

Supplementary Table 1. Search strategies with query terms
PubMed

No.	Search Query	Results
#1	"Carcinoma, Hepatocellular"[Mesh] OR "Liver Neoplasms"[Mesh:NoExp]	177,148
#2	(unresectab*[TW] OR intermediate-stage*[TW] OR Early[TW] OR Early-stage*[TW] OR small[TW]) AND (hepatocellular-carcinoma*[TW] OR hepatocellular-carcinoma*[TW] OR liver-cancer*[TW] OR liver-cell-cancer*[TW] OR HCC[TW])	27,532
#3	#1 OR #2	186,386
#4	"Embolization, Therapeutic"[Mesh] OR Chemoembol*[TW] OR Chemo-embol*[TW] OR Radioembol*[TW] OR Radio-embol*[TW]	52,211
#5	"Radiofrequency Therapy"[Mesh] OR "Ablation Techniques"[Mesh] OR Ablation*[TW] OR cryoablation*[TW] OR Radiofrequenc*[TW] OR Radio-frequenc*[TW] OR microwave*[TW] OR thermal*[TW]	525,093
#6	"Radiotherapy"[Mesh] OR Radiotherap*[TW] OR Radio-therap*[TW] OR Radiation*[TW]	896,834
#7	"Radiosurgery"[Mesh] OR Radiosurger*[TW] OR Radio-surger*[TW] OR "stereotactic body radiation therap*[TW] OR SBRT[TW]	27,294
#8	("Ethanol"[Mesh] AND "Injections"[Mesh]) OR ethanol-inject*[TW]	5,651
#9	#4 OR #5 OR #6 OR #7 OR #8	1,432,024
#10	"Survival"[Mesh] OR "Survival Analysis"[Mesh] OR "Survival Rate"[Mesh] OR "Progression-Free Survival"[Mesh]	491,104
#11	Survival*[TW] OR Response-rate*[TW] OR "PFS"[TW]	1,568,522
#12	#10 OR #11	1,622,650
#13	#3 AND #9 AND #12	11,954
#14	#13 NOT (Case Reports[PT] OR Letter[PT] OR meta-analys*[TW] OR metaanalys*[TW] OR "Meta-Analysis" [PT] OR case-report*[TW] OR Letter*[T]) OR "Systematic Review"[PT] OR Systematic-Review*[T]) OR Review[PT]	9,003
#15	#14 AND ("2000/01/01"[PDAT] : "2023/02/17"[PDAT]) AND (English[Lang])	7,171
#16	#15 AND ("Randomized Controlled Trial"[PT] OR Randomized*[TW] OR Randomised[TW] OR ((Double*[TW] OR single*[TW] OR treb*[TW] OR tripl*[TW]) AND (Blind*[TW] OR mask*[TW])) OR randomly*[TW] OR "Prospective Studies"[Mesh] OR Prospective-stud*[TW] OR Prospective-cohort[TW])	1,224

Supplementary Table 1. Continued
EMBASE

No.	Search Query	Results
#1	'liver cell carcinoma'/exp OR 'liver cancer'/de	233,532
#2	((unresectab* OR intermediate-stage* OR Early OR Early-stage* OR small) NEAR/6 (hepatocellular* OR hepato-cellular* OR Liver* OR liver-cell*) NEAR/6 (carcinoma* OR cancer*)):ab,ti,kw	12,154
#3	#1 OR #2	235,701
#4	'chemoembolization'/exp OR 'radioembolization'/exp OR (Chemoembol* OR Chemo-embol* OR Radioembol* OR Radio-embol*):ab,ti,kw	28,057
#5	'radiofrequency ablation'/exp OR 'ablation therapy'/exp OR (Ablation* OR cryoablation* OR Radiofrequenc* OR Radio-frequenc* OR microwave* OR thermal*):ab,ti,kw	523,002
#6	'radiotherapy'/exp OR (Radiotherap* OR Radio-therap* OR Radiation*):ab,ti,kw	1,071,139
#7	'radiosurgery'/exp OR (Radiosurger* OR Radio-surger* OR 'stereotactic body radiation therap*' OR SBRT):ab,ti,kw	92,535
#8	('alcohol'/exp AND 'injection'/exp) OR ethanol-inject*:ab,ti,kw	6,985
#9	#4 OR #5 OR #6 OR #7 OR #8	1,585,117
#10	'overall survival'/exp OR 'survival analysis'/exp OR 'survival rate'/exp OR 'progression free survival'/exp	742,109
#11	(Survival* OR Response-rate* OR 'PFS'):ab,ti,kw	1,868,130
#12	#10 OR #11	2,004,141
#13	#3 AND #9 AND #12	18,360
#14	#13 NOT ([conference abstract]/lim OR [conference paper]/lim OR [conference review]/lim OR [data papers]/lim OR [editorial]/lim OR [erratum]/lim OR [letter]/lim OR [note]/lim OR [review]/lim OR [systematic review]/lim OR [meta analysis]/lim OR meta-analys*:ti OR case-report*:ti OR Letter*:ti OR Systematic-Review*:ti)	9,589
#15	#14 AND (english)/lim AND [2000-2023]/py	8,366
#16	#15 AND ([article]/lim OR [article in press]/lim)	8,310
#17	#16 AND ('randomized controlled trial'/exp OR [randomized controlled trial]/lim OR 'randomization'/exp OR (Random-Allocat* OR randomized OR randomised OR randomly*):ab,ti,kw OR ((Double* OR single* OR treb* OR trip*) NEAR/3 (Blind* OR mask*)):ab,ti,kw OR 'prospective study'/exp OR (Prospective-stud* OR Prospective-cohort):ab,ti,kw)	1,260

Supplementary Table 1. Continued
 Cochran Library trials

No.	Search Query	Results
#1	[mh "Carcinoma, Hepatocellular"] or [mh ^"Liver Neoplasms"]	3,832
#2	[(unresectabl* OR intermediate-stage* OR Early OR Early-stage* OR small) NEAR/6 (hepatocellular* OR hepato-cellular* OR Liver* OR liver-cell*) NEAR/6 (carcinoma* OR cancer*)];ab,ti,kw	1,090
#3	#1 OR #2	4,495
#4	[mh "Embolization, Therapeutic"] OR (Chemoembol* OR Chemo-embol* OR Radioembol*);ab,ti,kw	2,182
#5	[mh "Radiofrequency Therapy"] OR [mh "Ablation Techniques"] OR (Ablation* OR cryoablation* OR Radiofrequenc* OR Radio-frequenc* OR microwave* OR thermal*);ab,ti,kw	21,542
#6	[mh "Radiotherapy"] OR (Radiotherap* OR Radio-therap* OR Radiation*);ab,ti,kw	54,667
#7	[mh "Radiosurgery"] OR (Radiosurger* OR Radio-surger* OR 'stereotactic body radiation therap*' OR SBRT);ab,ti,kw	1,973
#8	([mh "Ethanol"] AND [mh "Injections"]) OR ethanol-inject*;ab,ti,kw	307
#9	#4 OR #5 OR #6 OR #7 OR #8	76,011
#10	[mh "Survival"] or [mh "Survival Analysis"] or [mh "Survival Rate"] or [mh "Progression-Free Survival"]	35,373
#11	(Survival* OR Response-rate* OR 'PFS');ab,ti,kw	144,998
#12	#10 OR #11	149,947
#13	#3 AND #9 AND #12	1,036
#14	#13 in Trials (Published); 2000-2023	581

Supplementary Table 1. Continued
CINAHL

No.	Search Query	Results
S1	(MH "Carcinoma, Hepatocellular") OR (MH "Liver Neoplasms")	22,872
S2	(unresectab* OR intermediate-stage* OR Early OR Early-stage* OR small) N6 (hepatocellular* OR hepato-cellular* OR Liver* OR liver-cell*) N6 (carcinoma* OR cancer*)	1,745
S3	S1 OR S2	23,335
S4	(MH "Embolization, Therapeutic+") OR (MH "Radiofrequency Therapy+") OR (MH "Ablation Techniques+")	49,041
S5	Chemoembol* OR Chemo-embol* OR Radioembol* OR Radio-embol* OR Ablation* OR cryoablation* OR Radiofrequenc* OR Radio-frequenc* OR microwave* OR thermal*	55,288
S6	(MH "Radiotherapy+") OR (MH "Radiosurgery")	41,703
S7	Radiotherap* OR Radio-therap* OR Radiation* OR Radiosurger* OR Radio-surger* OR "stereotactic body radiation therap*" OR SBRT	131,144
S8	ethanol-inject*	246
S9	S4 OR S5 OR S6 OR S7 OR S8	205,473
S10	(MH "Survival") OR (MH "Survival Analysis+")	149,023
S11	Survival* OR Response-rate* OR "PFS"	266,573
S12	S10 OR S11	305,201
S13	S3 AND S9 AND S12	2,487
S14	S13 Limiters Published Date: 20000101-20230217; Research Article; Language: Englis	1,590
S15	S14 AND (MH "Randomized Controlled Trials+" OR MH "Prospective Studies+" OR Randomized* OR Randomised* OR randomly* OR Prospective-stud* OR Prospective-cohort)	592

Supplementary Table 1. Continued
 Web of Science SCIE

No.	Search Query	Results
#1	TS=((unresectabl* OR intermediate-stage* OR Early OR Early-stage* OR small) NEAR/6 (hepatocellular* OR hepato-cellular* OR Liver* OR liver-cell*) NEAR/6 (carcinoma* OR cancer*))	11,134
#2	TS=(Chemoembol* OR Chemo-embol* OR Radioembol* OR Radio-embol*)	15,955
#3	TS=(Ablation* OR cryoablation* OR Radiofrequenc* OR Radio-frequenc* OR microwave* OR thermal*)	1,956,151
#4	TS=(Radiotherap* OR Radio-therap* OR Radiation*)	1,046,890
#5	TS=(Radiosurger* OR Radio-surger* OR "stereotactic body radiation therap*" OR SBRT OR ethanol-inject*)	39,141
#6	#2 OR #3 OR #4 OR #5	2,914,592
#7	TS=(Survival* OR Response-rate* OR "PFS")	1,445,277
#8	#1 AND #6 AND #7	2,559
#9	#8 AND PY=(2000-2023) AND LANGUAGE:(English)	2,440
#10	#9 Refined by: DOCUMENT TYPES: (ARTICLE OR EARLY ACCESS)	2,057
#11	#10 AND (TS=(Randomized* OR Randomised OR RCT OR ((Double* OR single* OR treb* OR trip*) NEAR/6 (Blind* OR mask*)) OR randomly* OR Prospective*))	680