

Supplementary table 1. Characteristics of all included studies

Disease	Author	Study design	Country	Pub year	Study period	Study population	Sample size	Diagnosis method	expulsion rate
SARS	Booth, C. M. (36)	Observational study	Canada	2003	2003/3/7- 2003/4/10	Adult	144	Clinical Diagnosis	0%
SARS	Kin Wing Choi (37)	Observational study	China	2003	2003/2/26- 2003/3/31	Adult	227	Laboratory Diagnosis	0%
SARS	Na Huo (38)	Observational study	China	2003	2003/4- 2003/5	Adult	45	Clinical Diagnosis	0%
SARS	Xing-Wang Li (39)	Observational study	China	2003	2003/4- 2003/5	Adult	27	Clinical Diagnosis	0%
SARS	Ting-Xiong Liang (40)	systematic review	China	2003	2003/3/12- 2003/4/30	Human	1589	Clinical Diagnosis	0%
SARS	Zheng-Yin Liu (41)	Observational study	China	2003	2003/3/25- 2003/4/28	Human	106	Clinical Diagnosis	0%
SARS	Hao-Lan He (42)	Observational study	China	2003	2003/2- 2003/4	Human	170	Clinical Diagnosis	0%
SARS	Wei Wu (43)	Observational study	China	2003	2003/1/30- 2003/3/10	Adult	96	Clinical Diagnosis	0%
SARS	Zheng-Lun Xiao (44)	Observational study	China	2003	2002/12/22- 2003/3	Adult	78	Clinical Diagnosis	0%

SARS	Xiao-Yan Xue (45)	Observational study	China	2003	2003/4/5-2003/4/20	Adult	45	Clinical Diagnosis	0%
SARS	Chun-Hui Zhao (46)	Observational study	China	2003	2003/3/11-2003/4/15	Human	108	Clinical Diagnosis	0%
SARS	Zi-Wen Zhao (47)	Observational study	China	2003	2003/1-2003/3	Human	190	Clinical Diagnosis	0%
SARS	Xian-Zhi Zhou (48)	Observational study	China	2003	2003/3-2003/4	Adult	29	Clinical Diagnosis	0%
SARS	Chi-Huei Chiang (49)	Observational study	China	2004	2003/4/25-2003/5/7	Adult	14	Clinical Diagnosis	0%
SARS	Ching-Lung Liu (50)	Observational study	China	2004	2003/4/27-2003/6/16	Human	53	Laboratory Diagnosis	0%
SARS	Hai-Ying Lu (51)	Observational study	China	2004	2003/3-2003/6	Human	1062	Clinical Diagnosis	0%
SARS	Qing Tian (52)	Observational study	China	2004	2003/5/1-2003/6/20	Adult	197	Clinical Diagnosis	0%
SARS	Jann-Tay Wang (53)	Observational study	China	2004	2003/3/8-2003/6/15	Adult	76	Laboratory Diagnosis	0%
MERS	Abdullah Assiri (54)	Observational study	Saudi Arabia	2013	2012/9/1-2013/6/1	Human	47	Laboratory Diagnosis	0%
MERS	Yaseen M. Arabi (13)	Observational study	Saudi Arabia	2017	2012/9-2015/10	Adult	330	Laboratory Diagnosis	0%

MERS	Anwar E. Ahmed (55)	Observational study	Saudi Arabia	2018	2012/9/1- 2013/6/15	Adult	135	Laboratory Diagnosis	0%
COVID- 2019	Lei Chen (24)	Observational study	China	2020	2020/1/14- 2020/1/29	Human	29	Laboratory Diagnosis	0%
COVID- 2019	Nanshan Chen (27)	Observational study	China	2020	2020/1/1- 2020/1/20	Adult	99	Laboratory Diagnosis	0%
COVID- 2019	Wei-jie Guan (25)	Observational study	China	2020	2019/12- 2020/1/29	Human	1099	Laboratory Diagnosis	0%
COVID- 2019	Chaolin Huang (2)	Observational study	China	2020	2019/12/31- 2020/1/1	Adult	41	Laboratory Diagnosis	0%
COVID- 2019	Dawei Wang (26)	Observational study	China	2020	2020/1/1- 2020/1/28	Adult	138	Laboratory Diagnosis	0%

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