Supplementary Figure 1. Search Strategy Used for Systematic Review.

MEDLINE
1. exp Cathartics/
2. Polyethylene Glycols/
3. (cathart$ or purgat$ or polyethylene$ or miralax or golytely or colyte or gavilyte$ or macrogol$ or moviprep or peg or magnesium citrate or sodium phos$ or suprep or prepopik or bisacodyl).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier]
4. ((bowel adj3 (prep$ or clean$ or lavage)) or (colo$ adj3 (prep$ or clean$ or lavage)) or (intestin$ adj3 (prep$ or clean$ or lavage))).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier]
5. (boston bowel prep$ or BBPS or Ottawa score or aronchick).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier]
6. 1 or 2 or 3 or 4 or 5
7. exp Colonoscopy/
8. (Colonosc$ or endosc$).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier]
9. 7 or 8
10. exp colonic polyps/ or colonic neoplasms/ or colorectal neoplasms/ or rectal neoplasms/ or sigmoid neoplasms/ or cecal neoplasms/ or adenomatous polyps/
11. ((Colo$ adj3 (polyp$ or neoplasm$ or adenoma$ or cancer$ or tumor$ or tumour$ or carcinoma$)) or (Rect$ adj3 (polyp$ or neoplasm$ or adenoma$ or cancer$ or tumor$ or tumour$ or carcinoma$)) or (Sigmoid adj3 (polyp$ or neoplasm$ or adenoma$ or cancer$ or tumor$ or tumour$ or carcinoma$)) or (Cec$ adj3 (polyp$ or neoplasm$ or adenoma$ or cancer$ or tumor$ or tumour$ or carcinoma$))).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier]
12. 10 or 11
13. Adenoma/di [Diagnosis]
14. exp Polyps/di [Diagnosis]
15. ((Adenoma adj3 (detect$ or preval$ or presence or rate$ or diagnos$ or predict$)) or (polyp$ adj3 (detect$ or preval$ or presence or rate$ or diagnos$ or predict$)) or (neoplasm$ adj3 (detect$ or preval$ or presence or rate$ or diagnos$ or predict$))).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier]
16. (ADR or PDR).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier]
17. 13 or 14 or 15 or 16
18. 12 or 17
19. 6 and 9 and 18
20. limit 19 to (humans and "all adult (19 plus years)")
Embase
1. exp laxative/
2. exp macrogol derivative/
3. intestine preparation/
4. colon lavage/
5. (cathart$ or purgat$ or polyethylene$ or miralax or golytely or colyte or gavilyte$ or macrogol$ or moviprep or peg or magnesium citrate or sodium phos$ or suprep or prepopik or bisacodyl).mp. [mp=title, abstract, subject headings, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword]
6. ((bowel adj3 (prep$ or clean$ or lavage)) or (colo$ adj3 (prep$ or clean$ or lavage)) or (intestin$ adj3 (prep$ or clean$ or lavage))).mp. [mp=title, abstract, subject headings, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword]
7. (boston bowel prep$ or BBPS or Ottawa score or aronchick).mp. [mp=title, abstract, subject headings, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword]
8. 1 or 2 or 3 or 4 or 5 or 6 or 7
9. exp colonoscopy/
10. (Colonosc$ or endosc$).mp. [mp=title, abstract, subject headings, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword]
11. 9 or 10
12. colon polyp/ or colon tumor/ or colorectal tumor/ or exp rectum tumor/ or exp cecum tumor/ or exp adenomatous polyp/
13. ((Colo$ adj3 (polyp$ or neoplasm$ or adenoma$ or cancer$ or tumour$ or carcinoma$)) or (Rect$ adj3 (polyp$ or neoplasm$ or adenoma$ or cancer$ or tumour$ or carcinoma$)) or (Sigmoid adj3 (polyp$ or neoplasm$ or adenoma$ or cancer$ or tumour$ or carcinoma$)) or (Cec$ adj3 (polyp$ or neoplasm$ or adenoma$ or cancer$ or tumour$ or carcinoma$))).mp. [mp=title, abstract, subject headings, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword]
14. 12 or 13
15. ((Adenoma adj3 (detect$ or preval$ or presence or rate$ or diagnos$ or predict$)) or (poly$ adj3 (detect$ or preval$ or presence or rate$ or diagnos$ or predict$)) or (neoplas$ adj3 (detect$ or preval$ or presence or rate$ or diagnos$ or predict$))).mp. [mp=title, abstract, subject headings, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword]
16. exp adenoma/di [Diagnosis]
17. polyp/di [Diagnosis]
18. (ADR or PDR).mp. [mp=title, abstract, subject headings, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword]
19. 15 or 16 or 17 or 18
20. 14 or 19
21. 8 and 11 and 20
22. limit 21 to (human and (adult <18 to 64 years> or aged <65+ years>))
Supplementary Figure 2. Quality Assessment Tool.

**A) Selection:**

1) Representativeness: Truly representative of patients for which ADR is appropriate? *
   - Study includes only adults undergoing screening or surveillance colonoscopy: 1
   - Study includes patients undergoing colonoscopy for indications other than screening/surveillance: 0

2) Ascertainment of exposure (bowel prep quality definition): *
   - A validated, quantitative or ordinal scale was used (BBPS, Ottawa, Aronchick): 1
   - A validated, quantitative or ordinal scale was not used: 0

3) Were consecutive patients enrolled? **
   - Yes: 1
   - No: 0

4) Was there full accounting of all subjects? **
   - Yes: 1
   - No: 0

**B) Comparability**

1) Comparability of cohorts on the basis of the design or analysis: *
   - Study controls for most important confounders (sex, age, withdrawal time): 2
   - Study controls for other factors but not age, sex and withdrawal time: 1
   - Study does not control for any factors: 0

**C) Outcome**

1) Assessment of outcome (ADR): *
   - Study reports ADR: 1
   - Study reports PDR: 0

*Adapted from Newcastle-Ottawa Scale

**Adapted from QUADAS-2 Scale

***Questions from NewCastle-Ottawa Scale not applicable to studies of this meta-analysis were not included in this list. These questions included the following:

1) Selection of the non-exposed cohort.
2) Demonstration that outcome of interest was not present at start of study.

3) Was follow-up long enough for outcomes to occur.

4) Adequacy of follow up of cohorts.
Supplementary Figure 3. Quality assessment score of studies included in the meta-analysis.

<table>
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<th>Study</th>
<th>Representativeness of population</th>
<th>Ascertainment of exposure</th>
<th>Consecutive enrollment of patients</th>
<th>Full accounting of all subjects</th>
<th>Comparability</th>
<th>Assessment of outcome</th>
<th>Total score</th>
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Quality Assessment tool adapted from Newcastle-Ottawa scale and QUADAS2 as described in Methods and Supplementary Figure 2.