

Table S1. Study characteristics

Studies	Country	Diagnostic criteria					Outcome				
		Male	Female	Mean age	Mean SBP	Mean DBP	Sample size (N)	Normal (N)	HU (N)	M	F
Yamamoto T, 2019, [14]	USA	>6 mg/dL	>6 mg/dL	70.2	NA	NA	348	81	267	264	3
Li Z, 2012, [15]	China	>7.0mg/dL	>6.0mg/dL	51	136.2	93.6	814	431	383	NA	NA
Kohagura K, 2018, [16]	Japan	≥7 mg/dl	≥5 mg/dl	38.5	NA	NA	109	50	59	23	36
Horino T, 2018, [17]	Japan	≥7.05 mg/dl	≥6.04 mg/dl	63.7	NA	NA	30	24	6	NA	NA
Ishii T, 2017, [18]	Japan	≥7 mg/dl	≥6 mg/dL	57.21	NA	NA	2429	1510	919	597	322
Dai H, 2016, [19]	China	>7.0 mg/dl	>6.0 mg/dl	60.4	153.8	91.6	1,779	1203	576	NA	NA
Meiyu Y, 2018, [20]	China	>7.0 mg/dl	>6.0 mg/dl	72	139.8	80.6	227	146	81	NA	NA
Tsumuraya Y, 2015, [21]	Japan	≥ 7.0 mg/dL	≥ 7.0 mg/dL	62	NA	NA	187,914	137741	50173	NA	NA
Han M, 2014, [22]	South Korea	≥ 7.0 mg/dL	≥ 6.0 mg/dL	73.5	136.4	85.6	365	278	87	NA	NA
Kalantar E, 2011, [23]	Iran	7.0 mg/dL	6.0 mg/dL	57.21	NA	NA	2961	1408	1553	947	606
Liu Z, 2015, [24]	China	≥ 420 μmol/L	≥ 360 μmol/L	97.4	139.4	79.9	66	45	21	NA	NA
Hsu HJ, 2014, [25]	Taiwan	>8 mg/dl	NA	63.3	133	73	456	230	226	NA	NA
Suzuki K, 2013, [26]	Japan	≥7 mg/dL	≥6 mg/dL	62	NA	NA	3126	2881	245	214	31
Costa de OCM,2009,[27]	Brazil	≥7 mg/dL	≥6 mg/dL	40.6	NA	NA	170	78	92	NA	NA
Kohagura K, 2013, [28]	Japan	≥7 mg dl-1	≥6 mg dl-1	42.4	129	75.7	167	97	70	36	34
Viazzi F, 2014, [29]	Italy	≥2.5 mg/mmol	≥3.5 mg/mmol	62	139	9	2429	681	1748	NA	NA
Noone DG, 2013, [30]	UK	≥ 7.0 mg/dl	≥ 6.0 mg/dL	6.5	NA	NA	116	35	81	NA	NA
See LC, 2009, [31]	Taiwan	> 7.7 mg/dl	> 6.6 mg/dl	40.8	199.9	11	2,833	1753	1080	NA	NA
Tanaka K, 2011, [32]	Japan	≥ 7 mg/dl	≥ 6 mg/dl	57.21	130	10	1493	1139	354	NA	NA
Sarpal V, 2017, [33]	India	NA	NA	57.21	NA	NA	146	90	56	43	13
Li CH, 2022, [34]	Taiwan	≥ 7 mg/dl	≥ 6 mg/dl	71	134	75	4380	1469	2911	1883	1028
Golmohammadi S,2020 [35]	Iran	≥ 7 mg/dl	≥ 6 mg/dl	62.5	NA	NA	279	119	160	81	79
Doualla M, 2018 [36]	Cameroon	≥ 7 mg/dl	≥ 6 mg/dl	55.78	142.3	88.3	103	34	69	NA	NA

M (males), F (females), HU (Hyperuricemia), NOS (New-castle Ottawa Scale for quality assessment) Score 6-10 (Good quality). [References]
SBP: Systolic Blood Pressure, DBP: Diastolic Blood Pressure

Table S2. Quality assessment of studies

Study name	Parameters			Total stars/Points	Category
	Selection	Comparability	Outcome		
1. Yamamoto T, 2019, [14]	3	2	3	8	G
2. Li Z, 2012, [15]	3	2	2	7	F
3. Kohagura K, 2018, [16]	3	2	2	7	F
4. Horino T, 2018, [17]	2	2	3	7	F
5. Ishii T, 2017, [18]	3	2	3	8	G
6. Dai H, 2016, [19]	3	2	2	7	F
7. Meiyu Y, 2018, [20]	3	2	3	8	G
8. Tsumuraya Y, 2015, [21]	4	2	2	8	G
9. Han M, 2014, [22]	3	2	3	8	G
10. Kalantar E, 2011, [23]	2	2	3	7	F
11. Liu Z, 2015, [24]	2	2	2	6	F
12. Hsu HJ, 2014, [25]	4	2	2	8	G
13. Suzuki K, 2013, [26]	3	2	2	7	F
14. Costa de OCM,2009,[27]	4	2	2	8	G
15. Kohagura K, 2013, [28]	3	2	3	8	G
16. Viazzi F, 2014, [29]	3	2	3	8	G
17. Noone DG, 2013, [30]	3	2	3	8	G
18. See LC, 2009, [31]	3	2	3	8	G
19. Tanaka K, 2011, [32]	3	2	2	7	F
20. Sarpal V, 2017, [33]	4	2	3	9	G
21. Li CH, 2022, [34]	4	2	3	9	G
22. Golmohammadi S,2020 [35]	3	2	2	7	F
23. Doualla M, 2018 [36]	3	2	3	8	G

[G] Good quality = (8-9), [F] Fair quality (5-7), [P] Poor quality (0-4)

Table S3. PRISMA checklist

Section and topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	1
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	1
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	2,3
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	4
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	5
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.	4
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	4
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.	5
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.	5
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.	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.	5
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.	5,6
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)).	5

Section and topic	Item #	Checklist item	Location where item is reported
	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.	5
	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.	5
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	5
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	5
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.	5
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.	6, 8
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	8 (Figure 1)
Study characteristics	17	Cite each included study and present its characteristics.	Supp file
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	11, Supp file
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.	6-10
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	11
	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.	5-7
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	7
	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.	6-11

Section and topic	Item #	Checklist item	Location where item is reported
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	11 -14
	23b	Discuss any limitations of the evidence included in the review.	15
	23c	Discuss any limitations of the review processes used.	15
	23d	Discuss implications of the results for practice, policy, and future research.	15
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.	4
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	PROSPERO
	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.	NONE
Competing interests	26	Declare any competing interests of review authors.	NO
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.	Supp file

Note. From “The PRISMA 2020 statement: an updated guideline for reporting systematic reviews,” by Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. *BMJ*. 2021;372:n71 (<https://doi.org/10.1136/bmj.n71>). © 2021, BMJ Publishing Group Ltd. CC BY. For more information, visit: <http://www.prisma-statement.org/>