

**Supplementary Material 1.** Search terms

MEDLINE Database

(“allopurinol”[MeSH Terms] OR “allopurinol”[All Fields] OR “allopurinol s”[All Fields] OR (“xanthine oxidase”[MeSH Terms] OR “xanthine”[All Fields] AND “oxidase”[All Fields]) OR “xanthine oxidase”[All Fields]) AND (“antagonists and inhibitors”[MeSH Subheading] OR (“antagonists”[All Fields] AND “inhibitors”[All Fields]) OR “antagonists and inhibitors”[All Fields] OR “inhibitors”[All Fields] OR “inhibitor”[All Fields] OR “inhibitor s”[All Fields])) OR (“febuxostat”[MeSH Terms] OR “febuxostat”[All Fields]) OR (“Anti-gout”[All Fields] AND (“drug s”[All Fields] OR “pharmaceutical preparations”[MeSH Terms] OR (“pharmaceutical”[All Fields] AND “preparations”[All Fields]) OR “pharmaceutical preparations”[All Fields] OR “drugs”[All Fields])) OR “Anti-gout”[All Fields] OR (“urate-lowering”[All Fields] AND (“therapeutics”[MeSH Terms] OR “therapeutics”[All Fields] OR “therapies”[All Fields] OR “therapy”[MeSH Subheading] OR “therapy”[All Fields] OR “therapy s”[All Fields] OR “therapys”[All Fields])) OR 15[UID] OR (“probenecid”[MeSH Terms] OR “probenecid”[All Fields]) OR (“uricosuric agents”[Pharmacological Action] OR “uricosuric agents”[MeSH Terms] OR (“uricosuric”[All Fields] AND “agents”[All Fields]) OR “uricosuric agents”[All Fields] OR (“uricosuric”[All Fields] AND “agent”[All Fields]) OR “uricosuric agent”[All Fields]) OR (“benzbromarone”[MeSH Terms] OR “benzbromarone”[All Fields] OR “benzbromaron”[All Fields] OR (“pegloticase”[Supplementary Concept] OR “pegloticase”[All Fields] OR “pegloticase”[All Fields])) AND (“arrhythmias, cardiac”[MeSH Terms] OR (“arrhythmia s”[All Fields] OR “arrhythmias, cardiac”[MeSH Terms] OR (“arrhythmias”[All Fields] AND “cardiac”[All Fields]) OR “cardiac arrhythmias”[All Fields] OR “arrhythmia”[All Fields] OR “arrhythmias”[All Fields]) OR “arrhythmias, cardiac”[MeSH Terms] OR (“arrhythmia s”[All Fields] OR “arrhythmias, cardiac”[MeSH Terms] OR (“arrhythmias”[All Fields] AND “cardiac”[All Fields]) OR “cardiac arrhythmias”[All Fields] OR “arrhythmia”[All Fields] OR “arrhythmias”[All Fields]) OR (“supraventricular”[All Fields] AND “arrhythmias, cardiac”[MeSH Terms]) OR (“supraventricular”[All Fields] AND “arrhythmia”[All Fields]) OR (“supraventricular”[All Fields] AND (“arrhythmia s”[All Fields] OR “arrhythmias, cardiac”[MeSH Terms] OR (“arrhythmias”[All Fields] AND “cardiac”[All Fields]) OR “cardiac arrhythmias”[All Fields] OR “arrhythmia”[All Fields] OR “arrhythmias”[All Fields])) OR (“atrial fibrillation”[MeSH Terms] OR (“atrial”[All Fields] AND “fibrillation”[All Fields]) OR “atrial fibrillation”[All Fields]) OR (“atrial fibrillation”[MeSH Terms] OR (“atrial”[All Fields] AND “fibrillation”[All Fields]) OR “atrial fibrillation”[All Fields])) OR (((“heart ventricles”[MeSH Terms] OR (“heart”[All Fields] AND “ventricles”[All Fields]) OR “heart ventricles”[All Fields] OR “ventricular”[All Fields] OR “ventricularization”[All Fields] OR “ventricularized”[All Fields]) AND “arrhythmias, cardiac”[MeSH Terms]) OR (“ventricular”[All Fields] AND “arrhythmia”[All Fields]) OR (“heart ventricles”[MeSH Terms] OR (“heart”[All Fields] AND “ventricles”[All Fields]) OR “heart ventricles”[All Fields] OR “ventricular”[All Fields] OR “ventricularization”[All Fields] OR “ventricularized”[All Fields]) AND (“arrhythmia s”[All Fields] OR “arrhythmias, cardiac”[MeSH Terms] OR (“arrhythmias”[All Fields] AND “cardiac”[All Fields]) OR “cardiac arrhythmias”[All Fields] OR “arrhythmia”[All Fields] OR “arrhythmias”[All Fields])) OR (“heart ventricles”[MeSH Terms] OR (“heart”[All Fields] AND “ventricles”[All Fields]) OR “heart ventricles”[All Fields] OR “ventricular”[All Fields] OR “ventricularization”[All Fields] OR “ventricularized”[All Fields]) AND (“arrhythmia s”[All Fields] OR “arrhythmias, cardiac”[MeSH Terms] OR (“arrhythmias”[All Fields] AND “cardiac”[All Fields]) OR “cardiac arrhythmias”[All Fields] OR “arrhythmia”[All Fields] OR “arrhythmias”[All Fields]))))

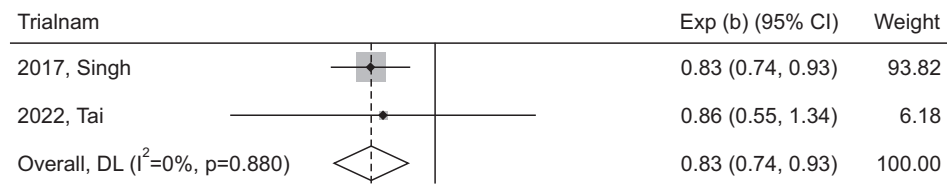
EMBASE Database

1. ‘heart ventricle arrhythmia’
2. ‘heart supraventricular arrhythmia’
3. ‘atrial fibrillation’
4. ‘arrythmia’
5. ‘heart arrhythmia’
6. uricase AND agent
7. ‘pegloticase’

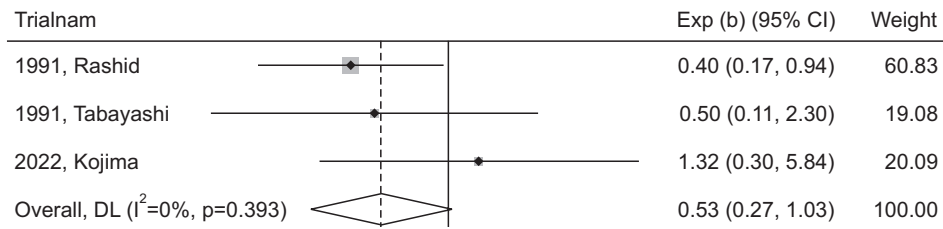
8. 'uricosuric agent'
9. 'benzbromarone'
10. 'probenecid'
11. 'xanthine oxidase inhibitor'
12. 'febuxostat'
13. 'allopurinol'
14. #1 OR #2 OR #3 OR #4 OR #5
15. #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12
16. #14 AND #15

**Supplementary Table 1.** Table of the results of primary analysis

Study	Intervention		Control		Weight (%)	Risk ratio
	Event	Total	Event	Total		
Rashid and William-Olsson [17]	3	45	15	45	1.63	0.40 (0.17~0.94)
Tabayashi et al. [12]	3	60	3	30	0.51	0.50 (0.11~2.30)
Singh et al. [11]	801	5,754	565	3,490	91.31	0.83 (0.74~0.93)
Tai et al. [18]	47	963	68	963	6.01	0.86 (0.55~1.34)
Kojima et al. [16]	4	537	3	533	0.54	1.32 (0.30~5.84)
Overall	858	7,359	654	5,061	100.00	0.82 (0.74~0.92)



**Supplementary Figure 1.** Forest plot of the subgroup analysis of included retrospective studies. DL: DerSimonian-Laird method used for random-effects model, CI: confidence interval.



**Supplementary Figure 2.** Forest plot of the subgroup analysis of included randomized controlled trials. DL: DerSimonian-Laird method used for random-effects model, CI: confidence interval.