

Quality assessment criteria	Acceptable(*)	Currie (13)	Libby (14)	Campbell (18)	Ferrara (19)	Govindarajan (35)	Morden (39)	Oliveria (40)	Ruiter (41)
<i>Selection</i>									
Representativeness of exposed cohort?	Representative of average adult in community (age/sex/being at risk of disease)	*	*	*	*	*	-	*	-
Selection of the non-exposed cohort?	Drawn from same community as exposed cohort	*	*	*	*	*	*	*	*
Ascertainment of exposure?	Secured records, Structured interview	*	*	-	*	*	*	*	*
Demonstration that outcome of interest was not present at start of study?	Only incident cases of CRC	*	*	*	*	*	*	*	*
<i>Comparability</i>									
Study controls for age/sex?	Yes	*	*	*	*	*	*	*	*
Study controls for at least 3 additional risk factors?	BMI, ethnicity, family H/O CRC, smoking, alcohol, physical activity, dietary factors (red meat, fat intake, fruits and vegetables), DM duration/severity, aspirin/NSAID, statin use, Vitamin D/Calcium intake, hormone replacement therapy	-	*	*	*	-	*	-	-
<i>Outcome</i>									
Assessment of outcome?	Independent blind assessment, record linkage	*	*	*	*	*	*	*	*
Was follow-up long enough for outcome to occur?	Follow-up >3 yrs	-	*	-	-	-	-	*	*
Adequacy of follow-up of cohorts?	Complete follow-up, or subjects lost to follow-up unlikely to introduce bias	-	*	*	*	-	*	-	*
Overall Quality Score (Maximum = 9)		6	9	7	8	6	7	7	7

Supplemental Table 1. Newcastle-Ottawa scale for assessment of quality of included studies – Cohort studies (each asterisk represents if individual criterion within the subsection was fulfilled)

Quality assessment criteria	Acceptable(*)	Yang (16)	Bodmer (17)	Chang (34)	Koro (38)	Vinikoor (42)
Selection						
Is the case definition adequate?	Yes, with independent validation	*	-	*	-	*
Representativeness of cases?	Consecutive or obviously representative series of cases	*	*	*	*	*
Selection of controls?	Community controls	*	*	*	*	*
Definition of controls?	No history of PaC	*	*	*	*	*
Comparability						
Study controls for age/sex	Yes	*	*	*	*	*
Study controls for at least 3 additional factors	BMI, ethnicity, family H/O CRC, smoking, alcohol, physical activity, dietary factors (red meat, fat intake, fruits and vegetables), diabetes mellitus, aspirin/NSAID, statin use, Vitamin D/Calcium intake, hormone replacement therapy	*	*	*	-	*
Exposure						
Ascertainment of exposure?	Secure record, Structured interview by healthcare practitioner, blind to case/control status	*	*	*	*	-
Same method of ascertainment of cases/controls?	Yes	*	*	*	*	*
Non-response rate?	Same for both groups	*	-	*	*	-
Overall Quality Score (Maximum = 9)		9	7	9	7	7

Supplemental Table 2. Newcastle-Ottawa scale for assessment of quality of included studies - Case-control studies (each asterisk represents if individual criterion within the subsection was fulfilled)

SUPPLEMENTARY FIGURE LEGENDS:

Supplemental Figure 1. Summary of adjusted odds ratios of observational studies assessing the risk of colorectal cancer with metformin use in patients with diabetes mellitus. The size of the box corresponds to the weight of the given study.

Supplemental Figure 2. Summary of adjusted odds ratios of observational studies assessing the risk of colorectal cancer with thiazolidinedione use in patients with diabetes mellitus. The size of the box corresponds to the weight of the given study.

Supplemental Figure 3. Summary of adjusted odds ratios of observational studies assessing the risk of colorectal cancer with sulfonylurea use in patients with diabetes mellitus. The size of the box corresponds to the weight of the given study.

Supplemental Figure 4. Summary of adjusted odds ratios of observational studies assessing the risk of colorectal cancer with insulin use in patients with diabetes mellitus. The size of the box corresponds to the weight of the given study.