# RESEARCH

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# Prognostic factors associated with early recurrence following liver resection for colorectal liver metastases: a systematic review and meta-analysis



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## Abstract

**Background** Colorectal cancer (CRC) is the 3rd most common malignancy with the liver being the most common site of metastases. The recurrence rate of colorectal liver metastases (CRLM) after liver resection (LR) is notably high, with an estimated 40% of patients experiencing recurrence within 6 months. In this context, we conducted a metaanalysis to synthesize and evaluate the reliability of evidence pertaining to prognostic factors associated with early recurrence (ER) in CRLM following LR.

**Methods** Systematic searches were conducted from the inception of databases to July 14, 2023, to identify studies reporting prognostic factors associated with ER. The Quality in Prognostic Factor Studies (QUIPS) tool was employed to assess risk-of-bias for included studies. Meta-analysis was then performed on these prognostic factors, summarized by forest plots. The grading of evidence was based on sample size, heterogeneity, and Egger's *P* value.

**Results** The study included 24 investigations, comprising 12705 individuals, during an accrual period that extended from 2007 to 2023. In the evaluation of risk-of-bias, 22 studies were rated as low/moderate risk, while two studies were excluded because of high risk. Most of the studies used a postoperative interval of 6 months to define ER, with 30.2% (95% confidence interval [CI], 24.1–36.4%) of the patients experiencing ER following LR. 21 studies were pooled for meta-analysis. High-quality evidence showed that poor differentiation of CRC, larger and bilobar-distributed liver metastases, major hepatectomy, positive surgical margins, and postoperative complications were associated with an elevated risk of ER. Additionally, moderate-quality evidence suggested that elevated levels of carcinoembryonic antigen (CEA) and carbohydrate antigen 19–9 (CA199), lymph node metastases (LNM) of CRC, and a higher number of liver metastases were risk factors for ER.

**Conclusion** This review has the potential to enhance the efficacy of surveillance strategies, refine prognostic assessments, and guide judicious treatment decisions for CRLM patients with high risk of ER. Additionally, it is essential to undertake well-designed prospective investigations to examine additional prognostic factors and develop salvage therapeutic approaches for ER of CRLM.

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Keywords Colorectal liver metastases, Early recurrence, Prognostic factors, Liver resection, Meta-analysis

## Introduction

Colorectal cancer (CRC) is the 3rd most common malignancy and the 2nd most deadly cancer worldwide [1]. It is highly prevalent in developed countries but has started to show an increasing trend in China, partially attributed to shifts toward a high-fat, low-fiber diet [2]. CRC is prone to distant metastases, affecting over 50% of patients, with the liver being the primary site in approximately 70% of cases [3, 4]. Therapeutic options for colorectal liver metastases (CRLM) include hepatectomy, chemotherapy, radiotherapy, hepatic artery embolization, and thermal ablation, such as microwave coagulation therapy, radiofrequency ablation [5]. Currently, liver resection (LR) is acknowledged as the most effective treatment for CRLM patients, which can offer prolonged survival and, in selected cases, a chance of cure [6]. Increasing effectiveness of chemotherapy regimens, advances in surgical techniques, and improvements in perioperative patient management have expanded the boundaries of resectability [7, 8]. The current consensus proposes that a disease should be considered technically resectable as long as complete macroscopic resection is feasible while maintaining at least a 30% future liver remnant [9, 10]. Nevertheless, not all technically resectable patients experience a survival benefit from surgery, with 3-year recurrence rates reaching 60-70% [11-13]. The earlier the recurrence, the worse the prognosis, but the definition of early recurrence(ER) varies from 6 to 24 months [14–16].

Therefore, this meta-analysis aims to elucidate prognostic factors associated with ER in CRLM patients undergoing LR. Subsequently, our objective is to identify individuals with high risk of ER, who might benefit from closer surveillance and appropriate salvage therapy.

## Materials and methods

## Protocol and reporting

The protocol for this study was registered on PROS-PERO (International Prospective Register of Systematic Reviews, www.crd.york.ac.uk/prospero) with the registration number CRD42023444091. This review was carried out according to the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines [17]. The PRISMA checklist is available in Supplementary Table S1.

## Data sources and search strategy

All potentially eligible publications were retrieved from PubMed, Embase, Cochrane, and Web of Science

from database inception until July 14, 2023. The search, employing the keywords "colorectal liver metastases", "surgery", "early", and "recurrence", was carried out by two investigators (YT, SFW). Supplementary File 1 included detailed information on the search strategy. Additionally, the bibliographies of included articles and relevant reviews were manually scrutinized to identify additional research and explore potentially relevant studies.

## Eligibility criteria and study selection

Subjects were eligible for inclusion if the following criteria were met: (1) Prospective or retrospective studies including patients with CRLM who received liver resection; (2) Articles presenting ER rates categorized by a prognostic factor; (3) Articles reporting a relative ratio (RR) or an odds ratio (OR) (with a 95% confidence interval [CI]) or offering adequate data for RR/OR estimation; (4) No language restrictions.

Studies were excluded according to the following criteria: (1) Articles on palliative surgery; (2) Articles without sufficient data for analysis; (3) Experimental animal studies; (4) Reviews, commentaries, conference proceedings, letters, case reports, editorials, and meta-analysis.

Article screening and study selection were independently performed by two reviewers (SFW, YQW). In instances of discordance, resolution was achieved through collaborative deliberation within the research team, culminating in a final consensus.

## **Data extraction**

The following data were extracted from each included study, and missing data were noted: (1) first author, publication year, country, period of recruitment, study type, patient count, follow-up period, overall recurrence rate, ER definition, ER rate, 5-year OS in the ER group, and inclusion/exclusion criteria (Table 1); (2) Prognostic factors, including patient characteristics (continuous variables: age, carcinoembryonic antigen [CEA], carbohydrate antigen 19-9 [CA199], binary variables: gender), primary tumor characteristics (binary variables: tumor differentiation [poor vs moderate/good], lymph node metastases [LNM], tumor stage [T3-4 vs T1-2], tumor location [rectum vs colon]), liver metastases characteristics (binary variables: number [more vs less], diameter [>5 cm vs  $\leq 5$  cm], synchronous metastases, bilobar distribution, extrahepatic metastases), and therapeutic factors (binary variables: laparoscopic resection, simultaneous resection, major hepatectomy, surgical margins [positive vs negative], preoperative chemotherapy, postoperative

First author (year, country)	Study period	Study design	Study period Study design No. of patients	Median follow-up (months)	ER definition (months)	Overall recurrence rate (%)	ER rate (%)	5-year OS in ER group (%)	Inclusion criteria	Exclusion criteria
Bhogal,2015 [18],UK	2004-2006	PC	243	58	18	52.7	38.3		LR for CRLM	1
Chen,2022 [19], China	2008–2020	RC	144	ı	11	I		1	Histologic CRLM, LR after NAC;	NAR, lack of f/p data
Dai,2021 [15], China	2012-2019	RC	202	1	Q	77.7	43.6	I	Synchronous CRLM, adenocarcinoma, curative-intent surgery	recurrent CRLM or rem- nant lesions, lack of f/p data
Deng,2023 [20], China 2008–2020	2008-2020	RC	323	1	13	I	1	ı	Clinical or histological CRLM; simultane- ous curative-intent resection	Lack of f/p data, other severe diseases
Finkelstein, 2008 [21],USA	1995–2002	PC	100	31	12	52	30.0	I	LR for CRLM	Extrahepatic disease
lmai,2016 [22],France	1990–2012	PC	846	57.6	00	78.8	44.8	11.1	Curative sur- gery for CRLM, a f/u > 2 years	Died of postoperative complications
Inoue,2020 [ <mark>23</mark> ], Japan	2001-2017	RC	295		9	64.1	29.8	45	LR for CRLM	Noncurative resection
Jung,2016 [ <mark>24</mark> ], Korea	1990–2011	RC	277	45.1	9	ı	10.8	33.8	LR for CRLM	R2 resection
Kaibori,2012 [14], Japan	1993–2007	RC	119	31	24	53.8	45.4	24.2	Curative resection for CRLM	R2 resection
Lalmahomed, 2015 [25], Netherlands	2008–2012	RC	151	28	12	76.2	54.3	I	Adult, adenocar- cinoma, CRLM, LR or open RFA	Noncurative resection, extrahepatic metastasis, lack of f/p data
Lin,2018 [26], China	1999–2016	RC	307	31.7	9	57.3	16.0	1	CRLOM, adenocarci- noma, R0 resection, a f/u > 6 months	Extrahepatic metastasis, R1 or R2 resection, loss to f/p
Liu,2015 [ <mark>27</mark> ], China	2000-2014	RC	303	40	12	63.4	47.9	16	LR for CRLM	
Malik,2007 [28], UK	1993–2003	PC	430	33	9	66.7	20.0	22	LR for CRLM, a f/u > 2 years	NAC, repeated LR
Mao,2017 [29],China	2007–2015	Dd	255	28.6	Q	65.1	34.1	11.8	Curative-intent LR for histological CRLM, a f/u > 6 months	Extrahepatic metasta- ses, R2 resection, RFA, died within 90 days after surgery, repeated LR
Narita,2015, [30]Japan 2007–2009	2007-2009	ЪС	184	ı	ý	49.5	22.3	I	R0 LR for CRLM	Extrahepatic recurrence within 6 months, R1/R2 resection
Sakai,2021 [16],Japan	2001-2016	RC	229	-	12	73.4	42.4	ı	Initial LR for CRLM	R2 resection

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First author (year, country)	Study period	Study period Study design No. of	No. of patients	Median follow-up (months)	ER definition (months)	Overall recurrence rate (%)	ER rate (%)	5-year OS in ER group (%)	Inclusion criteria	Exclusion criteria
Sun,2014 [31],China	2000-2013	PC	152	22	9	63.1	24.9	I		
Tabchouri,2018 [32],France	2000–2016	PC	273	41	9	72	22.8	ı	Curative-intent LR for CRLM	A f/u <6 months
Tanaka,2014 [ <mark>33</mark> ], Japan	1992–2011	RC	405	31	4	40.7	8.6	27.4	Curative resection for CRLM	R2 resection
Viganò,2014 [34], Italy, 1998–2009 Multicenter	1998–2009	PC	6025	34.4	Q	45.4	10.6	26.9	LR for CRLM, a f/u > 6 months	R2 resection, f/u < 6 months, two- stage LR, operative mortality
Viganò,2022 [12], Italy 2004–2017	2004–2017	РС	484	34	m	75.2	11.6	17.3	LR for CRLM	Repeated LR, died within 90 days, R2 resection, loss to f/p
Watanabe,2020 [ <mark>35</mark> ], Japan	2004–2016	PC	643	44.2	Q	44.3	20.7	24	Initial LR for CRLM	R2 resection
Wong,2022 [ <b>36</b> ], Australia	2007–2017	PC	194	85.3	Q	74.7	29.9	28.8	Initial curative- intent LR for CRLM, a f/u >6 months	R2 resection, a f/u < 6 months, died within 30 days
Yamashita,2011 [37], 1986–2007 Japan	1986–2007	RC	121		12	67.8	43.0	20	Initial curative-intent LR for CRLM	RFA or MCT

chemotherapy,blood transfusion,postoperative complications) and clinical risk score [CRS, binary, >2 vs  $\leq$  2]; (3) RRs or ORs and corresponding 95% CIs for association between each prognostic factor and ER.

Continuous variables were summarized using median and interquartile range values, while categorical variables were expressed as counts and percentages. In cases where RR was unavailable, we either convert OR to RR or employed the events and patients counts in both exposed and non-exposed groups to calculate RR. By using standardized forms, two authors (YT, YQW) independently extracted the data from each eligible study. Disagreements were resolved by consensus or discussion with the third person (NYW).

#### **Risk-of-bias assessment**

To evaluate the risk-of-bias (RoB) at the study level, the Quality in Prognostic Factor Studies (QUIPS) tool was employed. This tool has six domains, with each domain assigned a RoB rating categorized as high, moderate, or low [38]. Studies were deemed to have low RoB if all domains were rated as low RoB or only one domain scored moderate RoB. Conversely, studies were classified as high RoB if at least one domain scored high RoB or if three or more domains scored moderate RoB. The remaining studies were attributed a moderate RoB rating.

#### Statistical analysis

The primary outcomes of the study focused on the RRs depicting the association between ER and prognostic factors. When available, preference was given to the most adjusted effect estimate, specifically opting for the Cox multivariable coefficient over the univariable estimate. Subsequently, all pooled outcomes were derived utilizing a random-effects model (Mantel–Haenszel method). The magnitude of the summary effects was graphically represented through forest plots.

Between-study heterogeneity was assessed utilizing the I<sup>2</sup> statistical estimate, with an I<sup>2</sup> value > 50% regarded as severe heterogeneity [39]. Consequently, subgroup analyses were executed to identify potential sources of heterogeneity. Assessment of reporting bias was undertaken through funnel plots and the Egger's test, specifically for prognostic factors identified in over 10 studies. A *P* value below 0.1 was deemed indicative of significant publication bias, prompting the execution of Trim and Fill analysis in such instances. Additionally, sensitivity analysis was performed by switching to fixed-effects models to test the robustness of the conclusions.

All statistical analyses were conducted using Review Manager software (Version 5.4) and Stata software (version 14.1). A significant two-way P value for comparison was defined as P < 0.05.

## **Evidence strength assessment**

The grading of evidence strength for the identified associations in observational studies was based on the following criteria: Egger's test *P* value > 0.1, a cumulative population > 1000, and  $I^2 < 50\%$ . The association attained Class I (high-quality) evidence status when all three conditions were satisfied simultaneously. If two out of these three conditions were met, the association was categorized as Class II (moderate-quality) evidence. Furthermore, class III (moderate-quality) evidence was conferred upon an association when only one of the three conditions was fulfilled. Conversely, the absence of satisfaction for all of these three conditions designated an association as Class IV (low-quality) evidence [40].

## Result

#### Study selection

Our initial search strategy identified a total of 3157 pertinent studies, of which 1064 were removed due to duplication. Following the preliminary screening of titles and abstracts, 1883 abstracts were excluded because they did not meet the inclusion criteria. Furthermore, 12 reports were inaccessible, and 198 potentially relevant articles underwent a thorough review in full text. Ultimately, 174 articles were excluded for diverse reasons and 24 selected studies were included [12, 14–16, 18–37], as illustrated in the PRISMA flow diagram (Fig. 1).

## Study characteristics

This review included 24 studies, comprising 12,705 patients who underwent LR for CRLM, with a comprehensive

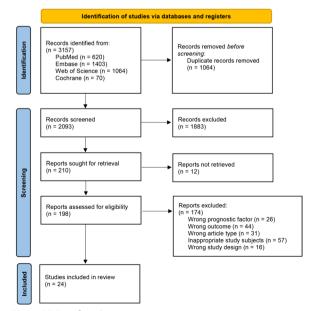


Fig. 1 PRISMA flowchart version 2020

summary presented in Table 1. Among these, twelve studies adopted a prospective cohort design [12, 18, 21, 22, 28–32, 34–36], with the remaining adopting a retrospective cohort approach [14–16, 19, 20, 23–27, 33, 37]. The publication years of the studies spanned from 2007 to 2023. In terms of geographical distribution, 15 studies originated from Asia [14–16, 19, 20, 23, 24, 26, 27, 29–31, 33, 35, 37], 7 from Europe [12, 18, 22, 25, 28, 32, 34], 1 from Australia [36], and the other one from the United States [21]. The recruitment period ranged from 1986 to 2020, with the median duration of follow-up ranging varying from 22 to 86.3 months.

## Definition of early recurrence

The definition of ER exhibited variation among the studies. Twelve studies defined ER as six-month following surgery [15, 23, 24, 26, 28–32, 34–36], while five studies utilized 12 months as the cutoff for ER [16, 21, 25, 27, 37]. The ER rate ranged from 8.6% to 54.3%, and the pooled ER rate was 30.2% (95% CI, 24.1%–36.4%), indicating substantial heterogeneity across the studies ( $I^2$ =98%, P<0.001) (Fig. S1). Additionally, Viganò et al. applied a 3-month threshold to define very early recurrence (VER),

**Table 2** Prognostic factors of patient characteristics in ER group

with 11.6% of patients experiencing VER [12]. The overall CRLM recurrence rate was reported to be between 40.7% and 78.8%. For those patients who underwent early recurrence (ER), the 5-year overall survival (OS) spanned from 11.1% to 45.0% (Table 1).

## **Prognostic factors**

A total of 22 potential prognostic factors were identified before the study, categorized into patient-related factors, primary tumor factors, liver metastasis factors, and treatment-related factors. The characteristics of these prognostic factors in the ER group were presented in Tables 2, 3, 4 and 5. As shown, the median age among patients with ER ranged from 55 to 66 years, and the proportion of males varied between 44.6% and 67.3%. Regarding primary tumor characteristics, poor tumor differentiation in the ER group ranged from 5.6% to 66.7%, and 42.3% to 55.7% of patients had LNM. As factors of liver metastases, bilobar distribution was noted in 26.7% to 74.2% of the ER group, and Jung et al. reported that up to 93.3% had synchronous metastases [24]. As reported, 11.5% to 63.3% of patients with ER had positive surgical margins,

First author, year	Median age (years)	Male (%)	CEA	CA199
Bhogal,2015 [18]	-	-	-	-
Chen,2022 [19]	55.0	67.3	-	-
Dai,2021 [15]	62.7	66.7	24.2%, > 100 ng/mL	30.3%, > 320 U/ml
Deng,2023 [ <mark>20</mark> ]	-	66.8	5.0%,>200 ng/mL	-
Finkelstein,2008 [21]	-	-	-	-
lmai,2016 [22]	-	61.5	44.8%, > 10 ng/mL	29.8%,>60 U/ml
Inoue,2020 [23]	66.0	64.8	14.9 ng/mL, med	27.7 U/ml, med
Jung,2016 [ <mark>24</mark> ]	-	66.7	53.3%,≥50 ng/mL	-
Kaibori,2012 [14]	-	59.2	50%, > 6 ng/mL	35.2%,>30 ng/dl
Lalmahomed,2015 [25]	63.0	63.4	-	-
Lin,2018 [26]	-	65.3	52.1%, > 10 ng/mL	37.5%, > 35 U/ml
Liu,2015 [27]	-	44.6	47.8%,>200 ng/mL	-
Malik,2007 [28]	62.0	55.8	25.0 ng/mL, med	34.0 U/ml, med
Mao,2017 [29]	57.0	56.3	39.1%, > 30 ng/mL	-
Narita,2015 [30]	56.5	53.3	79.8 ng/mL, med	-
Sakai,2021 [16]	-	-	-	-
Sun,2014 [31]	58.2	50.0	79.1 ng/mL, med	-
Tabchouri,2018 [32]	-	-	-	-
Tanaka,2014 [33]	61.6	51.4	235.3 ng/mL, med	-
Viganò,2014 [ <mark>34</mark> ]	-	58.2	10.2%,>200 ng/mL	-
Viganò,2022 [ <mark>12</mark> ]	-	55.4	8.9%, > 200 ng/mL	-
Watanabe,2020 [35]	62.0	55.0	11.1 ng/mL, med	18.4 U/ml, med
Wong,2022 [36]	66.6	50.0	-	-
Yamashita,2011 [37]	59.0	59.6	26.9%, > 50 ng/mL	-

**Table 3** Prognostic factors of primary tumor characteristics in ERgroup

First author, year	Poor tumor diff-erentiation (%)	LNM (%)	T3-4 (%)	Rectal tumor (%)
Bhogal,2015 [18]	-	-	-	30.1
Chen,2022 [19]	28.8	77.9	95.2	47.1
Dai,2021 [15]	-	77.3	-	25.8
Deng,2023 [ <mark>20</mark> ]	34.9	83.0	94.2	44.8
Finkelstein,2008 [21]	30.0	70.0	-	33.3
lmai,2016 [22]	-	62.3	80.2	24.6
Inoue,2020 [23]	-	81.8	-	42.0
Jung,2016 [24]	66.7	63.3	63.3	40.0
Kaibori,2012 [14]	5.6	68.5	87.0	29.6
Lalmahomed,2015 [25]	-	59.8	84.1	28.0
Lin,2018 [ <mark>26</mark> ]	28.6	72.7	-	34.7
Liu,2015 [27]	-	54.6	47.5	47.6
Malik,2007 [ <mark>28</mark> ]	-	58.1	-	-
Mao,2017 [29]	28.7	81.6	96.6	-
Narita,2015 [30]	-	63.3	-	36.7
Sakai,2021 [16]	-	-	-	-
Sun,2014 [ <mark>31</mark> ]	-	80.0	-	56.7
Tabchouri,2018 [32]	-	77.8	-	-
Tanaka,2014 [ <mark>33</mark> ]	11.4	-	-	34.3
Viganò,2014 [ <mark>34</mark> ]	-	68.8	90.8	35.6
Viganò,2022 [ <mark>12</mark> ]	-	67.9	83.9	28.6
Watanabe,2020 [35]	6.1	76.3	87.8	37.4
Wong,2022 [36]	-	74.1	-	31.0
Yamashita,2011 [37]	-	42.3	65.4	32.7

and approximately 30% to 80% of patients received chemotherapy.

## Assessment on risk-of-bias

The results of the RoB assessment were presented in Table 6. Employing the QUIPS tool and the criteria described above, 17 studies received a classification of low overall RoB, whereas 5 studies were assigned a moderate RoB rating. Notably, two studies were excluded due to high RoB at this stage [33, 34].

## Meta-analysis for prognostic factors

A total of 21 studies, involving 5791 patients, met the eligibility criteria for the meta-analysis. One study was omitted from consideration due to its utilization of VER (3 months) as the outcome, and two additional studies were excluded on account of high RoB.

All results graphically depicted using forest plots, illustrated in Figs. 2, 3, 4 and 5. Patient- related factors such as age and male gender exhibited no correlation with ER. Elevated concentrations of preoperative

CEA (RR, 1.56; 95% CI, 1.19–2.04; I<sup>2</sup>=81%) and CA199 (RR, 1.48; 95% CI, 1.20–1.81;  $I^2 = 36\%$ ) were identified as potential risk factors for ER (Fig. 2). Besides, primary tumor factors associated with an increased hazard of ER encompassed poor differentiation (RR, 1.13; 95% CI, 1.03–1.25; I<sup>2</sup>=0%) and LNM (RR, 1.31; 95% CI, 1.17–1.48;  $I^2 = 47\%$ ) (Fig. 3). Concerning liver metastases, an elevated risk of ER was associated with factors such as a higher number of metastases (RR, 1.46; 95% CI,  $1.26-1.68; I^2 = 57\%$ ), larger metastases (RR, 1.18; 95% CI, 1.04–1.34;  $I^2$ =29%), and bilobar distribution (RR, 1.37; 95% CI, 1.21–1.55;  $I^2 = 40\%$ ) (Fig. 4). Regarding therapeutic factors, major hepatectomy (RR, 1.16; 95% CI, 1.07-1.25;  $I^2 = 0\%$ ), positive surgical margins (RR, 1.33; 95%) CI, 1.20–1.48;  $I^2 = 34\%$ ), and postoperative complications (RR, 1.28; 95% CI, 1.13–1.44;  $I^2 = 30\%$ ) have been recognized as risk factors associated with ER (Fig. 5a and b).

However, the stage and location of the primary tumor, synchronous metastases, extrahepatic metastases, laparoscopic surgery, preoperative or postoperative chemotherapy, and blood transfusion were not found to be statistically associated with ER. All the above results are presented in Table 7.

The CRS ranges from 0 to 5 points, with 1 point assigned for each of the following: LNM of the primary tumor, the interval < 1 year from primary tumor resection to the detection of liver metastasis, preoperative CEA > 200 ng/ml, more than one liver tumor, and largest tumor > 5 cm [41]. The combination of RRs in three studies showed that CRS > 2 had the potential to increase the risk of ER (RR, 1.44; 95% CI, 1.17–1.77;  $I^2=0\%$ ; Egger's *P* value = 0.232) (Fig. S2).

## **Reporting bias**

Reporting bias was evaluated by funnel plot and Egger's test. Our results comparing the ER rates between groups with and without LNM of primary tumor revealed an asymmetric funnel, with a P value of 0.035 for the Egger's test (Fig. 6). By filling 4 studies using the Trim and Fill method, the recalculated pooled RR was 1.20, 95% CI (1.06, 1.37) (Fig. 7), which was not significantly changed from the initial estimate (RR, 1.31; 95% CI, 1.17–1.48). Therefore, the presence of publication bias has little significant effect on the overall finding.

## Study quality

Using the rating rules mentioned above, no evidence was rated as Class IV. High-quality (Class I) evidence showed that poor differentiation of CRC, larger and bilobar-distributed liver metastases, major hepatectomy, positive surgical margins, and postoperative complications were factors linked to an elevated hazard of ER. Among other meaningful prognostic factors, elevated levels of CEA

First author, year	Synchronous metastases (%)	More metastases (%)	Diameter (median, cm)	Bilobar- distribution (%)	Extrahepatic metastases (%)	Initial un- resectable (%)
Bhogal,2015 [18]	-	-	-	-	_	-
Chen,2022 [19]	91.3	-	3.0	60.6	11.5	-
Dai,2021 [ <mark>15</mark> ]	78.8	42.4	2.7	40.9	-	-
Deng,2023 [ <mark>20</mark> ]	-	66.8	-	47.7	14.1	-
Finkelstein,2008 [21]	66.7	40.0	-	26.7	-	-
lmai,2016 [ <mark>22</mark> ]	71.8	54.0		66.7	23.0	45.2
Inoue,2020 [23]	63.6	64.8	3.2	-	-	-
Jung,2016 [ <mark>24</mark> ]	93.3	56.7	-	46.7	-	-
Kaibori,2012 [14]	68.5	44.4	-	44.4	-	-
_almahomed,2015 [25]	-	-	2.8	32.9	-	-
Lin,2018 [ <mark>26</mark> ]	63.3	14.3	-	34.7	-	-
Liu,2015 [ <mark>27</mark> ]	22.2	60.6	-	57.3	45.5	-
Malik,2007 [ <mark>28</mark> ]	47.7	36.0	4.5	-	-	-
Mao,2017 [29]	80.5	82.0	3.0	50.6	-	69.0
Narita,2015 [ <mark>30</mark> ]	-	66.7	-	43.3	-	-
Sakai,2021 [16]	-	-	-	-	-	-
Sun,2014 [ <mark>31</mark> ]	68.3	-	4.1	-	-	-
Tabchouri,2018 [ <mark>32</mark> ]	-	-	-	-	-	-
Tanaka,2014 [ <mark>33</mark> ]	74.3	54.3	5.2	74.2	14.3	-
Viganò,2014 [ <mark>34</mark> ]	63.4	29.1	-	39.8	8.1	20.7
Viganò,2022 [ <mark>12</mark> ]	78.6	92.9	-	-	23.2	-
Watanabe,2020 [ <mark>35</mark> ]	75.6	-	3.0	-	-	-
Wong,2022 [ <mark>36</mark> ]	70.6	-	3.1	44.8	-	-
Yamashita,2011 [ <mark>37</mark> ]	82.7	36.5	3.7	28.8	-	-

# Table 4 Prognostic factors of liver metastases characteristics in ER group

 Table 5
 Prognostic factors of therapy characteristics in ER group

First author, year	Laparoscopic resection (%)	Simultaneous resection (%)	Major hepatectomy (%)	R1 resection (%)	Preoperative chemotherapy (%)	Postoperative chemotherapy (%)	Blood transfusion (%)	Postoperative complications (%)
Bhogal,2015 [18]	-	-	-	-	-	92.3	-	-
Chen,2022 [19]	-	73.1	84.6	46.2	61.5	59.6	-	59.6
Dai,2021 [ <mark>15</mark> ]	-	-	-	-	-	-	-	-
Deng,2023 [ <mark>20</mark> ]	15.8	-	57.7	32.8	56.0	63.1	23.2	53.9
Finkelstein,2008 [21]	-	-	13.3	3.3	-	-	-	-
mai,2016 [ <mark>22</mark> ]	-	-	57.1	53.2	100	83.3	38.9	22.2
noue,2020 [ <mark>23</mark> ]	-	17.0	-	21.8	34.1	38.8	18.4	28.4
Jung,2016 [ <mark>24</mark> ]	0.0	30.0	20.0	63.3	-	40.0	-	-
Kaibori,2012 [14]	-	-	37.0	24.1	37.0	55.6	37.0	37.0
almahomed,2015 [25]	-	32.9	-	-	-	-	-	-
_in,2018 [ <mark>26</mark> ]	-	-	-	-	55.1	71.4	-	-
_iu,2015 [ <mark>27</mark> ]	-	51.9	50.0	45.0	58.3	48.7	61.3	-
Malik,2007 [ <mark>28</mark> ]	-	-	-	34.9	-	-	-	-
Mao,2017 [29]	4.6	60.9	-	42.5	74.7	-	18.4	14.9
Varita,2015 [ <mark>30</mark> ]	-	56.7	33.3	-	80.0	-	30.0	-
akai,2021 [ <mark>16</mark> ]	-	-	-	32.0	-	-	-	-
5un,2014 [ <mark>31</mark> ]	-	11.7	28.3	-	50.0	60.0	-	33.3
[abchouri,2018 [ <mark>32</mark> ]	-	-	-	-	-	-	-	-
[anaka,2014 [ <mark>33</mark> ]	-	-	-	-	34.3	68.6	-	-
/iganò,2014 [ <mark>34</mark> ]	1.7	-	-	-	-	47.9	24.4	-
/iganò,2022 [ <mark>12</mark> ]	-	10.7	10.7	73.2	-	-	-	33.9
Watanabe,2020 [ <mark>35</mark> ]	-	-	17.6	11.5	38.9	39.7	13.7	-
Wong,2022 [ <mark>36</mark> ]	-	-	39.7	34.5	86.2	74.1	-	-
Yamashita,2011 [ <mark>37</mark> ]	-	-	34.6	-	-	-	32.7	-

Study	1.Study participation	2.Study attrition	3. PF measurement	4. Outcome measurement	5. Adjustment for other PF	6. Statistical analysis and reporting	Overall
Bhogal,2015, [18]	Mod <sup>a</sup>	Mod <sup>c</sup>	Low	Low	Low	Low	Mod
Chen,2022, [19]	Low	Low	Low	Low	Low	Low	Low
Dai,2021, [ <mark>15</mark> ]	Low	Low	Low	Low	Low	Low	Low
Deng,2023, [ <mark>20</mark> ]	Low	Mod <sup>c</sup>	Low	Low	Low	Low	Low
Finkelstein,2008, [21]	Mod <sup>a</sup>	Mod <sup>c</sup>	Low	Low	Low	Low	Mod
lmai,2016, [ <mark>22</mark> ]	Low	Mod <sup>c</sup>	Low	Low	Low	Low	Low
Inoue,2020 [23]	Low	Mod	Low	Low	Low	Low	Low
Jung,2016, [ <mark>24</mark> ]	Low	Mod <sup>c</sup>	Low	Low	Low	Low	Low
Kaibori,2012 [ <mark>14</mark> ]	Mod <sup>b</sup>	Mod <sup>c</sup>	Low	Low	Low	Low	Mod
Lalmahomed,2015, [25]	Low	Low	Low	Low	Mod <sup>f</sup>	Low	Low
Lin,2018, [ <mark>26</mark> ]	Low	Low	Low	Low	Low	Low	Low
Liu,2015, [ <mark>27</mark> ]	Mod <sup>a</sup>	Mod <sup>c</sup>	Low	Low	Low	Low	Mod
Malik,2007, [ <mark>28</mark> ]	Low	Mod <sup>c</sup>	Low	Low	Low	Low	Low
Mao,2017, [ <mark>29</mark> ]	Low	Mod <sup>c</sup>	Low	Low	Low	Low	Low
Narita,2015, [ <mark>30</mark> ]	Low	Mod <sup>c</sup>	Low	Low	Mod <sup>f</sup>	Low	Mod
Sakai,2021, [16]	Low	Mod <sup>c</sup>	Low	Low	Low	Low	Low
Sun,2014, [ <mark>31</mark> ]	Mod <sup>a</sup>	Low	Low	Low	Low	Low	Low
Tabchouri,2018, [ <mark>32</mark> ]	Low	Low	Low	Low	Low	Low	Low
Tanaka,2014, [ <mark>33</mark> ]	Mod <sup>a</sup>	Mod <sup>c</sup>	Low	Mod <sup>e</sup>	Low	Low	High
Viganò,2014, [ <mark>34</mark> ]	Mod <sup>b</sup>	Mod <sup>c</sup>	Mod <sup>d</sup>	Low	Low	Low	High
Viganò,2022, [ <mark>12</mark> ]	Low	Low	Low	Low	Low	Low	Low
Watanabe,2020, [ <mark>35</mark> ]	Low	Low	Low	Low	Low	Low	Low
Wong,2022, [ <mark>36</mark> ]	Low	Low	Low	Low	Low	Low	Low
Yamashita,2011, [37]	Low	Low	Low	Low	Low	Low	Low

Table 6 Risk of bias assessment using QUIPS tool Risk of bias assessment using QUIPS tool

PF prognostic factor, Mod moderate

<sup>a</sup> Lacks inclusion and exclusion criteria

<sup>b</sup> Lacks the baseline of study sample

<sup>c</sup> Lacks reporting of exact study

and CA199, LNM, and a higher number of liver metastases were rated as Class II (Table 7).

## Subgroup analyses

Among the prognostic factors analyzed, an elevated number of metastases was reported of having high heterogeneity ( $I^2 > 50\%$ ). Subgroup analyses were conducted, employing diverse thresholds for defining an increased number of metastases, categorized as multiple, > 3, and > 4 metastases. As shown in Fig. 8, all subgroup analyses showed significant differences in the ER rate between cases with more and fewer metastases. Notably, the subgroup of multiple metastases showed great heterogeneity ( $I^2$ =79%), whereas the other two groups did not. Therefore, we found that the divergent definitions of "multiple" across different articles constituted the primary source of heterogeneity.

## Sensitivity analyses

We performed sensitivity analysis by switching to fixedeffects models on all variables. The results were consistent across all variables except in the case of preoperative chemotherapy, wherein a fixed-effects model revealed an association with diminished risk of ER (RR, 1.11; 95% CI, 1.02-1.21;  $I^2=58\%$ ) (Fig. S3). However, this result was deemed unreliable and excluded.

## Discussion

This is the first-ever published meta-analysis summarizing prognostic factors associated with ER following LR for CRLM. Specifically, most of the studies used a postoperative interval of 6 months to define ER, which is earlier than the ER definition for other tumors in the liver. For example, hepatocellular carcinoma (HCC) and intrahepatic cholangiocarcinoma (iCCA) often use 1 year or

Study or Subgroup	Experim Events		Contr Events		Weight	Risk Ratio M-H, Random, 95% C	Risk Ratio M-H. Random, 95% Cl
<u>Study or Subgroup</u> 1.1 Age	LVCIILS	Total	LVCIIIS	iotal	margint		
Deng 2023	109	146	132	177	38.4%	1.00 [0.88, 1.14]	<b>∔</b>
•		140					T
Jung 2016	27		3	81	1.8%	3.72 [1.16, 11.92]	
Kaibori 2011	28	62	26	57	12.4%	0.99 [0.67, 1.47]	
Lin 2017	23	119	26	188	8.2%	1.40 [0.84, 2.33]	
Liu 2015	55	108	90	195	23.8%	1.10 [0.87, 1.40]	
Mao 2017	44	135	43	120	15.4%	0.91 [0.65, 1.28]	-
Total (95% CI)		766		818	100.0%	1.06 [0.90, 1.25]	<b>•</b>
Total events	286		320				
Heterogeneity: Tau² = Test for overall effect:			= 5 (P =	= 0.17);	l² = 36%		
1.2 Male	(	,					
Chen 2022	70	94	34	50	9.5%	1.10 [0.88, 1.37]	_ <b>_</b>
Dai 2021	44	108	22	42	4.6%	0.78 [0.54, 1.12]	-
Deng 2023	161	209	80	114	15.5%	1.10 [0.95, 1.26]	
lmai 2016	155	349	97	213	11.7%	0.98 [0.81, 1.18]	1
noue 2019	57	169	31	126	4.5%	1.37 [0.95, 1.99]	
Jung 2016	20	189	10	88	1.4%	0.93 [0.46, 1.90]	
Kaibori 2011	32	70	22	49	3.9%	1.02 [0.68, 1.52]	
Lalmahomed 2015	52	111	30	62	5.6%	0.97 [0.70, 1.34]	
Lin 2017	32	203	17	104	2.3%	0.96 [0.56, 1.65]	
Liu 2015	78	175	67	128	9.0%	0.85 [0.67, 1.08]	
Malik 2007	48	264	38	166	4.3%	0.79 [0.54, 1.16]	
Mao 2017	49	156	38	99	5.2%	0.82 [0.58, 1.15]	
Narita 2015	16	29	14	31	2.6%	1.22 [0.74, 2.03]	
Sun 2014	30	83	30	69	4.1%	0.83 [0.56, 1.23]	
Watanabe 2019	72	173	59	108	8.4%	0.76 [0.60, 0.97]	_ <b>_</b> _
Wong 2022	29	117	29	77	3.5%	0.66 [0.43, 1.01]	
Yamashita 2011	31	77	21	44	3.8%	0.84 [0.56, 1.27]	
Total (95% CI)		2576		1570	100.0%	0.94 [0.86, 1.03]	•
Total events	976	2010	639		1001070	010 1 [0100, 1100]	
Heterogeneity: Tau <sup>2</sup> =		- 21 15 0		D – 0 1	7). 12 - 240	0/	
Test for overall effect:			1 - 10 (1	- 0.1	7), 1 – 24	70	
1.3 Elevated CEA							
Dai 2021	16	20	50	130	12.2%	2.08 [1.53, 2.83]	
Deng 2023	12	17	229	306	12.2%	0.94 [0.69, 1.29]	<b>_</b>
lmai 2016	113	217	139	345	13.7%	1.29 [1.08, 1.55]	<b></b>
Jung 2016	16	41	14	236	8.0%	6.58 [3.48, 12.43]	
Kaibori 2011	27	52	27	67	11.1%	1.29 [0.87, 1.91]	
Lin 2017	25	130	24	177	9.5%	1.42 [0.85, 2.37]	
Liu 2015	25 11	23	134	280	9.5% 10.4%	1.00 [0.64, 1.56]	<b>_</b>
Liu 2015 Mao 2017	34	23 64	53	280 191	10.4%	1.91 [1.38, 2.65]	│ <b>_</b> _
Yamashita 2011	34 14	25	38	96	10.7%	1.41 [0.92, 2.17]	+
Total (95% CI)		589		1828	100.0%	1.56 [1.19, 2.04]	
Total events	268		708				-
Heterogeneity: Tau <sup>2</sup> =		= 41 61 0		< 0.00	001)· I <sup>2</sup> = 8	31%	
Test for overall effect:				< 0.00	001), 1 = 0	770	
1.4 Elevated CA 199							_
Dai 2021	20	29	46	121	24.5%	1.81 [1.30, 2.53]	
lmai 2016	75	126	177	436	44.4%	1.47 [1.22, 1.76]	-=-
Kaibori 2011	19	41	35	78	18.4%	1.03 [0.68, 1.56]	<b>-</b> _
Lin 2017	18	78	31	229	12.7%	1.70 [1.01, 2.87]	
Total (95% CI)		274		864	100.0%	1.48 [1.20, 1.81]	●
Total events	132		289				
		- 1 60 df		= 0 20).	$l^2 = 36\%$		
Heterogeneity: Tau <sup>2</sup> =		- 4.05. 01					0.1 0.2 0.5 1 2 5

Fig. 2 Meta-analyses of association between patient characteristics and ER

Study or Subgroup	Experime Events		Contr Events		Weight	Risk Ratio M-H. Random. 95% Cl	Risk Ratio M-H. Random, 95% Cl
2.1 Poor differentiatio							
Chen 2022	30	39	74	105	21.4%	1.09 [0.88, 1.35]	
Deng 2023	84	104	157	219	61.0%	1.13 [0.99, 1.28]	<b>=</b>
Finkelstein 2008	9	14	21	38	4.1%	1.16 [0.72, 1.89]	
_in 2017	14	72	35	235	3.0%	1.31 [0.75, 2.29]	
Mao 2017	25	56	62	199	7.5%	1.43 [1.00, 2.05]	
Watanabe 2019	8	21	123	260	3.1%	0.81 [0.46, 1.41]	
Total (95% CI)		306		1056	100.0%	1.13 [1.03, 1.25]	◆
Total events	170		472				
Heterogeneity: Tau² = 0 Test for overall effect: Z			f = 5 (P =	= 0.62);	I <sup>2</sup> = 0%		
2.2 Lymph node meta	stasis						
Chen 2022	81	110	23	34	8.0%	1.09 [0.84, 1.41]	- <b>-</b>
Dai 2021	51	109	15	41	4.5%	1.28 [0.82, 2.01]	
Deng 2023	200	257	41	66	9.4%	1.25 [1.03, 1.53]	
Finkelstein 2008	21	35	9	17	3.7%	1.13 [0.67, 1.91]	
Imai 2016	157	354	95	208	9.6%	0.97 [0.80, 1.17]	-
Inoue 2019	72	191	16	104	4.1%	2.45 [1.51, 3.98]	
Jung 2016	19	185	11	92	2.4%	0.86 [0.43, 1.73]	
Kaibori 2011	37	80	17	39	4.8%	1.06 [0.69, 1.63]	- <del> </del>
Lalmahomed 2015	49	94	33	79	6.5%	1.25 [0.90, 1.73]	+
Lin 2017	32	159	17	148	3.5%	1.75 [1.02, 3.02]	· · · ·
Liu 2015	100	183	45	120	7.8%	1.46 [1.12, 1.90]	<del></del>
Malik 2007	50	244	36	186	5.5%	1.06 [0.72, 1.55]	- <del>-</del>
Mao 2017	71	177	16	78	4.3%	1.96 [1.22, 3.14]	—
Narita 2015	19	37	11	23	3.6%	1.07 [0.63, 1.82]	
Sun 2014	48	97	12	55	3.5%	2.27 [1.32, 3.89]	— <u> </u>
Tabchouri 2018	35	175	10	98	2.6%	1.96 [1.02, 3.78]	
Watanabe 2019	100	205	31	76	6.9%	1.20 [0.88, 1.62]	+
Wong 2022	43	131	15	63	3.9%	1.38 [0.83, 2.28]	+
Yamashita 2011	22	37	30	84	5.4%	1.66 [1.13, 2.46]	
Total (95% CI)	1207	2860	483	1611	100.0%	1.31 [1.17, 1.48]	•
Heterogeneity: Tau <sup>2</sup> = 0 Test for overall effect: Z 2.3 T3-4				P = 0.0	1); I <sup>2</sup> = 479	/o	
Chen 2022	99	137	5	7	5.9%	1.01 [0.63, 1.63]	
Deng 2023	227	303	14	20	15.7%	1.07 [0.80, 1.44]	
Imai 2016	202	447	50	115	25.3%	1.04 [0.82, 1.31]	
Jung 2016	19	173	11	104	2.8%	1.04 [0.51, 2.09]	
Kaibori 2011	47	107	7	12	5.0%	0.75 [0.45, 1.27]	
Lalmahomed 2015	69	147	13	26	7.7%	0.94 [0.62, 1.43]	
Liu 2015	104	219	41	84	20.2%	0.97 [0.75, 1.26]	
Mao 2017	84	242	3	13	1.3%	1.50 [0.55, 4.12]	
Watanabe 2019	115	247	16	34	9.4%	0.99 [0.68, 1.45]	
Yamashita 2011							
	34	62	18	59	6.8%	1.80 [1.15, 2.81]	
Total (95% CI)		62 2084			6.8% 100.0%	1.80 [1.15, 2.81] 1.04 [0.93, 1.17]	•
Total (95% CI) Total events Heterogeneity: Tau <sup>2</sup> = 0 Test for overall effect: Z	1000 .00; Chi² =	<b>2084</b> = 8.42, d	178	474	100.0%		•
<b>Total (95% CI)</b> Total events Heterogeneity: Tau <sup>2</sup> = 0 Test for overall effect: Z	1000 .00; Chi² =	<b>2084</b> = 8.42, d	178	474	100.0%		•
Total (95% CI) Total events Heterogeneity: Tau <sup>2</sup> = 0 Test for overall effect: Z 2.4 Rectal tumor	1000 .00; Chi² = . = 0.71 (P	2084 = 8.42, d = 0.48)	178 f = 9 (P =	<b>474</b> = 0.49);	<b>100.0%</b> I <sup>2</sup> = 0%	1.04 [0.93, 1.17]	• 
Total (95% CI) Total events Heterogeneity: Tau <sup>2</sup> = 0 Test for overall effect: Z 2.4 Rectal tumor Bhogal 2015	1000 .00; Chi² =	<b>2084</b> = 8.42, d	178	474	<b>100.0%</b>   <sup>2</sup> = 0% 5.2%	1.04 [0.93, 1.17] 0.58 [0.40, 0.83]	
Total (95% CI) Total events Heterogeneity: Tau <sup>2</sup> = 0 Test for overall effect: Z <b>2.4 Rectal tumor</b> Bhogal 2015 Chen 2022	1000 .00; Chi² = = 0.71 (P 28	2084 = 8.42, d = 0.48) 104	178 f = 9 (P = 65	<b>474</b> = 0.49); 139	<b>100.0%</b> I <sup>2</sup> = 0%	1.04 [0.93, 1.17] 0.58 [0.40, 0.83] 1.02 [0.84, 1.25]	
Total (95% CI) Total events Heterogeneity: Tau <sup>2</sup> = 0 Test for overall effect: Z 2.4 Rectal tumor Bhogal 2015 Chen 2022 Dai 2021	1000 .00; Chi <sup>2</sup> = = 0.71 (P 28 49	2084 = 8.42, d = 0.48) 104 67	178 f = 9 (P = 65 55	474 = 0.49); 139 77	<b>100.0%</b> I <sup>2</sup> = 0% 5.2% 9.9% 4.0%	0.58 [0.40, 0.83] 1.02 [0.84, 1.25] 0.63 [0.41, 0.98]	
Total (95% CI) Total events Heterogeneity: Tau <sup>2</sup> = 0 Test for overall effect: Z 2.4 Rectal tumor Bhogal 2015 Chen 2022 Dai 2021 Deng 2023	1000 .00; Chi² = = 0.71 (P 28 49 17 108	2084 = 8.42, d = 0.48) 104 67 53	178 f = 9 (P = 65 55 49	474 = 0.49); 139 77 97	<b>100.0%</b> I <sup>2</sup> = 0% 5.2% 9.9% 4.0% 13.1%	1.04 [0.93, 1.17] 0.58 [0.40, 0.83] 1.02 [0.84, 1.25]	
Total (95% CI) Total events Heterogeneity: Tau <sup>2</sup> = 0 Test for overall effect: Z 2.4 Rectal tumor Bhogal 2015 Chen 2022 Dai 2021 Deng 2023 Imai 2016	1000 .00; Chi <sup>2</sup> = = 0.71 (P 28 49 17	2084 = 8.42, d = 0.48) 104 67 53 142	178 f = 9 (P = 65 55 49 133	474 = 0.49); 139 77 97 181	100.0%   <sup>2</sup> = 0% 5.2% 9.9% 4.0% 13.1% 9.5%	1.04 [0.93, 1.17] 0.58 [0.40, 0.83] 1.02 [0.84, 1.25] 0.63 [0.41, 0.98] 1.04 (0.91, 1.18] 0.99 [0.80, 1.23]	
Total (95% CI) Total events Heterogeneity: Tau <sup>2</sup> = 0 Test for overall effect: Z 2.4 Rectal tumor Bhogal 2015 Chen 2022 Dai 2021 Deng 2023 Imai 2016 Inoue 2019	1000 .00; Chi <sup>2</sup> = = 0.71 (P 28 49 17 108 62	2084 = 8.42, d = 0.48) 104 67 53 142 139	178 f = 9 (P = 65 55 49 133 190	474 = 0.49); 139 77 97 181 423	<b>100.0%</b> I <sup>2</sup> = 0% 5.2% 9.9% 4.0% 13.1%	1.04 [0.93, 1.17] 0.58 [0.40, 0.83] 1.02 [0.84, 1.25] 0.63 [0.41, 0.98] 1.04 [0.91, 1.18]	
Total (95% CI) Total events Heterogeneity: Tau <sup>2</sup> = 0 Test for overall effect: Z 2.4 Rectal tumor Bhogal 2015 Chen 2022 Dai 2021 Deng 2023 Imai 2016 Inoue 2019 Jung 2016	1000 .00; Chi² = = 0.71 (P 28 49 17 108 62 37	2084 = 8.42, d = 0.48) 104 67 53 142 139 116	178 f = 9 (P = 65 55 49 133 190 51	474 = 0.49); 139 77 97 181 423 179	100.0%   <sup>2</sup> = 0% 5.2% 9.9% 4.0% 13.1% 9.5% 5.4%	1.04 [0.93, 1.17] 0.58 [0.40, 0.83] 1.02 [0.84, 1.25] 0.63 [0.41, 0.98] 1.04 [0.91, 1.18] 0.99 [0.80, 1.23] 1.12 [0.79, 1.59]	
Total (95% CI) Total events Heterogeneity: Tau <sup>2</sup> = 0 Test for overall effect: Z 2.4 Rectal tumor Bhogal 2015 Chen 2022 Dai 2021 Deng 2023 Imai 2016 Inoue 2019 Jung 2016 Kaibori 2011	1000 .00; Chi <sup>2</sup> = 0.71 (P 28 49 17 108 62 37 12	2084 = 8.42, d = 0.48) 104 67 53 142 139 116 114	178 f = 9 (P = 65 55 49 133 190 51 18	474 = 0.49); 139 77 97 181 423 179 163	100.0%  2 = 0% 5.2% 9.9% 4.0% 13.1% 9.5% 5.4% 1.9%	0.58 [0.40, 0.83] 1.02 [0.84, 1.25] 0.63 [0.41, 0.98] 1.04 [0.91, 1.18] 0.99 [0.80, 1.23] 1.12 [0.79, 1.59] 0.95 [0.48, 1.90]	
Total (95% CI) Total events Heterogeneity: Tau <sup>2</sup> = 0 Test for overall effect: Z 2.4 Rectal tumor Bhogal 2015 Chen 2022 Dai 2021 Deng 2023 Imai 2016 Inoue 2019 Jung 2016 Kaibori 2011 Lalmahomed 2015	1000 .00; Chi <sup>2</sup> = = 0.71 (P 28 49 17 108 62 37 12 16	2084 = 8.42, d = 0.48) 104 67 53 142 139 116 114 33	178 f = 9 (P = 65 55 49 133 190 51 18 38	474 = 0.49); 139 77 97 181 423 179 163 86	100.0%   <sup>2</sup> = 0% 5.2% 9.9% 4.0% 13.1% 9.5% 5.4% 1.9% 4.2%	1.04 [0.93, 1.17] 0.58 [0.40, 0.83] 1.02 [0.84, 1.25] 0.63 [0.41, 0.98] 1.04 [0.91, 1.18] 0.99 [0.80, 1.23] 1.12 [0.79, 1.59] 0.95 [0.48, 1.90] 1.10 [0.72, 1.68]	
Total (95% CI) Total events Heterogeneity: Tau <sup>2</sup> = 0 Test for overall effect: Z 2.4 Rectal tumor Bhogal 2015 Chen 2022 Dai 2021 Deng 2023 Imai 2016 Inoue 2019 Jung 2016 Kaibori 2011 Lalmahomed 2015 Lin 2017	1000 .00; Chi <sup>2</sup> = = 0.71 (P 28 49 17 108 62 37 12 16 23	2084 = 8.42, d = 0.48) 104 67 53 142 139 116 114 33 47	178 f = 9 (P = 65 55 49 133 190 51 18 38 59	474 = 0.49); 139 77 97 181 423 179 163 86 126	100.0%   <sup>2</sup> = 0% 5.2% 9.9% 4.0% 13.1% 9.5% 5.4% 1.9% 4.2% 5.6%	1.04 [0.93, 1.17] 0.58 [0.40, 0.83] 1.02 [0.84, 1.25] 0.63 [0.41, 0.98] 1.04 [0.91, 1.18] 0.99 [0.80, 1.23] 1.12 [0.79, 1.59] 0.95 [0.48, 1.90] 1.10 [0.72, 1.68] 1.05 [0.74, 1.48]	
Total (95% CI)           Total events           Heterogeneity: Tau <sup>2</sup> = 0           Test for overall effect: Z           2.4 Rectal tumor           Bhogal 2015           Chen 2022           Dai 2021           Deng 2023           Imai 2016           Inoue 2019           Jung 2016           Kaibori 2011           Lalmahomed 2015           Lin 2017	1000 .00; Chi <sup>2</sup> = 0.71 (P 28 49 17 108 62 37 12 16 23 16 23 17	2084 = 8.42, d = 0.48) 104 67 53 142 139 116 114 33 47 117	178 f = 9 (P = 65 55 49 133 190 51 18 38 59 32	474 = 0.49); 139 77 97 181 423 179 163 86 126 190	100.0%   <sup>2</sup> = 0% 5.2% 9.9% 4.0% 13.1% 9.5% 5.4% 4.2% 5.6% 2.9%	1.04 [0.93, 1.17] 0.58 [0.40, 0.83] 1.02 [0.84, 1.25] 0.63 [0.41, 0.98] 1.04 [0.91, 1.18] 0.99 [0.80, 1.23] 1.12 [0.79, 1.59] 0.95 [0.48, 1.90] 1.10 [0.72, 1.68] 1.05 [0.74, 1.48] 0.86 [0.50, 1.48] 0.99 [0.78, 1.26]	
Total (95% CI) Total events Heterogeneity: Tau <sup>2</sup> = 0 Test for overall effect: Z 2.4 Rectal tumor Bhogal 2015 Chen 2022 Dai 2021 Deng 2023 Imai 2016 Inoue 2019 Jung 2016 Kaibori 2011 Lalmahomed 2015 Lin 2017 Liu 2015 Mao 2017	1000 .00; Chi <sup>2</sup> = 0.71 (P 28 49 17 108 62 37 12 16 23 17 59 40	2084 = 8.42, d = 0.48) 104 67 53 142 139 116 114 33 47 117 124 117	178 f = 9 (P = 55 55 49 133 190 51 18 38 59 32 86 47	474 = 0.49); 139 77 97 181 423 179 163 86 126 190 179 138	100.0%   <sup>2</sup> = 0% 5.2% 9.9% 4.0% 13.1% 5.4% 1.9% 4.2% 5.6% 2.9% 8.5% 5.7%	$\begin{array}{c} 0.58 & [0.40, 0.83] \\ 1.02 & [0.84, 1.25] \\ 0.63 & [0.41, 0.98] \\ 1.04 & [0.91, 1.18] \\ 0.99 & [0.80, 1.23] \\ 1.12 & [0.79, 1.59] \\ 0.95 & [0.48, 1.90] \\ 1.10 & [0.72, 1.68] \\ 1.05 & [0.74, 1.48] \\ 0.86 & [0.50, 1.48] \\ 0.99 & [0.78, 1.26] \\ 1.00 & [0.71, 1.41] \end{array}$	
Total (95% CI)           Total events           Heterogeneity: Tau <sup>2</sup> = 0           Test for overall effect: Z           2.4 Rectal tumor           Bhogal 2015           Chen 2022           Dai 2021           Deng 2023           Imai 2016           Inoue 2019           Jung 2016           Kaibori 2011           Lalmahomed 2015           Lin 2017           Kao 2017           Narita 2015	1000 .00; Chi <sup>2</sup> = 0.71 (P 28 49 17 108 62 37 12 16 23 17 59 40 0 11	2084 = 8.42, d = 0.48) 104 67 53 142 139 116 114 33 47 117 124 117 14	178 f = 9 (P = 65 55 49 133 190 51 18 38 59 32 86 64 7 19	474 = 0.49); 139 77 97 181 423 179 163 86 126 126 190 179 138 46	100.0% 1 <sup>2</sup> = 0% 5.2% 9.9% 4.0% 5.4% 1.9% 5.6% 2.9% 8.5% 4.0%	1.04 [0.93, 1.17] 0.58 [0.40, 0.83] 1.02 [0.84, 1.25] 0.63 [0.41, 0.98] 1.04 [0.91, 1.18] 0.99 [0.80, 1.23] 1.12 [0.79, 1.59] 0.95 [0.48, 1.90] 1.10 [0.72, 1.68] 1.05 [0.74, 1.48] 0.86 [0.50, 1.48] 0.99 [0.78, 1.26] 1.00 [0.71, 1.41] 1.90 [1.23, 2.95]	
Total (95% CI) Total events Heterogeneity: Tau <sup>2</sup> = 0 Test for overall effect: Z 2.4 Rectal tumor Bhogal 2015 Chen 2022 Dai 2021 Deng 2023 Imai 2016 Inoue 2019 Jung 2016 Kaibori 2011 Lalmahomed 2015 Lin 2017 Liu 2015 Mao 2017 Narita 2015 Sun 2014	$\begin{array}{c} 1000\\ .00; \ Chi^{2} = \\ 0.71 \ (P\\ \\ 28\\ 49\\ 17\\ 108\\ 62\\ 37\\ 12\\ 166\\ 23\\ 17\\ 59\\ 40\\ 11\\ 34 \end{array}$	2084 = 8.42, d = 0.48) 104 67 53 142 139 116 114 33 47 117 124 117 124 117 124 73	$\begin{array}{c} 178\\ f=9\ (P=1)\\ 65\\ 55\\ 49\\ 133\\ 190\\ 51\\ 18\\ 38\\ 59\\ 32\\ 86\\ 47\\ 19\\ 26\end{array}$	474 = 0.49); 139 77 97 181 423 179 163 86 126 190 179 138 46 79	100.0%  2 = 0% 5.2% 9.9% 4.0% 13.1% 9.5% 5.4% 1.9% 4.2% 5.6% 2.9% 8.5% 5.7% 4.0%	$\begin{array}{c} 0.58 \; [0.40,  0.83] \\ 1.02 \; [0.84,  1.25] \\ 0.63 \; [0.41,  0.98] \\ 1.04 \; [0.91,  1.18] \\ 0.99 \; [0.80,  1.23] \\ 1.12 \; [0.79,  1.59] \\ 0.95 \; [0.48,  1.90] \\ 1.10 \; [0.72,  1.68] \\ 1.05 \; [0.74,  1.48] \\ 0.86 \; [0.50,  1.48] \\ 0.99 \; [0.78,  1.26] \\ 1.00 \; [0.71,  1.41] \\ 1.90 \; [0.72,  2.95] \\ 1.42 \; [0.95,  2.11] \end{array}$	
Total (95% CI)           Total events           Heterogeneity: Tau² = 0           Test for overall effect: Z           2.4 Rectal tumor           Bhogal 2015           Chen 2022           Dai 2021           Deng 2023           Imai 2016           Kaibori 2011           Lalmahomed 2015           Lin 2017           Liu 2015           Mao 2017           Narita 2015           Sun 2014           Watanabe 2019	$1000 \\ .00; Chi2 = 0.71 (P) \\ 28 \\ 49 \\ 17 \\ 108 \\ 62 \\ 37 \\ 12 \\ 16 \\ 23 \\ 17 \\ 12 \\ 16 \\ 23 \\ 17 \\ 59 \\ 40 \\ 11 \\ 34 \\ 49 \\ 100 \\ 1$	2084 = 8.42, d = 0.48) 104 67 53 142 139 116 114 33 47 117 124 117 124 117 14 73 111	$\begin{array}{c} 178\\ f=9\ (P=\\ 65\\ 55\\ 49\\ 133\\ 190\\ 51\\ 18\\ 38\\ 59\\ 32\\ 86\\ 47\\ 19\\ 26\\ 82\\ \end{array}$	474 139 77 97 181 423 179 163 86 126 190 179 138 46 79 138	100.0%  2 = 0% 5.2% 9.9% 4.0% 13.1% 9.5% 5.4% 1.9% 4.2% 5.6% 2.9% 8.5% 5.7% 4.0% 4.6% 7.8%	$\begin{array}{c} 0.58 & [0.40, 0.83] \\ 1.02 & [0.84, 1.25] \\ 0.63 & [0.41, 0.98] \\ 1.04 & [0.91, 1.18] \\ 0.99 & [0.80, 1.23] \\ 1.12 & [0.79, 1.59] \\ 0.95 & [0.48, 1.90] \\ 1.10 & [0.72, 1.68] \\ 1.05 & [0.74, 1.48] \\ 0.86 & [0.50, 1.48] \\ 0.99 & [0.78, 1.26] \\ 1.00 & [0.71, 1.41] \\ 1.90 & [1.23, 2.95] \\ 1.42 & [0.95, 2.11] \\ 0.92 & [0.71, 1.19] \end{array}$	
Total (95% CI) Total events Heterogeneity: Tau <sup>2</sup> = 0 Test for overall effect: Z 2.4 Rectal tumor Bhogal 2015 Chen 2022 Dai 2021 Deng 2023 Imai 2016 Inoue 2019 Jung 2016 Kaibori 2011 Lalmahomed 2015 Lin 2017 Liu 2015 Mao 2017	$\begin{array}{c} 1000\\ .00; \ Chi^{2} = \\ 0.71 \ (P\\ \\ 28\\ 49\\ 17\\ 108\\ 62\\ 37\\ 12\\ 166\\ 23\\ 17\\ 59\\ 40\\ 11\\ 34 \end{array}$	2084 = 8.42, d = 0.48) 104 67 53 142 139 116 114 33 47 117 124 117 124 117 124 73	$\begin{array}{c} 178\\ f=9\ (P=1)\\ 65\\ 55\\ 49\\ 133\\ 190\\ 51\\ 18\\ 38\\ 59\\ 32\\ 86\\ 47\\ 19\\ 26\end{array}$	474 = 0.49); 139 77 97 181 423 179 163 86 126 190 179 138 46 79	100.0%  2 = 0% 5.2% 9.9% 4.0% 13.1% 9.5% 5.4% 1.9% 4.2% 5.6% 2.9% 8.5% 5.7% 4.0%	$\begin{array}{c} 0.58 \; [0.40,  0.83] \\ 1.02 \; [0.84,  1.25] \\ 0.63 \; [0.41,  0.98] \\ 1.04 \; [0.91,  1.18] \\ 0.99 \; [0.80,  1.23] \\ 1.12 \; [0.79,  1.59] \\ 0.95 \; [0.48,  1.90] \\ 1.10 \; [0.72,  1.68] \\ 1.05 \; [0.74,  1.48] \\ 0.86 \; [0.50,  1.48] \\ 0.99 \; [0.78,  1.26] \\ 1.00 \; [0.71,  1.41] \\ 1.90 \; [0.72,  2.95] \\ 1.42 \; [0.95,  2.11] \end{array}$	
Total (95% CI)           Total events           Heterogeneity: Tau <sup>2</sup> = 0           Test for overall effect: Z           2.4 Rectal tumor           Bhogal 2015           Chen 2022           Dai 2021           Deng 2023           Imai 2016           Kaibori 2011           Lalmahomed 2015           Lin 2017           Liu 2015           Mao 2017           Narita 2015           Sun 2014           Watanabe 2019           Wong 2022	$1000 \\ .00; Chi2 = 0.71 (P) \\ 28 \\ 49 \\ 17 \\ 108 \\ 62 \\ 37 \\ 12 \\ 16 \\ 23 \\ 17 \\ 59 \\ 40 \\ 11 \\ 34 \\ 49 \\ 18 \\ 18 \\ 100 \\ $	2084 = 8.42, d = 0.48) 104 67 53 142 139 116 114 33 47 117 124 117 124 117 14 73 111 64	$\begin{array}{c} 178 \\ f = 9 \ (P = 1) \\ 65 \\ 55 \\ 49 \\ 133 \\ 190 \\ 51 \\ 18 \\ 38 \\ 59 \\ 32 \\ 86 \\ 47 \\ 19 \\ 266 \\ 82 \\ 40 \end{array}$	474 139 77 97 181 423 86 126 190 179 138 46 79 138 46 79 130 86	100.0% 1 <sup>2</sup> = 0% 5.2% 9.9% 4.0% 13.1% 9.5% 5.4% 5.6% 2.9% 4.2% 5.6% 2.9% 4.2% 5.6% 2.9% 4.0% 4.6% 7.8% 3.6%	$\begin{array}{c} 0.58 & [0.40, 0.83] \\ 1.02 & [0.84, 1.25] \\ 0.63 & [0.41, 0.98] \\ 1.04 & [0.91, 1.18] \\ 0.99 & [0.80, 1.23] \\ 1.12 & [0.79, 1.59] \\ 0.95 & [0.48, 1.90] \\ 1.10 & [0.72, 1.68] \\ 1.05 & [0.74, 1.48] \\ 0.86 & [0.50, 1.48] \\ 0.99 & [0.78, 1.26] \\ 1.00 & [0.71, 1.41] \\ 1.90 & [1.23, 2.95] \\ 1.42 & [0.95, 2.11] \\ 0.91 & [0.57, 1.46] \\ \end{array}$	
Total (95% CI) Total events Heterogeneity: Tau <sup>2</sup> = 0 Test for overall effect: Z 2.4 Rectal tumor Bhogal 2015 Chen 2022 Dai 2021 Deng 2023 Iimai 2016 Inoue 2019 Jung 2016 Kaibori 2011 Lalmahomed 2015 Liu 2017 Liu 2015 Mao 2017 Narita 2015 Sun 2014 Watanabe 2019 Wong 2022 Yamashita 2011	$1000 \\ .00; Chi2 = 0.71 (P) \\ 28 \\ 49 \\ 17 \\ 108 \\ 62 \\ 37 \\ 12 \\ 16 \\ 23 \\ 17 \\ 59 \\ 40 \\ 11 \\ 34 \\ 49 \\ 18 \\ 17 \\ 597 \\ 100 \\ $	2084 = 8.42, d = 0.48) 104 67 53 142 139 116 114 33 47 117 124 117 14 73 111 14 55 1470	178 f = 9 (P = 65 55 49 133 190 51 18 8 86 47 19 26 86 47 19 26 80 40 35	474 139 77 97 181 423 179 163 86 126 120 179 138 46 79 170 130 86 2489	100.0%   <sup>2</sup> = 0% 5.2% 9.9% 4.0% 13.1% 9.5% 5.4% 1.9% 4.2% 5.6% 2.9% 4.0% 4.6% 3.6% 4.2% 100.0%	1.04 [0.93, 1.17] 0.58 [0.40, 0.83] 1.02 [0.84, 1.25] 0.63 [0.41, 0.98] 1.04 [0.91, 1.18] 0.99 [0.80, 1.23] 1.12 [0.79, 1.59] 0.95 [0.48, 1.90] 1.10 [0.72, 1.68] 1.05 [0.74, 1.48] 0.86 [0.50, 1.48] 0.99 [0.78, 1.26] 1.42 [0.95, 2.11] 0.92 [0.71, 1.41] 1.90 [1.23, 2.95] 1.42 [0.95, 2.11] 0.92 [0.71, 1.46] 1.19 [0.78, 1.83] 1.00 [0.91, 1.11]	



Study or Subgroup	Experim Events		Contr Events		Weight	Risk Ratio M-H. Random, 95% Cl	Risk Ratio M-H. Random, 95% Cl
3.1 Synchronous meta							
Chen 2022	95	126	9	18	6.3%	1.51 [0.94, 2.42]	
Dai 2021	52	107	14	43	6.3%	1.49 [0.93, 2.39]	
Finkelstein 2008	11	19	19	33	6.3%	1.01 [0.62, 1.63]	
mai 2016	181	385	71	177	7.1%	1.17 [0.95, 1.44]	
noue 2019	56	134	32	161	6.7%	2.10 [1.45, 3.04]	
lung 2016	28	175	2	102	3.1%	8.16 [1.99, 33.54]	
Kaibori 2011	37	74	17	45	6.4%	1.32 [0.85, 2.05]	
in 2017	31	204	18	103	6.1%	0.87 [0.51, 1.48]	
iu 2015	42	189	103	114	6.9%	0.25 [0.19, 0.32]	
/alik 2007	41	220	45	210	6.6%	0.87 [0.60, 1.27]	
Nao 2017	70	196	17	59	6.4%	1.24 [0.80, 1.93]	
Jarita 2015	17	34	13	26	6.2%	1.00 [0.60, 1.67]	
Sun 2014	41	94	19	58	6.5%	1.33 [0.86, 2.06]	
Vatanabe 2019	99	201	32	80	6.9%	1.23 [0.91, 1.67]	
Vong 2022	41	102	17	92	6.3%	2.18 [1.33, 3.55]	
'amashita 2011	43	88	9	33	5.9%	1.79 [0.99, 3.25]	-
otal (95% CI)		2348		1354	100.0%	1.23 [0.89, 1.71]	-
otal events	885		437				
leterogeneity: Tau <sup>2</sup> = 0	.38; Chi <sup>2</sup>	= 152.64	, df = 15	(P < 0.	00001); l <sup>2</sup>	= 90%	
est for overall effect: Z	= 1.26 (F	e = 0.21)					
.2 More metastases							
Dai 2021	28	40	38	110	8.7%	2.03 [1.46, 2.81]	
Deng 2023	20 161	204	30 80	119	0.7% 13.8%		
•						1.17 [1.02, 1.36]	
inkelstein 2008	12 136	21	18 116	31	5.8%	0.98 [0.61, 1.58]	
nai 2016		256	116	306	12.7%	1.40 [1.17, 1.68]	
10ue 2019	57	133	31	162	7.7%	2.24 [1.54, 3.25]	
ung 2016	17	91	13	186	3.5%	2.67 [1.36, 5.26]	
aibori 2011	24	38	30	81	7.7%	1.71 [1.17, 2.48]	
in 2017	7	31	42	276	3.2%	1.48 [0.73, 3.01]	
iu 2015	43	71	102	232	11.1%	1.38 [1.09, 1.75]	
falik 2007	31	120	55	310	7.4%	1.46 [0.99, 2.14]	
/lao 2017	71	206	16	49	6.3%	1.06 [0.68, 1.65]	
larita 2015	20	40	10	20	4.9%	1.00 [0.58, 1.71]	
'amashita 2011	19	32	33	89	7.2%	1.60 [1.08, 2.38]	
otal (95% CI)		1283		1071	100.0%	1.46 [1.26, 1.68]	•
otal events	626	1205	584	1371	100.078	1.40 [1.20, 1.00]	•
leterogeneity: Tau <sup>2</sup> = 0 est for overall effect: Z 3.3 Larger metastases				P = 0.0	06); I <sup>2</sup> = 5	7%	
Deng 2023	33	39	208	284	30.3%	1.16 [0.99, 1.34]	
inkelstein 2008	12	22	18	30	6.3%	0.91 [0.56, 1.47]	
mai 2016	96	181	156	381	25.5%	1.30 [1.08, 1.55]	
in 2017	24	99	25	208	5.8%	2.02 [1.22, 3.35]	
.iu 2015	34	71	111	232	15.3%	1.00 [0.76, 1.32]	
Mao 2017	46	123	41	132			
Varita 2015	13	26	17	34	11.2% 5.7%	1.20 [0.86, 1.69] 1.00 [0.60, 1.67]	
	10	20		01	0.170	1.00 [0.00, 1.01]	
otal (95% CI)		561		1301	100.0%	1.18 [1.04, 1.34]	◆
otal events	258		576				
leterogeneity: Tau <sup>2</sup> = 0			f = 6 (P =	= 0.20);	l² = 29%		
est for overall effect: Z		<sup>2</sup> = 0.01)					
.4 Bilobar distributio					10.000		
chen 2022	63	81	41	63	13.0%	1.20 [0.96, 1.48]	· · · · · · · · · · · · · · · · · · ·
ai 2021	27	43	39	107	8.3%	1.72 [1.23, 2.42]	
inkelstein 2008	8	16	22	36	4.1%	0.82 [0.47, 1.43]	
nai 2016	168	341	84	221	13.7%	1.30 [1.06, 1.58]	
ung 2016	14	90	16	187	3.0%	1.82 [0.93, 3.56]	· · · · · · · · · · · · · · · · · · ·
aibori 2011	24	42	30	77	7.1%	1.47 [1.00, 2.15]	
almahomed 2015	27	55	55	118	8.5%	1.05 [0.76, 1.47]	- <b>-</b>
in 2017	17	77	32	230	4.4%	1.59 [0.94, 2.69]	+
iu 2015	71	124	74	179	12.3%	1.39 [1.10, 1.75]	
lao 2017	44	82	43	173	8.6%	2.16 [1.56, 3.00]	_ <b></b>
larita 2015	13	27	17	33	4.7%	0.93 [0.56, 1.56]	
Vong 2022	26	70	32	124	6.1%	1.44 [0.94, 2.20]	<b>├</b>
amashita 2011	15	27	37	94	6.2%	1.41 [0.93, 2.15]	+
otal (95% CI)		1075		1642	100.0%	1.37 [1.21, 1.55]	•
otal events	517		522				
leterogeneity: Tau <sup>2</sup> = 0 est for overall effect: Z	.02; Chi <sup>2</sup>		df = 12 (	P = 0.0	7); l² = 40	%	
.5 Extrahepatic meta	stases						
Chen 2022	12	18	92	126	12.7%	0.91 [0.65, 1.29]	
	34	39	207	284	46.1%	1.20 [1.04, 1.38]	
Deng 2023	58	109	194	453	28.7%	1.24 [1.01, 1.53]	-∎-
					12.5%	0.94 [0.67, 1.33]	
Deng 2023 mai 2016 .iu 2015	20	44	125	259	12.570	0.94 [0.07, 1.33]	
mai 2016 .iu 2015	20		125				•
mai 2016	20 124	44 210	618		100.0%	1.13 [0.99, 1.29]	•

Fig. 4 Meta-analyses of association between liver metastases factors and ER

| Logeneration         Control         Table Trade         Date Trade         Date Trade         Date Trade           And Pack Provide         Note Pack Provide   | a   
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|  
   | Study or Subgroup  | Experim<br>Events  | ental<br>Total  
   
   |  |   | Weight   
   |  |                     |  |  |   |   |   |  
  |  |  |                   |
| Jung 2019       Q       H  
   | 4.1 Laparoscopic resec   | tion   |   
   
   |  |   | | | | | |
   |  |                     |  |  |   |   |   |  
  |  |  |                   |
| Max 2017       4       H       H       B       20       20       0.00       Disk       Disk <td>Jung 2016</td> <td>0</td> <td>13</td> <td>30</td> <td>264</td> <td>0.5%</td> <td>0.31 [0.02, 4.82] *</td> <td></td>  
   | Jung 2016  | 0  | 13  
   
   | 30   | 264   | 0.5%   
   | 0.31 [0.02, 4.82] *  |                     |  |  |   |   |   |  
  |  |  |                   |
|  
   | Mao 2017   | 4  | 18  
   
   | 83   | 237   | 4.5%   
   | 0.63 [0.26, 1.53]  |                     |  |  |   |   |   |  
  |  |  |                   |
|  
   |  | 42   | 87  
   
   | 316  | 768   | 100.0%   
   | 0.87 [0.72, 1.05]  | •                   |  |  |   |   |   |  
  |  |  |                   |
|  
   | Heterogeneity: Tau <sup>2</sup> = 0.   | 00; Chi <sup>2</sup> :   | = 1.32, df  
   
   |  | 0.52);  | I <sup>2</sup> = 0%  
   |  |                     |  |  |   |   |   |  
  |  |  |                   |
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $  
   | Test for overall effect: Z   | = 1.40 (P  | = 0.16)   
   
   |  |   | | | | | |
   |  |                     |  |  |   |   |   |  
  |  |  |                   |
| $ \begin{array}{c} \begin{array}{c} \begin{array}{c} \mbox 0.310 & 1 & 0 & 7 & 7 & 7 & 7 & 7 & 7 & 7 & 7 & 7$  
   | Chen 2022  |  |   
   
   |  |   | | | | | |
   |  | <del>_</del> +      |  |  |   |   |   |  
  |  |  |                   |
| $ \begin{array}{c} \label{eq: bis} \label{eq: bis} 22 & 22 & 52 & 51 & 14 & 44 & 14 & 14 & 16 & 15 & 16 \\ \begin{tabular}{lllllllllllllllllllllllllllllllllll$  
   | Inoue 2019   | 15   | 37  
   
   | 73   | 258   | 10.8%  
   | 1.43 [0.93, 2.22]  | - +                 |  |  |   |   |   |  
  |  |  |                   |
| Lik 2019<br>Lik 20   | Jung 2016<br>Lalmahomed 2015  
  |  |   
   
   |  |   | 5.2%<br>14.4%  
   | 0.88 [0.42, 1.84]  |                     |  |  |   |   |   |   |  |   
  |                   |
| Sin Diff 7 1 10 Diff 17 10 Diff 1   | Liu 2015<br>Mao 2017   
   | 14   |  
   
  | 131  | 276   | 12.4%   
  | 1.09 [0.74, 1.60]  |                     |  |  |   |   |   |   
   |  |  |                   |
| Test servers       410       400       400         Homesone Trans       100  
   |  |  |   
   
   |  |   | | | | | |
   | 0.98 [0.53, 1.82]  |                     |  |  |   |   |   |  
  |  |  |                   |
| $\begin{aligned} \begin{array}{c}                                      $   
   |  |  | 988   
   
   |  | 1173  | 100.0%   
   | 1.00 [0.83, 1.21]  | +                   |  |  |   |   |   |  
  |  |  |                   |
| Structure  | Heterogeneity: Tau <sup>2</sup> = 0.  
  | 04; Chi2   |   
   
   | 430<br>df = 7 (P   | = 0.03  | ); I² = 55%  
   |  |                     |  |  |   |   |   |  
  |  |  |                   |
| $ \begin{array}{c} \mbox{Com} 222 & 68 & 612 & 19 & 22 & 64.9 \\ \mbox{Com} 222 & 64 & 93 & 27 & 67.9 \\ \mbox{Com} 222 & 77 & 94 & 192 & 229 & 132 \\ \mbox{Com} 222 & 77 & 94 & 192 & 229 & 132 \\ \mbox{Com} 222 & 77 & 94 & 192 & 229 & 132 \\ \mbox{Com} 222 & 77 & 94 & 192 & 274 & 100.05 \\ \mbox{Com} 222 & 77 & 94 & 192 & 294 & 132 \\ \mbox{Com} 222 & 77 & 94 & 192 & 294 & 132 \\ \mbox{Com} 222 & 77 & 94 & 192 & 294 & 132 \\ \mbox{Com} 222 & 77 & 94 & 192 & 294 & 132 \\ \mbox{Com} 222 & 77 & 94 & 192 & 294 & 132 \\ \mbox{Com} 222 & 77 & 94 & 192 & 294 & 132 \\ \mbox{Com} 224 & 192 & 194 & 194 & 194 \\ \mbox{Com} 224 & 192 & 194 & 194 & 194 \\ \mbox{Com} 224 & 192 & 194 & 194 & 194 \\ \mbox{Com} 224 & 192 & 194 & 194 & 194 \\ \mbox{Com} 224 & 192 & 194 & 194 & 194 \\ \mbox{Com} 224 & 192 & 194 & 194 & 194 \\ \mbox{Com} 224 & 194 & 194 & 194 & 194 \\ \mbox{Com} 224 & 194 & 194 & 194 & 194 \\ \mbox{Com} 224 & 194 & 194 & 194 & 194 \\ \mbox{Com} 224 & 194 & 194 & 194 & 194 \\ \mbox{Com} 224 & 194 & 194 & 194 & 194 \\ \mbox{Com} 224 & 194 & 194 & 194 & 194 \\ \mbox{Com} 224 & 194 & 194 & 194 & 194 \\ \mbox{Com} 224 & 194 & 194 & 194 & 194 \\ \mbox{Com} 224 & 194 & 194 & 194 & 194 \\ \mbox{Com} 224 & 194 & 194 & 194 & 194 \\ \mbox{Com} 224 & 194 & 194 & 194 & 194 \\ \mbox{Com} 224 & 194 & 1$  
   |  |  | = 0.98)   
   
   |  |   | | | | | |
   |  |                     |  |  |   |   |   |  
  |  |  |                   |
| $ \frac{1}{100} 1$   | Chen 2022   
  |  | 122   
   
   | 16   | 22  |  | 0.99 [0.75, 1.31]   
  |                     |  |  |   |   |   |   |  |   
  |                   |
| Image 2016       14       280       100       274       177.05       127 (10.5).15.0         Image 2016       4       8       200       0.00       100       0.00       100       0.00<  
   |  | 139  |   
   
   |  |   | | | | | |
   |  |                     |  |  |   |   |   |  
  |  |  |                   |
| $ \begin{aligned} \begin{array}{c} \mbode \end{tabular}{2} \\ \mbode \$   | Imai 2016  
   |  | 288  
   
  | 108  | 274   | 18.7%   
  | 1.27 [1.05, 1.53]  |                     |  |  |   |   |   |   |     
  |  |                   |
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $  
   | Kaibori 2011   | 20   |   
   
   | 34   | 79  | 4.1%   
   | 1.16 [0.78, 1.73]  |                     |  |  |   |   |   |  
  |  |  |                   |
| Sup 2014 1 7 27 37 40 115 276 128 129 147 129 1429 150 160 157 120 147 149 1429 150 150 1429 1429 150 150 140 140 150 150 140 140 150 150 140 140 150 150 140 140 150 150 140 140 150 150 150 140 140 150 150 150 140 140 150 150 150 140 140 150 150 150 140 140 150 150 150 150 150 150 150 150 150 15   
   |  |  |   
   
   |  |   | | | | | |
   | 1.07 [0.83, 1.37]<br>0.80 [0.46, 1.40]   | <del></del>         |  |  |   |   |   |  
  |  |  |                   |
| $ \begin{array}{c} \mbox{Work} Number 2022 \\ \mbox{Work} 222 \\ \mbox{Work} 23 \\ \mbox{Work} 24 \\ \mbox{Work} 25 \\ \mbox$  | Sun 2014  
  | 17   |   
   
   |  |   | | | | | |
   | 1.23 [0.81, 1.87]  |                     |  |  |   |   |   |  
                    |  |  |                   |
| Table monits       Signed status       Signed status       Signed status       Signed status         Table monits       Signed status       Signed status       Signed status       Signed status       Signed status         Table monits       Signed status       Signed status       Signed status       Signed status       Signed status       Signed status         Table monits       Signed status       Signestatus       Signestatus  
   | Wong 2022  | 23   | 66  
   
   | 35   | 128   | 3.5%   
   | 1.27 [0.83, 1.97]  | +                   |  |  |   |   |   |  
  |  |  |                   |
| Total events 53 0 648<br>Hereogenetics 7.2. So Control 1.0.4.1, 1 = 0.0.4, 1 = 0.0.5.<br>The foreignetics 7.2. So Control 1.0.4.1, 1 = 0.0.5.<br>The foreignetic 7.2. So Control 1.0.4.1.1, 1 = 0.0.5.<br>The foreignetic 7.3. So Control 1.0.4.1.1, 1 = 0.0.5.<br>The foreig  |   
  | 18   |   
   
   | 34   |   | | | | | |
   |  |                     |  |  |   |   |   |  
  |  |  |                   |
| $\begin{aligned} & \text{tests} recent afficient surgical marginum of the second state of the second st$   | Total events  
  | 539  |   
   
   | 648  |   | | | | | |
   | 1.16 [1.07, 1.25]  | •                   |  |  |   |   |   |  
  |  |  |                   |
| $ \frac{1}{100} 1$   | Heterogeneity: Tau <sup>2</sup> = 0.<br>Test for overall effect: Z  
  | 00; Chi <sup>2</sup> :   | = 11.04, (  
   
   | df = 11 (l   | P = 0.4   | 4); I <sup>2</sup> = 0%  |                     
  |                     |  |  |   |   |   |   |  |   
  |                   |
| $\begin{array}{c} \mbox{Chem 2022} & 4 & 9 & 9 & 6 & 6 & 5 & 14.3 & 1.3 & 10.2 & 1.00 \\ \mbox{Production} 2000 & 1 & 3 & 2 & 2 & 8 & 0 & 0.6 & 0.08 & 0.0$  
   |  |  | - 0.0001  
   
   | 0)   |   | | | | | |
   |  |                     |  |  |   |   |   |  
  |  |  |                   |
| $\frac{1}{1000} = \frac{1}{1000} = \frac{1}{100} = \frac{1}{100} = \frac{1}{100} = \frac{1}{100} = \frac{1}{1000} = \frac{1}{10000} = \frac{1}{10000} = \frac{1}{10000} = \frac{1}{10000} = \frac{1}{100000} = \frac{1}{100000} = \frac{1}{1000000} = \frac{1}{1000000} = \frac{1}{10000000000000000000000000000000000$  | Chen 2022   
  | 48   |   
   
   |  |   | | | | | |
   |  | -                   |  |  |   |   |   |  
  |  |  |                   |
| $ \begin{array}{c} \mbody Correctly constrained by the set of the $   | Finkelstein 2008   
   | 1  | 2  
   
  | 29   | 50  | 0.6%  
  | 0.86 [0.21, 3.52]  |                     |  |  |   |   |   |   
   |  |  |                   |
| kubal 2011 1 13 22 4 19 7 52% 140 (b.2.2.12)<br>Main 2007 39 728 88 202 55% 126 (c.2.12)<br>Main 2007 39 728 88 202 55% 128 (c.2.12)<br>Main 2007 39 728 88 202 55% 128 (c.2.12)<br>Main 2007 39 728 728 71 128 (c.2.12)<br>Main 2007 39 728 71 129 71 128 (c.2.12)<br>Main 2007 39 75 75 71 129 71 128 (c.2.12)<br>Main 2007 39 75 75 71 129 71 128 (c.2.12)<br>Main 2007 69 77 72 77 70.75 13 130 (c.2.13)<br>Main 2017 69 77 72 73 70.75 13 130 (c.2.13)<br>Main 2017 69 717 22 78 7.75 130 (c.2.13)<br>Main 2017 69 717 22 78 7.75 130 (c.2.13)<br>Main 2017 69 717 22 78 7.75 130 (c.2.13)<br>Main 2017 69 71 72 71 1399 1000.5 1.12 (c.2.7,128)<br>Main 2017 69 71 72 71 1399 1000.5 1.12 (c.2.7,128)<br>Main 2016 72 71 1399 1000.5 1.12 (c.2.7,128)<br>Main 2016 72 71 1399 1000.5 1.12 (c.2.7,128)<br>Main 2016 72 71 1399 1000.5 1.12 (c.7.1,128)<br>Main 2016 72 71 1399 1000.5 1.12 (c.7.1,128)<br>Main 2016 72 71 1399 1000.5 1.12 (c.7.1,128)<br>Main 2016 72 71 1390 1000.5 1.12 (c.7.1,128)<br>Main 2016 72 71 130 75 1000 75 1.13 (c.2.7,128)<br>Main 2016 72 71 130 75 1000,5 1.13 (c.2.7,128)<br>Main 2016 72 71 71 130 71 100 75 11 13 (c.2.7,128)<br>Main 2016 72 71 71 130 71 100 75 11 13 (c.2.7,128)<br>Main 2016 72 71 71 70 1000,5 1.13 (c.2.7,130)<br>Main 2016 72 74 72 72 72 71 775 11 13 (c.2.7,130  
   | Imai 2016<br>Inoue 2019  |  |   
   
   |  |   | 15.2%<br>6.0%  
   | 1.31 [1.09, 1.57]<br>1.68 [1.15, 2.46]   | <b>—</b>            |  |  |   |   |   |  
  |  |  |                   |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  
   | Kaibori 2011   | 13   | 22  
   
   | 41   | 97  | 5.2%   
   | 1.40 [0.92, 2.12]  |                     |  |  |   |   |   |  
  |  |  |                   |
| Subal 2021 34 55 61 174 9.2% 1.17 [1.28,2.27]<br>Watanabe 2010 15 24 66 38 122 4.6% 1.02 (0.6).161<br>Total events 440 59.3<br>Total events 440 59.3<br>Exempt 124 2 61 19 $\ell = 0.11$ ; $\ell' = 34\%$<br>Exempt 124 2 61 19 $\ell = 0.11$ ; $\ell' = 34\%$<br>Exempt 124 2 61 19 $\ell = 0.11$ ; $\ell' = 34\%$<br>Exempt 124 100.5% 10 30 88 51.01<br>Exempt 124 2 61 19 $\ell = 0.000$ ; $\ell = 0.0000$ ; $\ell = 0.00000$ ; $\ell = 0.00000$ ; $\ell = 0.000000$ ; $\ell = 0.00000000$ ; $\ell = 0.0000000000000000000000000000000000$   
   | Malik 2007   | 30   | 128   
   
   | 56   | 302   | 5.8%   
   | 1.26 [0.85, 1.87]  | +                   |  |  |   |   |   |  
  |  |  |                   |
| $\begin{array}{c} \mbox{Warp 2022} & 20 & 68 & 38 & 128 & 4.6\% & 1.02 [0.56, 1.61] \\ \mbox{Total works} & 40 & 0.03 \\ \mbox{Hemogenerity} & 1.62 & 0.01 & 10 & 0.04 & 11, 92 (0.56, 1.61] \\ \mbox{Hemogenerity} & 1.62 & 0.01 & 10 & 0.04 & 11, 92 & 34\% \\ \mbox{Total works} & 40 & 0.03 \\ \mbox{Hemogenerity} & 1.62 & 0.01 & 110 & 0.01 & 111 & 92 & 34\% \\ \mbox{Total works} & 2.5 & 36 & P^{-0} & 0.000 & 11 \\ \mbox{Total works} & 2.5 & 36 & P^{-0} & 0.000 & 11 \\ \mbox{Total works} & 2.5 & 36 & P^{-0} & 0.000 & 11 \\ \mbox{Total works} & 2.5 & 36 & P^{-0} & 0.000 & 11 \\ \mbox{Total works} & 2.5 & 36 & P^{-0} & 0.000 & 11 \\ \mbox{Total works} & 2.5 & 36 & P^{-0} & 0.000 & 11 \\ \mbox{Total works} & 2.5 & 36 & P^{-0} & 0.000 & 11 \\ \mbox{Total works} & 2.5 & 10 & 10 & 10 & 10 & 10 & 10 & 10 & 1$   
   |  |  |   
   
   |  |   | | | | | |
   | 1.92 [1.39, 2.65]<br>1.71 [1.28, 2.27]   |                     |  |  |   |   |   |  
  |  |  |                   |
| $ \begin{array}{c} Total (95% CI) & 86 & 2341 100 0\% & 1.3 [1.20, 1.48] \\ Total events & 440 & 903 \\ Total events & 440 & 603 \\ Total events & 440 & 603 \\ Total events & 25.58 [P-0.00001] \\ \hline \end{array} \\ \hline \end{array} \\ \begin{array}{c} \hline \end{array} \\ \hline \end{array} $ \hline \Biggl \bigg  \hline \Biggl \\ \hline \end{array} \\ \hline \end{array}  \hline \Biggl \bigg  \hline \Biggl \\ \hline \bigg  \hline \end{array} \\ \hline \end{array}  \\ \hline \end{array}  \hline \Biggl \bigg  \hline \Biggl \Biggl \\ \hline \end{array}  \hline \Biggl \bigg  \\ \hline \bigg  \hline \end{array} \\ \hline \end{array}  \hline \bigg  \hline \Biggl \bigg  \hline \Biggl \bigg  \hline \Biggl \bigg  \hline \Biggl \bigg  \hline \bigg  \hline \bigg  \hline \Biggl \bigg  \hline \Biggl \bigg  \hline \bigg  \hline \Biggl \bigg  \hline \Biggl \bigg  \hline \Biggl \bigg  \hline \bigg $ \bigg $ \hline \bigg $ \bigg $ \hline \bigg $ \bigg $ $ \bigg $ $ \bigg $ \hline \bigg  \hline \bigg  \hline \bigg $ \bigg $ $ \bigg $ \hline \bigg  \hline \bigg  \hline \bigg $ \bigg $ $ \bigg $ \hline \bigg $ \bigg $ $ \bigg $ \hline \bigg $ \bigg $ \hline \bigg $ \bigg $ $ \bigg $ \\  \hline \bigg  \hline \bigg $ \bigg $ \hline \bigg $ \bigg $ \hline \bigg  \hline \bigg  \hline \bigg $ \bigg $ \hline \bigg $ \bigg $ \hline \bigg  \\  \\  \hline \bigg  \\  \hline \bigg  \\  \\  \hline \bigg  \\  \hline \bigg  \\  \\  \hline \bigg  \\  \\  \\  \\  \\  \\  \\  \\  \\   |  
   |  |  
   
  |  |   |  |  
   |                     |  |  |   |   |   |   |  |  
   |                   |
| Tubel events 400 933<br>Heterogeneiky: Tart = 0.01. Ch = 16 70, e1 11 ( $P = 3.1\%$ , $P = 3.4\%$<br>Test for overall effect Z = 5.36 ( $P < 0.00001$ )<br><b>b</b><br><b>b</b><br><b>c</b><br><b>c</b><br><b>c</b><br><b>c</b><br><b>c</b><br><b>c</b><br><b>c</b><br><b>c</b>  
   |  |  |   
   
   |  |   | | | | | |
   |  | •                   |  |  |   |   |   |  
  |  |  |                   |
| In the convert of the control       Notified and control of the  | Total events  
  | 440  |   
   
   | 933  |   | | | | | |
   |  |                     |  |  |   |   |   |  
  |  |  |                   |
| Experimental         Control         Nisk Ratio         Next Ratio           4.5 Proconstructure         Total         Version         0.50 (c)         0.50 (c)           4.5 Proconstructure         0.50 (c)         0.50 (c)         0.50 (c)         0.50 (c)           Demogradia         0.55 (c)         0.55 (c)         0.55 (c)         0.55 (c)         0.55 (c)           Demogradia         0.55 (c)         0.55 (c)         0.55 (c)         0.55 (c)         0.55 (c)           Linaborne         201 (c)         22 (c)         7.5 (c)         1.36 (c)         0.55 (c)         0.55 (c)           Linaborne         201 (c)         25 (c)         7.5 (c)         1.36 (c)         1.5 (c)         0.5 (c)           Macian         0.65 (c)         1.22 (c)         7.5 (c)         1.30 (c)         0.5 (c)         1.20 (c)           Numita         0.65 (c)         1.27 (c)         1.30 (c)         0.5 (c)         1.20 (c) <td></td> <td></td> <td></td> <td></td> <td>- = 0.1</td> <td>1); 1" = 34:</td> <td>0</td> <td>.1 0.2 0.5 1 2 5 10</td>  
  |  |  |  
   
  |  | - = 0.1   | 1); 1" = 34:  
  | 0  | .1 0.2 0.5 1 2 5 10 |  |  |   |   |   |   
   |  |  |                   |
| Experimental         Control         Nisk Ratio         Next Ratio           4.5 Proconstructure         Total         Version         0.50 (c)         0.50 (c)           4.5 Proconstructure         0.50 (c)         0.50 (c)         0.50 (c)         0.50 (c)           Demogradia         0.55 (c)         0.55 (c)         0.55 (c)         0.55 (c)         0.55 (c)           Demogradia         0.55 (c)         0.55 (c)         0.55 (c)         0.55 (c)         0.55 (c)           Linaborne         201 (c)         22 (c)         7.5 (c)         1.36 (c)         0.55 (c)         0.55 (c)           Linaborne         201 (c)         25 (c)         7.5 (c)         1.36 (c)         1.5 (c)         0.5 (c)           Macian         0.65 (c)         1.22 (c)         7.5 (c)         1.30 (c)         0.5 (c)         1.20 (c)           Numita         0.65 (c)         1.27 (c)         1.30 (c)         0.5 (c)         1.20 (c) <th>1</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>  
  | 1  |  |  
   
  |  |   | | | | | |
  |  |                     |  |  |   |   |   |   
   |  |  |                   |
| Study core         Fund         Tetal         Ferent Tetal         Weight         M-H. Random. 95%, CI           Chen 2022         64         94         40         50         12.0%         0.68         1.01           Chen 2022         64         94         40         50         12.0%         0.68         1.01           Chen 2022         135         101         106         142         14.0         101         142         14.0         14   
   | b  |  |   
   
   |  |   | | | | | |
   |  |                     |  |  |   |   |   |  
  |  |  |                   |
| 4.5       Processaria       64       94       50       12.8%       0.85       0.70, 1.04         Deng 2023       133       191       100       142       14.9%       1.00       0.85, 1.14         Lamabanesize 2013       31       84       202       715       1.36       0.85, 1.14         Lamabanesize 2015       41       80       41       93       9.2%       1.16       0.85, 1.81         Lap2017       27       130       80       127       71       1.36       0.85, 1.81         La2015       63       108       82       127       71       1.36       0.87, 1.55         Nama2016       24       2       16       3.2%       1.17       0.83, 0.76       1.59         Nama2017       100       100       100       100       100       1.28       1.47       1.09       1.00         Vinname       0.00       127       100       0.00%       1.12       1.29       1.37       1.43       1.16       1.16       1.17       1.12       1.37       1.43       1.16       1.16       1.17       1.13       1.16       1.13       1.12       1.13       1.13       1.13       1.14 <t< th=""><th></th><th>Experim</th><th>ental</th><th>Contr</th><th>ol</th><th></th><th>Risk Ratio</th><th>Pick Patio</th></t<>  
   |  | Experim  | ental   
   
   | Contr  | ol  | | | | | |
   | Risk Ratio   | Pick Patio          |  |  |   |   |   |  
  |  |  |                   |
| Chen 2022 6 4 94 40 50 122% 0.05 (0.77, 1.04)<br>Deng 2023 130 181 108 44 193 92% 1.16 (0.058, 1.54)<br>Limanbones 2019 41 80 41 93 92% 1.16 (0.058, 1.56)<br>Limanbones 2019 41 80 82 196 17.7% 1.39 (0.57, 1.56)<br>Sum 2014 80 177 2 7 138 22 171 5.1% 1.154 (0.02, 2.59)<br>Limanbones 2019 51 124 80 167 7.0% 1.30 (0.57, 1.56)<br>Sum 2014 80 109 7.5% 1.30 (0.57, 1.56)<br>Waternabe 2019 51 124 80 157 10.7% 0.301 (0.62, 1.65)<br>Waternabe 2019 51 124 80 157 10.7% 0.301 (0.62, 1.65)<br>Waternabe 2019 51 124 80 157 10.7% 0.301 (0.62, 1.65)<br>Waternabe 2019 51 124 80 157 10.7% 0.301 (0.62, 1.65)<br>Heterogenetity: Tar = 0.05; Che <sup>2</sup> = 25.1; d <sup>2</sup> = 107 0.000; h <sup>2</sup> = 55%<br>Heterogenetity: Tar = 0.05; Che <sup>2</sup> = 25.1; d <sup>2</sup> = 107 0.000; h <sup>2</sup> = 55%<br>Heterogenetity: Tar = 0.05; Che <sup>2</sup> = 25.1; d <sup>2</sup> = 107 0.000; h <sup>2</sup> = 55%<br>Heterogenetity: Tar = 0.05; Che <sup>2</sup> = 25.1; d <sup>2</sup> = 107 0.000; h <sup>2</sup> = 75%<br>Heterogenetity: Tar = 0.05; Che <sup>2</sup> = 25.1; d <sup>2</sup> = 107 0.000; h <sup>2</sup> = 75%<br>Heterogenetity: Tar = 0.05; Che <sup>2</sup> = 25.1; d <sup>2</sup> = 107 0.000; h <sup>2</sup> = 75%<br>Heterogenetity: Tar = 0.05; Che <sup>2</sup> = 25.1; d <sup>2</sup> = 107 0.000; h <sup>2</sup> = 75%<br>Heterogenetity: Tar = 0.05; Che <sup>2</sup> = 25.2; d <sup>2</sup> = 107 0.000; h <sup>2</sup> = 75%<br>Heterogenetity: Tar = 0.05; Che <sup>2</sup> = 0.05; d <sup>2</sup> = 107 0.000; h <sup>2</sup> = 75%<br>Heterogenetity: Tar = 0.05; Che <sup>2</sup> = 0.05; d <sup>2</sup> = 107 0.000; h <sup>2</sup> = 74%<br>Heterogenetity: Tar = 0.05; Che <sup>2</sup> = 0.05; d <sup>2</sup> = 107 0.000; h <sup>2</sup> = 74%<br>Heterogenetity: Tar = 0.05; Che <sup>2</sup> = 0.05; d <sup>2</sup> = 107 0.000; h <sup>2</sup> = 74%<br>Heterogenetity: Tar = 0.05; Che <sup>2</sup> = 0.05; d <sup>2</sup> = 107 0.000; h <sup>2</sup> = 74%<br>Heterogenetity: Tar = 0.05; Che <sup>2</sup> = 0.05; d <sup>2</sup> = 107 0.000; h <sup>2</sup> = 74%<br>Heterogenetity: Tar = 0.05; Che <sup>2</sup> = 108; d <sup>2</sup> = 107 0.000; h <sup>2</sup> = 74%<br>Heterogenetity: Tar = 0.05; Che <sup>2</sup> = 108; d <sup>2</sup> = 108; d <sup>3</sup> = 10  
   |  |  |   
   
   |  |   | | | | | |
   |  |                     |  |  |   |   |   |  
  |  |  |                   |
| Incua 2019 30 86 54 209 7.9% 1.26 (0.8, 1.81)<br>Lamabora 2015 41 80 41 99 2.2% 1.17 (0.6, 1.52)<br>Lamabora 2015 41 80 41 99 2.2% 1.17 (0.6, 1.52)<br>Lamabora 2015 41 80 41 99 2.2% 1.17 (0.6, 1.52)<br>Lamabora 2017 65 177 22 78 7.7% 1.13 (0.6, 1.52)<br>Mao 2017 65 177 22 78 7.7% 1.13 (0.6, 3.47)<br>Sun 2014 30 66 30 80 7.3% 1.30 (0.8, 1.53)<br>Wing 2022 59 155 8 30 35.5% 1.37 (0.8, 3.47)<br>Total (whith 2015 12 44 42 61 18 32.7% 0.000 1.12 (0.8, 7.16)<br>Deep 2023 103 CH = 2.0 (1.1 + 11 ( $P = 0.000)$ ; $P = 85\%$<br>Test for overall effect $Z = 1.5 (P = 0.12)$<br>La 2015 86 122 7 5 1 4.2% 30.26 (1.5, 1.65)<br>Deep 2023 152 213 86 110 12.24% 0.08 (0.7, 1.15)<br>Deep 2023 152 213 85 110 12.24% 0.08 (0.7, 1.15)<br>Deep 2023 153 2.13 85 110 12.24% 0.08 (0.7, 1.15)<br>Deep 2023 153 2.13 85 110 12.24% 0.08 (0.7, 1.15)<br>Deep 2023 153 2.13 85 110 12.24% 0.08 (0.7, 1.15)<br>Deep 2023 153 2.13 85 110 12.24% 0.08 (0.7, 1.15)<br>Deep 2023 153 2.13 85 110 12.24% 0.08 (0.7, 1.15)<br>Deep 2023 153 2.13 85 110 12.24% 0.08 (0.7, 1.15)<br>Deep 2023 153 2.13 85 110 105 4.45% 0.03 (0.5, 1.58)<br>Li 2017 35 226 14 81 5.6% 0.03 (0.5, 1.58)<br>Li 2017 35 226 14 81 5.6% 0.03 (0.5, 1.58)<br>Sun 2014 010 CH 24 2.25 d.45% 0.03 (0.5, 1.58)<br>Li 2017 35 2.26 147 40 0.05 0.83 (0.7, 1.16)<br>Li 2017 35 2.26 147 40 0.05 0.83 (0.7, 1.16)<br>Li 2017 35 2.26 147 40 0.05 0.83 (0.7, 1.16)<br>Li 2017 35 2.26 147 40 0.05 0.83 (0.7, 1.16)<br>Li 2017 35 2.26 147 418 2.90 0.001; P = 74%<br>Test for verall effect $Z = 0.5(P = 0.42)$<br><b>11</b> Col 4.24% 0.021; P = 74%<br>Test for verall effect $Z = 0.5(P = 0.42)$<br><b>12</b> Li 1 4.7% 0.02 (0.5, 1.58)<br>Li 2017 16 45 77 120 7.1% 1.15 (0.6, 1.63)<br>Waternade 2019 16 42 71 20 7.1% 0.35 (0.6, 1.63)<br>Li 2017 16 45 77 120 7.1% 0.35 (0.6, 1.63)<br>Li 2017 16 45 77 120 7.1% 0.35 (0.6, 1.63)<br>Li 2017 16 42 7.42 (0.6, 1.64) 2.20 (0.7, 1.74)<br>Waternade 2019 16 22 113 2.51 15.64% 0.30 (0.5, 1.67)<br>Heterogenetix; Tau' = 0.0; CH = 7.54 (0.6, 0.53) 1.57, 0.74<br>Waternade 2019 16 2.5 5 50 2.40 0.35% 1.57, 0.74<br>Waternade 2019 16 2.5 195 4.23 110 2.55 1.57, 1.74<br>Waternade 2019 16 2.5 5 50  
   |  | Events   | Total   
   
   |  |   | Weight   
   | M-H, Random, 95% CI  |                     |  |  |   |   |   |  
  |  |  |                   |
| Lambane 2015 41 80 41 93 9.2% 11.6 [0.85, 1.59]<br>Lu 2017 27 136 108 62 196 11.7% 1.33 [1.10, 1.74]<br>Max 3016 43 102 47 18 197 1.33 [1.10, 1.74]<br>Sun 2014 30 66 30 86 7.3% 1.30 [0.86, 1.65]<br>Sun 2014 30 66 30 86 7.3% 1.30 [0.86, 1.65]<br>Sun 2014 30 66 30 86 7.3% 1.30 [0.86, 1.65]<br>Sun 2014 30 66 30 86 7.3% 1.30 [0.86, 1.65]<br>Sun 2014 30 67 50 155 8 30 3.5% 1.157 [0.81, 3.04]<br>Hadrandz 2015 124 (1.11   
   | 4.5 Preoperative chem<br>Chen 2022   | Events<br>otherap<br>64  | Total<br>y<br>94  
   
   | Events<br>40   | Total<br>50   | 12.8%  
   | M-H. Random, 95% Cl<br>0.85 [0.70, 1.04]   |                     |  |  |   |   |   |  
  |  |  |                   |
| Lu 2015 6 63 108 82 195 11.7% 1.39 (1.10, 1.74)<br>Mara 2017 65 17.7 (5 17.7% 1.30 (1.50, 1.45)<br>Narita 2016 2.4 42 8 13 3.2% 1.71 (0.85, 3.47)<br>Sun 2014 33 6 6 8 7.75, 1.35 (0.85, 3.47)<br>Wong 2022 5 0 155 8 0 9 3.5% 1.57 (0.81, 3.64)<br>Wong 2022 5 0 155 8 0 9 3.5% 1.57 (0.81, 3.64)<br>Wong 2022 5 0 155 8 0 9 3.5% 1.57 (0.81, 3.64)<br>Hele cognently: Tat = 0.05, CP = 28, 11, d = 11 (P = 0.006); P = 58%<br>Lat for overall effect 2 = 1.58 (P = 0.16); P = 58%<br>Lat for overall effect 2 = 1.58 (P = 0.16); P = 1.50;<br>Lat 215 (P = 0.16); P = 28, 11, d = 11 (P = 0.006); P = 58%<br>Lat for overall effect 2 = 1.59 (P = 0.16); P = 1.50;<br>Lat 215 (P = 0.16); P = 28, 11, d = 11 (P = 0.006); P = 58%<br>Lat for overall effect 2 = 1.59 (P = 0.16); P = 1.50;<br>Lat 215 (P = 0.16); P = 2.51; D = 0.006; P = 1.50;<br>Lat 215 (P = 0.16); P = 2.51; D = 0.006; P = 1.50;<br>Lat 215 (P = 0.16); P = 2.51; D = 0.006; P = 1.50;<br>Lat 215 (P = 0.16); P = 2.51; D = 0.006; P = 1.50;<br>Lat 215 (P = 0.16); Lat 215 (P = 0.16); P = 1.50;<br>Lat 215 (P = 0.16); Lat 21  
   | 4.5 Preoperative chem<br>Chen 2022<br>Deng 2023<br>Inoue 2019  | otherap<br>64<br>135<br>30   | Total<br>94<br>181<br>86  
   
   | Events<br>40<br>106<br>58  | 50<br>142<br>209  | 12.8%<br>14.9%<br>7.9%   
   | M-H. Random, 95% Cl<br>0.85 [0.70, 1.04]<br>1.00 [0.88, 1.14]<br>1.26 [0.88, 1.81]   |                     |  |  |   |   |   |  
  |  |  |                   |
| Map 2017 65 177 22 78 7.0% 1.30 (b.87, 1.55)<br>Sun 2014 30 66 30 88 7.3% 1.30 (b.88, 1.53)<br>Wing 2021 55 15 8 93 35% 1.37 (b.83, 3.47)<br>Total (wints $2021$ 55 15 8 93 35% 1.37 (b.83, 3.47)<br>Total (wints $2021$ 55 15 8 93 35% 1.37 (b.83, 3.47)<br>Total (wints $2021$ 55 15 8 93 35% 1.37 (b.83, 3.44)<br>Total (wints $2021$ 55 17 109 (b.00, 1, 1.2 (b.97, 1.38)<br>Heterogeneity: Tau' = 0.03; CP = 0.12 (J. 4.48)<br>Call (wints $2022$ 4 3 132 15 52 4 48 1 56% 0.03 (b.7, 1.15)<br>Sun 2016 12 217 21 18 10 5 4.4% 0.04 (b.2, 0.81)<br>Kabori 2017 35 226 14 81 56% 0.03 (b.7, 1.15)<br>Sun 2016 12 217 2 18 105 4.4% 0.04 (b.2, 0.81)<br>Kabori 2017 35 226 14 81 56% 0.03 (b.7, 1.15)<br>Sun 2016 12 172 18 105 4.4% 0.04 (b.2, 0.81)<br>Kabori 2017 35 226 14 81 56% 0.03 (b.7, 1.15)<br>Sun 2016 12 172 18 105 4.4% 0.04 (b.2, 0.81)<br>Kabori 2017 35 226 14 81 56% 0.03 (b.7, 1.15)<br>Sun 2016 12 172 18 105 4.4% 0.03 (b.7, 1.15)<br>Sun 2016 12 172 18 105 4.4% 0.04 (b.2, 0.81)<br>Kabori 2017 35 226 14 81 56% 0.03 (b.7, 1.16)<br>Sun 2016 12 172 18 105 4.4% 0.03 (b.7, 1.15)<br>Sun 2016 12 172 18 105 4.4% 0.03 (b.7, 1.15)<br>Sun 2016 12 172 18 105 4.4% 0.03 (b.7, 1.16)<br>Sun 2016 12 172 18 105 4.4% 0.03 (b.7, 1.16)<br>Sun 2017 35 226 14 81 56% 0.03 (b.7, 1.5)<br>Sun 2016 22 172 18 105 8.4% 0.33 (b.7, 0.41)<br>Total (8%; C) 7 12 0 16 12 72 23 7% 1.34 (b.6, 0.7)<br>Kabori 2011 20 45 34 74 7.2% 0.03 (b.7, 1.10)<br>Map 2017 16 45 71 20 7.1% 1.155 (b.6, 1.53)<br>Man 2017 16 45 71 20 7.1% 1.155 (b.6, 1.53)<br>Man 2017 16 45 71 20 0.1% 17.106<br>Map 2017 16 45 71 20 0.1% 17.106 1.35, 1.62]<br>Watemaba 2010 11 72 81 13 225 115% 1.35 (b.6, 1.53)<br>Man 2017 16 45 71 20 0.1% 17.106 1.35, 1.62]<br>Watemaba 2010 11 72 81 13 25 115% 1.35 (b.6, 1.53)<br>Map 2017 15 24 12 4.2% 1.4% 1.10 (b.8, 1.52)<br>Map 2017 15 24 12 4.2% 1.56, 1.155 (b.7, 1.7)<br>Total (8%; C) 530 1779 100.0% 1.10 (b.8, 1.52)<br>Map 2017 13 24 74 22 6.4% 1.30 (b.1, 1.76)<br>Map 2017 13 24 74 22 6.5% 1.55 (b.7, 1.77)<br>Map 2017 13 24 74 22 6.5% 1.55 (b.7, 1.77)<br>Map 2017 13 24 74 22 6.5% 1.55 (b.7, 1.77)<br>Map 2017 13 24 74 22 6.5% 1.155 (b.7, 1.77)<br>Map 20  
   | 4.5 Preoperative chem<br>Chen 2022<br>Deng 2023<br>Inoue 2019<br>Kaibori 2011<br>Lalmahomed 2015   | Events<br>otherap<br>64<br>135<br>30<br>20<br>41   | Total<br>94<br>181<br>86<br>48<br>80  
   
   | 40<br>106<br>58<br>34<br>41  | 50<br>142<br>209<br>71<br>93  | 12.8%<br>14.9%<br>7.9%<br>6.8%<br>9.2%   
   | M-H. Random. 95% Cl<br>0.85 [0.70, 1.04]<br>1.00 [0.88, 1.14]<br>1.26 [0.88, 1.81]<br>0.87 [0.58, 1.32]<br>1.16 [0.85, 1.59]   |                     |  |  |   |   |   |  
  |  |  |                   |
| Sun 2014 30 66 30 86 7.3% 1.30 [0.88, 1.83] Wannabe 2015 15 12 80 157 10.7% 0.85 [0.82, 1.85] Wannabe 2012 15 15 8 30 3.5% 1.157 [0.81, 3.04] Wannabe 2012 15 8 8 30 3.5% 1.157 [0.81, 3.04] Wannabe 2012 15 8 8 197 7.159 [0.00.0% 1.12 [0.87, 1.28] Wannabe 2012 15 8 10 12 4.2% 0.000 [N = 1.12 [0.87, 1.28] Wannabe 2012 15 8 10 12 4.2% 0.000 [N = 1.2 [0.87, 1.05] Wannabe 2012 15 8 10 12 4.2% 0.000 [N = 1.0 [0.86, 1.05] Wannabe 2013 15 8 10 12 4.4% 0.04 [0.20, 0.81] Wannabe 2013 15 8 10 12 4.4% 0.04 [0.20, 0.81] Wannabe 2013 15 2 13 80 110 12 4.4% 0.04 [0.20, 0.81] Wannabe 2016 12 172 18 105 4.4% 0.04 [0.20, 0.81] Wannabe 2016 12 172 18 105 4.4% 0.04 [0.20, 0.81] Wannabe 2016 12 172 18 105 4.4% 0.04 [0.20, 0.81] Wannabe 2016 12 172 18 105 4.4% 0.04 [0.20, 0.81] Wannabe 2016 12 172 18 105 4.4% 0.04 [0.20, 0.81] Wannabe 2016 12 172 18 105 4.4% 0.04 [0.20, 0.81] Wannabe 2016 12 172 18 105 4.4% 0.04 [0.20, 0.81] Wannabe 2016 12 172 18 105 4.4% 0.04 [0.20, 0.81] Wannabe 2016 12 172 18 105 4.4% 0.04 [0.20, 0.81] Wannabe 2016 12 172 18 105 4.4% 0.04 [0.20, 0.81] Wannabe 2016 12 172 18 105 4.4% 0.04 [0.20, 0.81] Wannabe 2016 12 172 18 105 4.4% 0.04 [0.20, 0.81] Wannabe 2016 12 172 18 105 4.4% 0.000 [0.51, 1.58] Wannabe 2016 12 174 10 0.00 (0.51, 1.58] Wannabe 2016 12 174 10 0.00 (0.51, 1.58] Wannabe 2016 12 174 12 0.00 (0.77, 1.59] Wannabe 2016 12 174 18 209 1.200 (0.10, 1.76] Wannabe 2017 16 45 71 20 7.1% 1.130 [0.20, 1.20] Wannabe 2019 16 22 118 22 115 8.4% 1.350 [0.51, 1.57] Wannabe 2017 16 45 71 20 7.1% 1.150 [0.50, 1.56] Wannabe 2019 16 22 113 22 110 (0.10, 1.16] [0.20, 1.20] Wannabe 2019 16 2 4 110 (0.10, 0.03) [0.77, 1.59] Wannabe 2019 16 2 111 22 0.1% 1174 10.05 [0.56, 1.57] Wannabe 2019 16 2 110 (0.00) (1.16 [0.26, 1.27] Wannabe 2019 16 2 111 (0.20, 0.55, 1.57] Wannabe 2019 15 2 113 22 110 (0.10, 1.16 [0.26, 1.27] Wannabe 2019 15 2 113 22 110 (0.10, 1.16 [0.26, 1.27] Wannabe 2019 15 2 15 32 70 0 (1.16, 1.22, 1.24] Wannabe 2019 15 2 15 32 70 0 (1.16, 1.25, 1.27] Wannabe 2019 15 25 5 9 24 00 30 (5.5, 1.15, 1.15] Wann  
   | 4.5 Preoperative chem<br>Chen 2022<br>Deng 2023<br>Inoue 2019<br>Kaibori 2011<br>Lalmahomed 2015<br>Lin 2017   | Events<br>otherap<br>64<br>135<br>30<br>20<br>41<br>27   | Total<br>94<br>181<br>86<br>48<br>80<br>136   
   
   | 40<br>106<br>58<br>34<br>41<br>22  | 50<br>142<br>209<br>71<br>93<br>171   | 12.8%<br>14.9%<br>7.9%<br>6.8%<br>9.2%<br>5.1%   
   | M-H. Random. 95% Cl<br>0.85 [0.70, 1.04]<br>1.00 [0.88, 1.14]<br>1.26 [0.88, 1.81]<br>0.87 [0.58, 1.32]<br>1.16 [0.85, 1.59]<br>1.54 [0.92, 2.59]  |                     |  |  |   |   |   |  
  |  |  |                   |
| Wong 2022 50 155 8 39 3.5% 1.57 (0.81, 3.04)<br>Total envisit 50 1297 1399 100.0% 1.12 [0.97, 1.28]<br>Total envisit 70.5 CH <sup>2</sup> = 2.10 1 4 11 (P = 0.006); F = 95%<br>Test for overall effect 2 = 1.5 (P = 0.12) 4 4 2%<br>A 6 Psidperside Komolberagy<br>Bhogal 2016 86 192 7 51 4.2%<br>Char 2022 62 88 192 7 51 4.2%<br>Char 2023 152 213 89 110 12.4%<br>Char 2021 132 15 61 61 8.4%<br>Char 2021 132 15 62 4 63 7.4%<br>Char 2021 132 15 62 4 63 7.4%<br>Char 2021 132 15 62 6.4%<br>Char 2021 132 13 578 6.90<br>Char 2022 14 14 18 299 1302 133 132 10.5%<br>Char 2021 13 23 110%<br>Char 2015 13 22 110%<br>Char 2015 13 22 110 0.1%<br>Char 2015 13 24 110 29 10.00%<br>Char 2021 14 12 29 10.5%<br>Char 2022 12 42 75 95 0.28 (Char 2.4%<br>Char 2015 17 128 7.5%<br>Char 202 Char 2.4%<br>Char 2015 Char 2.4%<br>Char 2  | 4.5 Preoperative chem<br>Chen 2022<br>Deng 2023<br>Inoue 2019<br>Kaibori 2011<br>Lalmahomed 2015<br>Lin 2015<br>Mao 2017   
   | Events<br>otherap<br>64<br>135<br>30<br>20<br>41<br>27<br>63<br>65   | Total<br>94<br>181<br>86<br>48<br>80<br>136<br>108<br>177  
   
  | 40<br>106<br>58<br>34<br>41<br>22<br>82<br>22  | Total<br>50<br>142<br>209<br>71<br>93<br>171<br>195<br>78   | 12.8%<br>14.9%<br>7.9%<br>6.8%<br>9.2%<br>5.1%<br>11.7%<br>7.0%   
  | M-H. Random. 95% Cl<br>0.85 [0.70, 1.04]<br>1.00 [0.88, 1.14]<br>1.26 [0.88, 1.81]<br>0.87 [0.58, 1.32]<br>1.16 [0.85, 1.59]<br>1.54 [0.92, 2.59]<br>1.39 [1.10, 1.74]<br>1.30 [0.87, 1.95]  |                     |  |  |   |   |   |   
   |  |  |                   |
| Total events 600 520<br>Heterogeneity: Tarl = 000; # = 58%<br>Test for overall effect 2 = 15 (P = 0.12)<br><b>4.6</b> Fostoparetive chemotherapy<br>Bhogal 2015 80 192 7 51 4.2%<br>Bhogal 2016 12 192 18 105 4.4%<br>Data 2016 12 192 18 105 1.1%<br>Data 2016 12 192 18 105 1.4%<br>Data 2016 12 192 18 195 1.1%<br>Data 2016 12 192 18 195 1.1%<br>Data 2016 12 192 4.1 110 0 -00001; P = 74%<br>Test for versall effect 2 = 0.50 (P = 0.40)<br>Chain 2017 10 64 57 71 200 7.1%<br>Data 2016 19 12 81 112 253 115%<br>Data 2016 19 12 81 112 253 115%<br>Data 2016 19 12 81 112 253 115%<br>Data 2016 19 12 81 19 28 113 283 115%<br>Data 2016 11 19 28 113 283 115%<br>Data 2016 11 19 28 113 283 115%<br>Data 2016 12 13 26 10 -0.1% F = 30%<br>Data 2017 13 24 74 22 6.4%<br>Data 2016 12 12 21 58 21 105%<br>Data 2017 13 24 77 24 21 6.4%<br>Data 2016 11 19 28 113 28 115%<br>Data 2016 12 12 12 19 128 37 358<br>Data 2017 13 24 76 22 16 0.1%<br>Data 2016 12 128 (P = 0.1%) F = 30%<br>Data 2017 13 24 76 22 16 0.5%<br>Data 2017 13 24 76 22 16 0.5%<br>Data 2016 19 128 17 26 0.5%<br>Data 2016 19 128 17 26 0.5%<br>Data 2016 19 128 17 26 0.5%<br>Data 2016 19 1   
   | 4.5 Preoperative chem<br>Chen 2022<br>Deng 2023<br>Inoue 2019<br>Kaibori 2011<br>Laimahomed 2015<br>Lin 2017<br>Liu 2015<br>Mao 2017<br>Narita 2015<br>Sun 2014  | Events<br>otherap<br>64<br>135<br>30<br>20<br>41<br>27<br>63<br>65<br>24<br>30   | Total<br>94<br>181<br>86<br>48<br>80<br>136<br>108<br>177<br>42<br>66   
   
   | 40<br>106<br>58<br>34<br>41<br>22<br>82<br>22<br>6<br>30   | Total<br>50<br>142<br>209<br>71<br>93<br>171<br>195<br>78<br>18<br>86   | 12.8%<br>14.9%<br>7.9%<br>6.8%<br>9.2%<br>5.1%<br>11.7%<br>7.0%<br>3.2%<br>7.3%  
   | M-H. Random. 95% Cl<br>0.85 [0.70, 1.04]<br>1.00 [0.88, 1.14]<br>1.26 [0.88, 1.81]<br>0.87 [0.85, 1.59]<br>1.54 [0.92, 2.59]<br>1.39 [1.10, 1.74]<br>1.30 [0.87, 1.95]<br>1.71 [0.85, 3.47]<br>1.30 [0.88, 1.93]   |                     |  |  |   |   |   |  
  |  |  |                   |
| $\begin{aligned} & \text{Heterogeneity:} Tat = 0.05; \ 0^{16} = 26.11, \ d^{1-11} (f^{0} = 100; p = 9.05; p = 9.05; \\ & \text{Lef for overall effects $2 = 15.9   = 0.005; p = 9.05; \\ & \text{Lef for overall effects $2 = 15.9   = 0.005; p = 9.05; \\ & \text{Chen } 2022 & 0.2 & 0.8 & 4.2 & 9.8 & 1.3%; \\ & \text{Deng } 2023 & 152 & 213 & 0.11 & 0.44; \\ & \text{Deng } 2023 & 153 & 213 & 0.21 & 0.144; \\ & \text{Deng } 2023 & 153 & 213 & 0.21 & 0.144; \\ & \text{Lag } 2017 & 13 & 228 & 55 & 167 & 8.44; \\ & \text{Lag } 2017 & 13 & 228 & 55 & 177 & 8.44; \\ & \text{Lag } 2017 & 13 & 228 & 55 & 177 & 8.44; \\ & \text{Lag } 2017 & 13 & 228 & 55 & 177 & 8.44; \\ & \text{Lag } 2017 & 13 & 228 & 167 & 8.44; \\ & \text{Lag } 2017 & 13 & 228 & 167 & 8.44; \\ & \text{Lag } 2017 & 13 & 228 & 167 & 8.44; \\ & \text{Lag } 2017 & 13 & 228 & 177 & 8.44; \\ & \text{Lag } 2017 & 13 & 228 & 167 & 18.05, \\ & \text{Lag } 2015 & 13 & 19 & 122 & 10.05 & 1.35; \\ & \text{Lag } 2015 & 123 & 158 & 127 & 10.35, \\ & \text{Lag } 2015 & 123 & 158 & 127 & 10.35, \\ & \text{Lag } 2015 & 128 & 100 & 10.55; \\ & \text{Lag } 2015 & 128 & 100 & 10.55; \\ & \text{Lag } 2015 & 128 & 100 & 10.55; \\ & \text{Lag } 2015 & 128 & 0.07 & 126 & 0.001; p = 74\%; \\ & \text{Test for overall effect $2 = 0.56 (p = 0.40); \\ & \text{Test for overall effect $2 = 0.56 (p = 0.40); \\ & \text{Hete ognethy; Tag = 0.05; \\ & \text{Hete ognethy; Tag = 0.05; \\ & \text{Lag } 2015 & 158 & 129 & 120 & 7.156; \\ & \text{Lag } 2017 & 164 & 171 & 210 & 7.155; \\ & \text{Lag } 2017 & 164 & 171 & 210 & 7.155; \\ & \text{Lag } 1055 & 1.135 & 10.57; 1.437; \\ & \text{Hete ognethy; Tag = 0.05; \\ & \text{Hete ognethy; Tag = 0.05; \\ & \text{Lag } 2016 & 153 & 294 & 10.55; 1.137; \\ & \text{Lag } 1056 & 1.156 & 1.156; 1.157; 1.137; \\ & \text{Lag } 2017 & 13 & 24 & 74 & 2018 & 545; 1.136; 1.146; 1.05; 1.561; \\ & \text{Lag } 2017 & 13 & 24 & 74 & 201 & 6.755; 1.137; \\ & \text{Lag } 1056 & 1.156 & 1.137; 1.146; 1.05; 1.561; \\ & \text{Lag } 2017 & 100 & 158 & 359 & 1.350; 1.137; \\ & \text{Lag } 2016 & 110 & 158 & 551; 1.137; 1.146; 1.132; 1.156; 1.146; 1.137; \\ & \text{Lag } 2017 & 176 & 490 & 10.06 & 551 & 1156 & 1.575; 1.137; \\ & \text{Lag } 2016 & 10.05 & 10.05; 1.137; 1.146; 1.146; 1.146$   
   | 4.5 Preoperative chem<br>Chen 2022<br>Deng 2023<br>Inoue 2019<br>Kaibori 2011<br>Laimahomed 2015<br>Lin 2015<br>Mao 2017<br>Narita 2015<br>Sun 2014<br>Watanabe 2019   | Events<br>otherap<br>64<br>135<br>30<br>20<br>41<br>27<br>63<br>65<br>24<br>30<br>51   | Total<br>94<br>181<br>86<br>48<br>80<br>136<br>108<br>177<br>42<br>66<br>124  
   
   | 40<br>106<br>58<br>34<br>41<br>22<br>82<br>22<br>6<br>30<br>80   | Total<br>50<br>142<br>209<br>71<br>93<br>171<br>195<br>78<br>18<br>86<br>157  | 12.8%<br>14.9%<br>7.9%<br>6.8%<br>9.2%<br>5.1%<br>11.7%<br>7.0%<br>3.2%<br>7.3%<br>10.7%   
   | M-H. Random. 95% Cl<br>0.85 [0.70, 1.04]<br>1.00 [0.88, 1.14]<br>1.26 [0.88, 1.81]<br>0.87 [0.58, 1.32]<br>1.16 [0.85, 1.59]<br>1.54 [0.92, 2.59]<br>1.39 [1.10, 1.74]<br>1.30 [0.87, 1.95]<br>1.71 [0.85, 3.47]<br>1.30 [0.88, 1.83]<br>0.81 [0.62, 1.05]   |                     |  |  |   |   |   |  
  |  |  |                   |
| Test for overall effect 2 = 15.6 (P = 0.12)<br>4.6 Postoperative chemotherapy<br>Bhogal 2015 6 8 192 7 51 4.2%<br>Chem 2022 02 82 84 298 11.3% 0.048 (0.77, 1.15)<br>Deng 2023 152 213 89 110 12.24% 0.088 (0.78, 1.00)<br>Deng 2023 153 213 85 117 0.088 (0.78, 1.00)<br>Deng 2023 153 213 85 117 0.088 (0.78, 1.00)<br>Deng 2021 12 172 18 105 4.4% 0.078 (0.28, 0.13)<br>Jung 2016 12 172 18 105 4.4% 0.041 (0.20, 0.81)<br>Kubori 2011 30 55 226 14 81 5.6% 0.030 (0.51, 1.58)<br>Li 2017 35 226 14 81 5.6% 0.030 (0.51, 1.58)<br>Li 2017 35 226 14 81 5.6% 0.030 (0.51, 1.58)<br>Sun 2014 019 2 41 122 15 152 6 2.6% 0.030 (0.57, 1.59)<br>Vieteorganety: Ful = 0.06; Che <sup>2</sup> + 22, 3, df = 11 (P < 0.0001; Y = 74%;<br>Test for overall effect 2 = 0.58 (P = 0.40)<br>CHeating 2023 66 91 165 242 21 5% 0.030 (0.57, 1.50)<br>Cheating 2023 66 91 165 242 21 5% 0.030 (0.77, 1.06)<br>Deng 2023 66 91 165 242 21 5% 0.030 (0.77, 1.06)<br>Deng 2023 66 91 165 242 21 5% 0.030 (0.77, 1.06)<br>Deng 2023 66 91 165 242 21 5% 0.030 (0.77, 1.06)<br>Deng 2023 66 91 165 242 21 5% 0.030 (0.57, 1.50)<br>Cheating 20% (0.75, 1.77)<br>Test for overall effect 2 = 0.58 (P = 0.40)<br>Kabori 2011 20 45 34 74 7.8% 0.027 (0.64, 1.46)<br>Li 2015 77 44 118 299 13.5% 1.35 (0.31, 1.76)<br>Mac 2017 16 45 77 120 7.1% 1.35 (0.63, 1.63)<br>Mac 2017 16 45 77 120 7.1% 1.05 (0.68, 1.63)<br>Mac 2017 16 45 77 120 7.1% 1.05 (0.68, 1.63)<br>Mac 2017 16 45 77 200 7.1% 1.10 (0.8, 1.62)<br>Watemade 2019 18 28 113 253 11.5% 1.44 (1.06, 1.64)<br>Watemade 2019 18 28 113 253 11.5% 1.44 (1.06, 1.64)<br>Watemade 2019 18 28 113 255 11.5% 1.44 (1.06, 1.64)<br>Mac 2017 13 24 74 22 6.4% 1.16 (1.02, 1.23)<br>Watemade 2019 18 28 113 253 11.5% 1.44 (1.06, 1.64)<br>Deng 2023 130 102 111 61 35.5% 1.55 (1.57, 7.14)<br>Watemade 2019 18 28 113 24 114 29 (0.5% 1.157, 7.14)<br>Watemade 2019 19 28 37 398 4.5% 1.158 (1.12, 2.46)<br>Mac 2017 13 24 74 221 6.4% 1.169 (1.12, 2.46)<br>Mac 2017 13 24 76 42 68 190% 1.28 (1.51, 1.45)<br>Mac 2017 13 24 76 42 68 190% 1.28 (1.51, 1.45)<br>Mac 2017 13 24 76 42 68 190% 1.28 (1.51, 1.46)<br>Deng 2023 130 102 111 61 35.5% 1.55 (1.57, 7.14)<br>Watemade 2019 1  
   | 4.5 Properative chem<br>Chen 2022<br>Deng 2023<br>Inoue 2019<br>Kaibori 2011<br>Laimahorned 2015<br>Liu 2015<br>Mao 2017<br>Narita 2015<br>Sun 2014<br>Watanabe 2019<br>Wong 2022  | Events<br>otherap<br>64<br>135<br>30<br>20<br>41<br>27<br>63<br>65<br>24<br>30<br>51   | Total<br>94<br>181<br>86<br>48<br>80<br>136<br>108<br>177<br>42<br>66<br>124<br>155   
   
   | 40<br>106<br>58<br>34<br>41<br>22<br>82<br>22<br>6<br>30<br>80   | Total<br>50<br>142<br>209<br>71<br>93<br>171<br>195<br>78<br>18<br>86<br>157<br>39  | 12.8%<br>14.9%<br>7.9%<br>6.8%<br>9.2%<br>5.1%<br>11.7%<br>3.2%<br>7.0%<br>3.2%<br>10.7%<br>3.5%   
   | M-H. Random. 25% Cl           0.85 [0.70, 1.04]           1.00 [0.86, 1.61]           1.00 [0.86, 1.61]           1.26 [0.86, 1.61]           1.26 [0.86, 1.61]           1.46 [0.32, 2.59]           1.36 [1.01, 7.4]           1.30 [0.85, 1.53]           1.30 [1.01, 7.4]           1.30 [0.85, 5.47]           1.30 [0.86, 5.47]           1.30 [0.82, 1.05]           0.81 [0.62, 1.05]           1.57 [0.81, 3.04]  |                     |  |  |   |   |   |  
  |  |  |                   |
| Bingla 2015 6 86 192 7 5 1 4.2% 3.26 (1.5), 6.51<br>Deng 2023 152 213 89 110 12.4% 0.88 0.77, 1.15<br>Deng 2023 152 213 89 110 12.4% 0.88 0.77, 1.15<br>Deng 2023 152 213 89 110 12.4% 0.88 0.77, 1.50<br>Deng 2021 12 172 16 105 4.4% 0.41 0.20, 0.81<br>Machon 2011 30 56 24 63 7 49, 105 14.4% 0.41 0.20, 0.81<br>Machon 2017 35 226 14 81 5.6% 0.30 (0.5), 1.59<br>U12 2017 35 226 14 81 5.6% 0.30 (0.5), 1.59<br>U12 2017 35 226 14 81 5.6% 0.30 (0.5), 1.59<br>U12 2017 35 226 14 81 5.6% 0.30 (0.5), 1.59<br>U12 2017 35 226 14 81 5.6% 0.30 (0.5), 1.59<br>U12 2017 35 126 197 40 100 10.5% 0.33 (0.76, 1.59<br>U12 2015 90 197 40 100 10.0% 0.33 (0.76, 1.59<br>U12 2015 90 197 40 100 10.0% 0.33 (0.76, 1.10]<br>Total (8%, C) 212 15 06 6.4% 1.35 (0.5), 2.23<br>Test for overall effect 2 e 0.5% (1.16) 5.02, 1.39<br>U12 2015 90 11 16 52 22 22 15% 1.39 (0.77, 1.96]<br>Deng 2023 50 11 165 242 22 15% 1.33 (0.20, 1.39<br>U12 2015 12 1 12 20 17.4% 10.00 0.03 (0.77, 1.96]<br>Deng 2023 50 11 165 242 22 15% 1.33 (0.20, 1.39<br>U12 2015 12 7 44 118 220 10.001; P 74%, 1.33 (0.20, 1.39<br>U12 2015 27 44 118 220 13.08, 1.35 (1.37, 1.39<br>U12 2015 12 7 44 118 229 13.08, 1.35 (1.37, 1.39<br>U12 2015 12 7 44 118 229 13.08, 1.35 (1.37, 1.39<br>U12 2015 12 7 44 118 229 13.08, 1.35 (1.37, 1.39<br>U12 2015 12 7 44 118 229 13.08, 1.35 (1.37, 1.39<br>U12 2015 12 7 44 118 229 13.08, 1.35 (1.37, 1.39<br>U12 2015 12 7 44 10 20 4.33 77 6.5% 0.03 (0.57, 1.37)<br>Teal (8%, C) 530 170 0.00, 1.10 (0.58, 1.63]<br>U12 2015 12 7 78 0.3<br>Heterogeneity: Tau' = 0.01; C+a' = 1.30, 0' = 0 (-1); J = -30\%<br>Teal 2017 16 45 71 20 0.71\% 1.30 (0.5, 1.62]<br>U12 2015 12 23 113 223 115% 1.44 (1.06, 1.64]<br>U12 2015 12 23 113 223 115% 1.44 (1.06, 1.64]<br>U12 2015 12 21 21 24 24 6.5% 0.03 (0.57, 1.77)<br>Teal (8%, C) 530 4.77 140 (0.56, 55, 1.15), 7.17]<br>U12 alwanta 2017 13 24 74 22 6.5% 1.15 (1.102, 1.32]<br>U12 alwanta 2017 13 24 74 22 6.5% 1.15 (1.102, 1.32]<br>U12 alwanta 2017 13 24 74 22 6.5% 1.15 (1.102, 1.32]<br>U12 alwanta 2017 13 24 74 22 6.5% 1.15 (1.102, 1.32]<br>U12 alwanta 2017 13 24 74 22 6.5% 1.15 (1.102, 1.32]<br>U12 alwanta 2017 13 24 7  
   | 4.5 Properative chem<br>Chen 2022<br>Deng 2023<br>Inoue 2019<br>Kaibori 2011<br>Laimahomed 2015<br>Liu 2015<br>Mao 2017<br>Narita 2015<br>Sun 2014<br>Watanabe 2019<br>Wong 2022<br>Total (05% CI)<br>Total events   | Events<br>otherap<br>64<br>135<br>30<br>20<br>41<br>27<br>63<br>65<br>24<br>30<br>51<br>50<br>600  | Total<br>94<br>181<br>86<br>48<br>80<br>136<br>108<br>177<br>42<br>66<br>124<br>155<br>1297   
   
   | Events<br>40<br>106<br>58<br>34<br>41<br>22<br>82<br>22<br>6<br>30<br>80<br>8<br>529   | Total<br>50<br>142<br>209<br>71<br>93<br>171<br>195<br>78<br>18<br>86<br>157<br>39<br>1309  | 12.8%<br>14.9%<br>7.9%<br>6.8%<br>5.1%<br>11.7%<br>7.0%<br>3.2%<br>7.3%<br>10.7%<br>3.5%   
   | M-H. Random. 95% Cl           0.85 (p.70, 1.04)           1.00 (0.88, 1.61)           1.26 (0.88, 1.61)           0.87 (0.58, 1.59)           1.54 (0.92, 2.59)           1.54 (0.92, 2.59)           1.39 (1.10, 1.74)           1.30 (0.85, 1.51)           1.37 (10.85, 3.47)           1.30 (0.87, 1.95)           1.77 (10.85, 3.47)           1.30 (0.81, 0.33)           0.81 (0.62, 1.05)           1.57 (0.81, 3.04)           1.12 (0.97, 1.28)  |                     |  |  |   |   |   |  
  |  |  |                   |
| $ \begin{array}{c c c c c c c c c c c c c c c c c c c $  
   | 4.5 Properative chem<br>Chen 2022<br>Deng 2023<br>Incue 2019<br>Kalbori 2011<br>Laimahomed 2015<br>Lin 2017<br>Liu 2015<br>Mao 2017<br>Mao 2017<br>Marita 2015<br>Sun 2014<br>Watanabe 2019<br>Wong 2022<br>Total (95% CI)<br>Total events<br>Heterogeneity: Tau <sup>2</sup> = 0.<br>Test for overall effect: Z   | Events<br>otherap<br>64<br>135<br>30<br>20<br>41<br>27<br>63<br>65<br>24<br>30<br>51<br>50<br>600<br>03; Chi <sup>2</sup><br>= 1.55 (P   | Total<br>94<br>181<br>86<br>48<br>80<br>136<br>108<br>177<br>42<br>66<br>124<br>155<br>1297<br>= 26.11, 4<br>= 0.12)  
   
   | Events<br>40<br>106<br>58<br>34<br>41<br>22<br>82<br>22<br>6<br>30<br>80<br>8<br>529   | Total<br>50<br>142<br>209<br>71<br>93<br>171<br>195<br>78<br>18<br>86<br>157<br>39<br>1309  | 12.8%<br>14.9%<br>7.9%<br>6.8%<br>5.1%<br>11.7%<br>7.0%<br>3.2%<br>7.3%<br>10.7%<br>3.5%   
   | M-H. Random. 95% Cl           0.85 (p.70, 1.04)           1.00 (0.88, 1.61)           1.26 (0.88, 1.61)           0.87 (0.58, 1.59)           1.54 (0.92, 2.59)           1.54 (0.92, 2.59)           1.39 (1.10, 1.74)           1.30 (0.85, 1.51)           1.37 (10.85, 3.47)           1.30 (0.87, 1.95)           1.77 (10.85, 3.47)           1.30 (0.81, 0.33)           0.81 (0.62, 1.05)           1.57 (0.81, 3.04)           1.12 (0.97, 1.28)  |                     |  |  |   |   |   |  
  |  |  |                   |
| Imai 2016 2.016 4.77 4.2 95 10.5% 10.2 (0.77, 1.30)<br>Jang 2016 12 172 18 105 4.4% 0.78 (0.54, 1.13)<br>Jang 2016 12 172 19 105 4.4% 0.78 (0.54, 1.13)<br>Jang 2016 12 172 19 105 4.4% 0.78 (0.54, 1.13)<br>Jang 2016 12 172 19 105 4.4% 0.78 (0.54, 0.78)<br>Jang 2016 12 172 19 105 4.4% 0.78 (0.41 (0.52, 0.81)<br>Jang 2016 12 172 19 105 4.4% 0.78 (0.41 (0.52, 0.81)<br>Jang 2016 12 172 19 105 10.5% 1.135 (0.27, 1.35)<br>Jang 2016 12 172 19 105 10.5% 0.38 (0.46, 0.76)<br>Watenabe 2019 52 149 79 132 10.3% 0.58 (0.46, 0.76)<br>Watenabe 2019 52 149 79 132 10.3% 0.58 (0.46, 0.76)<br>Watenabe 2019 52 149 79 132 10.3% 0.58 (0.46, 0.76)<br>Watenabe 2019 52 149 79 132 10.3% 0.58 (0.46, 0.76)<br>Watenabe 2019 52 149 79 132 10.3% 0.58 (0.46, 0.76)<br>Watenabe 2019 52 149 79 100.0% 0.93 (0.77, 1.06)<br>Imai 2016 98 203 154 359 19.5% 1.13 (0.50, 1.36)<br>Imai 2016 98 203 154 359 19.5% 1.13 (0.50, 1.36)<br>Imai 2016 98 203 154 359 19.5% 1.13 (0.50, 1.36)<br>Imai 2016 98 203 154 359 19.5% 1.13 (0.50, 1.36)<br>Imai 2016 98 203 154 359 19.5% 1.13 (0.50, 1.36)<br>Imai 2016 91 64 27 72 253 774 7.2% 0.37 (0.64, 1.46)<br>Lu 2015 27 44 11 8 29 13.5% 1.34 (1.61, 1.76)<br>Mao 2017 15 16 4.5 77 12.07 .7% 1.50 (0.5, 1.53)<br>Valuanabe 2019 16 4.5 77 12.0 0.71% 1.13 (0.56, 1.63)<br>Valuanabe 2019 16 4.5 77 12.0 0.71% 1.155 (0.54, 1.46)<br>Valuanabe 2011 17 43 35 78 6.9% 0.28 (0.57, 1.37)<br>Teal (95% C) 590 1779 100.0% 1.10 (0.36, 1.53)<br>Valuanabe 2011 17 43 35 78 6.9% 0.28 (0.57, 1.37)<br>Teal (95% C) 590 1709 100.0% 1.10 (0.36, 1.26)<br>Valuanabe 2019 16 4.5 113 2.25 113 2.25 1156 1.44 (1.16, 1.69)<br>Valuanabe 2019 16 4.5 113 2.25 113 2.55 1156 1.44 (1.16, 1.69)<br>Valuanabe 2019 16 4.5 113 2.55 11.55 1.55 1.41 (1.10, 2.42)<br>Valuanabe 2016 4.5 1.39 (P.0.11) P = 2.35 (1.55, 1.15, 1.74]<br>Valuanabe 2017 13 2.4 74 2.21 6.4% 1.136 (0.57, 1.74]<br>Valuanabe 2016 9.5 13 2.5 553 4.20 8.55 1.15 (0.57, 1.74]<br>Valuanabe 2017 13 2.4 74 2.21 6.4% 1.146 (0.57, 2.49]<br>Valuanabe 2016 9.5 139 4.3% 1.146 (0.57, 2.41]<br>Valuanabe 2016 9.5 139 4.3% 1.138 (1.12, 2.56)<br>Mao 2017 13 2.4 74 2.21 6.4% 1.146 (0.57, 2.44)<br>Val  
   | 4.5 Propertive chem<br>Chen 2022<br>Deng 2023<br>Inoue 2019<br>Kaibot 2011<br>Lin 2017<br>Liu 2015<br>Mao 2015<br>San 2014<br>Watanabe 2019<br>Wong 2022<br>Total (98% CI)<br>Total events<br>Heterogeneity: Tau <sup>2</sup> = 0.<br>Test for overall effect: 2<br>4.6 Postoperative chem   | Events<br>otherap<br>64<br>135<br>30<br>20<br>41<br>27<br>63<br>65<br>24<br>30<br>51<br>50<br>50<br>600<br>03; Chi <sup>p</sup> =<br>1.55 (P   | Total<br>94<br>181<br>86<br>48<br>80<br>136<br>108<br>177<br>42<br>66<br>124<br>155<br>1297<br>= 26.11, +<br>= 0.12)<br>by  
   
   | 40<br>106<br>58<br>34<br>41<br>22<br>82<br>22<br>6<br>30<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80   | Total<br>50<br>142<br>209<br>71<br>195<br>78<br>18<br>86<br>157<br>39<br>1309<br>P = 0.0  | 12.8%<br>14.9%<br>7.9%<br>6.8%<br>9.2%<br>5.1%<br>7.0%<br>3.2%<br>7.0%<br>3.5%<br>10.7%<br>3.5%<br>100.0%<br>06); I <sup>2</sup> = 58  
   | M.H. Random, 95% CI<br>0.65 (0, 70, 1.04)<br>1.00 (0.88, 1.14)<br>1.00 (0.88, 1.81)<br>0.87 (0.88, 1.83)<br>1.57 (0.88, 1.83)<br>1.58 (0.82, 2.59)<br>1.30 (0.87, 1.59)<br>1.30 (0.87, 1.59)<br>1.30 (0.87, 1.59)<br>1.57 (0.81, 3.04)<br>1.12 (0.97, 1.28)<br>3.20 (1.61, 6.61)   |                     |  |  |   |   |   |  
  |  |  |                   |
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   | 4.5 Prosperative deem<br>Chen 2022<br>Deng 2023<br>Inoue 2019<br>Kaibot 2011<br>Lainahomad 2015<br>Lin 2017<br>Mao 2015<br>Mao 2015<br>Wang 2022<br>Wang 2022<br>Valande 2019<br>Total (49% CI)<br>Total (49% CI)  | Events<br>otherap<br>64<br>135<br>30<br>20<br>41<br>27<br>63<br>65<br>24<br>30<br>51<br>50<br>600<br>03; Chi <sup>2</sup> :<br>= 1.55 (P<br>notherap<br>86<br>62   | Total<br>9 94 181 86 48 80 136 108 177 42 66 124 155 1297 = 26.11, + = 0.12) 9 192 88   
   
   | Events<br>40<br>106<br>58<br>34<br>41<br>22<br>82<br>22<br>6<br>30<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>8  | Total           50           142           209           71           93           171           195           78           18           86           157           39           1309           P = 0.0           51           56   | 12.8%<br>14.9%<br>7.9%<br>6.8%<br>9.2%<br>5.1%<br>11.7%<br>7.0%<br>3.2%<br>7.3%<br>10.7%<br>3.5%<br>100.0%<br>06); P = 54<br>4.2%<br>11.3%   
   | MH. Random. 95% CI<br>0.65 (0.70, 1.04)<br>1.00 (0.88, 1.14)<br>1.07 (0.88, 1.32)<br>0.67 (0.58, 1.32)<br>1.64 (0.82, 2.59)<br>1.54 (1.00, 0.87, 1.59)<br>1.36 (1.10, 1.74)<br>1.30 (1.10, 1.74)<br>1.30 (1.10, 1.74)<br>1.30 (1.00, 0.88, 1.33)<br>0.81 (0.62, 1.06)<br>1.57 (0.81, 3.04)<br>1.57 (0.81, 3.04)<br>3.26 (1.61, 6.61)<br>0.94 (0.77, 1.16)  |                     |  |  |   |   |   |   |  |   
  |                   |
| Lin 2017 35 228 14 81 5.6% 0.20 (D.5, 1.58)<br>Lin 2017 35 228 14 81 5.6% 0.20 (D.5, 1.58)<br>Sun 2014 38 105 24 48 8.1% 0.26 (D.4, 0.36)<br>Wring 2021 43 12 15 62 6.4% 1.35 (D.6, 0.57)<br>Wring 2022 43 12 15 15 62 6.4% 1.35 (D.6, 0.57)<br>Wring 2022 44 12 15 15 62 6.4% 1.35 (D.6, 0.57)<br>Total (8%, C) 212 45 47 40 0.00 $\cdot$ 0.33 (D.7, 1.56)<br>Deng 2023 59 11 16 5 242 21 55 0.000 (J. $\mu$ 7 24%<br>Test for overall effect 2 - 0.82 ( $\mu$ = 0.40)<br>16 42 72 253 7.2% 1.34 (D.6, 1.66)<br>Lin 2017 16 45 71 20 7.1% 1.35 (D.6, 1.66)<br>Wring 2021 16 42 71 18 2.90 (D.1); $\mu$ 7 24%<br>Test for overall effect 2 - 0.82 ( $\mu$ = 0.40)<br>Kabor 0.311 20 45 34 74 7.8% 0.27 (D.6, 1.64)<br>Lin 2017 16 45 71 20 7.1% 1.35 (D.6, 1.63)<br>Wring 2021 59 176 4.00 $\cdot$ 1.10 (0.46), 1.36 ( $\mu$ 4.16)<br>Wring 2021 59 172 41 18 2.90 (D.5, 1.63)<br>Wring 2021 59 172 41 18 2.90 (D.5, 1.63)<br>Wring 2021 59 19 21 41 4.7% 0.22 (D.5, 1.63)<br>Wring 2017 16 45 71 20 7.1% 1.35 (D.6, 1.63)<br>Wring 2017 16 45 71 20 7.1% 1.35 (D.6, 1.63)<br>Wring 2017 16 45 71 20 0.1% $\mu$ 1.10 (D.6, 1.64)<br>Wring 2017 16 45 71 20 0.1% $\mu$ 1.10 (D.6, 1.64)<br>Wring 2017 16 45 71 20 0.1% $\mu$ 1.10 (D.6, 1.62)<br>Wring 2016 13 28 113 23 115% 1.44 (1.06, 1.66)<br>Wring 2017 16 45 71 20 0.1% $\mu$ 1.10 (D.6, 1.62)<br>Wring 2017 16 45 71 20 0.1% $\mu$ 1.10 (D.6, 1.62)<br>Wring 2017 16 45 71 20 0.1% $\mu$ 1.10 (D.6, 1.62)<br>Wring 2017 16 28 50 170 910.00% 1.10 (D.6, 1.22)<br>Wring 2021 13 28 78 6.5% 1.15 (D.7, 1.47)<br>Wring 2023 130 102 111 61 55.5% 1.15 (D.7, 1.47)<br>Wring 2023 130 102 111 61 55.5% 1.15 (D.7, 1.47)<br>Wring 2023 132 122 19 28 37 39 4.5% 1.13 (1.16, 1.22)<br>Wring 2023 132 102 114 12 18 (1.5, 1.42)<br>Wring 2023 132 102 114 10 35.5% 1.57 (D.7, 1.47)<br>Wring 2023 132 102 114 10 35.5% 1.57 (D.7, 1.47)<br>Wring 2023 150 12 28 9 91 617 700.0% 1.28 (1.16, 1.42)<br>Wring 2023 132 102 116 0.15 (1.16, 1.57, 1.47)<br>Wring 2023 150 12 28 99 617 70 0.0% 1.28 (1.16, 1.42)<br>Wring 2023 150 12 28 99 6167 70 0.0% 1.28 (1.16, 1.42)<br>Wring 2016 150 59 161 70 0.0% 1.28 (1.16, 1.51, 1.47)<br>Wring 2016 19 75 156 12 40 10 156 551 1.15 (D.7, 1.47]<br>Wring  
   | 4.5 Properative deem<br>Chen 2022<br>Deng 2023<br>Isoua 2010<br>Kabot 3014<br>Kabot 3014<br>Kabot 3014<br>Kabot 3014<br>Kabot 3014<br>Kabot 3014<br>Kabot 3015<br>Kabot 3015<br>Kab  | Events<br>otherap<br>64<br>135<br>30<br>20<br>41<br>127<br>63<br>65<br>24<br>30<br>51<br>50<br>600<br>03; Chi <sup>p</sup><br>= 1.55 (F<br>notherap<br>86<br>62<br>152<br>210  | Total<br>94<br>181<br>86<br>48<br>80<br>136<br>108<br>177<br>42<br>66<br>124<br>155<br>1297<br>= 26.11, 1<br>= 0.12)<br>99<br>192<br>88<br>213<br>467   
   
   | Events<br>40<br>106<br>58<br>34<br>41<br>122<br>82<br>22<br>6<br>30<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>8   | Total           50           142           209           71           93           171           195           78           88           157           39           1309           P = 0.0           51           56           110           95   | 12.8%<br>14.9%<br>7.9%<br>6.8%<br>9.2%<br>5.1%<br>11.7%<br>7.0%<br>3.2%<br>7.3%<br>10.7%<br>10.7%<br>10.0%<br>06); I <sup>2</sup> = 58<br>4.2%<br>11.3%<br>12.4%<br>11.3%  
   | MH. Random. 95% CL<br>0.85 (0.70, 1.04)<br>1.00 (0.88, 1.14)<br>1.26 (0.88, 1.82)<br>1.07 (0.88, 1.82)<br>1.07 (0.86, 1.82)<br>1.07 (0.86, 1.82)<br>1.08 (1.06, 1.92)<br>1.08 (1.06, 1.92)<br>1.09 (1.01, 1.74)<br>1.09 (0.86, 1.93)<br>1.09 (1.01, 1.74)<br>1.09 (0.86, 1.93)<br>1.09 (0.86, 1.93)<br>1.09 (0.87, 1.93)<br>1.12 (0.97, 1.03)<br>3.26 (1.85, 6.61)<br>0.08 (0.77, 1.15)<br>0.86 (0.75, 1.04)<br>1.02 (0.77, 1.30)  |                     |  |  |   |   |   |   |  |   
  |                   |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  
   | 4.5 Prosperative chem<br>Chem 2022<br>Deng 2023<br>Incoue 2019<br>Kalbort 2014<br>Lin 2017<br>Lin 2015<br>Maria 2015<br>Sun 2014<br>Viatanabe 2019<br>Viatanabe 2019<br>Viatanabe 2019<br>Viatanabe 2019<br>Viatanabe 2019<br>Viatanabe 2019<br>Line Stro overall effect 2<br>4.6 Postoperative chem<br>Bhogal 2015<br>Chem 2022<br>Chem 2022<br>Chem 2022<br>Viata<br>Heterogenehy: Tau'e -0.<br>Chem 2022<br>Chem 2022<br>Viata<br>Heterogenehy: Tau'e -0.<br>Chem 2022<br>Chem 2022<br>Chem 2022<br>Viata<br>Heterogenehy: Tau'e -0.<br>Chem 2022<br>Viata<br>Het   | Events<br>otherap<br>64<br>135<br>30<br>20<br>20<br>20<br>41<br>27<br>63<br>65<br>54<br>30<br>51<br>50<br>600<br>03; Chi <sup>2</sup> +<br>24<br>30<br>51<br>50<br>600<br>03; Chi <sup>2</sup> +<br>24<br>30<br>51<br>50<br>86<br>62<br>21<br>20<br>20<br>33<br>31<br>51<br>51<br>50<br>50<br>51<br>51<br>50<br>50<br>51<br>51<br>50<br>50<br>51<br>51<br>50<br>50<br>50<br>51<br>51<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50<br>50   | Total           y         94           181         86           48         80           136         108           107         42           66         124           155         1297           = 26.11,         128           2137         192           192         28           213         467           128         172   
   
   | Events<br>40<br>106<br>58<br>34<br>41<br>22<br>26<br>6<br>30<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>81<br>11 (()<br>7<br>7<br>7<br>7<br>42<br>82<br>82<br>82<br>82<br>82<br>82<br>82<br>82<br>82<br>82<br>82<br>82<br>82   | Total           500           142           209           71           93           1711           1955           18           86           157           39           1309           P = 0.0           51           56           110           95           105  | 12.8%<br>14.9%<br>7.9%<br>6.8%<br>9.2%<br>5.1%<br>11.7%<br>7.3%<br>10.7%<br>3.5%<br>100.0%<br>06); P = 58<br>4.2%<br>11.3%<br>12.4%<br>12.4%<br>12.4%<br>12.4%   
   | MH H Random, 95% CI<br>0.65 (07, 0.04)<br>1.09 (0.86 1.14)<br>1.09 (0.86 1.14)<br>1.09 (0.86 1.14)<br>1.09 (0.86 1.14)<br>1.07 (0.86 1.32)<br>1.16 (0.86 1.54)<br>1.16 (0.86 1.54)<br>1.16 (0.86 1.54)<br>1.30 (0.81 0.54)<br>1.30 (0.81 0.54)<br>1.30 (0.81 0.54)<br>1.20 (0.97, 1.28)<br>3.26 (1.61, 6.61)<br>0.84 (0.77, 1.55)<br>0.84 (0.77, 1.55)<br>0.85 (0.75, 1.55)<br>0.85  |                     |  |  |   |   |   |   |  |   
  |                   |
| Watermade 2019         52         149         79         132         10.3%         0.0.36         0.45         0.57         0.36         0.45         0.57         0.37   
   | 4.5 Properative deem<br>Chen 2022<br>Deng 2023<br>Isoua 2019<br>Lainaboned 2015<br>Lin 2017<br>Liu 2015<br>Nama 204<br>Wang 2024<br>Wang 2024<br>Wang 2024<br>Valanabe 2019<br>Wang 2024<br>Chell (disht)<br>Chell (disht)<br>Chell (disht)<br>Chell (disht)<br>Chen 2015<br>Chen 2025<br>Deng 2015<br>Chen 2025<br>Deng 2016<br>Liu 2016<br>Deng 2016<br>Chen 2021<br>Deng 2016<br>Liu 2016   | Events<br>otherap<br>64<br>135<br>30<br>20<br>20<br>41<br>27<br>63<br>365<br>24<br>30<br>03; Chi <sup>2</sup> P<br>= 1.55 (Chi<br>50<br>600<br>03; Chi <sup>2</sup> A<br>= 1.55 (Chi<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>50<br>21<br>21<br>50<br>21<br>21<br>50<br>21<br>21<br>50<br>21<br>21<br>21<br>21<br>21<br>21<br>21<br>21<br>21<br>21   | Total<br>y<br>y<br>94<br>181<br>86<br>48<br>80<br>136<br>108<br>136<br>108<br>107<br>42<br>66<br>61<br>124<br>155<br>1297<br>28.11,<br>155<br>1297<br>192<br>88<br>213<br>467<br>192<br>81<br>194<br>194<br>194<br>194<br>195<br>194<br>195<br>196<br>196<br>196<br>196<br>196<br>196<br>196<br>196   
   
   | Events<br>400<br>106<br>588<br>344<br>411<br>222<br>6<br>300<br>8<br>8<br>529<br>9<br>42<br>55<br>518<br>42<br>42<br>55<br>518<br>529<br>9<br>82<br>529<br>9<br>82<br>529<br>9<br>82<br>529<br>9<br>82<br>529<br>529<br>529<br>529<br>529<br>529<br>529<br>52  | Total           50           142           209           71           93           171           195           78           18           86           157           39           1309           P = 0.0           51           56           110           95           167           105           63   | 12.8%<br>14.9%<br>7.9%<br>6.8%<br>9.2%<br>5.1%<br>11.7%<br>3.2%<br>7.3%<br>10.7%<br>3.5%<br>100.0%<br>06); l <sup>2</sup> = 53<br>4.2%<br>11.3%<br>12.4%<br>10.5%<br>8.4%<br>4.4%<br>7.9%  
   | MH. Random. 95% CI.<br>0.65 (0.70, 1.04)<br>1.00 (2.68, 1.14)<br>1.26 (2.68, 1.81)<br>1.26 (2.68, 1.81)<br>1.26 (2.68, 1.81)<br>1.16 (2.68, 1.81)<br>1.16 (2.68, 1.81)<br>1.36 (1.10, 1.74)<br>1.30 (1.10, 1.74)<br>1.30 (1.10, 1.74)<br>1.30 (1.00, 2.81, 330)<br>1.77 (0.68, 3.47)<br>1.77 (0.68, 3.47)<br>1.72 (0.68, 3.47)<br>1.72 (0.68, 3.47)<br>1.72 (0.68, 3.47)<br>1.72 (0.67, 1.30)<br>0.84 (0.77, 1.15)<br>0.84 (0.77, 1.15)<br>0.85 (0.75, 1.15)<br>0.85 (   |                     |  |  |   |   |   | | | | | | | | | | | |
  |  |  |                   |
| Total (85% C0)     2126     1074     100.0%     0.33 (0.78, 1.11)       Total events     477     458       Heterogramely: Tau' = 0.06; CPi + 24.20; CP = 0.40); P = 74%;       Tail boot ransitioni     115     24.2       Dail     271 Boot ransitioni     115       Dail     272     253       Valuationi     271     253       Dail     271     253       Valuatia     271     134       Dail     128     253       Valuatia     271     134       Dail     277     803       Heterogramely: Tau' = 0.01; CPi = 13.00, df = 8 (P = 0.11); P = 39%;       Lett for overall effects     21.39       Heterogramely: Tau' = 0.01; CPi = 13.00, df = 8 (P = 0.11); P = 39%;       Lail events     277       Bail     276       Bail     276       Bail     21.19       Lail events     21.19       Lail events     21.19   | 4.5 Properative chem<br>Chen 2022<br>Deng 2023<br>Isoua 2019<br>Lainaborned 2015<br>Lainaborned 2015<br>Lainaborned 2015<br>Lainaborned 2015<br>Lainaborned 2015<br>Naria 2015<br>Walanabe 2019<br>Walanabe 2019<br>Walanabe 2019<br>Chem 2022<br>Total (9%, CI)<br>Total events<br>Dispersion Chem 2015<br>Chem 2022<br>Deng 2023<br>Imia 2016<br>Isoua 2019<br>Isoua 2   | Events<br>totherapg<br>64<br>135<br>300<br>200<br>201<br>41<br>27<br>63<br>30<br>41<br>27<br>63<br>50<br>600<br>003; Chi <sup>2</sup> +<br>1.55 (P<br>600<br>003; Chi <sup>2</sup> +<br>1.55 (P<br>600<br>1.55 (P<br>1.55 (P)))))))))))))))))))))))))))))))))))   | Total           y         94           181         86           48         80           136         136           108         177           42         66           124         155           1297         192           192         192           56         226           213         172           56         226           197         197  | 400<br>106<br>588<br>344<br>411<br>22<br>222<br>60<br>300<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>8   | Total           50           142           209           71           93           171           195           78           186           157           39           1309           P = 0.0           51           56           105           63           105           63           106   | $\begin{array}{c} 12.8\% \\ 14.9\% \\ 7.9\% \\ 6.8\% \\ 9.2\% \\ 5.1\% \\ 11.7\% \\ 3.5\% \\ 10.7\% \\ 3.5\% \\ 100.0\% \\ 100.0\% \\ 10.6\% \\ 11.3\% \\ 12.4\% \\ 11.3\% \\ 12.5\% \\ 8.4\% \\ 4.4\% \\ 7.9\% \\ 5.6\% \\ 10.5\% \end{array}$  | MH. Random. 95% CI<br>0.65 (0.70, 1.04)<br>1.00 (2.68, 1.14)<br>1.00 (2.68, 1.14)<br>1.00 (2.68, 1.14)<br>1.00 (2.68, 1.14)<br>1.00 (2.68, 1.14)<br>1.16 (2.68, 1.14)<br>1.16 (2.68, 1.14)<br>1.16 (2.68, 1.14)<br>1.17 (1.08, 3.47)<br>1.30 (1.10, 1.74)<br>1.30 (1.10, 1.74)<br>1.30 (1.0, 1.74)<br>1.12 (2.67, 1.20)<br>0.94 (0.77, 1.15)<br>0.86 (7.7, 1.30)<br>0.47 (1.20, 1.30)<br>0.47 (   |                     |  |  |   |   |   |   |  |  |                   |
| Total events 467 458<br>Heterogeneity: Tare 100 Ctrl + 2 503 47 47 48 00001; $\mu$ = 74%<br>Test for overall effect 2 = 0.85 ( $\mu$ = 0.40) 42 21.5%<br>Deng 2023 56 21 185 263 19.5% 1.13 10.35, 1.36<br>Heterogeneity: Tare 100 Ctrl + 7.4%<br>Mac 2017 16 45 71 20 7.1% 10.26, 1.43<br>Mac 2017 16 45 71 20 7.1% 10.56, 1.63<br>Mac 2017 16 45 71 20 7.1% 10.56, 1.64<br>Deng 2023 10 162 111 16 15.5% 11.16 [1.02, 1.32]<br>Mac 2017 13 24 74 22 6.5% 11.16 [1.02, 1.32]<br>Mac 2017 13 24 74 22 6.5% 11.56 [1.7, 2.46]<br>Mac 2017 13 24 74 22 6.5% 11.56 [1.7, 2.46]<br>Mac 2017 13 24 74 22 6.5% 11.56 [1.7, 2.46]<br>Mac 2017 13 24 74 22 6.5% 11.56 [1.7, 2.46]<br>Mac 2017 13 24 74 22 6.5% 11.56 [1.7, 7.44]<br>Mac 2017 13 24 74 22 6.5% 11.56 [1.7, 7.44]<br>Mac 2017 13 24 74 22 6.5% 11.56 [1.7, 7.44]<br>Mac 2017 13 24 74 22 6.5% 11.56 [1.7, 7.44]<br>Mac 2017 13 24 74 22 6.5% 11.56 [1.7, 7.44]<br>Mac 2017 13 24 74 22 6.5% 11.56 [1.7, 7.44]<br>Mac 2017 13 24 74 22 6.5% 11.56 [1.7, 7.44]<br>Mac 2017 13 24 74 22 6.5% 11.56 [1.7, 7.44]<br>Mac 2017 13 24 74 22 6.5% 11.56 [1.7, 7.44]<br>Mac 2017 13 24 74 22 6.5% 11.56 [1.7, 7.44]<br>Mac 2017 13 24 74 22 6.5% 11.56 [1.7, 7.44]<br>Mac 2017 13 24 74 22 6.5% 11.56 [1.7, 7.44]<br>Mac 2017 13 24 74 22 6.5% 11.56 [1.7, 7.44]<br>Mac 2017 13 24 74 22 6.5% 11.56 [1.7, 7.44]<br>Mac 2017 13 24 74 22 6.5% 11.56 [1.7, 7.44]<br>Mac 2017 13 24 74 22 6.5% 11.56 [1.7, 7.44]<br>Mac 2017 13 24 74 22 6.5% 11.56 [1.7, 7.44]<br>Mac 2017 13 24 74 22 6.5% 11.56 [1.7   | 4.5 Properative dem<br>Chen 2022<br>Deng 2023<br>Isoua 2019<br>Kabot 3014<br>Kabot 3014<br>Kabot 3014<br>Kabot 3014<br>Kabot 3014<br>Kabot 3014<br>Kabot 3015<br>Kabot 3015<br>Kabot 3015<br>Naria 2015<br>Kabot 3015<br>Heterogeneity: Tau's -0.<br>Total events<br>Heterogeneity: Tau's -0.<br>Total events<br>Heterogeneity: Tau's -0.<br>Total events<br>Heterogeneity: Tau's -0.<br>Total events<br>Heterogeneity: Tau's -0.<br>Heterogeneity: Tau's -  | Events<br>otherapy<br>64<br>135<br>30<br>20<br>41<br>27<br>63<br>65<br>24<br>30<br>51<br>50<br>600<br>600<br>51<br>50<br>600<br>600<br>51<br>55<br>24<br>30<br>51<br>55<br>24<br>30<br>51<br>55<br>24<br>30<br>51<br>55<br>24<br>30<br>66<br>60<br>61<br>86<br>64<br>61<br>87<br>80<br>61<br>80<br>80<br>81<br>80<br>81<br>81<br>81<br>81<br>81<br>81<br>81<br>81<br>81<br>81<br>81<br>81<br>81  | Total           y         94           181         86           108         136           1297         1297           = 26.11,            = 26.11,            y         94           1297         192           x0         123           467         124           1297         192           201         213           467         125           1222         226           197         106           149         149  | Events           40           106           58           34           41           22           6           300           80           80           529           df = 11.0           7           7           7           7           7           7           7           7           7           7           7           7           7           18           24           49           24           49           24           49           24           49           24           79   | Total<br>50<br>142<br>209<br>71<br>195<br>78<br>8<br>86<br>157<br>39<br>1309<br>P = 0.0<br>51<br>56<br>100<br>95<br>167<br>105<br>381<br>106<br>381<br>106<br>46<br>46<br>4132  | 12.8%<br>14.9%<br>7.9%<br>6.8%<br>7.9%<br>5.1%<br>7.0%<br>3.2%<br>10.7%<br>3.5%<br>100.0%<br>4.2%<br>11.3%<br>8.4%<br>8.4%<br>8.4%<br>8.4%<br>8.1%<br>8.1%   | MH. Random. 95% CL<br>0.65 (0.70, 1.04)<br>1.00 (0.88, 1.14)<br>1.00 (0.88, 1.81)<br>0.67 (0.58, 1.82)<br>0.67 (0.58, 1.82)<br>0.67 (0.58, 1.82)<br>1.16 (0.02, 2.59)<br>1.36 (1.10, 1.74)<br>1.30 (1.10, 1.74)<br>1.30 (1.10, 1.74)<br>1.30 (1.00, 2.75)<br>0.68 (1.33)<br>0.68 (1.53)<br>0.68 (1.66, 661)<br>1.12 (0.97, 1.30)<br>0.94 (0.77, 1.15)<br>0.96 (0.77, 1.30)<br>0.78 (0.54, 1.33)<br>0.47 (1.24, 0.31)<br>0.47 (   |                     |  |  |   |   |   |   |  |  |                   |
| Test for overall effect 2 = 0.5 (P = 0.40)<br><b>2.7 Blood transformation</b><br>Deng 2023 56 81 185 242 21.5% 0.00 [0.77, 1.06]<br>Invaa 2010 98 2013 154 399 19.5% 1.13 [0.87, 2.06]<br>Invaa 2010 18 42 72 23 7.2% 1.34 [0.87, 2.06]<br>Invaa 2010 18 42 72 23 7.2% 1.34 [0.87, 2.06]<br>Invaa 2010 18 42 72 23 7.2% 1.34 [0.87, 2.06]<br>Invaa 2010 18 42 72 23 7.2% 1.34 [0.87, 2.06]<br>Invaa 2017 16 45 71 210 7.1% 1.35 [0.85, 1.63]<br>Mao 2017 16 45 71 210 7.1% 0.32 [0.55, 1.62]<br>Watamaba 2019 18 28 113 223 11.6% 1.44 [1.06, 1.66]<br>Watamaba 2019 18 28 113 223 11.6% 1.44 [1.06, 1.66]<br>Watamaba 2019 18 28 113 223 11.6% 1.44 [1.06, 1.66]<br>Watamaba 2019 19 82 113 223 11.6% 1.44 [1.06, 1.66]<br>Watamaba 2019 19 82 113 223 11.6% 1.44 [1.06, 1.66]<br>Heterogenety: Tar 4 = 0.01; Chi <sup>2</sup> = 1.30, df = 0 (P = 0.11); F = 39%<br>Test for overall effect 2 = 1.39 (P = 0.11); F = 39%<br>Test for overall effect 2 = 1.39 (P = 0.11); F = 39%<br>Mao 2017 13 24 74 221 6.4% 1.132 [1.06, 1.64]<br>Deng 2023 10 162 111 161 35.9% 1.171 [1.02, 1.32]<br>Mao 2017 13 24 74 221 6.4% 1.169 [1.12, 2.56]<br>Mao 2017 13 24 74 221 6.4% 1.169 [1.12, 2.56]<br>Mao 2017 13 24 74 221 6.5% 1.151 [7.7, 1.74]<br>Vajanba 2021 19 128 37 38 4.3% 1.128 [1.15, 1.42]<br>Total events 25 53<br>Total events 25 53<br>Total events 25 53<br>Total events 26 53<br>Total events 26 53 56 1.55 76, 74 74 74 74 74 74 74 74 74 74 74 747 74 74   
   | 4.5 Prosperative deem<br>Chen 2022<br>Deng 2023<br>Iliouae 2019<br>Kabot 2014<br>Liu 2015<br>Mao 2017<br>Liu 2015<br>Mao 2017<br>Narita 2015<br>Sun 2014<br>Watanabe 2019<br>Watanabe 2019<br>Watanabe 2019<br>Watanabe 2019<br>Total (95% CI)<br>Total (95% CI)<br>Total events<br>Heterogonehy: Trai = 0.<br>Test for overal effect: 2<br>A.6 Postoperative chen<br>Bhogal 2015<br>Chen 2022<br>Deng 2020<br>Heterogonehy: Trai = 0.<br>Chen 2022<br>Deng 2020<br>Heterogonehy: Trai = 0.<br>Chen 2020<br>Chen 2020<br>Sun 2014<br>Kabot 2011<br>Liu 2015<br>Kabot 2011<br>Liu 2015<br>Kabot 2011<br>Liu 2015<br>Kabot 2011<br>Liu 2015<br>Kabot 2011<br>Liu 2015<br>Sun 2014<br>Weng 2022   | Events<br>otherapy<br>64<br>135<br>30<br>20<br>41<br>27<br>63<br>65<br>24<br>30<br>51<br>50<br>600<br>600<br>51<br>50<br>600<br>600<br>51<br>55<br>24<br>30<br>51<br>55<br>24<br>30<br>51<br>55<br>24<br>30<br>51<br>55<br>24<br>30<br>66<br>60<br>61<br>86<br>64<br>61<br>87<br>80<br>61<br>80<br>80<br>81<br>80<br>81<br>81<br>81<br>81<br>81<br>81<br>81<br>81<br>81<br>81<br>81<br>81<br>81  | Total<br>y<br>94<br>181<br>181<br>184<br>186<br>108<br>177<br>42<br>66<br>124<br>155<br>1297<br>1297<br>192<br>82<br>213<br>467<br>128<br>172<br>55<br>1297<br>128<br>1297<br>128<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>12888<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>12  
   
   | Events           40           106           58           34           41           22           6           300           80           80           529           df = 11.0           7           7           7           7           7           7           7           7           7           7           7           7           7           18           24           49           24           49           24           49           24           49           24           79   | Total<br>50<br>142<br>209<br>71<br>193<br>171<br>195<br>78<br>18<br>86<br>157<br>39<br>1309<br>P = 0.0<br>51<br>56<br>110<br>95<br>167<br>105<br>63<br>81<br>106<br>63<br>81<br>106<br>61<br>32<br>62   | 12.8%, 14.9%<br>14.9%, 7.9%, 6.8%, 9.2%, 5.2%, 7.3%, 11.7%, 7.3%, 10.7%, 7.3%, 10.7%, 13.5%, 10.0%, 12.4%, 8.4%, 7.9%, 5.5%, 8.4%, 10.5%, 8.1%, 10.5%, 8.1%, 10.5%, 8.1%, 10.5%, 8.1%, 10.5%, 10.3%, 6.4%, 10.3%, 6.4%, 10.3%, 10.3%, 10.3%, 10.3%, 10.3%, 10.3%, 10.3%, 10.3%, 10.3%, 10.3%, 10.3%, 10.3\%, 10.3\%, 10.3\%, 10.3\%, 10.3\%, 10.3\%, 10.3\%, 10.3\%, 10.3\%,
10.3\%,   | MH Random, 95% CI<br>0.65 (0, 70, 10-4)<br>1.00 (0.86, 11-4)<br>1.00 (0.86, 11-4)<br>1.00 (0.86, 11-4)<br>1.00 (0.86, 11-4)<br>1.00 (0.87, 11-5)<br>1.16 (0.85, 13-9)<br>1.16 (0.85, 13-9)<br>1.16 (0.87, 13-9)<br>1.10 (0.87, 13-9)<br>1.10 (0.87, 13-9)<br>1.10 (0.87, 13-9)<br>1.12 (0.97, 12-8)<br>1.12 (0.97,  |                     |  |  |   |   |   |  
  |  |  |                   |
| 4.7 Biod transfusion         Demp 2023       56       61       155       242       21.5%       0.50       0.07,7,106         Innai 2016       98       203       154       399       19.5%       1.13       0.03,136         Incue 2019       16       42       72       253       74       7.2%       1.34       0.87,2.66         Kaber 0211       20       45       34       74       7.2%       0.37       0.56,1.46         Lu2015       27       44       118       291       1.5%       1.35       0.51,1.76         Max 03015       16       49       71       201       7.1%       1.05       0.48,1.05,1.76         Valinande 2015       16       50       1105       1.44       1.15%       1.44       1.45         Valinande 2015       16       1.39       1.05       1.44       1.05       1.44       1.65       1.44         Valinande 2015       50       1709       10.00%       1.10       0.88       1.57,1.37         Chaid events       207       803       1.15%       1.44       1.65       1.44       1.65       1.41       1.65       1.41       1.65       1.41       1.65<  | 4.5 Properative chem<br>Chen 2022<br>Deng 2023<br>Isoua 2019<br>Lainaborned 2015<br>Lin 2017<br>Liu 2015<br>Narra 2015<br>Narra 2015<br>Visage 2019<br>Visage 2019<br>Visage 2019<br>Visage 2019<br>Chen 2022<br>Deng 2023<br>Deng 2015<br>Chem 2025<br>Deng 2025  | Events<br>64<br>135<br>30<br>20<br>41<br>27<br>63<br>65<br>24<br>30<br>0<br>35<br>50<br>600<br>600<br>600<br>600<br>03; Chi <sup>2</sup> H<br>50<br>600<br>03; Chi <sup>2</sup> H<br>50<br>600<br>03; Chi <sup>2</sup> H<br>50<br>86<br>62<br>21<br>50<br>33<br>31<br>55<br>21<br>50<br>86<br>62<br>21<br>50<br>83<br>65<br>21<br>50<br>83<br>65<br>21<br>21<br>50<br>83<br>65<br>22<br>24<br>30<br>35<br>50<br>20<br>20<br>21<br>27<br>63<br>30<br>50<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20   | Total<br>y<br>94<br>181<br>181<br>184<br>186<br>108<br>177<br>42<br>66<br>124<br>155<br>1297<br>1297<br>192<br>82<br>213<br>467<br>128<br>172<br>55<br>1297<br>128<br>1297<br>128<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1298<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1297<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>12888<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>1288<br>12  | Events           40           106           58           34           41           22           28           22           6           30           8           529           df = 11.0           7           42           55           89           42           55           14           49           24           79           15   | Total<br>50<br>142<br>209<br>71<br>193<br>171<br>195<br>78<br>18<br>86<br>157<br>39<br>1309<br>P = 0.0<br>51<br>56<br>110<br>95<br>167<br>105<br>63<br>81<br>106<br>63<br>81<br>106<br>61<br>32<br>62   | 12.8%, 14.9%<br>14.9%, 7.9%, 6.8%, 9.2%, 5.2%, 7.3%, 11.7%, 7.3%, 10.7%, 7.3%, 10.7%, 13.5%, 10.0%, 12.4%, 8.4%, 7.9%, 5.5%, 8.4%, 10.5%, 8.1%, 10.5%, 8.1%, 10.5%, 8.1%, 10.5%, 8.1%, 10.5%, 10.3%, 6.4%, 10.3%, 6.4%, 10.3%, 10.3%, 10.3%, 10.3%, 10.3%, 10.3%, 10.3%, 10.3%, 10.3%, 10.3%, 10.3%, 10.3\%,   | MH Random, 95% CI<br>0.65 (0, 70, 10-4)<br>1.00 (0.86, 11-4)<br>1.00 (0.86, 11-4)<br>1.00 (0.86, 11-4)<br>1.00 (0.86, 11-4)<br>1.00 (0.87, 11-5)<br>1.16 (0.85, 13-9)<br>1.16 (0.85, 13-9)<br>1.16 (0.87, 13-9)<br>1.10 (0.87, 13-9)<br>1.10 (0.87, 13-9)<br>1.10 (0.87, 13-9)<br>1.12 (0.97, 12-8)<br>1.12 (0.97,  |                     |  |  |   |   |   |   |  |  |                   |
| mail 2016     98     203     194     596     195%     1.13     [0.03, 1.36]       Kabel 2011     20     45     34     74     7.8%     0.37     [0.68, 1.68]       Kabel 2011     20     45     34     74     7.8%     0.37     [0.68, 1.64]       Mac 2017     16     45     71     201     7.1%     1.05     [0.68, 1.63]       Mac 2017     16     45     71     201     7.1%     1.05     [0.68, 1.63]       Vamashta 2010     9     19     41     415     71%     0.27     [0.68, 1.63]       Vamashta 2011     17     43     35     78     6.9%     0.88     [0.57, 1.37]       Total 69% C0     590     1709     100.0%     1.10     [0.68, 1.25]     1.10       Chall events     277     803     1.15     1.68     1.12     1.10       Chall events     2.13     1.04     -0.11%     F = 39%     1.16     1.16       Chall events     2.13     2.10     1.14     1.11     1.10     1.12       Chall events     2.13     2.10     1.14     1.12     1.12       Chall events     2.13     2.13     1.14     1.14     1.14     1.14   <  
   | 4.5 Properative deem<br>Chen 2022<br>Deng 2023<br>Isoua 2019<br>Kalabanemed 2015<br>Lin 2017<br>Liu 2015<br>Maca 2017<br>Liu 2015<br>Maca 2017<br>Narita 2015<br>Wong 2022<br>Total (95% CI)<br>Total events<br>Helerogenetiky: Tau" = 0.<br>Total versits<br>Company 2015<br>Helerogenetiky: Tau" = 0.<br>Helerogenetiky: Tau" = 0.<br>Helerog  | Events<br>64<br>135<br>30<br>20<br>27<br>63<br>20<br>27<br>63<br>65<br>54<br>30<br>03<br>51<br>50<br>600<br>03<br>51<br>50<br>600<br>03<br>51<br>50<br>600<br>03<br>51<br>50<br>64<br>41<br>50<br>64<br>41<br>50<br>64<br>41<br>50<br>64<br>41<br>50<br>64<br>41<br>50<br>64<br>41<br>50<br>64<br>41<br>50<br>64<br>41<br>50<br>64<br>64<br>41<br>50<br>64<br>64<br>64<br>64<br>64<br>64<br>64<br>64<br>64<br>64   | Total<br>y<br>y<br>4<br>181<br>181<br>181<br>186<br>8<br>8<br>108<br>135<br>108<br>48<br>8<br>00<br>135<br>1297<br>124<br>155<br>1297<br>124<br>155<br>1297<br>124<br>155<br>1297<br>192<br>88<br>213<br>467<br>124<br>155<br>1297<br>192<br>192<br>192<br>192<br>192<br>192<br>192<br>192  
   
   | Events.<br>40<br>106<br>58<br>44<br>41<br>42<br>22<br>22<br>26<br>30<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>8  | Total<br>50<br>142<br>2009<br>71<br>195<br>78<br>18<br>8<br>8<br>18<br>78<br>18<br>8<br>19<br>78<br>19<br>78<br>19<br>57<br>10<br>9<br>9<br>9<br>9<br>1309<br>9<br>9<br>9<br>9<br>1309<br>9<br>9<br>9<br>1309<br>9<br>9<br>1309<br>9<br>9<br>1309<br>9<br>1309<br>9<br>9<br>1309<br>19<br>19<br>3<br>171<br>195<br>8<br>18<br>195<br>195<br>195<br>195<br>195<br>195<br>195<br>195<br>195<br>195  | 12.8%,<br>14.9%<br>7.9%<br>9.2%<br>9.2%<br>7.0%<br>11.7%<br>7.3%<br>100.0%<br>4.2%<br>11.3%<br>11.3%<br>11.3%<br>11.3%<br>10.0%<br>10.5%<br>8.4%<br>10.5%<br>8.4%<br>10.3%<br>6.4%   
   | MH Random, 95% CL<br>0.65 (0, 70, 1.04)<br>1.07 (0, 88, 1.14)<br>1.07 (0, 88, 1.14)<br>1.07 (0, 88, 1.14)<br>1.07 (0, 88, 1.14)<br>1.07 (0, 85, 1.04)<br>1.16 (0, 85, 1.04)<br>1.16 (0, 85, 1.05)<br>1.57 (0, 81, 3.04)<br>1.57 (0, 81, 3.04)<br>0.68 (0, 77, 1.15)<br>0.68 (0, 77, 1.05)<br>0.68 (0, 75, 1.05)<br>0.58 (0, 64, 0, 15)<br>0.58 (0, 64, 0, 05)<br>0.58 (0, 44, 0, 98)<br>0.58 (0, 44, 0, 98)<br>0.58 (0, 44, 0, 98)<br>0.58 (0, 44, 0, 98)<br>0.58 (0, 45, 0, 75)<br>0.59 (0, 76, 1.11)   |                     |  |  |   |   |   |   |  |   
  |                   |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  
   | 4.5 Prosperative deem<br>Chen 2022<br>Deng 2023<br>Inoua 2019<br>Kabot 2015<br>Liu 2015<br>Liu 2015<br>Narita 2015<br>Sun 2014<br>Watanabe 2019<br>Watanabe 2019<br>Watanabe 2019<br>Watanabe 2019<br>Watanabe 2019<br>Totat (95% Ct)<br>Totat events<br>Deng 2023<br>Chen 2023<br>Chen 2023<br>Liu 2015<br>Sun 2014<br>Heterogeneity: Tau" = 0.<br>Esfor overal effect: 2<br>A.6 Postoperative chen<br>Bhogal 2015<br>Chen 2023<br>Liu 2015<br>Sun 2014<br>Watanabe 2019<br>Watanabe 2019<br>Watana   | Events<br>64<br>135<br>30<br>20<br>27<br>63<br>20<br>27<br>63<br>65<br>54<br>30<br>03<br>51<br>50<br>600<br>03<br>51<br>50<br>600<br>03<br>51<br>50<br>600<br>03<br>51<br>50<br>64<br>41<br>50<br>64<br>41<br>50<br>64<br>41<br>50<br>64<br>41<br>50<br>64<br>41<br>50<br>64<br>41<br>50<br>64<br>41<br>50<br>64<br>41<br>50<br>64<br>64<br>41<br>50<br>64<br>64<br>64<br>64<br>64<br>64<br>64<br>64<br>64<br>64   | Total<br>y<br>y<br>4<br>181<br>181<br>181<br>186<br>8<br>8<br>108<br>135<br>108<br>48<br>8<br>00<br>135<br>1297<br>124<br>155<br>1297<br>124<br>155<br>1297<br>124<br>155<br>1297<br>192<br>88<br>213<br>467<br>124<br>155<br>1297<br>192<br>192<br>192<br>192<br>192<br>192<br>192<br>192  
   
   | Events.<br>40<br>106<br>58<br>44<br>41<br>42<br>22<br>22<br>26<br>30<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>8  | Total<br>50<br>142<br>2009<br>71<br>195<br>78<br>18<br>8<br>8<br>18<br>78<br>18<br>8<br>19<br>78<br>19<br>78<br>19<br>57<br>10<br>9<br>9<br>9<br>9<br>1309<br>9<br>9<br>9<br>9<br>1309<br>9<br>9<br>9<br>1309<br>9<br>9<br>1309<br>9<br>9<br>1309<br>9<br>1309<br>9<br>9<br>1309<br>19<br>19<br>3<br>171<br>195<br>8<br>18<br>195<br>195<br>195<br>195<br>195<br>195<br>195<br>195<br>195<br>195  | $\begin{array}{c} 12.8\% \\ 14.9\% \\ 7.9\% \\ 9.2\% \\ 5.8\% \\ 9.2\% \\ 3.5\% \\ 10.0\% \\ 10.0\% \\ 4.2\% \\ 10.7\% \\ 3.5\% \\ 10.7\% \\ 8.1\% \\ 4.2\% \\ 11.3\% \\ 12.4\% \\ 10.0\% \\ 8.1\% \\ 6.4\% \\ 100.0\% \\ 10.5\% \\ 6.4\% \\ 100.0\% \\
100.0\% \\ 100.0\% \\ 100.0\% \\ 100.0\% \\ 100.0\% \\ 100.0\% \\ 100.0\% \\ 100.0\% \\ 100.0\% \\ 100.0\% \\ 100.0\% \\ 100.0\% \\ 100.0\% \\ 100$   | MH Random, 95% CL<br>0.65 (0, 70, 1.04)<br>1.07 (0, 88, 1.14)<br>1.07 (0, 88, 1.14)<br>1.07 (0, 88, 1.14)<br>1.07 (0, 88, 1.14)<br>1.07 (0, 85, 1.09)<br>1.16 (0, 85, 1.09)<br>1.16 (0, 85, 1.09)<br>1.17 (0, 85, 1.07)<br>1.17 (0, 85, 1.07)<br>1.57 (0, 81, 3.04)<br>1.57 (0, 81, 3.04)<br>1.57 (0, 81, 3.04)<br>1.57 (0, 81, 3.04)<br>1.57 (0, 81, 3.04)<br>0.68 (0, 77, 1.15)<br>0.68 (0, 77, 1.00)<br>1.08 (0, 76, 1.00)<br>1.08 (0   |                     |  |  |   |   |   |   |  |  
   |                   |
| Lu 2015 27 44 118 299 13.0% 1.35 (1.0.3, 1.76)<br>Marcia 2015 9 19 21 41 4.7% 0.22 (0.5.3, 1.62)<br>Varianaba 2011 17 43 35 78 6.9% 0.38 (0.5.1, 5.3)<br>Varianaba 2011 17 43 35 78 6.9% 0.38 (0.5.7, 1.37)<br>Varianaba 2011 17 43 35 78 6.9% 0.38 (0.5.7, 1.37)<br>Total (9% C) C) 550 1769 00.0% 1.10 (0.38 (0.5.163)<br>Total (9% C) C) 550 1769 00.0% 1.10 (0.38 (0.5.163)<br>C) 4.8 (0.5.163)<br>Total (9% C) C) 550 1769 00.0% 1.10 (0.38 (0.5.163)<br>C) 4.8 (0.5.163)<br>Total (9% C) C) 550 1769 00.0% 1.10 (0.38 (0.5.163)<br>C) 4.8 (0.5.163)<br>C) 4.9 (0.5.163)<br>C) 4.8 (0.5.163)<br>C) 4.1 (0.5.163)  | 4.5 Prosperative deem<br>Chen 2022<br>Deng 2023<br>Inoua 2019<br>Kabot 2011<br>Liu 2017<br>Liu 2017<br>Liu 2017<br>Vatante 2015<br>Vatante 2019<br>Vatanteb 2019<br>Vatanteb 2019<br>Vatanteb 2019<br>Vatanteb 2019<br>Vatanteb 2019<br>Vatanteb 2019<br>Vatanteb 2019<br>Vatanteb 2019<br>Vatanteb 2019<br>Chen 2022<br>Deng 2023<br>Imai 2016<br>Imai 2016<br>Imai 2016<br>Imai 2016<br>Imai 2016<br>Vatante dent<br>Vatante 2019<br>Vatanteb 2019  | Events<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000<br>5000 | Total           y         94           181         184           181         185           136         136           100         136           1297         226           1297         192           19         192           88         213           47         256           226         197           102         2126           2129         2126           24         149           132         2126           242, 36, 0, 400         81   | Events<br>40<br>106<br>58<br>34<br>41<br>12<br>22<br>22<br>6<br>6<br>80<br>80<br>80<br>80<br>80<br>529<br>92<br>4f = 11 (l<br>7<br>7<br>42<br>82<br>82<br>82<br>82<br>82<br>82<br>82<br>82<br>82<br>8  | Total<br>50<br>142<br>209<br>71<br>93<br>171<br>195<br>78<br>8<br>86<br>157<br>78<br>8<br>86<br>157<br>78<br>9<br>1309<br>P = 0.0<br>51<br>156<br>63<br>167<br>105<br>63<br>81<br>170<br>105<br>63<br>81<br>170<br>105<br>63<br>81<br>170<br>105<br>63<br>81<br>105<br>105<br>105<br>105<br>105<br>105<br>105<br>10   | 12.8%,<br>14.9%,<br>7.9%,<br>8.8%,<br>9.2%,<br>5.1%,<br>11.7%,<br>3.2%,<br>7.0%,<br>3.2%,<br>7.0%,<br>3.5%,<br>100.0%,<br>006); P = 51<br>11.3%,<br>4.2%,<br>11.3%,<br>5.6%,<br>10.5%,<br>8.4%,<br>5.6%,<br>10.5%,<br>8.4%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10.5%,<br>10,5%,<br>10,5%,<br>10,5%,<br>10  | MH Random, 95% CL<br>0.65 (0, 70, 1.04)<br>1.06 (0, 88, 1.14)<br>1.07 (0, 88, 1.04)<br>1.16 (0, 88, 1.04)<br>1.17 (0, 88, 3.47)<br>1.07 (0, 88, 3.47)<br>1.07 (0, 88, 3.47)<br>1.07 (0, 88, 3.47)<br>1.07 (0, 87, 1.05)<br>1.57 (0, 81, 3.04)<br>1.57 (0, 87, 1.05)<br>1.57 (0, 87, 1.04)<br>0.48 (0, 77, 1.15)<br>0.48 (0, 77, 1.05)<br>0.48 (0, 77, 1.05)<br>1.41 (0, 42, 2.19)<br>1.41 (0   |                     |  |  |   |   |   |   |  |  |                   |
| Narita         2015         9         9         21         41         4.7%         0.02 (D.53, 1.62)           Vamasha 2011         17         43         35         78         6.9%         0.28 (D.57, 1.57)           Vamasha 2011         17         43         35         78         6.9%         0.28 (D.57, 1.57)           Total (9%, CD)         550         1769         100.0%         1.10 (D.96, 1.42)           Total (9%, CD)         550         100 (D.86)         100 (D.86, 1.42)           Test for overall effect 2 = 1.30 (P = 0.10)         2         78         42         78         1.16 (D.02, 1.32)           Chen 2022         C2         78         42         64         190 %         1.32 (1.06, 1.64)           Demp 2023         130         115         111         101 S5%         1.16 (D.2, 1.32)           Ima 2016         56         109         196         453         1.35 (D.76, 1.74)           Nan 2017         13         24         74         21         6.4%         1.18 [D.2, 1.52]           Na 2017         13         24         74         23         6.4%         1.18 [D.76, 1.74]           Vigario 2021         19         128         37         3  
   | 4.5 Properative chem<br>Chen 2022<br>Deng 2023<br>Isoua 2019<br>Lainaboned 2015<br>Lin 2017<br>Liu 2015<br>Naria 2015<br>Naria 2015<br>Visa 2019<br>Visanabe 2019<br>Visanabe 2019<br>Visanabe 2019<br>Visanabe 2019<br>Chen 2022<br>Deng 2023<br>Deng 2023<br>Deng 2025<br>Deng 2025<br>De  | Events<br>otherapp<br>64<br>135<br>30<br>20<br>20<br>20<br>41<br>27<br>63<br>65<br>50<br>600<br>600<br>600<br>600<br>600<br>600  | Total           y         94           181         88           48         108           175         1297           = 26.11, (15)         1297           = 26.11, (15)         1297           = 26.11, (15)         1297           = 22.128         132           213         467           132         213           467         132           2126         = 0.40)           81         203           42         34   
   
   | Events<br>40<br>106<br>58<br>34<br>41<br>22<br>82<br>82<br>82<br>82<br>82<br>85<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80<br>80  | Total<br>50<br>142<br>2099<br>71<br>93<br>171<br>195<br>78<br>8<br>86<br>157<br>78<br>8<br>86<br>157<br>78<br>8<br>1309<br>P = 0.0<br>511<br>56<br>63<br>81<br>106<br>107<br>46<br>132<br>62<br>107<br>107<br>107<br>107<br>107<br>107<br>107<br>107  | $\begin{array}{c} 12.8\% \\ 14.9\% \\ 7.9\% \\ 7.9\% \\ 7.9\% \\ 7.9\% \\ 7.9\% \\ 7.9\% \\ 7.3\% \\ 10.7\% \\ 3.2\% \\ 10.7\% \\ 3.5\% \\ 100.0\% \\ 10.3\% \\ 4.2\% \\ 10.3\% \\ 6.4\% \\ 10.5\% \\ 10.3\% \\ 6.4\% \\ 10.3\% \\ 6.4\% \\ 10.0\% \\ 10.3\% \\ 6.4\% \\ 10.0\% \\ 10.5\% \\ 7.2\% \\ 7$   
   | MH. Random. 95% CL<br>0.65 (0.70, 1.04)<br>1.07 (0.88, 1.14)<br>1.26 (0.88, 1.14)<br>1.26 (0.88, 1.14)<br>1.26 (0.88, 1.14)<br>1.26 (0.88, 1.26)<br>1.16 (0.88, 1.26)<br>1.16 (0.82, 1.26)<br>1.58 (1.10, 1.74)<br>1.30 (1.10, 1.74)<br>1.30 (1.0, 0.82, 1.39)<br>1.57 (1.03, 0.34)<br>1.57 (1.03, 0.34)<br>1.57 (0.81, 0.34)<br>1.58 (0.87, 1.51)<br>0.41 (0.20, 0.51, 1.53)<br>0.41 (0.20, 0.51, 1.53)<br>0.41 (0.20, 0.51, 1.53)<br>0.43 (0.51, 1.53)<br>0.43 (0.57, 1.16)<br>1.58 (0.41, 2.37)<br>0.43 (0.57, 1.16)<br>1.58 (0.41, 2.76)<br>1.58 (0.   |                     |  |  |   |   |   |   |  |   
  |                   |
| Watantaba 2019         18         28         113         223         11.0%         1.44 (1.06, 1.96)           Vamathia 2011         17         43         57         76         40.06 (%, 1.57), 1.377           Total 69% CD         550         17.79         100.0%         1.10 (0.36, 1.25)           Total events         277         003         100.0%         1.10 (0.36, 1.25)           Heterogonehy: Tau = 0.01; Chie = 13.10, df = 8 (P = 0.11); P = 30%         1.28 (1.06, 1.64)         1.28 (1.06, 1.64)           Chan 2022         62         76         42         68         190.0%         1.32 (1.06, 1.64)           Deng 2023         100         162         111 (H 10         356%         1.13 (B, 106, 1.42)         1.10 (1.12, 2.56)           Maa 2017         13         24         74         21         6.4%         1.16 (1.02, 1.32)         1.10 (1.12, 2.56)           Maa 2017         13         24         74         21         6.4%         1.16 (1.02, 1.32)         1.10 (1.12, 2.56)           Maa 2017         13         24         74         21         6.4%         1.16 (1.02, 1.32)         1.11 (1.12, 2.56)         1.11 (1.12, 2.56)         1.11 (1.12, 2.56)         1.11 (1.12, 2.56)         1.11 (1.12, 2.56)         1.11 (1.12, 2.56) <td>4.5 Properative chem<br/>Chen 2022<br/>Deng 2023<br/>Isoua 2019<br/>Lan 2015<br/>Lan 2017<br/>Lan 2017<br/>Lan 2017<br/>Lan 2017<br/>Lan 2017<br/>Lan 2017<br/>Lan 2017<br/>Lan 2017<br/>Lan 2017<br/>Verse 2019<br/>Verse 2019<br/>Verse 2019<br/>Lan 2017<br/>Lan 2016<br/>Lan 2017<br/>Lan 2016<br/>Lan 2017<br/>Lan 2016<br/>Lan 2016</td> <td>Events<br/>otherapp<br/>64<br/>135<br/>33<br/>20<br/>20<br/>4<br/>33<br/>65<br/>63<br/>65<br/>60<br/>600<br/>33; Chi<sup>2</sup> H<br/>55<br/>60<br/>600<br/>33; Chi<sup>2</sup> H<br/>55<br/>24<br/>30<br/>51<br/>51<br/>52<br/>24<br/>30<br/>51<br/>51<br/>52<br/>24<br/>33<br/>36<br/>55<br/>24<br/>21<br/>43<br/>36<br/>36<br/>55<br/>25<br/>20<br/>20<br/>51<br/>51<br/>52<br/>56<br/>36<br/>36<br/>55<br/>56<br/>36<br/>36<br/>55<br/>56<br/>36<br/>36<br/>56<br/>56<br/>36<br/>56<br/>56<br/>56<br/>56<br/>56<br/>56<br/>56<br/>56<br/>56<br/>56<br/>56<br/>56<br/>56</td> <td>Total           y         94           181         186           48         00           136         124           155         1297           2266         124           155         1297           122         123           467         213           467         132           213         467           149         132           2126         44           81         203           42         45</td> <td>Events.<br/>40<br/>106<br/>58<br/>34<br/>41<br/>22<br/>22<br/>22<br/>22<br/>22<br/>22<br/>22<br/>22<br/>22<br/>2</td> <td>Total<br/>50<br/>142<br/>2099<br/>71<br/>93<br/>171<br/>195<br/>78<br/>86<br/>157<br/>78<br/>86<br/>157<br/>166<br/>110<br/>95<br/>167<br/>105<br/>167<br/>105<br/>167<br/>105<br/>167<br/>105<br/>1074<br/>P &lt; 0.0<br/>242<br/>2359<br/>253<br/>74<br/>259<br/>253<br/>74<br/>259<br/>253<br/>74<br/>259<br/>259<br/>253<br/>74<br/>259<br/>259<br/>253<br/>74<br/>259<br/>259<br/>253<br/>74<br/>259<br/>259<br/>253<br/>74<br/>259<br/>259<br/>259<br/>259<br/>253<br/>74<br/>259<br/>259<br/>259<br/>259<br/>259<br/>259<br/>259<br/>259</td> <td><math display="block">\begin{array}{c} 12.8\% \\ 14.9\% \\ 7.9\% \\ 7.9\% \\ 7.9\% \\ 5.1\% \\ 17.0\% \\ 7.3\% \\ 7.3\% \\ 100.0\% \\ 10.7\% \\ 3.5\% \\ 100.0\% \\ 12.4\% \\ 10.3\% \\ 8.4\% \\ 4.2\% \\ 10.5\% \\ 8.4\% \\ 10.5\% \\ 8.4\% \\ 10.5\% \\ 8.4\% \\ 10.5\% \\ 1</math></td> <td>MH. Random. 95% CL<br/>0.65 (0.70, 1.04)<br/>1.07 (0.88, 1.14)<br/>1.07 (0.88, 1.14)<br/>1.07 (0.88, 1.14)<br/>1.07 (0.88, 1.14)<br/>1.07 (0.88, 1.14)<br/>1.07 (0.88, 1.14)<br/>1.07 (0.82, 1.05)<br/>1.07 (0.82, 1.05)<br/>1.07 (0.81, 3.04)<br/>1.17 (0.81, 3.04)<br/>1.12 (0.81, 3.04)<br/>0.06 (0.77, 1.15)<br/>0.06 (0.51, 1.53)<br/>0.05 (0.44, 0.95)<br/>0.05 (0.61, 2.23)<br/>0.05 (0.61,</td> <td></td>   | 4.5 Properative chem<br>Chen 2022<br>Deng 2023<br>Isoua 2019<br>Lan 2015<br>Lan 2017<br>Lan 2017<br>Lan 2017<br>Lan 2017<br>Lan 2017<br>Lan 2017<br>Lan 2017<br>Lan 2017<br>Lan 2017<br>Verse 2019<br>Verse 2019<br>Verse 2019<br>Lan 2017<br>Lan 2016<br>Lan 2017<br>Lan 2016<br>Lan 2017<br>Lan 2016<br>Lan 2016   | Events<br>otherapp<br>64<br>135<br>33<br>20<br>20<br>4<br>33<br>65<br>63<br>65<br>60<br>600<br>33; Chi <sup>2</sup> H<br>55<br>60<br>600<br>33; Chi <sup>2</sup> H<br>55<br>24<br>30<br>51<br>51<br>52<br>24<br>30<br>51<br>51<br>52<br>24<br>33<br>36<br>55<br>24<br>21<br>43<br>36<br>36<br>55<br>25<br>20<br>20<br>51<br>51<br>52<br>56<br>36<br>36<br>55<br>56<br>36<br>36<br>55<br>56<br>36<br>36<br>56<br>56<br>36<br>56<br>56<br>56<br>56<br>56<br>56<br>56<br>56<br>56<br>56<br>56<br>56<br>56   | Total           y         94           181         186           48         00           136         124           155         1297           2266         124           155         1297           122         123           467         213           467         132           213         467           149         132           2126         44           81         203           42         45  | Events.<br>40<br>106<br>58<br>34<br>41<br>22<br>22<br>22<br>22<br>22<br>22<br>22<br>22<br>22<br>2  | Total<br>50<br>142<br>2099<br>71<br>93<br>171<br>195<br>78<br>86<br>157<br>78<br>86<br>157<br>166<br>110<br>95<br>167<br>105<br>167<br>105<br>167<br>105<br>167<br>105<br>1074<br>P < 0.0<br>242<br>2359<br>253<br>74<br>259<br>253<br>74<br>259<br>253<br>74<br>259<br>259<br>253<br>74<br>259<br>259<br>253<br>74<br>259<br>259<br>253<br>74<br>259<br>259<br>253<br>74<br>259<br>259<br>259<br>259<br>253<br>74<br>259<br>259<br>259<br>259<br>259<br>259<br>259<br>259  | $\begin{array}{c} 12.8\% \\ 14.9\% \\ 7.9\% \\ 7.9\% \\ 7.9\% \\ 5.1\% \\ 17.0\% \\ 7.3\% \\ 7.3\% \\ 100.0\% \\ 10.7\% \\ 3.5\% \\ 100.0\% \\ 12.4\% \\ 10.3\% \\ 8.4\% \\ 4.2\% \\ 10.5\% \\ 8.4\% \\ 10.5\% \\ 8.4\% \\ 10.5\% \\ 8.4\% \\ 10.5\% \\ 1$   | MH. Random. 95% CL<br>0.65 (0.70, 1.04)<br>1.07 (0.88, 1.14)<br>1.07 (0.88, 1.14)<br>1.07 (0.88, 1.14)<br>1.07 (0.88, 1.14)<br>1.07 (0.88, 1.14)<br>1.07 (0.88, 1.14)<br>1.07 (0.82, 1.05)<br>1.07 (0.82, 1.05)<br>1.07 (0.81, 3.04)<br>1.17 (0.81, 3.04)<br>1.12 (0.81, 3.04)<br>0.06 (0.77, 1.15)<br>0.06 (0.51, 1.53)<br>0.05 (0.44, 0.95)<br>0.05 (0.61, 2.23)<br>0.05 (0.61,  |                     |  |  |   |   |   |   |  |  |                   |
| Total (95% CI)         550         1769         100.0%         1.10         [0.98, 1.25]           Total events         277         803         803         804         805         805         1.16         1.02         1.32         1.06         804         1.06         805         1.16         1.02         1.32         1.06         804         1.06         805         1.16         1.02         1.32         1.06         804         1.06         805         1.16         1.02         1.32         1.06 <t< td=""><td>4.5 Properative dem<br/>Chen 2022<br/>Deng 2023<br/>Insue 2019<br/>Kabot 2015<br/>Liu 2015<br/>Liu 2015<br/>Liu 2015<br/>Narita 2015<br/>Sun 2014<br/>Watanabe 2019<br/>Watanabe 2019<br/>Watanabe 2019<br/>Watanabe 2019<br/>Watanabe 2019<br/>Chen 2023<br/>Chen 2</td><td>Events<br/>otherapp<br/>(64)<br/>(135)<br/>30)<br/>20)<br/>20)<br/>211<br/>27<br/>30)<br/>20<br/>211<br/>27<br/>30)<br/>35<br/>50)<br/>600<br/>03; ChF (47)<br/>30<br/>35<br/>50<br/>24<br/>30<br/>35<br/>50<br/>24<br/>30<br/>35<br/>50<br/>24<br/>30<br/>35<br/>50<br/>24<br/>30<br/>50<br/>20<br/>20<br/>21<br/>30<br/>35<br/>22<br/>21<br/>20<br/>33<br/>32<br/>20<br/>20<br/>20<br/>20<br/>20<br/>20<br/>20<br/>20<br/>20<br/>20<br/>20<br/>20<br/>20</td><td>Total           y         94           181         86           88         80           138         81           108         108           177         42           66         124           155         1297           122         88           213         42           28         213           197         132           2126         56           2128         2126           = 42.36, 0         81           203         42           44         45</td><td>Events.<br/>40<br/>1066<br/>58<br/>34<br/>41<br/>22<br/>22<br/>22<br/>22<br/>22<br/>22<br/>23<br/>30<br/>8<br/>8<br/>529<br/>99<br/>95<br/>55<br/>55<br/>18<br/>41<br/>1<br/>41<br/>22<br/>22<br/>22<br/>23<br/>41<br/>1<br/>41<br/>1<br/>22<br/>24<br/>22<br/>25<br/>52<br/>99<br/>99<br/>99<br/>99<br/>99<br/>15<br/>55<br/>16<br/>10<br/>10<br/>10<br/>10<br/>10<br/>10<br/>10<br/>10<br/>10<br/>10</td><td>Total<br/>50<br/>142<br/>2099<br/>71<br/>3171<br/>195<br/>78<br/>88<br/>86<br/>157<br/>39<br/>1309<br/>P = 0.0<br/>51<br/>56<br/>61<br/>10<br/>95<br/>167<br/>105<br/>63<br/>1106<br/>46<br/>46<br/>46<br/>46<br/>46<br/>46<br/>22<br/>92<br/>92<br/>53<br/>74<br/>253<br/>74<br/>253<br/>210</td><td>12.8%<br/>14.9%<br/>7.9%<br/>6.8%<br/>5.1%<br/>11.3%<br/>3.2%<br/>3.2%<br/>3.2%<br/>3.2%<br/>3.3%<br/>100.0%<br/>4.2%<br/>4.2%<br/>8.4%<br/>11.3%<br/>8.4%<br/>10.5%<br/>8.4%<br/>10.5%<br/>8.4%<br/>10.5%<br/>8.4%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10.5%<br/>10</td><td>MH Random 95% CL 0.65 (7, 1, 04) 1.50 (168, 1, 14) 1.50 (168, 1, 14) 1.50 (168, 1, 14) 1.50 (168, 1, 14) 1.50 (168, 1, 14) 1.50 (168, 1, 14) 1.50 (168, 1, 14) 1.50 (168, 1, 14) 1.51 (168, 1, 23) 1.51 (168, 1, 2</td><td></td></t<> | 4.5 Properative dem<br>Chen 2022<br>Deng 2023<br>Insue 2019<br>Kabot 2015<br>Liu 2015<br>Liu 2015<br>Liu 2015<br>Narita 2015<br>Sun 2014<br>Watanabe 2019<br>Watanabe 2019<br>Watanabe 2019<br>Watanabe 2019<br>Watanabe 2019<br>Chen 2023<br>Chen 2  | Events<br>otherapp<br>(64)<br>(135)<br>30)<br>20)<br>20)<br>211<br>27<br>30)<br>20<br>211<br>27<br>30)<br>35<br>50)<br>600<br>03; ChF (47)<br>30<br>35<br>50<br>24<br>30<br>35<br>50<br>24<br>30<br>35<br>50<br>24<br>30<br>35<br>50<br>24<br>30<br>50<br>20<br>20<br>21<br>30<br>35<br>22<br>21<br>20<br>33<br>32<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20   | Total           y         94           181         86           88         80           138         81           108         108           177         42           66         124           155         1297           122         88           213         42           28         213           197         132           2126         56           2128         2126           = 42.36, 0         81           203         42           44         45   | Events.<br>40<br>1066<br>58<br>34<br>41<br>22<br>22<br>22<br>22<br>22<br>22<br>23<br>30<br>8<br>8<br>529<br>99<br>95<br>55<br>55<br>18<br>41<br>1<br>41<br>22<br>22<br>22<br>23<br>41<br>1<br>41<br>1<br>22<br>24<br>22<br>25<br>52<br>99<br>99<br>99<br>99<br>99<br>15<br>55<br>16<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10  | Total<br>50<br>142<br>2099<br>71<br>3171<br>195<br>78<br>88<br>86<br>157<br>39<br>1309<br>P = 0.0<br>51<br>56<br>61<br>10<br>95<br>167<br>105<br>63<br>1106<br>46<br>46<br>46<br>46<br>46<br>46<br>22<br>92<br>92<br>53<br>74<br>253<br>74<br>253<br>210  | 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 | MH Random 95% CL 0.65 (7, 1, 04) 1.50 (168, 1, 14) 1.50 (168, 1, 14) 1.50 (168, 1, 14) 1.50 (168, 1, 14) 1.50 (168, 1, 14) 1.50 (168, 1, 14) 1.50 (168, 1, 14) 1.50 (168, 1, 14) 1.51 (168, 1, 23) 1.51 (168, 1, 2   |                     |  |  |   |   |   |   |  |  |                   |
| Total events 27 803<br>Total events 01 CH <sup>2</sup> = 13.0 (F = 01 CH) (F = 01 CH) (F = 39%,<br>Test for overall effect 2 = 1.3 g (F = 0.16)<br><b>Chen 2022</b> CP 42 68 19.0 (S = 0.16)<br><b>Chen 2023</b> 130 162 78 42 68 19.0 (S = 0.16)<br>Deng 2023 130 162 78 42 68 19.0 (S = 0.16)<br>Deng 2023 130 162 78 42 78 42 18.5 (1.16) (1.02, 1.32)<br>Imal 2016 56 109 196 453 19.6 (S = 1.15) (S = 0.16)<br>Mao 2017 13 24 74 231 6.4 (S = 1.15) (S = 1.12, 2.46)<br>Mao 2017 13 24 74 231 6.4 (S = 1.15) (  | 4.5 Properative deem<br>Chen 2022<br>Deng 2023<br>Isoua 2019<br>Lainaboned 2015<br>Lainaboned 2015<br>Lainaboned 2015<br>Lainaboned 2015<br>Lainaboned 2015<br>Lainaboned 2015<br>Chen 2022<br>Total (85%C)<br>Total (85%C)<br>Total (85%C)<br>Chen 2022<br>Deng 2016<br>Lainabo 2019<br>Lainabone 2019<br>Chen 2025<br>Deng 2016<br>Lainabone 2019<br>Lainabone 2019<br>Chen 2025<br>Deng 2025<br>Deng 2025<br>Deng 2016<br>Lainabone 2019<br>Chen 2025<br>Deng
2016<br>Lainabone 2019<br>Total (85%C)<br>Total (85%C)<br>Total (85%C)<br>Total 2016<br>Lainabone 2019<br>Chen 2025<br>Total 2016<br>Lainabone 2019<br>Chen 2025<br>Total 2016<br>Lainabone 2019<br>Chen 2025<br>Total 2016<br>Lainabone 2019<br>Kabone 2019<br>Kabone 2019<br>Kabone 2019<br>Kabone 2019<br>Kabone 2019<br>Kabone 2019<br>Kabone 2019<br>Kabone 2019   | Events<br>otherape<br>64<br>1355<br>30<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20   | Total           y         94           181         184           186         86           48         80           136         136           137         124           129         124           129         122           88         213           467         22126           197         106           22126         81           811         221           811         221           813         245           445         192           813         28  
   
   | Events.<br>40<br>1066<br>58<br>34<br>41<br>22<br>22<br>22<br>22<br>6<br>30<br>8<br>529<br>92<br>45<br>8<br>99<br>94<br>55<br>55<br>55<br>55<br>55<br>55<br>55<br>55<br>55<br>5   | Total<br>50<br>142<br>209<br>71<br>1955<br>18<br>18<br>8<br>1309<br>P = 0.0<br>51<br>156<br>1309<br>P = 0.0<br>51<br>156<br>105<br>167<br>105<br>167<br>105<br>167<br>105<br>105<br>167<br>105<br>105<br>107<br>4<br>105<br>105<br>105<br>105<br>105<br>105<br>105<br>105   | $\begin{array}{c} 12.8\% \\ 14.9\% \\ 7.9\% \\ 6.8\% \\ 5.1\% \\ 7.0\% \\ 3.2\% \\ 3.5\% \\ 100.0\% \\ 4.2\% \\ 11.3\% \\ 10.5\% \\ 8.4\% \\ 10.5\% \\ 8.4\% \\ 10.5\% \\
10.5\% \\ 10.5\% \\$   | MH. Random, 95% CL<br>0.65 (0, 70, 104)<br>1.00 (0, 88, 114)<br>1.00 (0, 81, 114)<br>1.00 (0, 82, 126)<br>1.00 (0, 87, 126)<br>1.00 (0, 87, 126)<br>1.00 (0, 77, 116)<br>1.00 (0, 77, 106)<br>1.01 (0, 93, 126)<br>0.00 (0, 77, 106)<br>1.01 (0, 93, 126)<br>0.00 (0, 77, 106)<br>1.01 (0, 93, 126)<br>0.00 (0, 77, 106)<br>1.01 (0, 93, 126)<br>0.01 (0, 176, 116)<br>1.01 (0, 177, 116)<br>1   |                     |  |  |   |   |   |   |  |   
  |                   |
| Test for overall effect 2 ≠ 1.30 (P = 0.16)<br>4.8 Postoperative complications<br>Chen 2022 Complications<br>Deng 2023 130 162 76 42 66 19.0 % 1.32 (1.06, 1.64]<br>Deng 2023 130 162 76 42 66 19.0 % 1.16 (1.02, 1.32)<br>Imal 2016 56 109 196 453 19.6 % 1.15 (D.08, 1.47)<br>Imal 2016 56 109 196 453 19.6 % 1.15 (D.08, 1.47)<br>Mao 2017 13 24 74 221 6.4 % 1.69 (1.12, 2.56)<br>Sun 2014 20 46 40 106 6.5 % 1.15 (D.7, 1.74)<br>Vigano 2021 19 126 37 358 4.3 % 1.16 (D.67, 2.44)<br>Total (95% CD) 598 1617 1000% 1.228 (1.15, 1.43)<br>Total (95% CD) 598 1617 1000% 1.228 (1.15, 1.43)  
   | 4.5 Properative deem<br>Chen 2022<br>Deng 2023<br>Isoua 2019<br>Lainaboned 2015<br>Lainaboned 2015<br>Lainaboned 2015<br>Lainaboned 2015<br>Lainaboned 2015<br>Una 2017<br>Naria 2015<br>Naria 2015<br>Chen 2022<br>Deng 2023<br>Lei 2015<br>Chen 2022<br>Deng 2023<br>Lei 2015<br>Chen 2022<br>Deng 2023<br>Lei 2015<br>Chen 2   | Events<br>otherape<br>64<br>1355<br>30<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20   | Total           y         94           181         184           184         86           66         68           177         124           1297         124           1297         122           88         172           82         213           467         22126           81         122           128         1297           106         226           22126         81           811         221           813         242           445         199           1292         2128           813         291           281         324           433         343   
   
  | Events.<br>40<br>1066<br>58<br>34<br>41<br>22<br>22<br>22<br>22<br>6<br>30<br>8<br>529<br>92<br>45<br>8<br>99<br>94<br>55<br>55<br>55<br>55<br>55<br>55<br>55<br>55<br>55<br>5   | Total<br>50<br>142 209<br>71<br>1955<br>78<br>186<br>61<br>177<br>78<br>188<br>66<br>157<br>39<br>1309<br>P = 0.0<br>51<br>156<br>63<br>81<br>10<br>5<br>167<br>105<br>63<br>81<br>10<br>105<br>63<br>81<br>10<br>9<br>P = 0.0<br>9<br>7<br>1<br>209<br>7<br>1<br>9<br>7<br>8<br>8<br>6<br>8<br>6<br>1309<br>P = 0.0<br>9<br>7<br>1309<br>P = 0.0<br>9<br>7<br>10<br>5<br>1<br>5<br>6<br>6<br>3<br>8<br>10<br>10<br>5<br>5<br>10<br>7<br>7<br>8<br>10<br>5<br>7<br>8<br>10<br>5<br>7<br>8<br>10<br>10<br>5<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>10<br>5<br>10<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7   | $\begin{array}{c} 12.8\% \\ 14.9\% \\ 7.9\% \\ 6.8\% \\ 8.1\% \\ 7.9\% \\ 7.0\% \\ 3.2\% \\ 7.0\% \\ 3.2\% \\ 3.5\% \\ 100.0\% \\ 10.3\% \\ 10.5\% \\$  
  | MH. Random. 95% CL 0.65 (7, 0, 1.04) 0.67 (0, 84, 1.14) 1.26 (0, 84, 1.14) 1.26 (0, 84, 1.14) 1.26 (0, 84, 1.14) 1.26 (0, 84, 1.14) 1.26 (0, 84, 1.14) 1.26 (0, 82, 1.29) 1.16 (0, 85, 1.59) 1.50 (1, 0, 22, 29) 1.51 (0, 10, 2, 29) 1.52 (1, 0, 10, 2, 11) 1.52 (1, 0, 21, 29) 1.52 (1, 0, 21, 29) 1.52 (1, 0, 21, 29) 1.52 (1, 0, 21, 29) 1.52 (1, 0, 21, 29) 1.52 (1, 0, 21, 29) 1.52 (1, 0, 21, 29) 1.52 (1, 0, 21, 29) 1.52 (1, 0, 21, 29) 1.52 (1, 0, 21, 29) 1.52 (1, 0, 21, 29) 1.52 (1, 0, 21, 29) 1.52 (1, 0, 21, 29) 1.52 (0, 21, 29) 1.52 (0, 21, 29) 0.56 (1, 0, 21, 29) 0.56 (1, 0, 21, 29) 0.56 (1, 0, 21, 29) 0.56 (1, 0, 21, 29) 0.56 (1, 0, 21, 29) 0.56 (1, 0, 21, 29) 0.56 (1, 0, 21, 29) 0.56 (1, 0, 21, 29) 0.56 (1, 0, 21, 29) 0.56 (1, 0, 21, 29) 0.56 (1, 0, 21, 29) 0.56 (1, 0, 21, 29) 0.57 (1, 0, 11, 19) 1.53 (1, 0, 21, 29) 0.57 (1, 0, 11, 19) 1.53 (1, 0, 21, 29) 0.57 (1, 0, 11, 19) 1.53 (1, 0, 21, 29) 0.57 (1, 0, 11, 19) 1.53 (1, 0, 21, 29) 0.57 (1, 0, 11, 19) 1.53 (1, 0, 11, 19)  |                     |  |  |   |   |   |   |  |  
   |                   |
| 4.8 Postoperative complications           Chen 2022         62         74         68         19.0%,         1.32 [1.06, 1.64]           Deng 2023         100         162         111         161         55.6%,         1.16 [1.02, 1.32]           Dama 2016         56         109         164         156%,         1.16 [1.02, 1.32]           Incua 2019         25         55         63         240         8.3%,         1.73 [1.21, 2.48]           Mao 2017         13         24         74         216         6.4%,         1.69 [1.12, 2.56]           Sun 2014         20         46         40         106         6.5%,         1.15 [0.76, 1.74]           Yigamb 20211         19         126         37         558         4.3%,         1.46 [0.87, 2.44]           Total (95%, CI)         588         1617         100.0%,         1.28 [1.15, 1.43]         Image: 1.43 [1.16, 1.43]   
   | 4.5 Properative deem<br>Chen 2022<br>Deng 2023<br>Isoua 2019<br>Kalabanemad 2015<br>Lin 2017<br>Liu 2015<br>Mac 2017<br>Nartia 2015<br>Sun 2014<br>Viong 2022<br>Total (0954; CI)<br>Total events<br>Helerogenehy: Tau" = 0.<br>Total events<br>Helerogenehy: Tau" = 0.<br>Total events<br>Helerogenehy: Tau" = 0.<br>Chen 2025<br>Deng 2020<br>Deng 2020<br>Lin 2015<br>Liu 2015<br>Sun 2014<br>Viong 2015<br>Cherron 2015<br>Sun 2014<br>Viong 2015<br>Chal events<br>Helerogenehy: Tau" = 0.<br>Test for overall effect<br>Deng 2023<br>Imai 2016<br>Incue 2019<br>Viong 2015<br>Chal events<br>Helerogenehy: Tau" = 0.<br>Test for overall effect<br>Deng 2023<br>Imai 2016<br>Incue 2019<br>Viong 2017<br>Nariat 2015<br>Viong 2017<br>Viong  | Events<br>otherap<br>14<br>13<br>14<br>13<br>14<br>13<br>14<br>14<br>14<br>14<br>14<br>14<br>14<br>14<br>14<br>14  | Total           y         9           481         86           136         136           137         126           6         124           1297         12297           226         88           213         42           1297         12297           1228         88           213         42           42         88           172         56           197         106           149         132           2126         42.3.6,6.4.4           42         46.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.   
   
   | Events           400           1066           30           34           41           22           22           22           22           22           22           6           30           80           6           7           42           24           7           42           24           18           114           115           1458           154           72           35           803   | $\begin{tabular}{ c c c c }\hline Total & & & \\ & & 50 & & \\ & & 142 & & \\ & & 142 & & \\ & & 209 & & \\ & & 142 & & \\ & & 157 & & \\ & & & 157 & & \\ & & & 188 & & \\ & & & 88 & & \\ & & & & 88 & & \\ & & & &$  |
12.8%,<br>14.9%,<br>7.9%,<br>7.9%,<br>7.0%,<br>7.0%,<br>3.5%,<br>3.2%,<br>7.3%,<br>3.5%,<br>3.5%,<br>3.5%,<br>3.5%,<br>3.5%,<br>3.5%,<br>4.2%,<br>4.2%,<br>4.2%,<br>4.2%,<br>4.2%,<br>4.2%,<br>4.2%,<br>4.2%,<br>4.2%,<br>4.2%,<br>4.2%,<br>4.2%,<br>5.3%,<br>5.4%,<br>4.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\% | MH H Random, 95% C1<br>0.85 (20, 70, 10-4)<br>1.05 (26, 81, 14)<br>1.05 (26, 15)<br>1.05 (2 |                     |  |  |   |   |   |   
   |  |  |                   | | | | | | | | | | | | | | | |
| Deng 2023 130 162 111 161 35.8% 1.16 [1.02.1.32]<br>Inoua 2016 56 109 166 453 1966 1.47]<br>Inoua 2019 25 55 63 240 8.3% 1.73 [1.2.1.2.48]<br>Sun 2014 20 46 40 106 6.5% 1.15 [0.06.1.47]<br>Sun 2014 19 126 37 558 4.3% 1.46 [0.87.2.44]<br>Total (%)C() 568 1617 100.0% 1.28 [1.15,1.43]<br>Total (%)C() 558 563<br>Total (%)C() 558 1617 100.0% 1.28 [1.15,1.43]<br>★   | 4.5 Prosperative dem<br>Chen 2022<br>Deng 2023<br>Insue 2019<br>Kabot 2015<br>Liu 2015<br>Liu 2015<br>Jone 2019<br>Liu 2015<br>Jone 2017<br>Variate 2015<br>Variate 2019<br>Variate 2019<br>Variate 2019<br>Variate 2019<br>Chen 2022<br>Deng 2023<br>Chen 2021<br>Chen 2021<br>C   | Events<br>otherapp<br>164<br>135<br>164<br>135<br>164<br>135<br>164<br>135<br>164<br>165<br>164<br>165<br>165<br>165<br>165<br>165<br>165<br>165<br>165  | Total           y         9           4         181           181         181           181         181           181         181           181         181           184         80           108         136           1297         266           1297         192           88         172           213         213           149         132           2128         149           132         2128           2132         2128           149         132           2126         0.40)           81         203           242         45           44         45           43         550           550         = 13.10, 0.   | Events           400           1066           30           34           41           22           22           22           22           22           22           6           30           80           6           7           42           24           7           42           24           18           114           115           1458           154           72           35           803   | $\begin{tabular}{ c c c c }\hline Total & & & \\ & & 50 & & \\ & & 142 & & \\ & & 142 & & \\ & & 209 & & \\ & & 142 & & \\ & & 157 & & \\ & & & 157 & & \\ & & & 188 & & \\ & & & 88 & & \\ & & & & 88 & & \\ & & & &$  | 12.8%,<br>14.9%,<br>7.9%,<br>7.9%,<br>7.0%,<br>7.0%,<br>3.5%,<br>3.2%,<br>7.3%,<br>3.5%,<br>3.5%,<br>3.5%,<br>3.5%,<br>3.5%,<br>3.5%,<br>4.2%,<br>4.2%,<br>4.2%,<br>4.2%,<br>4.2%,<br>4.2%,<br>4.2%,<br>4.2%,<br>4.2%,<br>4.2%,<br>4.2%,<br>4.2%,<br>5.3%,<br>5.4%,<br>4.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\%,<br>5.4\% | MH H Random, 95% C1<br>0.85 (20, 70, 10-4)<br>1.05 (26, 81, 14)<br>1.05 (26, 15)<br>1.05 (2 |                     |  |  |   |   |   |   |  |  |                   |
| Imai 2016 56 109 106 453 19.0% 1.19 (D.06, 1.47)<br>Imoue 2019 25 55 63 240 853, 1.73 (1.2, 2.48)<br>Mao 2017 13 24 74 231 6.4% 1.59 (1.12, 2.56)<br>Sun 2014 20 46 40 108 6.5% 1.15 (D.76, 1.74)<br>Vigano 2021 19 128 37 358 4.3% 1.146 (D.87, 2.44)<br>Total works 25 553<br>Total works 25 553<br>Total works 26 6 6 0 = 0.27 µ = 21%  | 4.5 Prosperative dem<br>Chen 2022<br>Deng 2023<br>Ilioua 2019<br>Kabot 2015<br>Lin 2017<br>Liu 2015<br>Liu 2015<br>Liu 2015<br>Viana 2017<br>Viana 2017<br>Liu 2015<br>Chen 2022<br>Chen 2022<br>Chen 2022<br>Chen 2023<br>Chen 2021<br>Chen 2   | Events<br>otherap<br>the approximate<br>the approximate and the approxim   | Total           y         4           86         48           80         136           138         136           138         136           1297         122           1297         122           1297         192           1297         192           2011         129           213         126           6         66           66         66           68         2213           122         2266           132         22266           149         132           2126         64           457         159           243         550           550         55  | 400<br>106<br>304<br>41<br>41<br>42<br>82<br>82<br>82<br>82<br>82<br>82<br>82<br>82<br>82<br>82<br>82<br>82<br>82  | Total           500           142           209           71           133           771           1309           71           157           39           1309           71           51           56           106           102           62           1074           P           242           359           253           74           253           78           1769           = 0.111  | 12.8%, 14.9%, 7.9%, 6.8%, 3.2%, 7.9%, 6.8%, 3.2%, 7.9%, 3.2%, 7.9%, 3.2%, 7.2%, 7.2%, 10.7%, 3.2%, 7.2%, 10.7%, 3.2%, 7.2%, 8.1%, 10.5%, 8.1%, 10.5%, 8.1%, 10.5%, 8.1%, 10.5%, 8.1%, 10.5%, 8.1%, 10.5%, 8.1%, 10.5%, 10.5%, 10.5%, 10.5%, 10.5%, 10.5%, 10.5%, 10.5\%, 10.5  | MH Random 95% CL 0.65 (7, 0, 0-4) 0.65 (7, 0, 1-64) 0.67 (8, 1, 14) 0.70 (7, 88, 1, 14) 0.70 (7, 88, 1, 14) 0.70 (7, 88, 1, 14) 0.71 (7, 16, 15, 14) 0.71 (7, 16, 15, 14) 1.71 (16, 25, 14) 1.71 (16, 25, 14) 1.71 (16, 25, 14) 1.71 (16, 25, 14) 1.71 (16, 25, 14) 1.71 (16, 25, 14) 1.71 (16, 25, 14) 1.71 (16, 25, 14) 1.71 (16, 25, 14) 1.71 (16, 25, 14) 1.71 (16, 25, 14) 1.71 (16, 25, 14) 1.71 (16, 25, 14) 1.71 (16, 25, 14) 1.71 (16, 25, 14) 0.68 (17, 1, 15) 0.68 (17, 1, 16) 0.68 (17, 1, 16) 0.68 (17, 1, 16) 0.68 (17, 1, 16) 1.60 (16, 14, 13) 0.47 (16, 20, 03) 0.57 (16, 14, 13) 0.47 (16, 20, 03) 0.58 (16, 44, 0.86) 0.58 (16, 7, 1, 16) 1.58 (16, 31, 23) 0.59 (16, 15, 31, 24) 0.59 (16, 15, 31, 34) 0.57 (16, 15, 31, 34) 0.57 (16, 15, 31) 0.57 (16, 15, 31) 0.58 (16, 1, 33) 0.58 (16, 15, 31) 0.59 (16, 15, 31) 0.59 (16, 15, 31) 0.59 (16, 15, 31) 0.59 (16, 15, 31) 0.59 (16, 15, 31) 0.59 (16, 15, 32) 0.59 (16, 15   |                     |  |  |   |   |   |   |  |  |                   |
| Mao 2017 13 24 74 221 6.4% 13.9 (1.12,2.56)<br>50 m 2014 20 46 40 106 6.5% 1.15 (5.07,1.74)<br>Vigano 2021 19 128 37 358 4.3% 1.46 (0.87,2.44)<br>Total events 25 553<br>Total events 553<br>Total events 553<br>Total events 10 564 61 € 0.27 (1.2 € 1.5, 1.42)   
   | 4.5 Prosperative deem<br>Chen 2022<br>Deng 2023<br>Isoua 2019<br>Lan 2015<br>Lan 2015<br>Nama 2015<br>Lan 2017<br>Nama 2015<br>Nama 2015<br>Nama 2015<br>Nama 2015<br>Nama 2015<br>Nama 2015<br>Nama 2015<br>Nama 2015<br>Nama 2016<br>Nama 2016<br>Chen 2022<br>Deng 2023<br>Isoua 2016<br>Chen 2022<br>Deng 2023<br>Isoua 2016<br>Chen 2025<br>Deng 2023<br>Isoua 2016<br>Nama 2017<br>Nati evenis<br>Helerogenehis, Tau" = 0.<br>Test for overail effect. 2<br><b>4</b> 7 Boot cmm2007<br>Nama 2016<br>Nama 2016<br>Nama 2016<br>Nama 2017<br>Nati evenis<br>Helerogenehis, Tau" = 0.<br>Test for overail effect. 2<br><b>4</b> 7 Boot cmm2015<br>Nama 2016<br>Nama 2017<br>Nati evenis<br>Helerogenehis, Tau" = 0.<br>Test for overail effect. 2<br><b>4</b> 7 Boot cmm200<br>Nama 2016<br>Nama 2017<br>Nama 2016<br>Nama 2016<br>Nama 2017<br>Nama 2016<br>Nama 2016<br>Nama 2016<br>Nama 2016<br>Nama 2017<br>Nama 2016<br>Nama 2016<br>Nama 2017<br>Nama 2016<br>Nama 2016<br>Nama 2016<br>Nama 2016<br>Nama 2016<br>Nama 2016<br>Nama 2017<br>Nama 2016<br>Nama 2016<br>Nama 2016<br>Nama 2016<br>Nama 2016<br>Nama 2017<br>Nama   | Events<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>otherap<br>othe   | Total           y         4           86         48           80         136           138         136           138         136           1297         122           1297         122           1297         192           1297         192           213         128           213         122           2126         2265           149         132           2126         2436           263         243           350         355           550         55           162         55  
   
   | Events.           400           508           529           6           6           7           42           82           82           82           82           82           82           82           82           82           82           82           84           18           185           15           15           15           15           15           16           17           185           15           16           17           18           185           111           113           360           360           361           80           361           42           42           42           42           43           44           44           42           42           43  | $\begin{array}{c} \textbf{Total} \\ 500 \\ 142 \\ 209 \\ 71 \\ 133 \\ 78 \\ 88 \\ 86 \\ 157 \\ 39 \\ 1309 \\ 9P = 0.0 \\ 511 \\ 56 \\ 167 \\ 105 \\ 167 \\ 105 \\ 167 \\ 105 \\ 167 \\ 105 \\ 167 \\ 105 \\ 167 \\ 105 \\ 167 \\ 105 \\ 107 \\ 41 \\ 125 \\ 359 \\ 251 \\ 251 \\ 78 \\ 1769 \\ = 0.111 \\ 166 \\ 46 \\ 122 \\ 62 \\ 1074 \\ 125 \\ 78 \\ 1769 \\ = 0.111 \\ 106 \\ 41 \\ 125 \\ 78 \\ 1769 \\ = 0.111 \\ 106 \\ 46 \\ 122 \\ 127 $         | $\begin{array}{c} 12.8\% \\ 14.9\% \\ 7.9\% \\ 6.8\% \\ 7.9\% \\ 7.9\% \\ 7.9\% \\ 7.9\% \\ 7.9\% \\ 7.9\% \\ 7.7\% \\ 7.7\% \\ 7.7\% \\ 7.7\% \\ 7.7\% \\ 7.10.0\% \\ 7.10.0\% \\ 7.10.0\% \\ 7.10.0\% \\ 7.10.0\% \\ 7.2\% \\ 7.2\% \\ 7.2\% \\ 7.2\% \\ 7.2\% \\ 7.2\% \\ 7.2\% \\ 7.2\% \\ 7.2\% \\ 7.2\% \\ 11.6\% \\ 6.9\% \\ 100.0\% \\
100.0\% \\ 100.0\%$  | MH. Random, 95% CL<br>0.65 (0, 70, 1.04)<br>1.07 (0, 88, 1.14)<br>1.07 (0, 87, 1.05)<br>1.07 (0, 83, 347)<br>1.07 (0, 83, 347)<br>0.47 (1, 94, 77, 1.15)<br>0.47 (1, 92, 78, 1.30)<br>0.47 (1, 92, 78, 1.30)<br>0.47 (1, 92, 78, 1.30)<br>0.47 (1, 92, 0, 93)<br>0.47 (1, 92, 0, 94)<br>1.08 (0, 77, 1.06)<br>1.13 (0, 81, 2.23)<br>0.93 (0, 77, 1.06)<br>1.14 (0, 81, 2.23)<br>0.93 (0, 77, 1.06)<br>1.15 (0, 81, 2.23)<br>0.95 (0, 91, 77, 1.06)<br>1.15 (0, 81, 2.23)<br>0.95 (0, 91, 77, 1.06)<br>1.15 (0, 81, 2.23)<br>0.95 (0, 91, 77, 1.06)<br>1.15 (0, 81, 72, 1.06)<br>0.97 (0, 71, 72, 1.06)<br>0.97 (0, 71,   |                     |  |  |   |   |   |   |  |  
   |                   |
| Vigamò 2021 19 126 37 358 4.3% 1.46 [0.87,2.44]<br>Total (95% Cl) 598 1617 100.0% 1.28 [1.15, 1.43]<br>Total events 225 563<br>563<br>Total events 0.26 Chi P − 7.55, df = 6 (P − 0.27); l' = 21%  
   | 4.5 Properative chem<br>Chem 2022<br>Deng 2023<br>Isoua 2019<br>Kabot 2015<br>Lin 2017<br>Lin 2015<br>Lin 2017<br>Narita 2015<br>Sun 2014<br>Lin 2017<br>Total (95% CI)<br>Total events<br>Sun 2014<br>Heterogenetix, Tau" = 0.<br>Total events<br>Lin 2017<br>Lin 2015<br>Lin 2015<br>Lin 2015<br>Lin 2015<br>Lin 2017<br>Lin 2015<br>Lin 2017<br>Lin 2015<br>Lin 2017<br>Lin 2018<br>Lin 2   | Events<br>0 Herap<br>0 Herap<br>135<br>135<br>135<br>135<br>244<br>147<br>276<br>83<br>847<br>85<br>847<br>85<br>847<br>85<br>865<br>860<br>85<br>860<br>85<br>865<br>865<br>865<br>865<br>865<br>865<br>865   | Total           y         4           181         184           86         136           138         136           138         108           1137         124           1297         2           28         113           155         1297           201         152           2128         213           467         128           2128         213           149         132           2128         0.40           132         2128           213         149           132         2128           81         122           81         203           550         28           43         550           58         76           162         109  
   
   | Events.           400           508           344           411           282           282           83           442           144           1458           772           155           155           155           155           155           155           155           155           155           155           155           164           171           135           8003           422           111           113           1141           <  | $\begin{array}{c} \text{Total} \\ 500 \\ 142 \\ 209 \\ 711 \\ 93 \\ 135 \\ 78 \\ 86 \\ 86 \\ 157 \\ 39 \\ 1309 \\ P = 0.0 \\ 511 \\ 56 \\ 63 \\ 811 \\ 106 \\ 63 \\ 811 \\ 106 \\ 63 \\ 811 \\ 106 \\ 64 \\ 46 \\ 132 \\ 22 \\ 1074 \\ P < 0.0 \\ 242 \\ 359 \\ 210 \\ 0 \\ 41 \\ 253 \\ 749 \\ 253 \\ 749 \\ 253 \\ 749 \\ 253 \\ 749 \\ 253 \\ 749 \\ 253 \\ 749 \\ 253 \\ 749 \\ 210 \\ 0 \\ 1769 \\ = 0.111 \\ 68 \\ 161 \\ 1453 \\ 378 \\ 816 \\ 1453 \\ 358 \\ 161 \\ 158 \\ 161 \\ 158 \\ 161 \\ 1$         | 12.8%, 14.9%, 7.9%, 6.8%, 7.9%, 6.8%, 7.9%, 6.8%, 7.9%, 6.8%, 7.9%, 7.9%, 7.9%, 7.9%, 7.9%, 7.9%, 7.9%, 7.9%, 7.9%, 7.9%, 7.9%, 7.9%, 7.9%, 7.1%, 7.9%, 7.1%, 7.9%, 7.1\%, 7.1\%  
   | MH - Random, 95% CL<br>0.65 (27, 0, 0-4)<br>1.00 (268, 1-4)<br>1.00 (268, 1-4)<br>0.00 (27, 1-5)<br>0.00 (27, 1-5)<br>1.10 (268, 1-23)<br>0.00 (27, 1-7)<br>1.10 (268, 1-23)<br>0.00 (25, 1-25)<br>1.10 (268, 1-25)<br>1.20 (261, 1-60, 1-10)<br>1.20  |                     |  |  |   |   |   |   |  |   
  |                   |
| Total events 325 563<br>Heterogeneity: Tau <sup>2</sup> = 0.00; Chi <sup>2</sup> = 7.55, df = 6 (P = 0.27); l <sup>2</sup> = 21%   
   | 4.5 Prosperative chem<br>Chem 2022<br>Deng 2023<br>Isoua 2019<br>Kabbot 2015<br>Lin 2017<br>Lin 2017<br>Lin 2015<br>Lin 2017<br>Lin 2015<br>Lin 2017<br>Lin 2015<br>Lin 2017<br>Lin 2015<br>Lin 2017<br>Lin 2015<br>Lin 2017<br>Lin 2018<br>Heterogeneity, Tau" = 0.<br>Chem 2027<br>Lin 2016<br>Lin 2017<br>Lin 2016<br>Lin 2017<br>Lin 2016<br>Lin 2017<br>Lin 2016<br>Lin 2017<br>Lin 2016<br>Lin 2017<br>Lin 2016<br>Lin 2017<br>Lin 2017<br>Lin 2016<br>Lin 2017<br>Lin 2017<br>Lin 2016<br>Lin 2017<br>Lin 2016<br>Lin 2017<br>Lin 2017  | Events<br>otherap<br>64<br>64<br>72<br>72<br>65<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>60  | Total           y         4           181         181           183         133           136         136           1137         1297           1297         42           66         6           1297         122           128         123           1297         122           88         203           2123         132           132         132           149         221           142         55           197         132           2126         81           203         44           45         19           28         43           550         76           162         76           162         76           162         76           162         109           550         76           162         2109           552         76           162         24  
   
   | Events.<br>400<br>508<br>304<br>411<br>422<br>82<br>82<br>82<br>82<br>82<br>82<br>82<br>82<br>82   | Total           500           142           209           71           93           195           78           86           110           50           1105           78           86           1100           93           1195           78           86           1100           66           1074           242           359           21074           242           359           21074           242           359           21074           242           359           21074           242           359           210           41           253           769           20.11           68           161           163           41453           240           32400   | 12.8% 14.9% 7.9% 6.2% 7.9% 6.2% 7.9% 6.2% 7.9% 6.2% 7.9% 7.9% 7.9% 7.9% 7.9% 7.9% 7.9% 7.9   
   | MH Random, 95% CL<br>0.65 (7, 0, 1.04)<br>1.00 (0.86, 1.14)<br>1.00 (0.86, 1.14)<br>1.00 (0.86, 1.14)<br>1.00 (0.86, 1.14)<br>1.00 (0.86, 1.14)<br>1.00 (0.87, 1.54)<br>1.16 (0.85, 1.59)<br>1.16 (0.85, 1.59)<br>1.16 (0.87, 1.54)<br>1.12 (0.97, 1.28)<br>1.57 (0.81, 1.54)<br>1.12 (0.97, 1.28)<br>1.57 (0.81, 1.54)<br>1.12 (0.97, 1.28)<br>1.58 (0.77, 1.54)<br>0.88 (0.77, 1.54)<br>1.10 (0.82, 1.53)<br>0.00 (0.51, 1.58)<br>1.56 (0.81, 2.33)<br>0.00 (0.57, 1.54)<br>1.56 (0.81, 1.53)<br>0.07 (0.54, 1.54)<br>1.56 (0.81, 1.53)<br>0.07 (0.54, 1.54)<br>1.15 (0.81, 1.53)<br>0.07 (0.54, 1.54)<br>1.15 (0.81, 1.53)<br>0.07 (0.54, 1.54)<br>1.16 (0.84, 1.55)<br>0.07 (0.54, 1.54)<br>1.16 (0.84, 1.55)<br>0.07 (0.54, 1.54)<br>1.17 (0.84, 1.55)<br>0.07 (0.54, 1.54)<br>1.19 (0.84, 1.55)<br>0.07 (0.54, 1.54)<br>1.19 (0.84, 1.55)<br>0.07 (0.54, 1.54)<br>1.19 (0.84, 1.54)<br>1.57 (0.81, 1.54)<br>0.07 (0.54, 1.54)<br>1.57 (0.81, 1.54)<br>0.08 (0.57, 1.57)<br>1.57 (0.81, 1.54)<br>1.57 (0.81, 1   |                     |  |  |   |   |   |   |  |  
   |                   |
| Heterogeneity: Tau <sup>2</sup> = 0.00; Chi <sup>2</sup> = 7.55, df = 6 (P = 0.27); l <sup>2</sup> = 21%   
   | 4.5 Properative deem<br>Chen 2022<br>Deng 2023<br>Isoua 2019<br>Kalanborned 2015<br>Lin 2017<br>Narta 2015<br>Mao 2017<br>Narta 2015<br>Narta 2015<br>Nart   | Events<br>otherap<br>otherap<br>64<br>33<br>30<br>20<br>41<br>12<br>20<br>41<br>50<br>66<br>62<br>24<br>15<br>50<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>60<br>6  | Total           y         4           181         181           86         136           1081         136           1287         2           1287         2           201         122           88         00           1297         42           203         128           2126         212           2126         2126           2126         203           425         445           192         203           550         550           550         550           550         550           54         44           45         192           550         550           561         552           24         46           550         52           162         100           550         24           561         52           52         24           53         56           54         43           55         24           55         24           55         54   
   
   | Events.           400           106           588           344           41           282           82           82           82           82           82           82           82           82           82           82           82           82           82           80           800           800           80           80           80           111           112           113           315           154           171           113           315           803           404           404           411           113           315           803           404           404           4111           113           313           35           36           374   | Total           500           142           33           171           195           78           86           87           81           86           1309           9           1309           9           1309           9           110           95           167           105           167           105           63           81           106           62           259           253           78           106           68           161           68           161           68           161           68           161           68           161           68           106   | $\begin{array}{c} 12.8\% \\ 14.9\% \\ 14.9\% \\ 0.8\% \\$   
   | MH - Random, 95% CL<br>0.65 (27, 0.104)<br>1.05 (0.56 1.14)<br>1.07 (0.56 1.14)<br>1.07 (0.56 1.14)<br>1.07 (0.56 1.14)<br>1.07 (0.56 1.15)<br>1.16 (0.65 1.56)<br>1.16 (0.65 1.56)<br>1.16 (0.62 1.56)<br>1.07 (1.07 1.12)<br>1.07 (0.84 1.07)<br>1.07 (0.64 1.13)<br>1.07 (0.54 1.13)<br>1.07 (0.54 1.13)<br>1.07 (0.54 1.13)<br>1.05 (0.57 1.10)<br>0.08 (0.77 1.15)<br>1.07 (0.54 1.13)<br>1.07 (0.54 1.13)<br>1.07 (0.54 1.13)<br>1.08 (0.77 1.15)<br>1.08 (0.77 1.15)<br>1.10 (0.94 1.12)<br>1.11 (0.94 2.13)<br>1.12 (0.95 1.13)<br>1.14 (0.87 2.06)<br>0.08 (0.57 1.17)<br>1.10 (0.94 1.12)<br>1.11 (0.94 1.12)<br>1.12 (0.94 1.12)<br>1.12 (0.94 1.12)<br>1.12 (0.94 1.12)<br>1.15 (0.75 1.74)<br>1.15 (0.75 1.74)  |                     |  |  |   |   |   |   |  |   
  |                   |
| Test for overall effect: Z = 4.38 (P < 0.0001) 0.1 0.2 0.5 1 2 5 10  | 4.5 Prosperative deem<br>Chen 2022<br>Deng 2023<br>Isoua 2019<br>Lainaboned 2015<br>Lainaboned 2015<br>Lainaboned 2015<br>Lainaboned 2015<br>Lainaboned 2015<br>Una 2017<br>Naria 2015<br>Naria 2015<br>Chen 2022<br>Deng 2023<br>Deng 2023<br>De   | Events<br>otherap<br>to the app<br>to the app  | Total           y         4           181         181           86         66           108         1297           1297         22           28         124           155         1297           212         88           213         42           28         172           56         197           1222         128           1297         2228           1292         122           2126         6           197         152           2126         -           192         122           2126         -           192         122           2126         -           190         123           203         342           454         454           453         550           556         76           102         55           55         76           102         23           103         10.0.10           55         55           102         24 <tr td="">           55         <td< td=""><td>Events.<br/>400<br/>106<br/>588<br/>344<br/>411<br/>421<br/>529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529<br/>6529</td><td>Total           500           142           33           171           195           78           88           86           1309           9           1309           9           1100           95           167           106           167           106           167           106           167           106           1253           68           101           68           101           253           253           253           253           1074           P           202           253           78           11769           68           161           453           201           461           453           253           358</td><td><math display="block"> \begin{array}{l} 12.8\% \\ 14.9\% \\ 7.9\% \\ 8.0\% \\ 9.2\% \\ 9.2\% \\ 11.7\% \\ 3.2\% \\ 7.7\% \\ 3.2\% \\ 7.0\% \\ 3.2\% \\ 11.7\% \\ 3.5\% \\ 100.0\% \\ 11.3\% \\ 12.4\% \\ 11.3\% \\ 8.4\% \\ 4.2\% \\ 8.4\% \\ 4.4\% \\ 11.3\% \\ 6.4\% \\ 100.0\% \\ 19.0\% \\ 11.6\% \\ 6.4\% \\ 0.35\% \\ 0.4\% \\ 19.0\% \\ 0.4\% \\</math></td><td>MH I. Random, 95% CI.           0.68 (0, 70, 1.04)           1.09 (0, 86, 1.14)           1.09 (0, 86, 1.14)           1.09 (0, 86, 1.14)           1.09 (0, 86, 1.14)           1.09 (0, 86, 1.14)           1.09 (0, 86, 1.14)           1.09 (0, 86, 1.30)           1.16 (0, 86, 1.30)           1.16 (0, 86, 1.30)           1.10 (0, 87, 1.30)           1.12 (0, 97, 1.28)           2.20 (1, 61, 6, 61)           0.84 (0, 77, 1.15)           0.84 (0, 77, 1.15)           0.86 (0, 77, 1.06)           0.90 (0, 77, 1.66)           0.90 (0, 77, 1.66)           0.93 (0, 77, 1.66)           1.12 (0, 86, 1.23)           0.93 (0, 77, 1.66)           1.13 (0, 83, 1.36)           1.14 (0, 42, 20)           0.93 (0, 77, 1.66)           1.15 (0, 83, 1.36)           1.16 (0, 82, 1.33)           0.93 (0, 77, 1.66)           1.14 (0, 42, 20)           0.93 (0, 77, 1.66)           1.15 (0, 83, 1.36)           1.16 (0, 84, 1.23)           0.93 (0, 77, 1.66)           1.14 (0, 40, 72, 20)           1.15 (0, 86, 1.33)           1.16 (0, 86, 1.33)           1.17 (0, 85, 1.37)      <tr< td=""><td></td></tr<></td></td<></tr> <tr><td></td><td>4.5 Properative dem<br/>Chen 2022<br/>Deng 2023<br/>Incua 2019<br/>La 2015<br/>La 2015<br/>La</td><td>Events.<br/>64<br/>64<br/>64<br/>64<br/>64<br/>64<br/>65<br/>82<br/>82<br/>82<br/>82<br/>82<br/>84<br/>85<br/>85<br/>85<br/>85<br/>85<br/>85<br/>85<br/>85<br/>85<br/>85</td><td>Total           y         4           48         48           48         48           48         48           48         48           48         48           48         48           48         48           48         48           48         48           48         48           48         48           108         108           1129         122           20         20           122         20           122         2126           149         132           2126         0.40           142         24           42         34           42         34           43         35           56         162           169         162           169         162           169         162           169         162           169         162           160         155           24         46           128         128           129         158           12</td><td>Events.           400           106           589           344           42           22           22           22           22           22           22           22           22           22           22           22           22           23           42           24           55           154           151           154           155           154           155           154           154           155           154      154</td><td><math display="block">\begin{array}{c} \text{Total} \\ \text{50} \\ 142 \\ 209 \\ 71 \\ 93 \\ 171 \\ 195 \\ 78 \\ 88 \\ 6 \\ 157 \\ 78 \\ 88 \\ 6 \\ 157 \\ 78 \\ 88 \\ 167 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 100 \\ 95 \\ 100 \\</math></td><td>12.8% 14.9% 7.9% 6.2% 7.9% 6.2% 7.9% 6.2% 7.9% 6.2% 7.9% 7.9% 7.9% 7.9% 7.9% 7.9% 7.9% 7.9</td><td>MH Random, 95% CL OB (0,7,1,04) (1,07,1,05) (1,07,1,04) (1,07,1,05) (1,08,1,07,1,05) (1,08,1,07,1,05) (1,08,1,07,1,05) (1,18,10,03,1,08) (1,14,10,4,20) (0,09,1,1,45) (1,15,10,31,38) (1,31,03,1</td><td>MH. Random 55, Cl</td></tr> | Events.<br>400<br>106<br>588<br>344<br>411<br>421<br>529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529 | Total           500           142           33           171           195           78           88           86           1309           9           1309           9           1100           95           167           106           167           106           167           106           167           106           1253           68           101           68           101           253           253           253           253           1074           P           202           253           78           11769           68           161           453           201           461           453           253           358   | $ \begin{array}{l} 12.8\% \\ 14.9\% \\ 7.9\% \\ 8.0\% \\ 9.2\% \\ 9.2\% \\ 11.7\% \\ 3.2\% \\ 7.7\% \\ 3.2\% \\ 7.0\% \\ 3.2\% \\ 11.7\% \\ 3.5\% \\ 100.0\% \\ 11.3\% \\ 12.4\% \\ 11.3\% \\ 8.4\% \\ 4.2\% \\ 8.4\% \\ 4.4\% \\ 11.3\% \\ 6.4\% \\ 100.0\% \\ 19.0\% \\ 11.6\% \\ 6.4\% \\ 0.35\% \\ 0.4\% \\ 19.0\% \\ 0.4\% \\$   | MH I. Random, 95% CI.           0.68 (0, 70, 1.04)           1.09 (0, 86, 1.14)           1.09 (0, 86, 1.14)           1.09 (0, 86, 1.14)           1.09 (0, 86, 1.14)           1.09 (0, 86, 1.14)           1.09 (0, 86, 1.14)           1.09 (0, 86, 1.30)           1.16 (0, 86, 1.30)           1.16 (0, 86, 1.30)           1.10 (0, 87, 1.30)           1.12 (0, 97, 1.28)           2.20 (1, 61, 6, 61)           0.84 (0, 77, 1.15)           0.84 (0, 77, 1.15)           0.86 (0, 77, 1.06)           0.90 (0, 77, 1.66)           0.90 (0, 77, 1.66)           0.93 (0, 77, 1.66)           1.12 (0, 86, 1.23)           0.93 (0, 77, 1.66)           1.13 (0, 83, 1.36)           1.14 (0, 42, 20)           0.93 (0, 77, 1.66)           1.15 (0, 83, 1.36)           1.16 (0, 82, 1.33)           0.93 (0, 77, 1.66)           1.14 (0, 42, 20)           0.93 (0, 77, 1.66)           1.15 (0, 83, 1.36)           1.16 (0, 84, 1.23)           0.93 (0, 77, 1.66)           1.14 (0, 40, 72, 20)           1.15 (0, 86, 1.33)           1.16 (0, 86, 1.33)           1.17 (0, 85, 1.37) <tr< td=""><td></td></tr<>  |                     |  | 4.5 Properative dem<br>Chen 2022<br>Deng 2023<br>Incua 2019<br>La 2015<br>La | Events.<br>64<br>64<br>64<br>64<br>64<br>64<br>65<br>82<br>82<br>82<br>82<br>82<br>84<br>85<br>85<br>85<br>85<br>85<br>85<br>85<br>85<br>85<br>85 | Total           y         4           48         48           48         48           48         48           48         48           48         48           48         48           48         48           48         48           48         48           48         48           48         48           108         108           1129         122           20         20           122         20           122         2126           149         132           2126         0.40           142         24           42         34           42         34           43         35           56         162           169         162           169         162           169         162           169         162           169         162           160         155           24         46           128         128           129         158           12 | Events.           400           106           589           344           42           22           22           22           22           22           22           22           22           22           22           22           22           23           42           24           55           154           151           154           155           154           155           154           154           155           154      154 | $\begin{array}{c} \text{Total} \\ \text{50} \\ 142 \\ 209 \\ 71 \\ 93 \\ 171 \\ 195 \\ 78 \\ 88 \\ 6 \\ 157 \\ 78 \\ 88 \\ 6 \\ 157 \\ 78 \\ 88 \\ 167 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 100 \\ 95 \\ 100 \\$ | 12.8% 14.9% 7.9% 6.2% 7.9% 6.2% 7.9% 6.2% 7.9% 6.2% 7.9% 7.9% 7.9% 7.9% 7.9% 7.9% 7.9% 7.9 | MH Random, 95% CL OB (0,7,1,04) (1,07,1,05) (1,07,1,04) (1,07,1,05) (1,08,1,07,1,05) (1,08,1,07,1,05) (1,08,1,07,1,05) (1,18,10,03,1,08) (1,14,10,4,20) (0,09,1,1,45) (1,15,10,31,38) (1,31,03,1 | MH. Random 55, Cl |
| Events.<br>400<br>106<br>588<br>344<br>411<br>421<br>529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529<br>6529   
   | Total           500           142           33           171           195           78           88           86           1309           9           1309           9           1100           95           167           106           167           106           167           106           167           106           1253           68           101           68           101           253           253           253           253           1074           P           202           253           78           11769           68           161           453           201           461           453           253           358  | $ \begin{array}{l} 12.8\% \\ 14.9\% \\ 7.9\% \\ 8.0\% \\ 9.2\% \\ 9.2\% \\ 11.7\% \\ 3.2\% \\ 7.7\% \\ 3.2\% \\ 7.0\% \\ 3.2\% \\ 11.7\% \\ 3.5\% \\ 100.0\% \\ 11.3\% \\ 12.4\% \\ 11.3\% \\ 8.4\% \\ 4.2\% \\ 8.4\% \\ 4.4\% \\ 11.3\% \\ 6.4\% \\ 100.0\% \\ 19.0\% \\ 11.6\% \\ 6.4\% \\ 0.35\% \\ 0.4\% \\ 19.0\% \\ 0.4\% \\$   | MH I. Random, 95% CI.           0.68 (0, 70, 1.04)           1.09 (0, 86, 1.14)           1.09 (0, 86, 1.14)           1.09 (0, 86, 1.14)           1.09 (0, 86, 1.14)           1.09 (0, 86, 1.14)           1.09 (0, 86, 1.14)           1.09 (0, 86, 1.30)           1.16 (0, 86, 1.30)           1.16 (0, 86, 1.30)           1.10 (0, 87, 1.30)           1.12 (0, 97, 1.28)           2.20 (1, 61, 6, 61)           0.84 (0, 77, 1.15)           0.84 (0, 77, 1.15)           0.86 (0, 77, 1.06)           0.90 (0, 77, 1.66)           0.90 (0, 77, 1.66)           0.93 (0, 77, 1.66)           1.12 (0, 86, 1.23)           0.93 (0, 77, 1.66)           1.13 (0, 83, 1.36)           1.14 (0, 42, 20)           0.93 (0, 77, 1.66)           1.15 (0, 83, 1.36)           1.16 (0, 82, 1.33)           0.93 (0, 77, 1.66)           1.14 (0, 42, 20)           0.93 (0, 77, 1.66)           1.15 (0, 83, 1.36)           1.16 (0, 84, 1.23)           0.93 (0, 77, 1.66)           1.14 (0, 40, 72, 20)           1.15 (0, 86, 1.33)           1.16 (0, 86, 1.33)           1.17 (0, 85, 1.37) <tr< td=""><td></td></tr<>   
   
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   | 4.5 Properative dem<br>Chen 2022<br>Deng 2023<br>Incua 2019<br>La 2015<br>La | Events.<br>64<br>64<br>64<br>64<br>64<br>64<br>65<br>82<br>82<br>82<br>82<br>82<br>84<br>85<br>85<br>85<br>85<br>85<br>85<br>85<br>85<br>85<br>85  | Total           y         4           48         48           48         48           48         48           48         48           48         48           48         48           48         48           48         48           48         48           48         48           48         48           108         108           1129         122           20         20           122         20           122         2126           149         132           2126         0.40           142         24           42         34           42         34           43         35           56         162           169         162           169         162           169         162           169         162           169         162           160         155           24         46           128         128           129         158           12   
   
   | Events.           400           106           589           344           42           22           22           22           22           22           22           22           22           22           22           22           22           23           42           24           55           154           151           154           155           154           155           154           154           155           154      154  | $\begin{array}{c} \text{Total} \\ \text{50} \\ 142 \\ 209 \\ 71 \\ 93 \\ 171 \\ 195 \\ 78 \\ 88 \\ 6 \\ 157 \\ 78 \\ 88 \\ 6 \\ 157 \\ 78 \\ 88 \\ 167 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 95 \\ 100 \\ 100 \\ 95 \\ 100 \\$ | 12.8% 14.9% 7.9% 6.2% 7.9% 6.2% 7.9% 6.2% 7.9% 6.2% 7.9% 7.9% 7.9% 7.9% 7.9% 7.9% 7.9% 7.9   
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  |                   |

Fig. 5 a Meta-analyses of association between therapeutic factors and ER. b Meta-analyses of association between therapeutic factors and ER

2 years as a cutoff value [42–44]. This review reveals that following LR for CRLM, the occurrence of ER is approximated at 30.2% (95% CI, 24.1%–36.4%). However, evidence shows that the 5-year OS rate after ER of CRLM ranges from 11.1% to 45%, while that of iCCA is only 8–11.6% [43–45]. This suggests that postoperative ER of CRLM is more common but the prognosis is relatively better, compared with other intrahepatic tumors. Furthermore, with the development of surgical techniques and minimally invasive local treatment strategies, CRLM patient is more likely to undergo re-resection and/or ablation after recurrence, and the 5-year OS after repeat hepatectomy is as high as 50% [46].

After pooling data from 21 studies involving 5791 patients, this meta-analysis identified ten prognostic factors that could play a crucial role in ER across four domains: patient-related factors, primary tumor characteristics, liver metastases attributes, and therapeutic factors.

As patient-related factors, elevated levels of preoperative CEA and CA199 were identified as potential risk factors for ER. However, the evidence was classified as level II due to high heterogeneity, which was attributed to varying cutoff values in different studies. Studies indicated that postoperative serum molecular markers had stronger predictive potential. Even within the normal limits, higher levels of postoperative CA199 were effective in predicting ER [15, 47, 48].

For primary tumor factors, the analysis of aggregated RR values indicated a heightened risk of ER associated with poor differentiation and LNM, both indicative of a more advanced tumor stage. The impact of LNM on ER was categorized as class II evidence due to reporting bias, but the Trim and Fill analysis indicated that the presence of publication bias had no substantial influence on the overall findings. Besides, previous investigations have validated that individuals with LNM in primary tumors exhibit an adverse OS and progressionfree survival (PFS) [49–51]. This reveals the significance of pathological characteristics of primary colorectal tumors in the prognosis assessment following LR. Particularly for metachronous liver metastases, defined as liver metastases discovered after primary tumor surgery, these primary tumor factors may assist surgeons in identifying patients who would derive greater benefits from LR [52, 53].

Characteristics of liver metastases, such as increased size, number, and bilobar distribution, have been recognized as potential risk factors associated with ER. Tumor size and number were frequently treated as dichotomous variables, with varying cutoff values, leading to heterogeneity across studies. However, these two variables can be used to calculate the tumor burden score (TBS)

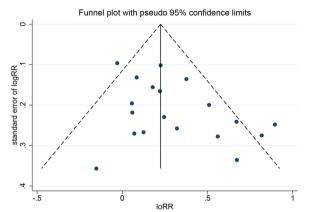
Outcome	Studies	Participants	RR & 95%CI	P value	l <sup>2</sup>	Egger's test P value	Class of Evidence
1. Patient characteristic							
1.1 Age	6	1584	1.06 [0.90, 1.25]	0.47	36%	-	Class II
1.2 Male	17	4146	0.94 [0.86, 1.03]	0.16	24%	0.185	Class I
1.3 Elevated CEA	9	2417	1.56 [1.19, 2.04]	0.001	81%	-	Class II
1.4 Elevated CA199	4	1138	1.48 [1.20, 1.81]	< 0.001	36%	-	Class II
2. Primary tumor characte	eristics						
2.1 Poor differentiation	6	1362	1.13 [1.03, 1.25]	0.01	0%	-	Class I
2.2 Lymph node metastasis	19	4471	1.31 [1.17, 1.48]	< 0.001	47%	0.035	Class II
2.3 T3-4	10	2558	1.04 [0.93, 1.17]	0.48	0%	0.623	Class I
2.4 Rectal tumor	17	3959	1.00 [0.91, 1.11]	0.93	41%	0.897	Class I
3. Liver metastases charac	teristics						
3.1 Synchronous metastases	16	3702	1.23 [0.89, 1.71]	0.21	90%	0.121	Class III
3.2 More metastases	13	3254	1.46 [1.26, 1.68]	< 0.001	57%	0.206	Class II
3.3 Larger metastases	7	1862	1.18 [1.04, 1.34]	0.01	29%	-	Class I
3.4 Bilobar distribution	13	2717	1.37 [1.21, 1.55]	< 0.001	40%	0.811	Class I
3.5 Extrahepatic metastases	4	1332	1.13 [0.99, 1.29]	0.06	25%	-	Class I
4. Surgical procedures and	d operative outco	ome					
4.1 Laparoscopic resection	3	855	0.87 [0.72, 1.05]	0.16	0%	-	Class II
4.2 Simultaneous resection	8	2161	1.00 [0.83, 1.21]	0.98	55%	-	Class II
4.3 Major hepatectomy	12	2588	1.16 [1.07, 1.25]	< 0.001	0%	0.329	Class I
4.4 Positive surgical margin	12	3187	1.33 [1.20, 1.48]	< 0.001	34%	0.505	Class I
4.5 Preoperative chemotherapy	12	2606	1.12 [0.97, 1.28]	0.12	58%	0.074	Class III
4.6 Postoperative chemotherapy	12	3200	0.93 [0.78, 1.11]	0.40	74%	0.616	Class II
4.7 Blood transfusion	9	2319	1.10 [0.96, 1.25]	0.16	39%	-	Class I
4.8 Postoperative complications	6	1731	1.28 [1.13, 1.44]	< 0.001	30%	-	Class I

 Table 7
 Summary of meta-analysis results and evidence quality

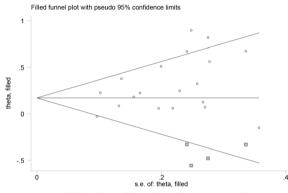
 $[TBS^2 = (maximum tumor diameter)^2 + (number of liver lesions)^2]$ , and the predictive efficacy of this index has been proved to exhibit higher specificity and sensitivity compared to relying solely on tumor size and number in patients with CRLM [54, 55]. Preoperative radiological imaging can provide first indications about the risk of ER, especially gadoxetate disodium-enhanced magnetic resonance imaging (EOB-MRI) can provide greater sensitivity

[56]. Furthermore, the implementation of intraoperative hepatic ultrasonography (IOUS) has been reported to identify more occult hepatic lesions missed by preoperative imaging, thereby potentially mitigating the risk of ER [57, 58].

In terms of therapeutic factors, major hepatectomy, positive surgical margins, and postoperative complications have been identified to increase the risk of ER. But



**Fig. 6** Funnel plot of ER in groups with and without LNM in the primary tumor



**Fig. 7** Trim and Fill analysis of the effect of LNM on ER. The squares represent the adjusted studies

no statistically significant difference was observed in the impact on ER between laparoscopic and open hepatectomy, suggesting the viability of the laparoscopic approach. Major hepatectomy is traditionally defined as the resection of three or more liver segments [59]. Indeed, the presence of more and larger, and bilobar-distributed metastases mentioned above not only represents worse tumor behavior but also increases the probability of occult intrahepatic spread and affects the radicality of the treatment. Consequently, to ensure the complete removal of all lesions, more extensive liver resection may be performed, leaving little room for salvageability [60]. Besides, R1 resection has been identified as a risk factor, implying that overlooked lesions and residual microscopic tumor cells left after surgery contribute to ER. However, it remains uncertain whether recurrence at the surgical margin or the emergence of new metastases are the primary contributors to ER in patients with positive surgical margins. Severe postoperative complications could potentially extend the immunosuppression induced by major surgeries and delay the initiation of adjuvant chemotherapy [14].

The current study failed to demonstrate the benefit of preoperative or postoperative chemotherapy in preventing ER. The reason is that, on the one hand, patients with more advanced tumors and R1 resection have a greater tendency to receive adjuvant therapy, on the other hand, the effects of different regimens and cycles of adjuvant treatment are combined. But a study revealed that > 1 chemotherapy line and progression of disease during last-line chemotherapy, were identified as independent predictors of ER, suggesting that the response to chemotherapy was more important than the chemotherapy itself [22]. Therefore, the cooperation between surgeons and oncologists is essential, especially when aggressive indications are present.

In addition to individual prognostic factors, the CRS combines tumor markers, primary tumor factors, and liver metastasis factors and was widely adopted for the prognosis of CRLM patients. In this study, class I evidence demonstrated that a CRS > 2 increase the risk of ER. Furthermore, several studies have utilized multiple prognostic factors to develop nomograms to better predict ER of CRLM [15, 19, 20]. However, the generalizability of these nomograms requires further research, and there is an urgent need to develop a universal ER risk prediction score.

When liver recurrence occurs, salvage resection had the potential to extend long-term survival [22]. However, it was noteworthy that the secondary resection rate was notably diminished in individuals with ER compared to those experiencing late recurrence, due to worsened condition status and potential surgical complications [26]. Additionally, studies indicated that the survival benefit associated with salvage resection disappeared within the subgroup of patients exhibiting more than two risk factors for ER [29]. For these patients, salvage treatment may accelerate disease progression and postoperative complications, thereby mitigating survival benefits rather than effectively controlling local recurrence. Therefore, the indications for salvage resection in patients with ER should be strictly controlled.

There are several limitations in this review. Initially, all the included studies are non-randomized control trials, introducing the possibility of confounding bias. Moreover, the combination of various ER definitions, ranging from 6 to 24 months, and amalgamation of diverse cutoff values for prognostic factors contributed Dai 2021

Total events

3.7.3 >4 metastases

40

28

38 110

584

8.7%

	Experime	ental	Contr	ol		Risk Ratio	Risk Ratio
y or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% Cl	M-H, Random, 95% Cl
Multiplemetast	ases						
2023	161	204	80	119	13.8%	1.17 [1.02, 1.36]	
elstein 2008	12	21	18	31	5.8%	0.98 [0.61, 1.58]	
e 2019	57	133	31	162	7.7%	2.24 [1.54, 3.25]	
2016	17	91	13	186	3.5%	2.67 [1.36, 5.26]	
a 2015	20	40	10	20	4.9%	1.00 [0.58, 1.71]	
otal (95% CI)		489		518	35.7%	1.43 [0.98, 2.09]	
vents	267		152				
eneity: Tau² =	0.14; Chi² :	= 18.99,	df = 4 (P	= 0.00	08); l <sup>2</sup> = 7	9%	
r overall effect:	Z = 1.86 (P	<b>P</b> = 0.06)	)				
> 3 metastases							
015	43	71	102	232	11.1%	1.38 [1.09, 1.75]	- <b>-</b>
2007	31	120	55	310	7.4%	1.46 [0.99, 2.14]	
2017	71	206	16	49	6.3%	1.06 [0.68, 1.65]	
2017		397		591	24.8%	1.33 [1.11, 1.60]	•
tal (95% CI)							

lmai 2016	136	256	116	306	12.7%
Kaibori 2011	24	38	30	81	7.7%
Lin 2017	7	31	42	276	3.2%
Yamashita 2011	19	32	33	89	7.2%
Subtotal (95% CI)		397		862	39.5%
Total events	214		259		
Heterogeneity: Tau <sup>2</sup> = 0	.00; Chi² =	4.06, df	= 4 (P =	0.40);	l² = 2%
Test for overall effect: Z	= 6.35 (P	< 0.0000	1)		
Total (95% CI)		1283		1971	100.0%

2.03 [1.46, 2.81] 1.40 [1.17, 1.68] 1.71 [1.17, 2.48] 1.48 [0.73, 3.01] 1.60 [1.08, 2.38] 1.56 [1.36, 1.79] 1.46 [1.26, 1.68] Heterogeneity: Tau<sup>2</sup> = 0.03; Chi<sup>2</sup> = 27.70, df = 12 (P = 0.006); I<sup>2</sup> = 57% 0.2 0.1 0.5 2 5 Favours [experimental] Favours [control]

Test for overall effect: Z = 5.16 (P < 0.00001) Test for subaroup differences:  $Chi^2 = 1.86$ . df = 2 (P = 0.39). I<sup>2</sup> = 0% Fig. 8 Subgroup analyses of more metastases

626

to the substantial heterogeneity. In addition, only RRs were extracted and combined, not the hazard ratios (HRs), which were less persuasive due to the absence of time-related data. Despite these limitations, pooling evidence from available observational studies enabled us to synthesize relevant and generalizable prognostic factors.

## Conclusion

This review offers a consolidated summary of the prognostic factors associated with ER subsequent to LR for CRLM. These findings have the potential to enhance the efficacy of surveillance strategies, refine prognostic assessments, and guide judicious treatment decisions for CRLM patients with high risk of ER. Additionally, it is essential to undertake well-designed prospective investigations to examine additional prognostic factors and develop salvage therapeutic approaches for ER of CRLM.

#### Abbreviations

Abbrevia	tions
CA199	carbohydrate antigen 19–9
CEA	carcinoembryonic antigen
CI	confidence interval
CRC	colorectal cancer
CRLM	colorectal liver metastases
CRS	clinical risk score
ER	early recurrence
HCC	hepatocellular carcinoma
HR	hazard ratio
icca	intrahepatic cholangiocarcinoma
IOUS	intraoperative hepatic ultrasonography
LNM	lymph node metastases
LR	liver resection
OR	odds ratio
OS	overall survival
PFS	progression-free survival
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-analyses
QUIPS	Quality in Prognostic Factor Studies
RoB	risk-of-bias
RR	relative ratio
VER	very early recurrence

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## **Supplementary Information**

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Supplementary Material 2. Supplementary Material 3.
Supplementary Material 3.
Supplementary Material 4.
Supplementary Material 5.

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In the final stages, all authors critically reviewed and provided final approval for the manuscript. Their collaborative efforts and constructive feedback enhanced the quality of the final publication.

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#### Authors' contributions

(i) Conception and design: YT, BL, GL; (ii) Administrative support: BL, GL; (ii) Collection and assembly of data: YT, SFW; (iii) Data analysis and interpretation: YT, YQW, NYW; (iv) Manuscript writing: YT, SFW; (v) Final approval of manuscript: All authors.

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#### Availability of data and materials

Yes, I have research data to declare. Data is provided within the manuscript or supplementary information files.

## Declarations

**Ethics approval and consent to participate** Not applicable.

#### **Consent for publication**

Not applicable.

#### Competing interests

The authors declare no competing interests.

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