**Search Strategy**

Free text search strategy on PubMed:

1. Diabetes OR type 2 diabetes OR type 2 diabetes mellitus/T2DM
2. Metformin OR insulin OR TZD/thiazolidinedione OR Glucagon-like peptide 1/GLP-1 analogue/agonists OR dipeptidyl peptidase-4/DPP-4 inhibitors OR sodium glucose transport protein-2/SGLT-2 inhibitor
3. Cancer OR cancer incidence OR cancer mortality
4. #1 OR #2 AND #3

**Images/Tables**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Drug | Cancer | Reference | Measure | OR/HR/RR | | 95% CI |
| Metformin | Pancreatic | Yu et al. | ACM1 | HR | 0.79 | 0.70-0.92 |
| CRC | He et al. | ACM | 0.68 | 0.58-0.81 |
| He et al. | CSM2 | 0.66 | 0.50-0.87 |
| Endometrial | Lee et al. | ACM | 0.82 | 0.70-0.95 |
| Breast | Yang et al. | ACM | 0.65 | 0.49-0.87 |
| Pioglitazone | Bladder | Bosetti et al. | incidence | RR | 1.20 | 1.07-1.34 |
| Lewis et al. | incidence | RR | 1.06 | 0.89-1.26 |
| Insulin | All | ORIGIN trial | incidence | HR | 1.00 | 0.88-1.13 |
| All | ORIGIN trial | CGM3 | 0.94 | 0.77-1.15 |
| DPP-4 Inhibitor | All | Zhao et al. | incidence | RR | 1.01 | 0.91-1.12 |
| Pancreatic | Pinto et al. | incidence | OR | 0.65 | 0.35-1.21 |
| SGLT-2 agonists | All | Tang et al. | incidence | 1.14 | 0.96-1.36 |
| GLP-1 agonist | Pancreatic | Pinto et al. | incidence | 1.06 | 0.67-1.67 |
| Pancreatic | Liu et al. | incidence | 0.84 | 0.53-1.53 |
| Breast | Hicks et al. | incidence | HR | 0.91 | 0.91-2.16 |

Table S1 – Anti-Diabetic Medications and associated cancer incidence and/or mortality

1ACM = all-cause mortality, 2CSM = cancer-specific mortality, 3CGM = cancer-general mortality

|  |  |  |  |
| --- | --- | --- | --- |
| Cancer | Reference | HR/RR/OR | 95% CI |
| Endometrial | Friberg et al. | RR = 1.94 | 1.23-3.08 |
| Liao et al. | RR = 1.89 | 1.46-2.45 |
| Saed et al. | RR = 1.72 | 1.48-2.01 |
| Zhang et al. | RR = 1.81 | 1.38-2.37 |
| Breast | De Bruijin et al. | HR = 1.23 | 1.12-1.34 |
| Larsson et al. | RR = 1.20 | 1.12-1.28 |
| Liao et al. | RR = 1.16 | 1.12-1.20 |
| Pancreatic | Song et al. (>2 yrs) | RR = 1.64 | 1.52-1.78 |
| Song et al. (>5 yrs) | RR = 1.58 | 1.42-1.75 |
| Song et al. (>10 yrs) | RR = 1.50 | 1.28-1.75 |
| Batabyal et al. | RR = 1.97 | 1.78-2.18 |
| Li et al. | OR = 1.80 | 1.50-2.10 |
| Bosetti et al. | OR = 1.90 | 1.72-2.09 |
| Colorectal | Peeters et al. | HR = 1.26 | 1.18-1.33 |
| De Kort et al. | HR = 1.30 | 1.20-1.50 |

Table S2 – Association of cancer incidence of specific cancers and type 2 diabetes mellitus

Figure S1 – Forest Plot of Cancer Risks associated with type 2 diabetes mellitus. CRC = colorectal cancer; PC = pancreatic cancer; BC = breast cancer; EC = endometrial cancer