Supplementary Material

Appendix 1: Search strategy

A | **Pubmed**

6 Search (#1 AND #2 AND #3 AND #4 AND #5)

5 Search (colonoscopy OR sigmoidoscopy OR ((colon OR colorectal) AND (endoscop* OR examinat*)))

4 Search ((screen* OR examination) AND ("follow-up" OR repeat* OR successive OR subsequent OR interval OR consecutive OR round))

3 Search (adenoma* OR polyp* OR "advanced neoplas*" OR "serrate*" OR "interval colorectal cancer" OR "interval cancer")

2 Search (carcinoma*[title/abstract] OR cancer[title/abstract] OR cancers[title/abstract] OR cancerous[title/abstract] OR neoplas*[title/abstract] OR adenoma*[title/abstract] OR malignan*[title/abstract] OR tumor*[title/abstract] OR tumour*[title/abstract])

1 Search (CRC[title/abstract] OR colorect*[title/abstract] OR rectal[title/abstract] OR rectum[title/abstract] OR colon[title/abstract] OR colonic[title/abstract] OR bowel[title/abstract] OR intestin*[title/abstract])

B | **Web of Science**

6 #1 AND #2 AND #3 AND #4 AND #5
Indexes=SCI-EXPANDED Timespan=All years

5 ALL=(colonoscopy OR sigmoidoscopy OR ((colon OR colorectal) AND (endoscop* OR examinat*)))
Indexes=SCI-EXPANDED Timespan=All years

4 ALL=((screen* OR examination) AND ("follow-up" OR repeat* OR successive OR subsequent OR interval OR consecutive OR round))
Indexes=SCI-EXPANDED Timespan=All years

3 ALL=(adenoma* OR polyp* OR "advanced neoplas*" OR "serrate*" OR "interval colorectal cancer" OR "interval cancer")
Indexes=SCI-EXPANDED Timespan=All years

2 ALL=(carcinoma* OR cancer OR cancers OR cancerous OR neoplas* OR adenoma* OR malignan* OR tumor* OR tumour*)
Indexes=SCI-EXPANDED Timespan=All years

1 ALL=(CRC OR colorect* OR rectal OR rectum OR colon OR colonic OR bowel OR intestin*)
Indexes=SCI-EXPANDED Timespan=All years

C | **EMBASE**

6 #1 AND #2 AND #3 AND #4 AND #5

5 colonoscopy OR sigmoidoscopy OR ((colon OR colorectal) AND (endoscop* OR examinat*))

4 (screen* OR examination) AND ('follow-up' OR repeat* OR successive OR subsequent OR interval OR consecutive OR round)

3 adenoma* OR polyp* OR 'advanced neoplas*' OR 'serrate*' OR 'interval colorectal cancer' OR 'interval cancer'

2 carcinoma* OR cancer OR cancers OR cancerous OR neoplas* OR adenoma* OR malignan* OR tumor* OR tumour*

1 crc OR colorect* OR rectal OR 'rectum'/exp OR 'colon'/exp OR colonic OR 'bowel'/exp OR intestin*

Supplementary table A **| Reporting of findings**

Most advanced finding	***Definition***	***Surrogate***
No finding	No polyps.	
Non-neoplastic polyps	At least one polyp with: - Hyperplastic **or** inflammatory **or** hamartomatous pathophysiology	At least one polyp <6 mm (for index colonoscopy: not removed) OR At least one hyperplastic polyp OR At least one benign polyp not otherwise specified OR Polyps of unknown histology
Non-advanced adenomas	At least one conventional adenoma with: - 6-9 mm of size **and** - Tubular histology **and** - Low-grade dysplasia **OR** At least one sessile serrated adenoma (any histology) with: - 6-9 mm of size **and** - low-grade dysplasia also includes 1-2 small adenomas	At least one polyp 6-9 mm OR At least one conventional adenoma (if not further defined)
Advanced adenomas	At least one conventional adenoma with: - >9 mm of size **or** - villous or tubulovillous histology, **or** - high-grade dysplasia **OR** At least one sessile serrated adenoma (any histology) with: - >9 mm of size **or** - high-grade dysplasia	At least one polyp >9mm OR At least one advanced conventional adenoma (if not further defined) OR >= 3 non-advanced adenomas (<10 mm, tubular histology, low-grade dysplasia)
Colorectal cancer	Invasive malignant neoplasms (beyond muscularis mucosa) / carcinomas	

Supplementary table B | **Overview of studies on follow-up colonoscopy after negative index colonoscopy: study characteristics**

First author, Year	Country / Region	Study type	Setting	Study Period	N	Age at index colonoscopy (years)		Age at follow-up colonoscopy (years)		Ethnicity (% Caucasian)	Male (%)	Family history (%)	Average risk screening indication		Interval between procedures (years)		
						Mean	*SD*	*Mean*	*SD*				*Index*	*Follow-Up*	*Mean*	*SD*	*Range*
Park, 2015[34]	Korea	Cohort	Asan Medical Centre, Seoul	2001 to 2011	1992	*52.5**	*7.6**	*54.6*	*7.5*	*Asian*	*82%*	*5%*	mixed	mixed	2.1	1.3*	NR
de Jong, 2005[23]	Netherlands	Cross-sectional	Noncarrier in FAP and HNPCC families (countrywide), registry data	1987 to 2003	162	*37.4*	*10.2*	*39.9**	NR	*Caucasian*	*50%*	NR	majority	majority	*2.5*	NR	0.3 to 10.1
Avidan, 2002[20]	USA	Cohort	Hines Veteran Affairs Hospital	1987 to 2002	391	*65.6**	*8.6**	*68.2**	*8.5**	*78%**	*99%*	*45%*	majority	majority	2.6*	1.4*	1 to 5
Kim, 2014[26]	Korea	Cross-sectional	Soonchunhyang University Hospital, Seoul	2003 to 2011	512	52.0	8.8	54.7*	8.9*	*Asian*	54% †	NR	mixed	mixed	2.7	1.6	NR to 7
															Interval subgroups‡:		
															NR	NR	NR to 5
															NR	NR	5 to 7
Suh, 2014[40]	Korea	Cohort	Korea University Ansan Hospital	2002 to 2012	360	*47.6**	*8.5**	*50.2**	*8.5**	*Asian*	*67%*	NR	majority	mixed	2.8*	1.3*	NR
															Interval subgroup¶:		
															5.4*	1.8*	NR
Neugut, 1995[33]	USA	Case-Control	Three colonoscopy practices in New York City	1986 to 1991	99	*58.0*	NR	*60.8**	NR	92%	47% †	37%	mixed	mixed	2.8	NR	0.5 to 5.4
Yamaji, 2004[42]	Japan	Cohort	Kameda General Hospital and Makuhari Clinic	1988 to 2002	4084	*48.8*	*8.4*	*51.7**	NR	*Asian*	70% †	NR	majority	majority	*2.9*	NR	NR
Sekiguchi, 2019[43]	Japan	Cohort	National Cancer Center in Tokyo	2004 to 2013	1378	*57.0**	*8.9**	*61.6**	NR	*Asian*	54%	12%	majority	majority	*4.6**	*1.5**	NR to 10
Chung, 2011[22]	Korea	Cohort	Seoul National University Hospital	2003 to 2010	1242	56.7	8.8	61.4*	NR	*Asian*	63%	7%	majority	majority	4.7	NR	NR to 5
Stock, 2013[38]	Germany	Cohort	practices across the state of Bavaria	2006 to 2009	2189	*64.5*	*6.8*	NR	NR	*Caucasian*	*44%*	NR	majority	mixed	NR	NR	0.5 to 3
Lieberman, 2007[30]	USA	Cohort	13 Veteran Affairs Medical Centres	1994 to 2002	298	63.4	7.0	NR	NR	*mixed*	*maj-ority*	24%	majority	majority	NR	NR	0.5 to 5.5

Supplementary table B | **Overview of studies (continued)**

First author, Year	Country / Region	Study type	Setting	Study Period	N	Age at index colonoscopy (years)		Age at follow-up colonoscopy (years)		Ethnicity (% Caucasian)	Male (%)	Family history (%)	Average risk screening indication		Interval between procedures (years)		
						Mean	*SD*	*Mean*	*SD*				*Index*	*Follow-Up*	*Mean*	*SD*	*Range*
Chiu, 2015[44]	Taiwan (China)	Cohort	National Taiwan University Hospital	2003 to 2011	2419	*58.0*	*6.8*	NR	NR	*Asian*	*63%*	NR	majority	majority	NR	NR	1 to 5
Jin, 2019[45]	China	Cohort	Digestive Endoscopy Center, General Hospital, Tianjin Medical University	2010 to 2017	421	*53.1**	*12.4*	NR	NR	*Asian*	*46%*	*2.7%*	mixed	mixed	NR	NR	1 to 5
Xu, 2016[41]	China	Cohort	Digestive Endoscopy Center, General Hospital, Tianjin Medical University	2003 to 2013	408	*57.6**	*11.6**	NR	NR	*Asian*	*48%*	*13%*	mixed	mixed	NR	NR	1 to <5
Brenner, 2010[21]	Germany	Cross-sectional	33 gastroenterology practices across the state of Saarland	2005 to 2007	533	*53.2**	NR	65.1	NR	*Caucasian*	42%	15%	mixed	majority	11.9	NR	1 to >16
															Interval subgroups‡:		
															NR	NR	1 to 5
															NR	NR	6 to 10
															NR	NR	11 to >16
Lieberman, 2014[29]	USA	Cohort	private practices, academic VA/military, all over US	2000 to 2012	15719	59.2*	NR	NR	NR	84%	45%	42%	mixed	mixed	NR	NR	1 to <10
															Interval subgroups‡:		
															NR	NR	1 to <5
															NR	NR	5 to <10
Miller, 2010[32]	USA	Cohort	West Haven Veterans Affairs Hospital	1997 to 2006	197	*62.0*	*0.5*	NR	NR	*85%*	*99%*	*22%*	mixed	mixed	NR	NR	4.75 to 10
															Interval subgroups‡:		
															NR	NR	4.75 to 5
															NR	NR	5 to 10
Leung, 2009[28]	China	Cohort	Three Hospitals in Hong Kong	2000 to 2007	401	*60.6*	*5.1*	*65.6**	*5.1**	*Asian*	*44%*	0%	majority	majority	*5.0*	NR	NR
Huang, 2012[24]	China	Cohort	Inner Mongolia Medical College, Huhhot	2003 to 2010	301	56.5	9.2	61.6*	9.2*	*Asian*	61%	NR	majority	majority	5.1	0.2	NR
Matsuda, 2009[31]	Japan	Cohort	Six hospitals in Japan (Japan Polyp Study Workgroup)	1990 to 1995	3661	61.6*	9.8*	*66.8**	NR	*Asian*	57%	NR	mixed	mixed	*5.2**	NR	3 to 12.3

Supplementary table B **| Overview of studies (continued)**

First author, Year	Country / Region	Study type	Setting	Study Period	N	Age at index colonoscopy (years)		Age at follow-up colonoscopy (years)		Ethnicity (% Caucasian)	Male (%)	Family history (%)	Average risk screening indication		Interval between procedures (years)		
						Mean	*SD*	*Mean*	*SD*				*Index*	*Follow-Up*	*Mean*	*SD*	*Range*
Strock, 2011[39]	Luxem-bourg	Cohort	Centre Hospitalier de Luxembourg	1994 to 2007	636	*56.1**	NR	*61.3**	NR	*Caucasian*	*51%*	NR	mixed	mixed	*5.2*	NR	NR
Imperiale, 2008[25]	USA	Cohort	Eli Lilly Screening Colonoscopy Program, seven sites in Indiana	1995 to 2005	1256	56.7	7.5	62.0*	7.6*	*Caucasian*	57% †	NR	majority	majority	5.3	1.3	NR
Laish, 2015[27]	Israel	Cohort	Meir Medical Hospital and surrounding clinics	1995 to 2013	318	NR	NR	NR	NR	*Jewish*	43%	44%	mixed	mixed	5.4*	2.6*	NR
															Interval subgroup¶:		
															11.0*	3.7*	NR
Rex, 1996[3]	USA	Cohort	Indiana University Hospital	NR	154	60.1*	NR	*65.6*	NR	*mixed*	68% †	0%	majority	majority	5.5	NR	3.9 to 6.8
Squillace, 1994[37]	USA	Cohort	Tucson Veteran Affairs Medical Center, Arizona	NR	29	57.6*	NR	63.3	NR	*mixed*	97%	10%	mixed	majority	5.7	NR	5 to NR
Kruse, 2015[8]	USA	Cohort	Harvard Vanguard Medical Associates, 17 ambulatory sites in Massachusetts	2001 to 2010	433	*53.0*	NR	*59.5**	NR	*77%*	*48%*	NR	majority	majority	*6.5**	NR	NR
Ponugoti, 2017[35]	USA	Cross-sectional	Indiana University Hospital and affiliated outpatient endoscopy units	1999 to 2015	378	*56.7*	*5.5*	66.4	5.6	*mixed*	42% †	0%	majority	majority	9.7	1.2	8 to 15
Rex, 2018[36]	USA	Cross-sectional	outpatient endoscopy unit, private practice, Atlanta	2002 to 2015	470	53.5	3.7	64.0	3.9	*85%*	46% †	NR	majority	majority	10.4	1.1	8 to 15
															Interval subgroups‡:		
															NR	NR	8 to 10
															NR	NR	10 to 15

Studies are ordered by interval between procedures. Studies with interval subgroups are ranked according to where the first interval subgroup is available.

NR=not reported; SD=standard deviation.

Italic: best approximation; *: own calculation.

†: sex-specific analyses available.

‡: interval-specific analyses available.

¶: subgroup with two previously negative colonoscopies available.

Supplementary table C **| Fulfilment of quality criteria**

Author, Year	**RP**	**RI**	**ABC**	**AFC**	**FUR**	**LFU**	***Sum***
Park, 2015	+	-	+	+	-	-	3
de Jong, 2005	-	+	+	+	+	+	5
Avidan, 2002	-	+	+	+	+	++	6
Kim, 2014	+	-	+	+	-	-	3
Suh, 2014	-	-	+	+	-	-	2
Neugut, 1995	+	-	+	+	+	-	4
Yamaji, 2004	+	+	+	+	-	-	4
Sekiguchi, 2019	+	+	+	+	+	-	5
Chung, 2011	+	+	+	+	+	+	6
Stock, 2013	+	-	-	-	+	-	2
Lieberman, 2007	-	+	+	+	+	+	5
Chiu, 2015	+	+	+	+	+	-	5
Jin, 2019	+	-	+	+	+	-	4
Xu, 2016	+	-	+	+	+	-	4
Brenner, 2010	+	+	-	+	++	-	5
Lieberman, 2014	+	-	+	+	+	-	4
Miller, 2010	-	-	+	+	+	-	3
Leung, 2009	+	+	+	+	-	++	6
Huang, 2012	+	+	+	+	-	++	6
Matsuda, 2009	-	-	+	+	+	-	3
Strock, 2011	+	-	+	+	-	-	3
Imperiale, 2008	+	+	+	+	-	+	5
Laish, 2015	-	-	+	+	-	-	2
Rex, 1996	+	+	+	+	+	-	5
Squillace, 1994	-	+	+	+	-	-	3
Kruse, 2015	+	+	+	+	-	-	4
Ponugoti, 2017	+	+	-	-	+	-	3
Rex, 2018	+	+	+	+	++	-	6
Sum	20	16	25	26	19	10	

RP - representative for the general population at average risk for colorectal cancer.
RI - representative for a population with screening as only indication for colonoscopy.
ABC - Ascertainment of index colonoscopy outcome by medical record or structured interview.
AFC - Assessment of follow-up colonoscopy outcome by independent assessment or record linkage (medical record).
FUR - range between procedures reported and interval in line with guideline recommendation.
LFU – proportion of subjects who had a negative index colonoscopy and also underwent a follow-up colonoscopy reported and adequate (i.e. number of subjects with negative index colonoscopy and follow-up colonoscopy divided by the number of all subjects with negative index colonoscopy in the study > 50% (one star) or >80% (two stars))

Quality Rating Manual - MODIFIED NEWCASTLE - OTTAWA QUALITY ASSESSMENT SCALE

In total 9 points can be awarded.

Selection

1) Representativeness of the cohort - population

a) truly representative of the general population at average risk for colorectal cancer with negative index colonoscopy in the community ✹
b) somewhat representative of the general population at average risk for colorectal cancer with negative index colonoscopy in the community ✹
c) selected group of users eg nurses, volunteers
d) no description of the cohort

Coding manual: Item is assessing the representativeness of the subjects in the community. For example, small studies (N < 100) or studies recruited in single centre studies will only be somewhat representative. Studies exclusively recruited in Veteran Affair Centres are a selected group.

2) Representativeness of the cohort - indication

a) truly representative of a population with screening indication ✹
b) somewhat representative of a population with screening indication ✹
c) population included both subjects with and without screening indication
d) no adequate description of indication characteristics

Coding manual: Item is assessing the representativeness of the study regarding the proportion of subjects with screening as single indication for follow-up colonoscopy. For example, a country-wide study where subjects were invited for re-screening and symptomatic subjects were excluded from the analysis is likely truly representative of a population with screening indication. In contrast, a study in a single hospital where presentation for colonoscopy was opportunistic and symptomatic subjects were not excluded, or no statement in this regard can be derived, is likely not representative.

3) Ascertainment of index colonoscopy outcome

a) secure record (medical record) ✹
b) structured interview ✹
c) self report
d) no description

Coding manual: how were the findings at index colonoscopy determined? Was it clearly reported?

Outcome

4) Assessment of follow-up colonoscopy outcome

a) independent blind assessment ✵
b) record linkage (medical record) ✵
c) self report
d) no description

Coding manual: how were the findings at follow-up colonoscopy determined? Was it clearly reported?

5) Adequacy of follow-up length

a) range of follow-up interval reported, and mean / range above 10 for at least one subgroup ✵✵
b) range of follow-up interval reported, and mean / range between 5 and 10 years ✵
c) range of follow-up interval reported, and mean / range between 1 and 5 years ✵
d) range of follow-up interval not reported

Coding manual: major American and European guidelines recommend an interval of 10 years for follow-up screening colonoscopy after negative index colonoscopy. The range between the procedures is central to answer the research question, and stars will only be allocated if the range was reported for at least one subgroup. Mean intervals and their standard deviations will only be used as an approximation. Accordingly, two stars are awarded if at least one subgroup was reported with a mean / range of more than 10 years. As mixed populations including subjects with diagnostic colonoscopy are allowed and these subjects might require an earlier examination, one star is awarded if the range was reported and the interval was between 5 to 10 or 1 to 5 years, respectively.

6) Lost to follow-up

a) proportion of subjects who had a negative index colonoscopy and returned for follow-up colonoscopy reported and high (>80%) ✵✵
b) proportion of subjects who had a negative index colonoscopy and returned for follow-up colonoscopy reported and moderate (50 % to 80%) ✵
c) proportion of subjects who had a negative index colonoscopy and returned for follow-up colonoscopy reported and small (<50%)
c) proportion of subjects who had a negative index colonoscopy and returned for follow-up colonoscopy not reported

Coding manual: ideally, all subjects would be systematically referred for follow-up colonoscopy, i.e. all of those who had a negative index colonoscopy would also return for the follow-up colonoscopy. If the proportion of subjects returning for the follow-up colonoscopy is low, selection bias may be assumed, as subjects who return are potentially not average risk subjects. For instance, they may be particularly concerned about their health status, i.e. live potentially healthier than the average, or have a diagnostic reason for their return.

Reference

Wells G SB, O'Connell D, Peterson J, Welch V, Losos M, Tugwell P. The Newcastle-Ottawa Scale (NOS) for assessing the quality of nonrandomised studies in meta-analyses: Ottawa Hospital Research Institute. Department of Epidemiology and Community Medicine; 2013 [Available from: www.ohri.ca/programs/clinical_epidemiology/oxford.asp accessed 4 Sept 2019].

Supplementary table D **| Descriptive statistics**

	Number of studies	Range	Quantile		
			25%	50%	75%
Prevalence of any neoplasm (%)					
One to five years	16	4.9 to 40.4	15.6	21.4	24.5
Five to ten years	13	7.4 to 41.4	20.4	22.4	27.2
More than ten years	3	15.8 to 22.2	-	-	-
Prevalence of any advanced neoplasm (%)					
One to five years	14	0.7 to 7.0	2.1	2.8	4.3
Five to ten years	15	0.6 to 9.4	1.6	3.6	5.0
More than ten years	3	5.6 to 8.0	-	-	-

	Number of studies	Prevalence			
		0%	<1%	<2%	<3%
Cancers					
One to five years	13	6	6	1	0
Five to ten years	14	10	3	0	1
More than ten years	3	2	0	0	1

Supplementary table E **| Overview of meta-analyses and sensitivity analyses. Summary estimates are based on random effects models unless stated otherwise.**

1 **| Primary analyses**

	One to five years		Five to ten years		More than ten years	
Analysis set	**ANN (%) (95% CI)**	**ADN (%) (95% CI)**	**ANN (%) (95% CI)**	**ADN (%) (95% CI)**	**ANN (%) (95% CI)**	**ADN (%) (95% CI)**
All cohorts						
No of cohorts	16	14	13	15	3	3
Summary estimate	20.7 (15.8 to 25.5)	2.8 (2.0 to 3.7)	23.0 (18.0 to 28.0)	3.2 (2.2 to 4.1)	21.9 (14.9 to 29.0)	7.0 (5.3 to 8.7) †
Heterogeneity: I^2 (%)/τ^2/P value	99/0.009/<0.001	94/0.014/<0.001	97/0.007/<0.001	89/0.000/<0.001	85/0.003/0.001	0/0.000/0.45
Cohorts where the majority of subjects had screening as indication						
No of cohorts	8	7	9	9	2	2
Summary estimate	17.2 (12.0 to 22.4)	1.4 (0.9 to 1.9)	27.1 (21.1 to 33.1)	2.7 (1.6 to 3.7)	25.3 (21.9 to 28.8) †	6.8 (4.4 to 9.2) †
Heterogeneity: I^2 (%)/τ^2/P value	98/0.005/<0.001	72/0.000/0.001	93/0.007/<0.001	81/0.000/<0.001	61/0.001/0.11	31/0.000/0.23

ANN = prevalence of any neoplasm. ADN = prevalence of any advanced neoplasm. CI = confidence interval

† fixed effects model.

P values are based on Cochran's Q statistic.

2 **| Sensitivity analyses for all cohorts**

Type of sensitivity analysis	One to five years		Five to ten years	
	ANN (%) (95% CI)	**ADN (%) (95% CI)**	**ANN (%) (95% CI)**	**ADN (%) (95% CI)**
Mainly Asian				
No of cohorts	8	9	3	6
Summary estimate	24.1 (16.8 to 31.3)	2.4 (1.5 to 3.2)	23.8 (21.2 to 26.4) †	3.7 (1.8 to 5.6)
Heterogeneity: I^2 (%)/τ^2/P value	99/0.001/<0.001	92/0.000/<0.001	51/0.001/0.13	89/0.000/<0.001
Mainly Caucasian				
No of cohorts	8	5	10	9
Summary estimate	16.8 (11.6 to 22.1)	3.5 (3.1 to 3.8) †	22.6 (17.0 to 28.2)	3.0 (1.8 to 4.2)
Heterogeneity: I^2 (%)/τ^2/P value	97/0.005/<0.001	49/0.000/0.10	97/0.007/<0.001	90/0.000/<0.001

ANN = prevalence of any neoplasm. ADN = prevalence of any advanced neoplasm. CI = confidence interval

† fixed effects model.

P values are based on Cochran's Q statistic.

3 **| Sensitivity analyses for cohorts where the majority of subjects had screening as indication**

Type of sensitivity analysis	One to five years		Five to ten years	
	ANN (%) (95% CI)	ADN (%) (95% CI)	ANN (%) (95% CI)	ADN (%) (95% CI)
Mainly Asian				
No of cohorts	4	4	2	2
Summary estimate	18.3 (11.1 to 25.4)	1.2 (0.7 to 1.6)	25.6 (22.4 to 28.8) †	1.6 (0.7 to 2.5) †
Heterogeneity: I^2 (%)/τ^2/P value	99/0.005/<0.001	73/0.000/0.01	0/0.000/0.40	0/0.000/0.86
Mainly Caucasian				
No of cohorts	4	3	7	7
Summary estimate	16.1 (6.6 to 25.5)	2.1 (1.4 to 2.8) †	27.7 (19.6 to 35.8)	3.1 (1.7 to 4.5)
Heterogeneity: I^2 (%)/τ^2/P value	94/0.009/<0.001	0/0.000/0.42	94/0.011/<0.001	85/0.000/<0.001

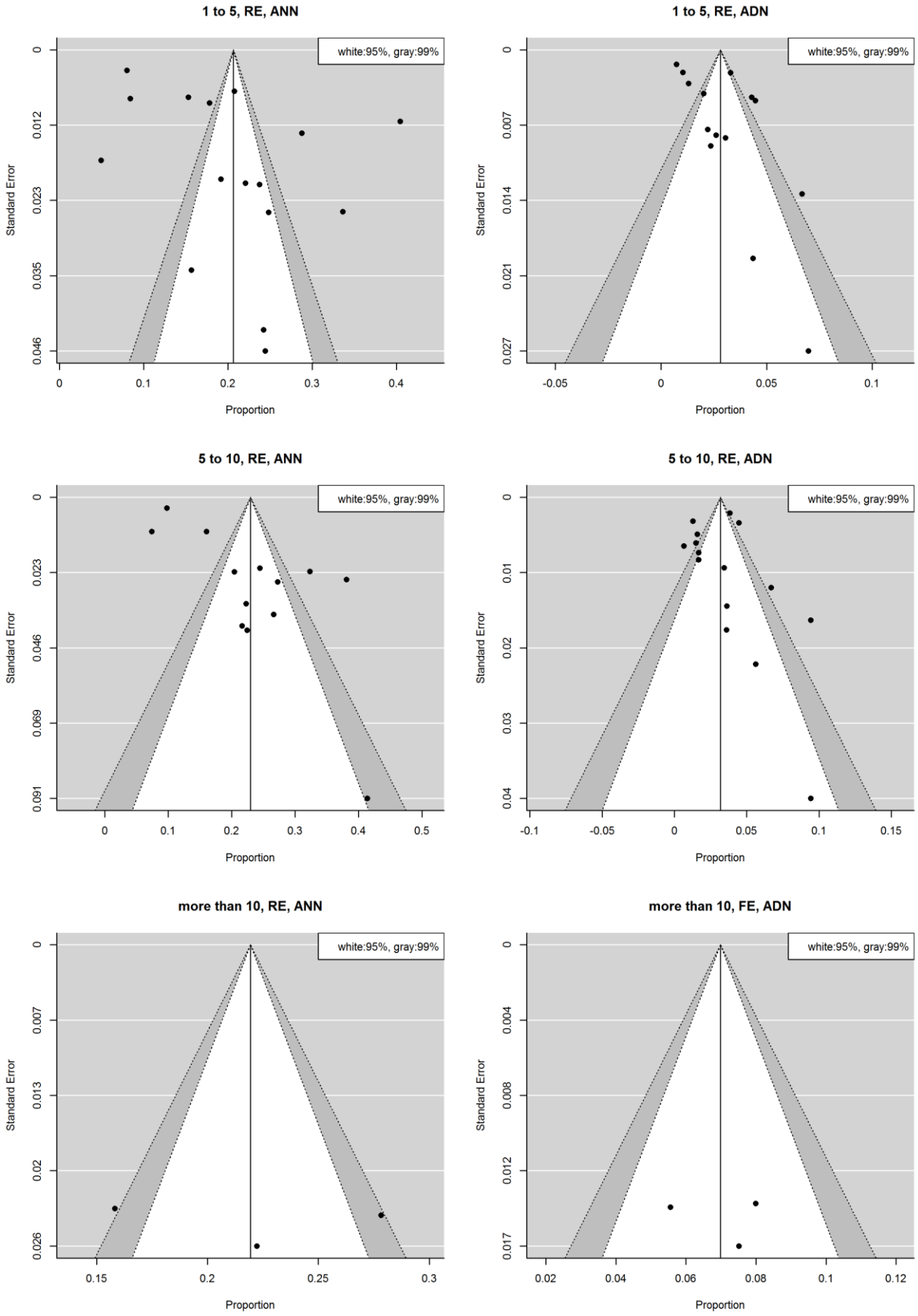
ANN = prevalence of any neoplasm. ADN = prevalence of any advanced neoplasm. CI = confidence interval

† fixed effects model.

P values are based on Cochran's Q statistic.

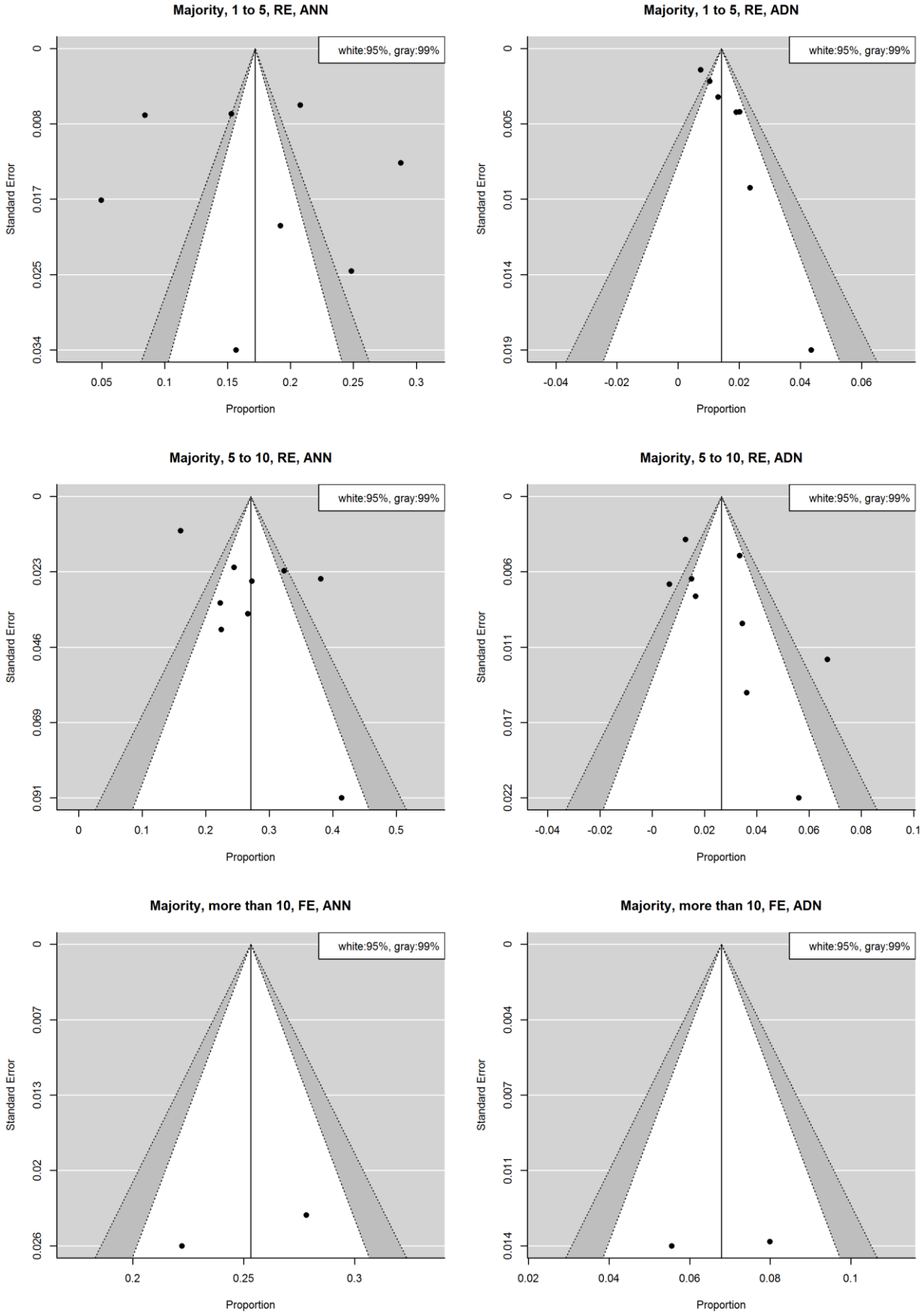
Supplementary figures **| Funnel plots**

Figure A **| All studies**



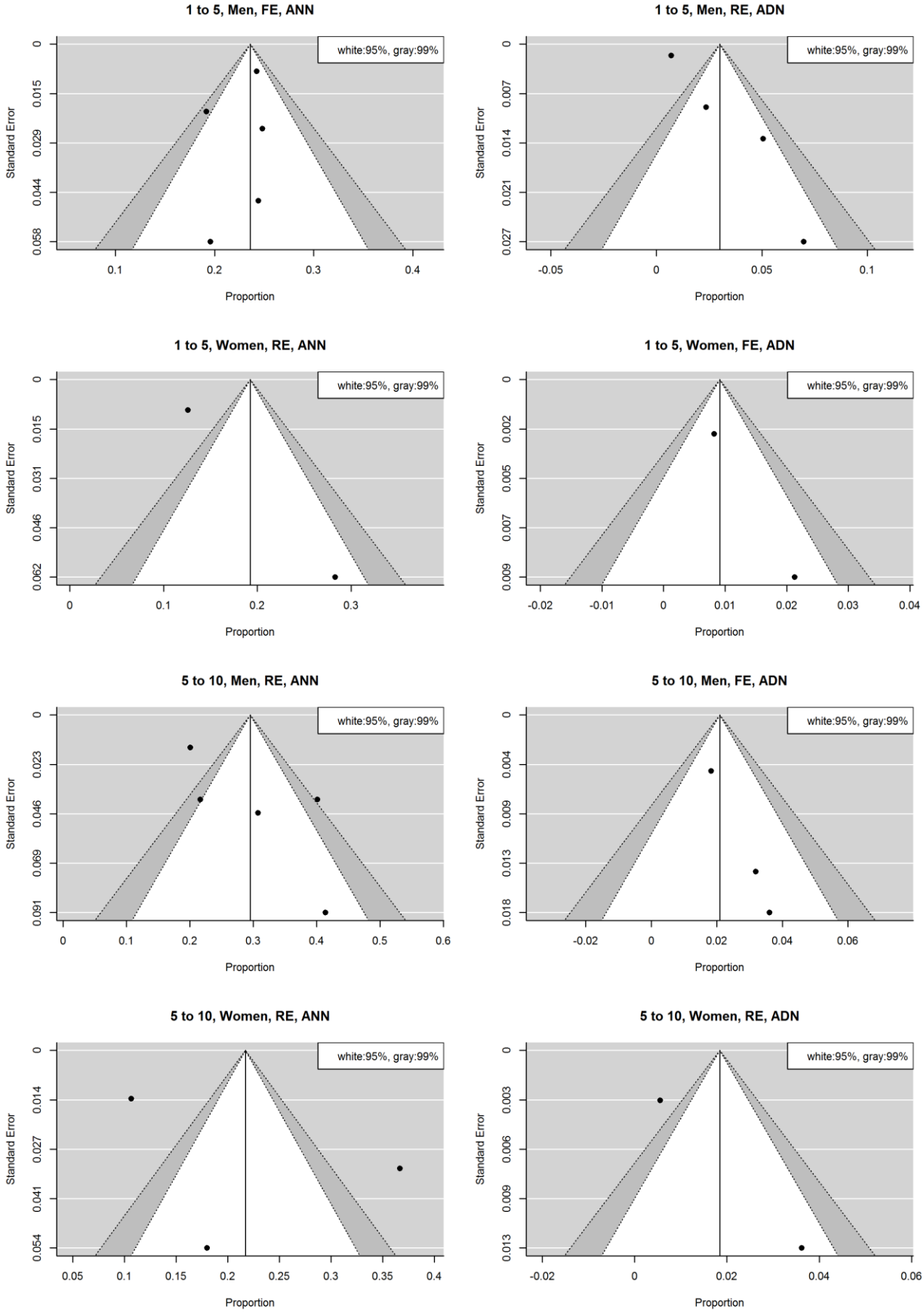
ANN: prevalence of any neoplasm. ADN: prevalence of any advanced neoplasm. RE: random effects model. FE: fixed effects model

Figure B **| Studies where the majority of subjects had screening as indication**



ANN: prevalence of any neoplasm. ADN: prevalence of any advanced neoplasm. RE: random effects model. FE: fixed effects model

Figure C **| By sex**



ANN: prevalence of any neoplasm. ADN: prevalence of any advanced neoplasm. RE: random effects model. FE: fixed effects mode