## **Electronic supplementary material**

Characteristic	Data presented as	Non-glargine insulin	Non-glargine plus glargin insulin	e Insulin glargine only
	n	31,752	15,184	2,261
	Person-years	92,743	51,478	3,515
All cancers	n (%)	1273 (4.0)	156 (1.0)	94 (4.2)
Model 1 <sup>a</sup> (n=49,197)	HR (95% CI)	Reference	0.53 (0.45, 0.63) p<0.00	1.28 (1.04, 1.59) p=0.022
Model $2^{b}$ (n= 49,197)	HR (95% CI)	Reference	0.52 (0.44, 0.62) p<0.0	$001  1.39 \ (1.11, \ 1.73)  p=0.004$
Model 3 <sup>c</sup> (n=35,389)	HR (95% CI)	Reference	0.59 (0.49, 0.71) p<0.00	1.54 (1.20, 1.97) p=0.001
Model 4 <sup>d</sup> (n=26,420)	HR (95% CI)	Reference	0.65 (0.53, 0.81) p<0.0	001 1.49 (1.09, 2.03) <i>p</i> =0.012

**ESM Table 3** Total cancers by insulin glargine group with insulin exposure, summarised across 147,736 person-years of follow up (*n*=49,197)

<sup>a</sup>Model 1 adjusts for prior cancer, type of diabetes, calendar year and sex, and has attained age as timescale <sup>b</sup>Model 2 further adjusts for metformin, sulfonylurea and other oral hypoglycaemic drugs at baseline

<sup>c</sup>Model 3 further adjusts for diabetes duration, HbA<sub>1c</sub>, diastolic BP, systolic BP and deprivation quintile

<sup>d</sup>Model 4 further adjusts for smoking ever and BMI, but note the reduction in available sample size