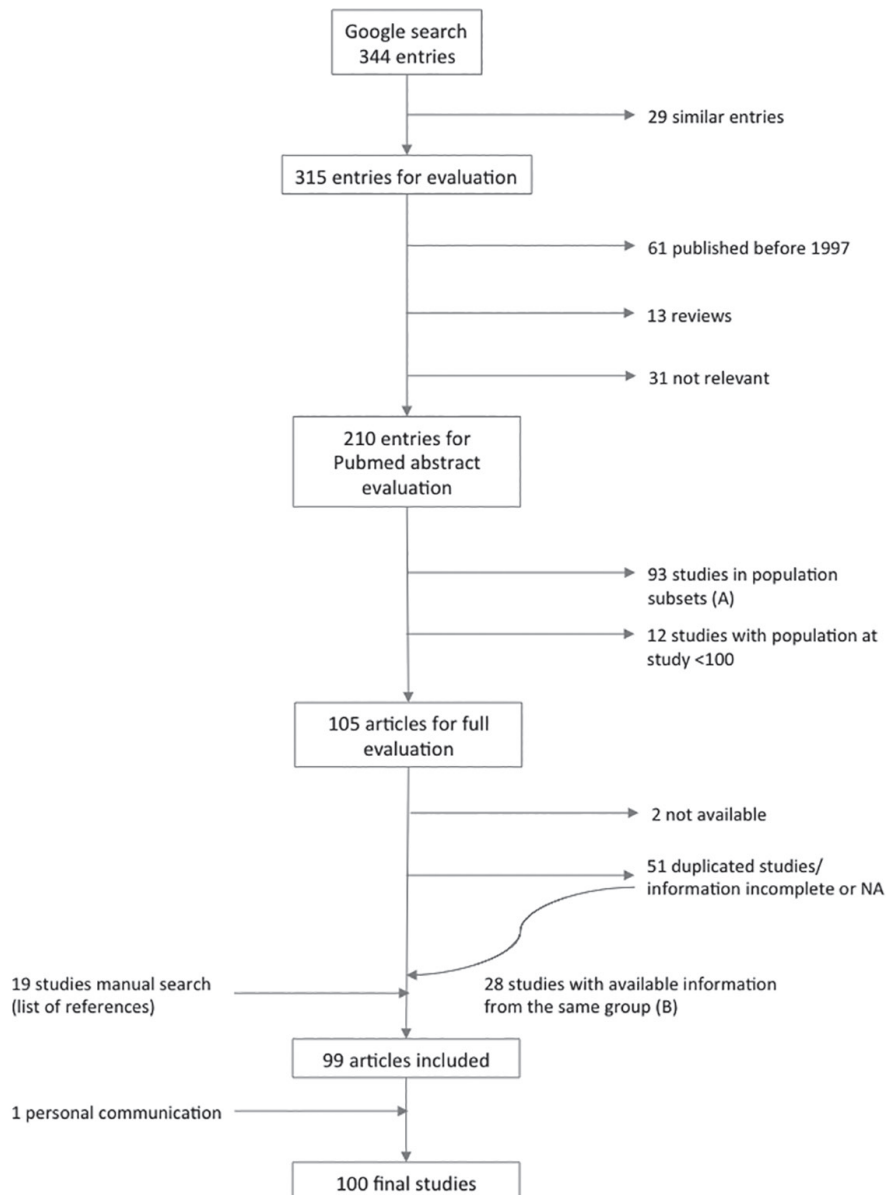


Supplementary Table 1. Main variables (methodological, epidemiological, Clinical, histopathological, outcomes, geoepidemiological) of 100 studies including cohorts with at least 100 cases identified in the systematic search (99 yielded by the systematic search and one npublished data offered by the authors to RPB\*)

Identification	First Author	Year of publication	City	Country	Number of hospitals included	Number of countries included	Type of database	Population selected	Diagnostic criteria	Study design	Period of recruitment	Number of patients evaluated	Number of patients excluded	Number of patients included	Biopsy-proven sarcoidosis	Available epidemiological data	Ethnicity distribution	Thoracic radiological stages	Extrathoracic WASOG data	Data therapy	Death	Geoepidemiological data
1	Alliovic 2006	2006	Zagreb	Croatia	1	1	clinical	inpatients	Bx	retrospective	1997-2002	476	0	476	476	Gender	Available	Available	NA	NA	nd	season, geolocation, occup, familial
2	Aliva Fournani	2014	Rasht	Iran	1	1	clinical	unselected	Clinical and/or Bx	Retrospective	2001-9	392	0	392	146	Mean age, gender	NA	Available	Available	Available	nd	Season dx, BMI, comorbidities
3	Antonelli	2006	Pisa	Italy	1	1	clinical	unselected	Bx	Retrospective	nd	111	0	111	111	Mean age, gender	NA	NA	NA	NA	nd	geolocation
4	Arkema 2016	2016	Multiple	Sweden	na	1	administrative	unselected	ICD	Retrospective	2013	16547	0	16547	nd	Mean age, gender	NA	NA	NA	NA	nd	no
5	Asklng	1999	Multiple	Sweden	nd	1	Administrative	unselected	ICD	Retrospective	nd	11160	2619	8541	nd	Gender	NA	NA	NA	NA	nd	no
5	Asklng	1999	Uppsala County	Sweden	1	1	clinical	unselected	Clinical and/or Bx	Retrospective	1966-1980	498	24	474	nd	Gender	NA	NA	NA	Available	nd	no
6	Judson 2015	2015	Albany NY	USA	1	1	clinical	unselected	ATS/ERS/WASOG	Retrospective	nd	114	0	114	nd	Mean age, gender	Available	Available	NA	Available	nd	no
7	Baughman	2001	Baltimore	USA	10	1	clinical	unselected	Bx	Retrospective	1997-1999	747	11	736	736	Gender	Available	Available	Available	NA	nd	etnia and ocular involv
7	Cragin 2009	2009	Burlington, Vermont	USA	na	1	administrative	unselected	ICD	Retrospective	1992-2006	459	0	459	nd	Mean age, gender	NA	NA	NA	NA	nd	occupation
8	Baughman	2007	Multiple	Multiple	34	6	clinical	unselected	ATS/ERS/WASOG	prospective	nd	290	148	142	136	Mean age, gender	Available	Available	Available	Available	nd	no
9	Cox	2003	pel Hill, Greenville, North Car	USA	3	1	clinical	Outpatients	Bx	Retrospective	2001-2002	149	0	149	149	Mean age, gender	Available	Available	Available	Available	nd	studies, marriage, insurance, employ
10	Beghe	2017	Parma	Italy	1	1	Clinical	Unselected	Bx	Retrospective	2000-2013	223	0	223	223	Mean age, gender	Available	NA	NA	NA	nd	nd
11	Behbehani	2007	Kuwait	Kuwait	2	1	clinical	unselected	Clinical and/or Bx	Retrospective	1983-2003	142	0	142	119	Gender	Available	Available	Available	Available	2 out of 103	Arabs vs Asian
12	Bours	2016	Multiple	UK	nd	1	Administrative	Outpatients	ICD	Retrospective	nd	5722	0	5722	nd	Mean age, gender	NA	NA	NA	NA	nd	Smoking, BMI, alcohol, comorbidities sarco vs control
13	Brito-Zeron	2015	Barcelona	Spain	1	1	clinical	unselected	ATS/ERS/WASOG	Retrospective	1990-2014	175	0	175	130	Mean age, gender	Available	Available	Available	NA	nd	no
14	Byg	2003	Multiple cities	Denmark	multiple	1	administrative	unselected	ICD	Retrospective	1980-1994	5536	0	5536	nd	Gender	NA	NA	NA	NA	nd	nd
15	Cardoso	2017	Porto	Portugal	1	1	Clinical	Unselected	Clinical and/or Bx	Retrospective	2000-2014	409	0	409	nd	Mean age, gender	Available	NA	Available	Available	nd	nd
16	Cox	2003	pel Hill, Greenville, North Car	USA	3	1	clinical	Outpatients	Bx	Retrospective	2001-2002	111	0	111	111	Mean age, gender	Available	Available	Available	Available	nd	studies, marriage, insurance, employ
16	Huggins	2006	Charleston	USA	1	1	clinical	outpatients	Bx	Retrospective	2002-2004	181	0	181	181	Gender	Available	Available	Available	NA	nd	no
17	Judson	2012	Charleston	USA	1	1	clinical	unselected	ATS/ERS/WASOG	Retrospective	1999-2010	1774	0	1774	1176	Mean age, gender	Available	Available	Available	Available	nd	etnia comparative
18	Cremers	2013	Maastricht	he Netherlan	1	1	clinical	unselected	ATS/ERS/WASOG	Retrospective	2004-2009	423	0	423	309	Mean age, gender	Available	NA	NA	NA	nd	BMI
19	Mirsaedi	2016	Chicago	USA	1	1	clinical	unselected	ATS/ERS/WASOG	Retrospective	2010-2015	108	0	108	nd	Mean age, gender	Available	NA	NA	NA	nd	BMI, comorbidities
20	Danila	2009	Vilnius	Lithuania	1	1	Clinical	Unselected	Clinical and/or Bx	Retrospective	1995-2007	318	0	318	98	Mean age, gender	Available	NA	NA	NA	nd	nd
21	Darlington	2014	Stockholm	Sweden	1	1	clinical	unselected	Bx	Retrospective	nd	1017	0	1017	1017	Mean age, gender	Available	Available	NA	NA	45	no
22	Baughman	2006	Cincinnati	USA	1	1	clinical	unselected	Bx	prospective	nd	45	0	45	45	Mean age, gender	Available	NA	NA	NA	nd	no
23	Demirkok	2007	Istanbul	Turkey	1	1	clinical	unselected	Clinical and/or Bx	Retrospective	1966-2004	492	217	275	272	Mean age, gender	NA	Available	Available	NA	nd	season
24	Baughman	2006	Cincinnati	USA	1	1	clinical	unselected	Bx	prospective	nd	93	0	93	93	Mean age, gender	Available	NA	NA	NA	nd	no
25	Fernandez-Gonzalez	2011	Leon	Spain	1	1	clinical	unselected	Clinical and/or Bx	Retrospective	2001-8	118	0	118	89	Mean age, gender	NA	Available	Available	NA	nd	season
26	de Kleijn	2009	Cincinnati	USA	1	1	clinical	unselected	ATS/ERS/WASOG	Retrospective	nd	126	0	126	nd	Mean age, gender	Available	Available	NA	Available	nd	Dutch vs US
27	Gillman	2007	Geelong	Australia	1	1	clinical	unselected	unclear	Retrospective	1995-2005	122	0	122	84	Mean age, gender	NA	NA	Available	Available	nd	nd
28	Kirkil	2017	Cincinnati	USA	1	1	Clinical	Unselected	Clinical and/or Bx	Retrospective	2002-2008	452	0	452	nd	Gender	Available	NA	Available	NA	nd	nd
29	Gungor	2016	Istanbul	Turkey	1	1	Administrative	Unselected	ICD	Retrospective	2008-2014	1300	0	1300	nd	Mean age, gender	NA	NA	NA	NA	nd	nd
30	Gupta	2013	Chandigarh	India	1	1	clinical	unselected	Bx	Retrospective	2010-1	100	0	100	100	Gender	NA	Available	Available	NA	nd	case control BMI, religion, urban, occupat, educat, fuel
31	Handa	2006	Kyoto	Japan	1	1	clinical	outpatients	Bx	prospective	2004-5	246	34	212	212	Gender	NA	Available	Available	NA	nd	no
32	Hattori 2013	2013	Sapporo	Japan	3	1	clinical	unselected	ATS/ERS/WASOG	retrospective	2000-2008	388	0	388	nd	Mean age, gender	Available	Available	Available	NA	nd	no
33	Heiligenhaus	2010	Höchenschwand	Germany	1	1	clinical	unselected	Clinical and/or Bx	Retrospective	1980-1998	1800	0	1800	844	Mean age, gender	NA	Available	Available	NA	nd	no
34	Hermans	2001	Brussels + Olomoue	Multiple	2	2	clinical	unselected	Bx	Retrospective	nd	117	0	117	117	Mean age, gender	NA	NA	Available	NA	nd	no
35	Hinz	2011	Multiple	Germany	nd	1	clinical	unselected	not detailed	Cross-sectional	2009	1270	73	1197	nd	Mean age, gender	NA	NA	NA	NA	nd	no
36	Erdal 2012	2012	Columbus	USA	1	1	administrative	unselected	ICD	Retrospective	1995-2010	135	0	135	nd	Mean age, gender	Available	NA	NA	NA	nd	etnia case control
37	Cristoforidis	1999	Detroit	USA	1	1	clinical	unselected	Bx	Retrospective	1985-1995	461	0	461	461	Mean age, gender	Available	NA	Available	NA	nd	no
38	Joyce	2015	Leiden	he Netherlan	1	1	clinical	unselected	Clinical and/or Bx	Cross-sectional	nd	130	30	100	66	Mean age, gender	NA	Available	Available	Available	nd	case control comorbidities
39	Krell	2012	Detroit	USA	1	1	clinical	unselected	Bx	Retrospective	2005-10	518	0	518	518	Mean age, gender	Available	Available	Available	NA	nd	BMI
40	Gerke	2011	Iowa	USA	1	1	clinical	unselected	Bx	Retrospective	2001-7	275	151	124	124	Mean age, gender	Available	NA	Available	Available	nd	no
41	Saremi	2015	Los Angeles	USA	1	1	clinical	unselected	Clinical and/or Bx	Retrospective	2007-2012	133	0	133	nd	Mean age, gender	NA	NA	NA	NA	nd	no
42	Kieszkio	2010	Lublin	Poland	1	1	clinical	unselected	Clinical and/or Bx	Cross-sectional	2002-5	130	0	130	nd	Mean age, gender	NA	NA	NA	NA	nd	no
43	Baughman	2016	Multiple	USA	ND	1	administrative	unselected	ICD	Retrospective	2009-2013	29372	0	29372	nd	Gender	Available	NA	NA	Available	nd	geolocation US, etnia
44	Kiter	2011	Multiple cities	Turkey	19	1	Clinical	Unselected	Clinical and/or Bx	Retrospective	2004-2006	293	0	293	265	Mean age, gender	NA	NA	Available	NA	nd	nd
45	Kobberoe Segard	2015	Multiple	Denmark	nd	1	administrative	unselected	ICD	Retrospective	1980-2011	12890	0	12890	nd	Mean age, gender	NA	NA	NA	NA	nd	no
46	Kollert	2011	Regensburg	Germany	1	1	clinical	unselected	Clinical and/or Bx	Retrospective	2001-8	149	0	149	136	Mean age, gender	NA	Available	NA	NA	nd	no
47	Kowalska 2014	2014	Katowice	Poland	1	1	administrative	unselected	ICD	Retrospective	2006-2010	1217	0	1217	nd	Mean age	NA	NA	NA	NA	nd	geolocation
48	Newman 2004	2004	Multiple	USA	10	1	clinical	unselected	Bx	retrospective	1996-1999	736	0	736	736	Mean age, gender	Available	NA	NA	NA	nd	case control access: occupat
49	Kuroda	2013	Asahikawa	Japan	1	1	clinical	unselected	Japanese criteria	Retrospective	2007-2009	208	0	208	nd	Gender	Available	NA	Available	NA	nd	no
50	Lavi	2017	Jerusalem	Israel	1	1	Clinical	Unselected	Bx	Retrospective	2011-2015	113	0	113	113	Gender	NA	NA	Available	Available	nd	nd
51	Le Jeune	2007	Multiple	UK	255	1	Administrative	outpatients	ICD	Retrospective	nd	1153	0	1153	nd	Mean age, gender	NA	NA	NA	NA	nd	no
52	Lemos-Silva	2011	Rio de Janeiro	Brazil	1	1	clinical	unselected	Bx	Cross-sectional	2008-2010	111	11	100	100	Mean age, gender	Available	Available	Available	Available	nd	no
53	Lill 2016	2016	Tartu	Estonia	1	1	clinical	unselected	clinical and/or Bx	retrospective	2009-2011	230	0	230	nd	Gender	NA	Available	Available	Available	nd	no
54	Louzir	2011	Tunis	Tunisia	1	1	clinical	unselected	Clinical and/or Bx	Retrospective	1991-2005	131	0	131	112	Mean age, gender	NA	NA	Available	NA	nd	occup
55	Maimon	2013	Saba and Beer Shava (respect	Israel	2	1	clinical	unselected	ATS/ERS/WASOG	Retrospective	2009-2011	272	144	128	nd	Gender	NA	Available	NA	Available	nd	no
56	Maña	2017	Barcelona	Spain	1	1	clinical	unselected	Clinical and/or Bx	Retrospective	1976-2015	640	0	640	492	Mean age, gender	Available	NA	Available	Available	9	nd
57	Markevitz	2017	Saba and Beer Shava (respect	Israel	2	1	Clinical	Unselected	Bx	Retrospective	2010-2015	166	0	166	166	Mean age, gender	Available	NA	NA	NA	nd	nd
58	Martusewicz	2015	Warsaw	Poland	1	1	clinical	Inpatients	ICD	Retrospective	2008-2011	1779	0	1779	1601	Mean age, gender	Available	NA	NA	NA	nd	comorbidities
59	Matsuo 2005	2005	Okayama	Japan	1	1	clinical	unselected	Bx	Retrospective	1985-2002	123	0	123	123	Mean age, gender	Available	NA	Available	Available	nd	no
60	Maver	2009	Ljubljana	Slovenia	1	1	clinical	unselected	Bx	Retrospective	nd	165	0	165	165	Mean age, gender	Available	Available	Available	NA	nd	no
61	Mihalovic-Vucinic	2016	Belgrade	Serbia	1	1	clinical	unselected	Bx	Retrospective	nd	346	0	346	346	Mean age, gender	Available	Available	Available	Available	nd	no
62	Rice	2017	Multiple cities	USA	multiple	1	Administrative	Unselected	ICD	Retrospective	1998-2015	22893	15270	7173	nd	Mean age, gender	NA	NA	NA	NA	nd	nd
63	Monteiro Rodrigues	2013	Sao Paulo	Brazil	3	1	clinical	unselected	Bx	Retrospective	2007-2011	100	0	100	100	Mean age, gender	Available	Available	Available	NA	nd	education, insurance, income
64	Morimoto	2008	Multiple	Japan	nd	1	clinical	unselected	Bx	Retrospective	nd	1027	652	1027	1027	Gender	Available	Available	Available	NA	nd	familial clustering
65	Janot	2015	New Orleans	USA	1	1	administrative	unselected	ICD	Retrospective	2006-12	169	160	109	nd	Mean age, gender	NA	NA	Available	NA	nd	no
66	Nowinski	2015	Warsaw	Poland	1	1	clinical	unselected	Bx	Retrospective	2007-2009	557	0	557	557	Mean age, gender	NA	Available	NA	NA	nd	comorbidities
67	Okumus	2011	Multiple	Tur																		



**Supplementary Fig. 1.** Search flow of the systematic review combining Google search and Pubmed collecting large series (>100 patients) of sarcoidosis reported in the National US library. The search was carried out between 1<sup>st</sup> and 31<sup>st</sup> October, 2017.

A) Studies discarded because clinical information was detailed only for a specific subpopulation of the total cohort (women, cardiac involvement, BAA people...)

B) When a selected study referenced other clinical studies carried out by the same research group, we evaluated the information offered by the referenced manuscripts, and selected only one study among the various studies reported by the group (that containing the most detailed information).

**Supplementary Table 2.** Worldwide epidemiological clinical, histopathological and outcome features of sarcoidosis obtained by merging the data of 128955 patients included in large international studies (>100 cases) (see definition of variables in the Appendix).

Variable	Value	Patients (n)	Cohorts (n)
<i>Age, mean (range)</i>			
At diagnosis	41.2 (30.0 - 51.2)	47807	37
At study	49.2 (42.1 - 62.0)	48803	51
<i>Gender</i>			
Women	56284 (53.1)	105919	101
Men	49635 (46.9)	105919	101
Ratio W:M, mean (range)	1.5 (0.5 - 3.6)	105530	85
<i>Ethnia</i>			
White	16583 (60.2)	27548	61
Black or African American	6891 (23.2)	27548	61
Asian	3502 (12.7)	27548	61
Others	1072 (3.9)	27548	61
<i>Smoking</i>			
Active/Past	5429 (35)	15509	33
Never	10080 (65)	15509	33
<i>Histological diagnosis</i>			
Biopsy-proven	18946 (87.2)	21733	64
<i>Radiological staging</i>			
Normal			
Stage I	5416 (36.3)	14916	50
Stage II	5243 (35.2)	14916	50
Stage III	1873 (12.6)	14916	50
Stage IV	850 (5.7)	14916	50
<i>Clinical presentation</i>			
Thoracic disease (stages I, II, III, IV)	13382 (89.7)	14916	50
Pulmonary disease (stages II, III, IV)	7966 (26.7)	29832	50
Extrathoracic disease (normal Rx)	1534 (10.3)	14916	50
Löfgren syndrome	1435 (19.3)	7449	20
Heerfordt syndrome	13 (0.4)	3092	4
<i>Cumulative extrathoracic involvement</i>			
Cutaneous involvement	3729 (23.9)	15575	43
Ocular involvement	3525 (23.7)	14879	41
Extrathoracic lymph node involvement	1422 (12.3)	11532	30
Cardiac involvement	600 (4.6)	12978	31
Liver involvement	1072 (8.4)	12733	30
Calcium/Vitamin D	384 (6.9)	5568	16
Splenic involvement	549 (6.3)	8653	23
Neurological involvement	578 (5)	11674	31
Salivary gland involvement	261 (2.9)	9090	22
ENT involvement	235 (4.8)	4861	14
Bone/joint involvement	324 (3.6)	8935	23
Renal involvement	96 (1.3)	7630	14
Muscle involvement	77 (1.1)	6876	12
<i>Outcomes</i>			
Use of glucocorticoids/ID	11902 (56.5)	21059	33
Years of follow-up, mean (range)	8.1 (3.0 - 19.0)	13850	20
Death	283 (8.9)	3177	7

Values are represented as means and range for continuous variables and numbers and percentages for categorical variables.