SUPPLEMENTARY MATERIALS

Patients exposure outcome (PEO) framework for eligibility of research question.

*The **PEO** question format is used for qualitative research questions. Questions based on this format identify three concepts: (1) **P**opulation, (2) **E**xposure, and (3) **O**utcome(s)*.
Questions are outlined below:

- In Systemic Lupus Erythematosus (P), does anifrolumab (E) reduce articular involvement (O)?

Supplementary Table S1.

Quality assessment of diagnostic accuracy studies (QUADAS) for articles included in the systematic review.

	bias patient selection	bias index test	bias reference standard	bias flow & timing	applicability patient selection	applicability index test	applicability reference standard
Ceccarelli, 2025 [9]	2	1	1	2	2	2	2
Tani, 2024 [10]	0	0	1	0	2	2	2
Maicas, 2024 [11]	2	1	1	2	2	2	2

QUADAS-2 comprises 4 domains: patient selection, index test, reference standard, and flow and timing. Each domain is assessed in terms of risk of bias; and the patient selection, index test, and reference standard domains are also assessed regarding applicability. O= low risk; 1= high risk; 2= unclear risk.

Supplementary Table S2.

The PRISMA 2020 checklist.

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	Sections: 1.Introduction, 4.Review of the literature
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	Abstract
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	Introduction, Discussion
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	Introduction; Review of the Literature: 4.1. Methods
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	Review of the Literature: 4.1. Methods
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.	Review of the Literature: 4.1. Methods; Figure 1
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	Review of the Literature: 4.1. Methods; Figure 1
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.	Review of the Literature: 4.1. Methods

Section and Topic	Item #	Checklist item	Location where item is reported
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.	Review of the Literature: 4.1. Methods
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.	Review of the Literature: 4.1. Methods
	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.	Review of the Literature: 4.1. Methods
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.	Review of the Literature: 4.1. Methods
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.	NA
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)).	Review of the Literature: 4.1. Methods
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	NA
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	NA
	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.	Review of the Literature: 4.1. Methods
	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.	Review of the Literature: 4.1. Methods
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	Review of the Literature: 4.1. Methods
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	Review of the Literature: 4.1. Methods
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.	Review of the Literature: 4.2. Results;

Section and Topic	Item #	Checklist item	Location where item is reported
			Figure 1, Table 3
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	Review of the Literature: 4.2. Results; Figure 1
Study characteristics	17	Cite each included study and present its characteristics.	Review of the Literature: 4.2. Results; Table 3
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	Review of the Literature: 4.1. Methods
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.	NA
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	NA
	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.	Review of the Literature: 4.2. Results
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	Review of the Literature: 4.2. Results
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	NA
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.	Review of the Literature: 4.2. Results; Table 3
	23b	Discuss any limitations of the evidence included in the review.	Review of the Literature: 4.2. Results; Discussion
	23c	Discuss any limitations of the review processes used.	Review of the Literature:

Section and Topic	Item #	Checklist item	Location where item is reported
			4.1. Methods; 4.2. Results; Discussion
	23d	Discuss implications of the results for practice, policy, and future research.	Section 5. Discussion
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.	Review of the Literature: 4.1. Methods
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	Review of the Literature: 4.1. Methods
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	NA
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	Section: Funding and conflicts of interest
Competing interests	26	Declare any competing interests of review authors.	Section: Funding and conflicts of interest
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.	Review of the Literature: 4.1. Methods; 4.2. Results; Table 3 and Figure 1

[9] Ceccarelli, F.; Ciancarella, C.; Natalucci, F.; Scorda, A.; Tripodi, G.; Garufi, C.; Mancuso, S.; Spinelli, F.R.; Alessandri, C.; Conti, F. Rapid response to anifrolumab in lupus related joint involvement as assessed by ultrasonography: A case series study. *Jt. Bone Spine* **2025**, *92*, 105830. https://doi.org/10.1016/j.jbspin.2024.105830.

[10] Tani, C.; Cardelli, C.; Zen, M.; Moroni, L.; Piga, M.; Ceccarelli, F.; Fasano, S.; De Marchi, G.; Coladonato, L.; Emmi, G.; et al. Anifrolumab in Refractory Systemic Lupus Erythematosus: A Real-World, Multicenter Study. *J. Rheumatol.* **2024**, *51*, 1096–1101. https://doi.org/10.3899/JRHEUM.2024-0053.

[11] Maicas, L.S.; Fragio, J.J.; Calabuig, P.M.; Mazarío, R.G.; Martínez, M.L.; Almela, C.M.; Cid, A.R.; Garrido, J.J.L.; Fernaíndez, C.C. Real-life data of anifrolumab as a treatment for systemic lupus erythematosus (SLE). *Lupus Sci. Med.* **2024**, *11*, A177. https://doi.org/10.1136/LUPUS-2024-EL.226.