## **Electronic supplementary material**

	Data presented Non-glargine Non-glargine   as insulin insulin		glargine	Insulin glargine only		
Breast cancer		132 (0.9)	33 (0.45)		10 (0.9)	
Subjects = $23,121^{e}$		14,695	7,298		1,128	
Person years $= 70,263$		43,261	25,102		1,899	
Model 1 <sup>a</sup> ( <i>n</i> =23,121)	HR (95% CI)	Reference	0.86 (0.57, 1.29)	<i>p</i> =0.46	1.33(0.69, 2.56)	<i>p</i> =0.39
Model $2^{b}$ ( <i>n</i> =23,121)	HR (95% CI)	Reference	0.85 (0.57, 1.28)	<i>p</i> =0.44	1.54 (0.79, 3.02)	<i>p</i> =0.21
Model 3 <sup>c</sup> ( <i>n</i> =16,756)	HR (95% CI)	Reference	1.00 (0.64, 1.56)	<i>p</i> =0.9	1.93 (0.97, 3.84)	<i>p</i> =0.059
Model 4 <sup>d</sup> ( <i>n</i> =12,425)	HR (95% CI)	Reference	1.19 (0.72, 1.94)	<i>p</i> =0.50	1.99 (0.88, 4.49)	<i>p</i> =0.099
Prostate	n (%)	82 (0.48)	13 (0.16)		5 (0.44)	
Subjects = $26,068^{\circ}$		17,050	7,886		1,132	
Person years $= 78,495$		50,269	26,550		1,676	
Model 1 <sup>a</sup> ( <i>n</i> =26,068)	HR (95% CI)	-	1.05 (0.58, 1.91)	<i>p</i> =0.9	1.14 (0.45, 2.84)	<i>p</i> =0.79
Colorectal	n (%)	171 (0.54)	20 (0.13)		12 (0.53)	
Model 1 <sup>a</sup> ( <i>n</i> =49,190)	HR (95% CI)	-	0.58 (0.36, 0.93)	<i>p</i> =0.025	1.13 (0.62, 2.04)	<i>p</i> =0.69
Pancreatic	n (%)	100 (0.31)	2 (0.01)		8 (0.35)	
Model 1 <sup>a</sup> ( <i>n</i> =49,197)	HR (95% CI)	-	0.11 (0.03,0.45)	<i>p</i> =0.002	1.34 (0.64, 2.78)	<i>p</i> =0.44

ESM Table 4 Site-specific cancers by insulin glargine group with insulin exposure summarised across the follow-up

<sup>a</sup>Model 1 adjusts for prior cancer, type of diabetes, calendar year and sex. Timescale is age

<sup>b</sup>Model 2 further adjusts for metformin, sulfonylurea and other oral hypoglycaemic drugs at baseline

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

<sup>d</sup>Model 4 further adjusts for smoking ever and BMI but note the reduction in sample size due to missing covariates

<sup>e</sup>Excludes 53 women and 78 men without follow-up data