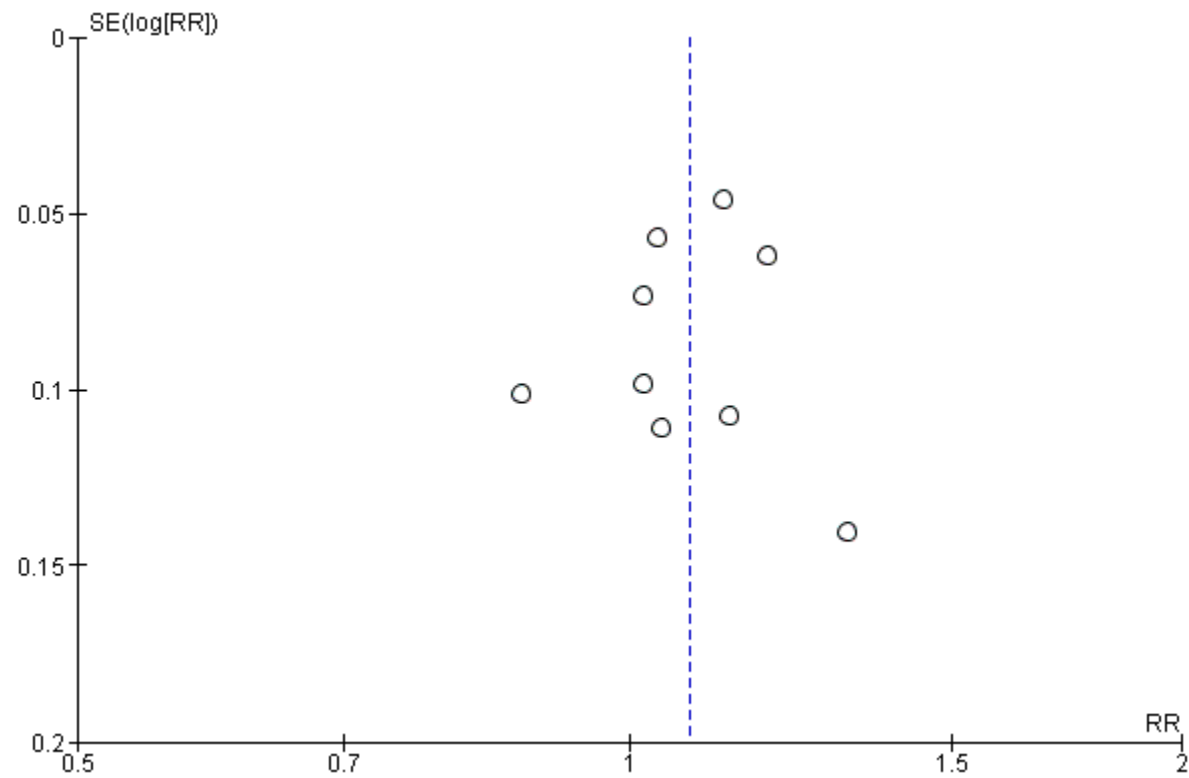


Supplementary Material

Supplementary Fig. 1 Funnel plot demonstrating no visible asymmetry signifying no publication bias based on adenoma detection rate.



Supplementary Table 1 PubMed search strategy.

SearchQuery #		Items found
1	("Deep Sedation"[Mesh] OR "Propofol"[Mesh] OR Disoprofol OR Diprivan OR Disoprivan OR Fresofol OR Ivofol OR Recofol OR Aquafol OR 2,6- Diisopropylphenol OR propofol OR monitored-anesthesia-care OR monitored-anaesthesia-care OR deep- sedation)	23982
2	("Adenoma"[Mesh] OR "Polyps"[Mesh] OR adenoma* OR polyp OR polyps)	172478
3	Search ((Detect* AND (rate or rates)))	289843
4	Search ("Colonoscopy"[Mesh] OR colonoscop*)	42224
5	2 AND 3	4686
6	4 AND 5	2240
7	6 AND 1	32
8	7 NOT (("case reports"[Publication Type] OR "editorial"[Publication Type] OR "guideline"[Publication Type] OR "introductory journal article"[Publication Type] OR "review"[Publication Type]))	28

Supplementary Table 2 Risk of bias in the included RCT.

Study	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)
Hsieh et al	Unclear	Low	High	Unclear	Low	Low

Supplementary Table 3 Risk of bias in the included cohort studies.

The Newcastle-Ottawa Scale for assessment of risk of bias in the included nonrandomized comparative studies								
Criteria	Acceptable (*)	Abu Baker et al	Lin et al	Metwally et al	Nakshabendi et al	Thirumurthi et al	Turse et al	Wang et al
Timing		R	R	R	R	R	R	R
Selection								
Representativeness of exposed cohort	Patients undergoing colonoscopy in the presence of a second participant	*	*	*	*	*	*	*
Selection of non-exposed cohort	Similar to exposed cohort without the presence of a second observer	*	*	*	*	*	*	*
Ascertainment of exposure?	Secured records or prospective allocation	*	*	*	NR	*	*	*
Demonstration that outcome of interest was not present at start of study?	Familial syndromes increasing the risk of polyposis excluded or patient with regular screening included	*	*	*	*	*	*	*

	without recent colonoscopy								
Comparability									
Study controls for baseline imbalances?	Yes	-	*	-	-	-	-	*	-
Outcome									
Assessment of outcome	Secured records or blinded prospective assessment	*	*	*	*	*	*	*	*
Was follow-up long enough for outcomes to occur	Not applicable	NA	NA	NA	NA	NA	NA	NA	NA
Adequacy of follow up of cohorts	Not applicable	NA	NA	NA	NA	NA	NA	NA	NA
Other									
Funding source		NR	None	NR	NR	NFP	NFP	None	NFP

FP, for-profit organization; NA, not applicable; NFP, not for profit organization; NR, not reported; P, prospective; R, retrospective

Supplementary Table 4 Baseline demographics of the patient included in the study.

Study	Type of Study	Mean/Median Age, n		Male, n (%)		Indication for Colonoscopy, n (%)		Ethnicity, n (%)	
		Control	Intervention	Control	Intervention	Control	Intervention	Control	Intervention
Full studies									
Abu Baker et al	Cohort	58.5	59	14156 (50.9%)	8799 (51.8%)	S: 2535 (9.1%) D: 25267 (90.9%)	S: 2311 (13.6%) D: 14681 (86.4%)	C: NR AA: NR	C: NR AA: NR
Hsieh et al	RCT	NR	NR	NR	NR	S: NR D: NR	S: NR D: NR	C: NR AA: NR	C: NR AA: NR
Lin et al	Cohort	60.3	59.9	1138 (49.8%)	1303 (48.7%)	S:1671 (73.1%) D: 651 (26.9%)	S: 2051 (76.6%) D: 626 (23.4%)	C: NR AA: NR	C: NR AA: NR
Metwally et al	Cohort	60.2	61	936 (52.2%)	787 (54.1%)	S: 525 (29.3%) D: 1271 (70.8%)	S: 398 (27.3%) D: 1058 (72.7%)	C: 1556 (86.7%) AA: NR	C: 1291 (88.7%) AA: NR
Nakshabendi et al	Cohort	58.3	57.5	225 (57.5%)	188 (61.0%)	S: 391 (100%)	S: 308 (100%)	C: 94 (24.0%)	C: 120 (39.0%)

						D: NA	D: NA	AA: 263 (67.3%)	AA: 165 (53.6%)
Thirumurti et al	Cohort	55.4	56.7	597 (64.7%)	326 (35.3%)	S: 1730 (100%)	S: 874 (100%)	C: 1190 (68.8%)	C: 607 (69.5%) AA: 132 (15.1%)
						D: NA	D: NA	AA: 166 (9.6%)	
Turse et al	Cohort	56.4	57	146 (43.2%)	105 (42.5%)	S: 338 (100%)	S: 247 (100%)	C: NR	C: NR
						D: NA	D: NA	AA: NR	AA: NR
Wang et al	Cohort	61.3	60.8	55390 (54.6%)	1788 (51.1%)	S: 101367 (100%)	S: 3501 (100%) D: NA	C: 88094 (87.1%)	C: 3010 (86.0%) AA: 69 (2.0%)
						D: NA		AA: 5886 (5.8%)	
Abstracts									
Kochar et al	Cohort	NR	NR	NR	NR	S: NR	S: NR	C: NR	C: NR
						D: NR	D: NR	AA: NR	AA: NR
Anderson et al	Cohort	59	59.4	5539 (49.3%)	598 (48.1%)	S: 9304 (82.9%)	S: 987 (79.4%)	C: 10198 (90.8%)	C: 1102 (88.7%) AA: NR
						D: 1930 (17.1%)	D: 256 (20.6%)	AA: NR	
Venugopal et al	Cohort	64	67	NR	NR	S: 159 (100%)	S: 166 (100%)	C: NR	C: NR

D: NA D: NA AA: NR AA: NR

AA, African/American; C, Caucasian; D, diagnostic; n, no. of patients; NA, not applicable; NR, not reported; RCT, randomized controlled trial; S, screening/surveillance.

Supplementary Table 5 Results of detection rates highlighted by studies.

Study	ADR		PDR		AADR		CIR	
	Control	Intervention	Control	Intervention	Control	Intervention	Control	Intervention
Abu Baker et al	NR	NR	5814/27802 (20.9%)	3879/16992 (22.8%)	NR	NR	24273/27802 (87.3%)	15368/16992 (90.4%)
Hsieh et al	86/204 (42.1%)	192/447 (42.5%)	NR	NR	NR	NR	NR	NR
Lin et al	NR	NR	1145/2286 (50.1%)	1429/2677 (53.4%)	NR	NR	NR	NR
Metwally et al	487/1796 (27.1%)	409/1456 (28.1%)	NR	NR	NR	NR	NR	NR
Nakshabendi et al	122/391 (31.2%)	109/308 (35.4%)	NR	NR	NR	NR	NR	NR
Thirumurti et al	713/1730 (41.2%)	405/874 (46.3%)	NR	NR	134/1730 (7.7%)	95/874 (10.8%)	1709/1730 (98.8%)	869/874 (99.4%)
Turse et al	149/338 (44.1%)	95/247 (38.5%)	243/338 (71.9%)	167/247 (67.6%)	NR	NR	NR	NR
Wang et al	NR	NR	38190/101367 (37.7%)	1194/3501 (34.1%)	6109/101367 (6.0%)	251/3501 (7.2%)	98525/101367 (97.2%)	3436/3501 (98.1%)
Kochar et al	312/1446 (21.6%)	79/352 (22.4%)	564/1446 (39.0%)	162/352 (46.0%)	91/1446 (6.3%)	16/352 (4.5%)	NR	NR
Anderson et al	NR	NR	5304/11234 (47.2%)	543/1243 (43.7%)	NR	NR	10628/11234 (94.6%)	1169/1243 (94.0%)

Venugopal et al	54/159 (34.0%)	74/166 (44.6%)	NR	NR	NR	NR	148/159 (93.0%)	163/166 (98.2%)
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ADR, adenoma detection rate; AADR, advanced adenoma detection rate; CIR, cecal intubation rate; PDR, polyp detection rate; NR, not reported.