

Supplementary methods*Reporting guidelines*

This systematic review and meta-anal-

ysis was reported in strict accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 statement,

including the extension for abstracts. The completed PRISMA checklist is provided in Tables S1-S2.

Supplementary Table S1. PRISMA 2020 checklist.

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	P1
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	Supplementary P3-4
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	P3-5
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	P5-6
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	P7-8
Information sources	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.	P6-7
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	Supplementary P4-7
Selection process	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.	P6-7
Data collection process	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.	P8
Data items	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.	P8
	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.	P7-8
Study risk of bias assessment	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.	P8-9
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	P9
Synthesis methods	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)).	NA
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	P8
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	P8-9
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	P9
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	NA
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	P9
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	NA
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	NA

Section and Topic	Item #	Checklist item	Location where item is reported
RESULTS			
Study selection	16a	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.	P9-10, 37
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	P9-10
Study characteristics	17	Cite each included study and present its characteristics.	P9-10
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	P10-11
Results of individual studies	19	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.	P11-12, 39-40
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	P12-13
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	P11-12
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	P12-13
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	P12-13,39, Supplementary P8
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	NA
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	NA
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	P13-15
	23b	Discuss any limitations of the evidence included in the review.	P17-21
	23c	Discuss any limitations of the review processes used.	NA
	23d	Discuss implications of the results for practice, policy, and future research.	P16-17
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	P6
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	P6
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	P6
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	P22
Competing interests	26	Declare any competing interests of review authors.	Cover letter
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.	NA

Supplementary Table S2. PRISMA 2020 for abstracts checklist.

Section and Topic	Item #	Checklist item	Reported (Yes/No)
TITLE			
Title	1	Identify the report as a systematic review.	Yes
BACKGROUND			
Objectives	2	Provide an explicit statement of the main objective(s) or question(s) the review addresses.	Yes
METHODS			
Eligibility criteria	3	Specify the inclusion and exclusion criteria for the review.	Yes
Information sources	4	Specify the information sources (e.g. databases, registers) used to identify studies and the date when each was last searched.	Yes
Risk of bias	5	Specify the methods used to assess risk of bias in the included studies.	Yes
Synthesis of results	6	Specify the methods used to present and synthesise results.	Yes
RESULTS			
Included studies	7	Give the total number of included studies and participants and summarise relevant characteristics of studies.	Yes
Synthesis of results	8	Present results for main outcomes, preferably indicating the number of included studies and participants for each. If meta-analysis was done, report the summary estimate and confidence/credible interval. If comparing groups, indicate the direction of the effect (i.e. which group is favoured).	Yes
DISCUSSION			
Limitations of evidence	9	Provide a brief summary of the limitations of the evidence included in the review (e.g. study risk of bias, inconsistency and imprecision).	Yes
Interpretation	10	Provide a general interpretation of the results and important implications.	Yes
OTHER			
Funding	11	Specify the primary source of funding for the review.	No
Registration	12	Provide the register name and registration number.	Yes

Search strategy

Databases searched

- PubMed (NLM): 0000/00/00-2025/12/01
- Embase (www): 0000/00/00-2025/12/01
- Web of Science Core Collection (www): 0000/00/00-2025/12/01
- Cochrane Library (www): 0000/00/00-2025/12/01
- Chinese Biomedical Literature Database (www): 0000/00/00-2025/12/01

PubMed (NLM): 0000/00/00-2025/12/01

Searched 26

#16 #5 AND #15 26

#15 #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 233,995

#14 "Ovarian volume"[All Fields] OR "ovarian volume*"[All Fields] 1,330

#13 "Fertility"[All Fields] OR "fecund*"[All Fields] 166,526

#12 "Fertility"[MeSH Terms] 49,623

#11 "FSH"[All Fields] OR "follicle stimulating hormone"[All Fields] OR "Follitropin"[All Fields] OR "follicle*stimulating hormone"[All Fields] 62,265

#10 "AFC"[All Fields] OR "antral follicle count"[All Fields] OR "antral follicle count*"[All Fields] 4,974

#9 "anti mullerian hormone"[All Fields] OR "AMH"[All Fields] OR "Mullerian Inhibiting Hormone"[All Fields] OR "anti*mullerian hormone"[All Fields] OR "Mullerian Inhibiting Substance"[All Fields] OR "Mullerian Regression Factor"[All Fields] OR "Mullerian Inhibitory Substance"[All Fields] 10,836

#8 "Anti-Mullerian Hormone"[MeSH Terms] 4,764

#7 "Ovarian Reserve"[All Fields] OR "ovarian reserve*"[All Fields] 6,385

#6 "Ovarian Reserve"[MeSH Terms] 2,282

#5 #1 OR #2 OR #3 OR #4 23,744

#4 "SS-B Antigen"[All Fields] OR "Sjogren's Syndrome-B Antigen"[All Fields] 1,023

#3 "SS-B Antigen"[MeSH Terms] 1,010

#2 "Sjogren's Syndrome"[All Fields] OR "Sicca Syndrome"[All Fields] OR "Sjogren Syndrome"[All Fields] OR "sjogren* syndrome"[All Fields] 23,052
#1 "Sjogren's Syndrome"[MeSH Terms] 15,877

Embase (www): 0000/00/00-2025/12/01

Searched 103

#18 #5 AND #17 103

#17 #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 385210

#16 'ovarian volume' OR 'ovarian volume*' 2,176

#15 'fertility' OR 'fecundity' OR 'sperm-ovum interactions' 283,787

#14 'fertility'/exp 106,927

#13 'fsh' OR 'follitropin' OR 'follicle stimulating hormone' OR 'follicle stimulating hormone, human' OR 'follicotropin' OR 'folliculo-stimulating hormone' OR 'follitrophin' OR 'follitropine' OR 'fsh nosticon' OR 'human follicle stimulating hormone' 108,630

#12 'follitropin'/exp 81,130

#11 'antral follicle count' OR 'antral follicles count' OR 'antral follicle* count' OR 'antral follicule count' OR 'antral follicule* count' OR 'antral follicules count' OR 'antral follicular count' OR 'afc' 9,879

#10 'antral follicle count'/exp 4,030

#9 'muellerian inhibiting factor' OR 'anti mullerian hormone' OR 'anti*mullerian hormone' OR 'muellerian inhibiting substance' OR 'muellerian inhibitor' OR 'muellerian inhibiting factor*' OR 'muellerian inhibiting substance*' OR 'amh' 21972

#8 'muellerian inhibiting factor'/exp 3,234

#7 'ovarian reserve*' OR 'oocyte reserve' OR 'oocyte reserve*' OR 'ovarian reserve' 14,004

#6 'ovarian reserve'/exp 11,414

#5 #1 OR #2 OR #3 OR #4 34,669

#4 'sjogren* syndrome type b antigen' OR 'sjogren syndrome b antigen' OR 'sjogren* syndrome bantigen' OR 'ss-b antigen' OR 'ss*b antigen' OR 'ss-b la antigen' OR 'ss*b la antigen' 83

#3 'sjogren`s syndrome type b antigen'/exp OR 'sjogren`s syndrome type b antigen' 807

#2 'sjoegren*syndrome' OR 'sicca syndrome' 1,725

#1 'sjoegren syndrome'/exp OR 'sjoegren syndrome' 33,679

Web of Science Core Collection (www): 0000/00/00-2025/12/01

Searched 27

#1 "Sjogren's Syndrome" OR "Sicca Syndrome" OR "Sjogren Syndrome" OR "Sjogren* Syndrome" (All Fields) OR "SS-B Antigen" OR "Sjogren's Syndrome-B Antigen" (All Fields) 15093

#2 "Ovarian Reserve" OR "Ovarian Reserve*" (All Fields) OR "Anti-Mullerian Hormone" OR "AMH" OR "Mullerian Inhibiting Hormone" OR "Anti*mullerian Hormone" OR "Mullerian Inhibiting Substance" OR "Mullerian Regression Factor" OR "Mullerian Inhibitory Substance" (All Fields) OR "AFC" OR "antral follicle count" OR "antral follicle count*" (All Fields) OR "FSH" OR "Follicle Stimulating Hormone" OR "Follitropin" OR "Follicle*Stimulating Hormone" (All Fields) OR "Fertility" OR "Fecund*" (All Fields) OR "Ovarian volume" OR "Ovarian volume*" (All Fields) 208900

#3 #2 AND #1 27

Cochrane Library (www): 0000/00/00-2025/12/01

Searched 4

#1 MeSH descriptor: [Sjogren's Syndrome] explode all trees 440

#2 "Sjogren's Syndrome" OR "Sicca Syndrome" OR "Sjogren Syndrome" OR "Sjogren NEXT Syndrome" 1141

#3 MeSH descriptor: [SS-B Antigen] explode all trees 1

#4 "Sjogren's Syndrome NEXT B Antigen" OR "LA Antigen; La(SSB) Antigen" OR "SS NEXT B La Antigen" OR "Lupus Antigen La" OR "SS B Antigen" OR "SS NEXT B Antigen" 1

#5 #1 OR #2 OR #3 OR #4 1142

#6 MeSH descriptor: [Ovarian Reserve] explode all trees 143

#7 "Ovarian Reserves" OR "Ovarian Reserve NEXT" 31

#8 MeSH descriptor: [Anti-Mullerian Hormone] explode all trees 209

#9 "Mullerian NEXT Inhibiting Hormon" OR "Mullerian Inhibiting Factor" OR "Mullerian Inhibiting Hormone" OR "Mullerian Inhibitory Substance" OR "Anti NEXT Muellerian Hormone" OR "Anti Mullerian Factor" OR "Anti Muellerian Hormone" OR "Mullerian Regression Factor" OR "Hormone, Anti NEXT Muellerian" OR "Mullerian NEXT Inhibitory Substance" OR "Mullerian NEXT Inhibiting Factor" OR "Anti NEXT Mullerian Factor" OR "Antimullerian Hormone" OR "Mullerian Inhibiting Substance" OR "Anti Mullerian Hormone" OR "AMH" 2069

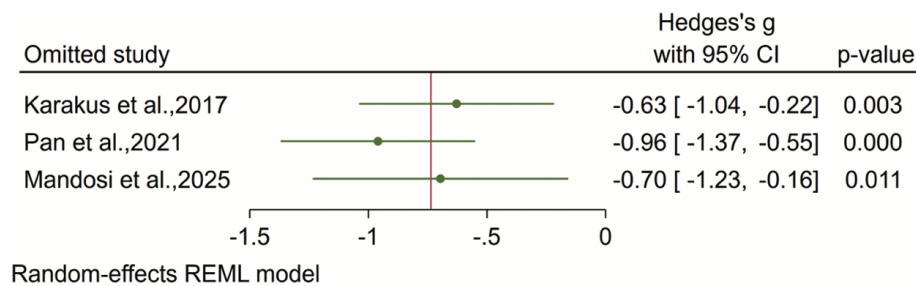
- #10 "AFC" OR "antral follicle count" OR "antral follicle count NEXT" 1176
- #11 MeSH descriptor: [Follicle Stimulating Hormone] explode all trees 2414
- #12 "FSH" OR "Follicle Stimulating Hormone" OR "Follitropin" OR "Follicle NEXT Stimulating Hormone" 9096
- #13 "Fertility" OR "Fecund NEXT" 11927
- #14 "Ovarian volume" OR "Ovarian volume NEXT" 415
- #15 #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 20198
- #16 #5 AND #15 4

Chinese Biomedical Literature Database (www): 0000/00/00-2025/12/01

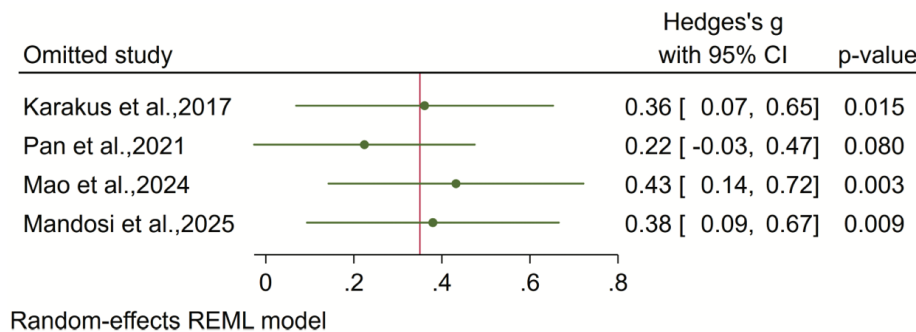
Searched 1

- #1 ("干燥综合征"[不加权:扩展])["全部字段:智能] OR "sicca syndrome" OR "sjogren syndrome" OR "干燥综合症" 2676
- #2 "卵巢储备功能"[不加权:扩展] OR "ovarian reserve" OR "ovarian reserve function" OR "卵巢储备能力" 3247
- #3 "抗苗勒管激素"[不加权:扩展] OR AMH OR 抗苗勒管激素 4408
- #4 "卵泡刺激素"[不加权:扩展] OR "follicle stimulating hormone" OR "follicle-stimulating hormone" OR "促卵泡生成激素" OR "促卵泡生成素" OR "促卵泡激素" 9437
- #5 "窦卵泡数" OR "窦状卵泡数" OR "窦卵泡计数" OR "窦卵泡数*" OR "窦状卵泡数*" 2567
- #6 "卵巢体积" OR "ovarian volume" OR "卵巢容积" 2732
- #7 ("生育力"[不加权:扩展]) OR "生育力" 11078
- #8 (#7) OR (#6) OR (#5) OR (#4) OR (#3) OR (#2) 25241
- #9 (#8) AND (#1) 1

Supplementary results



Supplementary Fig. S1. Leave-one-out sensitivity analysis of the pooled anti-Müllerian hormone (AMH) estimate. Leave-one-out sensitivity analysis of the pooled anti-Müllerian hormone (AMH) estimate. Each study was sequentially omitted to evaluate the influence of individual studies on the overall effect size. The pooled estimates remained stable in both magnitude and direction after exclusion of any single study, indicating the robustness of the meta-analytic results.



Supplementary Fig. S2. Leave-one-out sensitivity analysis of the pooled follicle-stimulating hormone (FSH) estimate. Leave-one-out sensitivity analysis of the pooled follicle-stimulating hormone (FSH) estimate. Each included study was sequentially omitted to assess its influence on the overall effect size. The pooled estimates remained largely stable across exclusions; when the study by Pan et al. was omitted, the confidence interval crossed the null, although the direction of the effect was unchanged.