Appendix Table 1. Association between night shift work and cancer-specific (with ≥100, <200 cases) mortality in NHS (n=74,862).

	Night shift work duration				
	Never	**1-5 years**	**6-14 years**	**≥15 years**	**p for trend**
Brain cancer					
No. of deaths	62	75	17	10	
Age-adjusted HR (95% CI)	1.00 (ref)	1.19 (0.85, 1.67)	0.98 (0.57, 1.68)	0.87 (0.44, 1.70)	0.60
Multivariable HR (95% CI)[a]	1.00 (ref)	1.19 (0.85, 1.68)	0.91 (0.53, 1.57)	0.77 (0.39, 1.51)	0.34
Kidney cancer					
No. of deaths	43	34	21	13	
Age-adjusted HR (95% CI)	1.00 (ref)	0.78 (0.50, 1.23)	1.60 (0.94, 2.73)	1.48 (0.79, 2.77)	**0.04**
Multivariable HR (95% CI)[a]	1.00 (ref)	0.79 (0.51, 1.23)	1.72 (1.03, 2.86)	1.39 (0.75, 2.57)	**0.048**
Uterus cancer					
No. of deaths	54	63	20	13	
Age-adjusted model	1.00 (ref)	1.16 (0.80, 1.67)	1.33 (0.80, 2.23)	1.25 (0.68, 2.29)	0.35
Multivariable HR (95% CI)[a]	1.00 (ref)	1.19 (0.84, 1.72)	1.19 (0.70, 2.00)	1.04 (0.57, 1.92)	0.85
Myeloma					
No. of deaths	44	57	21	13	
Age-adjusted HR (95% CI)	1.00 (ref)	1.25 (0.84, 1.85)	1.60 (0.95, 2.70)	1.44 (0.77, 2.68)	0.13
Multivariable HR (95% CI)[a]	1.00 (ref)	1.35 (0.91, 1.98)	1.56 (0.93, 2.64)	1.61 (0.90, 2.88)	0.08
Leukemia					
No. of deaths	43	43	16	14	
Age-adjusted HR (95% CI)	1.00 (ref)	0.97 (0.63, 1.48)	1.24 (0.70, 2.21)	1.52 (0.83, 2.78)	0.12
Multivariable HR (95% CI)[a]	1.00 (ref)	0.91 (0.64, 1.31)	1.17 (0.72, 1.89)	1.22 (0.71, 2.09)	0.33

Boldface indicates statistical significance (p<0.05).
NHS, Nurses' Health Study cohort; HR: hazard ratio
[a]Multivariate model adjusted for age (continuous), alcohol consumption (none, 0.1-4.9, 5.0-14.9, ≥15.0 g/d), physical exercise (metabolic equivalent values; quintiles), multivitamin use (yes, no), menopausal status (premenopausal, postmenopausal) and postmenopausal hormone use (never, past and current), physical exam in the past 2 years (no , yes for symptoms and yes for screenings), healthy eating score (quintiles), smoking status (never, former, current), pack-years (<10, 10-19, 20-39, ≥40 for former smokers; <25, 25-44, 45-64, ≥65 for current smokers), and BMI (kg/m^2; <21, 21-22.9, 23-24.9, 25-27.4, 27.5-29.9, 30-34.9, ≥35) and husband's education (less than high school, some high school, high school graduate, college, graduate school, missingness).

Appendix Table 2. Association between night shift work and selected mortality endpoints stratified by body mass index.

		Night shift work duration				p for trend	p-interaction
		Never	**1-5 years**	**6-14 years**	**≥15 years**		
All cause							
Normal weight	Deaths	2,973	3,082	951	691		0.57
	HR (95% CI)	1.00 (ref)	1.04 (0.99, 1.09)	1.10 (1.02, 1.18)	1.11 (1.02, 1.20)	**0.005**	
Overweight	Deaths	1,485	1,426	549	393		
	HR (95% CI)	1.00 (ref)	0.97 (0.90, 1.04)	1.12 (1.01, 1.23)	1.08 (0.96, 1.20)	**0.03**	
Obesity	Deaths	990	953	406	362		
	HR (95% CI)	1.00 (ref)	0.96 (0.88, 1.05)	1.02 (0.91, 1.14)	1.06 (0.94, 1.20)	0.22	
All cardiovascular diseases							
Normal weight	Deaths	501	508	169	146		0.77
	HR (95% CI)	1.00 (ref)	1.01 (0.89, 1.15)	1.10 (0.92, 1.31)	1.24 (1.03, 1.49)	**0.02**	
Overweight	Deaths	285	281	117	82		
	HR (95% CI)	1.00 (ref)	0.99 (0.84, 1.17)	1.17 (0.94, 1.46)	1.04 (0.81, 1.34)	0.39	
Obesity	Deaths	217	228	114	94		
	HR (95% CI)	1.00 (ref)	1.08 (0.90, 1.30)	1.29 (1.03, 1.62)	1.14 (0.89, 1.46)	0.14	
All cancer							
Normal weight	Deaths	1,043	1,084	320	215		0.31
	HR (95% CI)	1.00 (ref)	1.04 (0.96, 1.14)	1.09 (0.96, 1.24)	1.07 (0.92, 1.24)	0.23	
Overweight	Deaths	573	587	200	146		
	HR (95% CI)	1.00 (ref)	1.03 (0.92, 1.15)	1.08 (0.92, 1.27)	1.11 (0.92, 1.33)	0.21	
Obesity	Deaths	358	349	111	118		
	HR (95% CI)	1.00 (ref)	0.97 (0.83, 1.12)	0.79 (0.64, 0.98)	1.02 (0.83, 1.26)	0.66	
Lung Cancer							
Normal weight	Deaths	283	278	91	72		0.94
	HR (95% CI)	1.00 (ref)	0.99 (0.84, 1.18)	1.00 (0.79, 1.28)	1.19 (0.91, 1.55)	0.25	
Overweight	Deaths	124	139	42	45		
	HR (95% CI)	1.00 (ref)	1.10 (0.86, 1.42)	0.99 (0.69, 1.42)	1.41 (0.98, 2.02)	0.13	

Obesity	Deaths	60	64	23	27		
	HR (95% CI)	1.00 (ref)	1.03 (0.70, 1.52)	0.83 (0.49, 1.39)	1.33 (0.80, 2.21)	0.45	
Colorectal cancer							
Normal weight	Deaths	96	83	29	27		0.33
	HR (95% CI)	1.00 (ref)	0.87 (0.65, 1.18)	1.12 (0.73, 1.71)	1.66 (1.06, 2.58)	**0.02**	
Overweight	Deaths	51	47	17	12		
	HR (95% CI)	1.00 (ref)	0.90 (0.60, 1.36)	1.05 (0.60, 1.84)	1.11 (0.58, 2.14)	0.66	
Obesity	Deaths	26	38	8	12		
	HR (95% CI)	1.00 (ref)	1.43 (0.86, 2.40)	0.83 (0.36, 1.89)	1.37 (0.66, 2.83)	0.78	

Boldface indicates statistical significance (p<0.05).

HR, hazard ratio; CI, confidence interval.

Note: Cox proportional hazard model adjusted for age (continuous), alcohol consumption (none, 0.1-4.9, 5.0-14.9, $\geq$15.0 g/d), physical exercise (metabolic equivalent values; quintiles), multivitamin use (yes, no), hypertension (yes, no), hypercholesterolemia (yes, no), type 2 diabetes (yes, no), menopausal status (premenopausal, postmenopausal) and postmenopausal hormone use (never, past and current), physical exam in the past 2 years (no , yes for symptoms and yes for screenings), healthy eating score (quintiles), smoking status (never, former, current), pack-years (<10, 10-19, 20-39, $\geq$40 for former smokers; <25, 25-44, 45-64, $\geq$65 for current smokers), and BMI (kg/m^2; <21, 21-22.9, 23-24.9, 25-27.4, 27.5-29.9, 30-34.9, $\geq$35) and husband's education (less than high school, some high school, high school graduate, college, graduate school). p-values for interaction were obtained by adding interaction terms into the models and performing likelihood ratio tests.