                                                        | Pg. 5                          |
|                  | 13c    | Describe any methods used to tabulate or visually display results of individual studies and syntheses.                                                                                                        | Pg. 5                          |
|                  | 13d    | Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the methods used.                                                          | Pg. 5                          |
| Component                        | Instructions                                                                                                                                                                                                 | Reference/Location |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| Reporting bias assessment       | Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).                                                                                       | N/A                |
| Certainty assessment            | Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.                                                                                                            | N/A                |
| RESULTS                          |                                                                                                                                                                                                             |                    |
| Study selection                  | Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.                         | Pg. 5, Fig 1       |
| Study characteristics           | Cite each included study and present its characteristics.                                                                                                                                                     | Pg. 5, Pg. 6, Sup Table S5|
| Risk of bias in studies         | Present assessments of risk of bias for each included study.                                                                                                                                                  | Pg. 6, Sup Table S6-S8|
| Results of individual studies   | For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots. | Tables 1 – 4, Sup Table S9|
| Results of syntheses            | For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.                                                                                                         | Pg. 6 – 9, Tables 1 – 4 |
| Reporting biases                | Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.                                                                                                | N/A                |
| Certainty of evidence           | Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.                                                                                                             | N/A                |
| DISCUSSION                      |                                                                                                                                                                                                             |                    |
| Discussion                      | Provide a general interpretation of the results in the context of other evidence.                                                                                                                            | Pg. 10 - 13        |
|                                 | Discuss any limitations of the evidence included in the review.                                                                                                                                               | Pg. 12 – 13        |
|                                 | Discuss any limitations of the review processes used.                                                                                                                                                       | Pg. 12 – 13        |
|                                 | Discuss implications of the results for practice, policy, and future research.                                                                                                                               | Pg. 13             |
| **OTHER INFORMATION** | 24a | Provide registration information for the review, including register name and registration number, or state that the review was not registered. |
|-----------------------|-----|----------------------------------------------------------------------------------------------------------------------------------|
|                       | 24b | Indicate where the review protocol can be accessed, or state that a protocol was not prepared.                                                                 |
|                       | 24c | Describe and explain any amendments to information provided at registration or in the protocol.                                                                                 |
| **Support**           | 25  | Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review. |
| **Competing interests** | 26  | Declare any competing interests of review authors.                                                                                                                               |
| **Availability of data, code and other materials** | 27  | Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review. |

**From:** Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71

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