

Supplementary Table 2. Deaths related to certain cancers based on baseline eGFR

Cancer-specific mortality	eGFR (mL/min/1.73 m ²)	No. of specific cancers	No. of events	Incidence rate (/1,000 PY)	Univariable model		Multivariable model ^a	
					HR (95% CI)	p-value	HR (95% CI)	p-value
Oral cancer	<60	684,485	254	0.038	1.92 (1.66–2.22)	<0.001	0.88 (0.76–1.03)	0.11
	60–90	5,318,506	1,329	0.025	1.26 (1.14–1.38)	<0.001	0.86 (0.79–0.95)	0.003
	90–120	3,245,608	650	0.020	1.00 (Reference)		1.00 (Reference)	
	≥120	669,239	180	0.027	1.35 (1.15–1.60)	<0.001	1.21 (1.03–1.43)	0.02
Esophagus cancer	<60	684,485	379	0.056	1.98 (1.76–2.23)	<0.001	0.92 (0.81–1.04)	0.17
	60–90	5,318,506	1,935	0.036	1.26 (1.17–1.37)	<0.001	0.85 (0.78–0.92)	<0.001
	90–120	3,245,608	941	0.028	1.00 (Reference)		1.00 (Reference)	
	≥120	669,239	292	0.043	1.52 (1.33–1.73)	<0.001	1.31 (1.15–1.49)	<0.001
Stomach cancer	<60	684,485	2,297	0.340	2.52 (2.40–2.65)	<0.001	0.97 (0.92–1.02)	0.26
	60–90	5,318,506	10,972	0.203	1.51 (1.46–1.56)	<0.001	0.96 (0.93–1.00)	0.03
	90–120	3,245,608	4,467	0.135	1.00 (Reference)		1.00 (Reference)	
	≥120	669,239	1,167	0.172	1.28 (1.20–1.36)	<0.001	1.14 (1.06–1.21)	<0.001
Colorectal cancer	<60	684,485	2,419	0.358	3.18 (3.02–3.35)	<0.001	1.02 (0.97–1.07)	0.51
	60–90	5,318,506	9,968	0.185	1.64 (1.58–1.70)	<0.001	0.96 (0.93–1.00)	0.05
	90–120	3,245,608	3,743	0.113	1.00 (Reference)		1.00 (Reference)	
	≥120	669,239	985	0.145	1.29 (1.20–1.38)	<0.001	1.13 (1.06–1.22)	<0.001
Liver cancer	<60	684,485	2,781	0.412	1.92 (1.84–2.01)	<0.001	0.85 (0.81–0.89)	<0.001
	60–90	5,318,506	14,719	0.273	1.27 (1.23–1.31)	<0.001	0.89 (0.86–0.91)	<0.001
	90–120	3,245,608	7,123	0.215	1.00 (Reference)		1.00 (Reference)	
	≥120	669,239	1,890	0.278	1.30 (1.23–1.36)	<0.001	1.16 (1.10–1.22)	<0.001
Biliary cancer	<60	684,485	1,490	0.221	3.19 (2.99–3.40)	<0.001	0.90 (0.84–0.96)	0.002
	60–90	5,318,506	6,514	0.121	1.74 (1.66–1.82)	<0.001	0.97 (0.92–1.02)	0.18
	90–120	3,245,608	2,299	0.069	1.00 (Reference)		1.00 (Reference)	
	≥120	669,239	568	0.084	1.21 (1.10–1.32)	<0.001	1.04 (0.95–1.14)	0.39
Pancreatic cancer	<60	684,485	1,894	0.281	2.79 (2.64–2.95)	<0.001	0.92 (0.86–0.97)	0.004
	60–90	5,318,506	8,546	0.158	1.57 (1.51–1.64)	<0.001	0.96 (0.92–1.00)	0.04
	90–120	3,245,608	3,338	0.101	1.00 (Reference)		1.00 (Reference)	
	≥120	669,239	804	0.118	1.18 (1.09–1.27)	<0.001	1.05 (0.97–1.14)	0.21
Laryngeal cancer	<60	684,485	99	0.015	2.72 (2.13–3.48)	<0.001	1.02 (0.79–1.30)	0.87
	60–90	5,318,506	403	0.007	1.38 (1.16–1.65)	<0.001	0.84 (0.70–1.01)	0.06
	90–120	3,245,608	179	0.005	1.00 (Reference)		1.00 (Reference)	
	≥120	669,239	45	0.007	1.23 (0.89–1.70)	0.22	1.07 (0.77–1.48)	0.71
Lung cancer	<60	684,485	5,566	0.825	2.64 (2.55–2.73)	<0.001	0.92 (0.89–0.95)	<0.001
	60–90	5,318,506	26,355	0.488	1.56 (1.52–1.60)	<0.001	0.93 (0.91–0.95)	<0.001
	90–120	3,245,608	10,376	0.313	1.00 (Reference)		1.00 (Reference)	
	≥120	669,239	2,663	0.392	1.25 (1.20–1.31)	<0.001	1.09 (1.05–1.14)	<0.001
Skin cancer	<60	684,485	81	0.012	2.43 (1.86–3.17)	<0.001	0.98 (0.74–1.29)	0.86
	60–90	5,318,506	395	0.007	1.48 (1.23–1.77)	<0.001	0.97 (0.81–1.17)	0.78
	90–120	3,245,608	164	0.005	1.00 (Reference)		1.00 (Reference)	
	≥120	669,239	27	0.004	0.80 (0.54–1.21)	0.30	0.76 (0.50–1.14)	0.18
Renal cancer	<60	684,485	440	0.065	5.45 (4.76–6.25)	<0.001	1.98 (1.72–2.28)	<0.001
	60–90	5,318,506	1,199	0.022	1.86 (1.66–2.08)	<0.001	1.16 (1.04–1.30)	0.01
	90–120	3,245,608	397	0.012	1.00 (Reference)		1.00 (Reference)	
	≥120	669,239	98	0.014	1.21 (0.97–1.50)	0.10	1.09 (0.88–1.36)	0.43
Bladder cancer	<60	684,485	546	0.081	4.90 (4.35–5.51)	<0.001	1.32 (1.17–1.50)	<0.001
	60–90	5,318,506	1,603	0.030	1.79 (1.63–1.98)	<0.001	0.95 (0.86–1.05)	0.278
	90–120	3,245,608	549	0.017	1.00 (Reference)		1.00 (Reference)	
	≥120	669,239	138	0.020	1.23 (1.02–1.48)	0.03	1.08 (0.89–1.30)	0.45

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Supplementary Table 2. Continued

Cancer-specific mortality	eGFR (mL/min/1.73 m ²)	No. of specific cancers	No. of events	Incidence rate (/1,000 PY)	Univariable model		Multivariable model ^a	
					HR (95% CI)	p-value	HR (95% CI)	p-value
Nerves cancer	<60	684,485	325	0.048	2.11 (1.85–2.40)	<0.001	1.01 (0.88–1.16)	0.87
	60–90	5,318,506	1,760	0.033	1.42 (1.31–1.55)	<0.001	1.01 (0.93–1.11)	0.75
	90–120	3,245,608	761	0.023	1.00 (Reference)		1.00 (Reference)	
	≥120	669,239	196	0.029	1.26 (1.08–1.47)	0.004	1.22 (1.05–1.43)	0.01
Thyroid cancer	<60	684,485	109	0.016	3.70 (2.89–4.75)	<0.001	0.86 (0.66–1.11)	0.24
	60–90	5,318,506	467	0.009	1.98 (1.64–2.38)	<0.001	1.03 (0.86–1.25)	0.73
	90–120	3,245,608	145	0.004	1.00 (Reference)		1.00 (Reference)	
	≥120	669,239	29	0.004	0.98 (0.66–1.46)	0.91	0.81 (0.54–1.21)	0.30
Lymphoma cancer	<60	684,485	584	0.087	3.06 (2.76–3.40)	<0.001	1.12 (1.00–1.24)	0.05
	60–90	5,318,506	2,687	0.050	1.76 (1.63–1.89)	<0.001	1.10 (1.02–1.19)	0.01
	90–120	3,245,608	940	0.028	1.00 (Reference)		1.00 (Reference)	
	≥120	669,239	252	0.037	1.31 (1.14–1.51)	<0.001	1.20 (1.04–1.38)	0.01
Multimyeloma cancer	<60	684,485	375	0.056	3.80 (3.33–4.35)	<0.001	1.23 (1.07–1.41)	0.004
	60–90	5,318,506	1,375	0.025	1.74 (1.57–1.93)	<0.001	1.05 (0.95–1.17)	0.36
	90–120	3,245,608	486	0.015	1.00 (Reference)		1.00 (Reference)	
	≥120	669,239	135	0.020	1.36 (1.12–1.64)	0.002	1.22 (1.01–1.48)	0.04
Leukemia cancer	<60	684,485	533	0.079	2.45 (2.20–2.71)	<0.001	1.08 (0.97–1.21)	0.16
	60–90	5,318,506	2,458	0.046	1.41 (1.31–1.51)	<0.001	0.98 (0.91–1.05)	0.55
	90–120	3,245,608	1,072	0.032	1.00 (Reference)		1.00 (Reference)	
	≥120	669,239	233	0.034	1.06 (0.92–1.22)	0.41	1.00 (0.87–1.15)	0.98
Breast cancer	<60	354,180	351	0.100	1.44 (1.28–1.63)	<0.001	1.00 (0.87–1.12)	0.86
	60–90	2,353,887	1,973	0.082	1.18 (1.09–1.27)	<0.001	1.00 (0.93–1.08)	0.92
	90–120	1,477,385	1,061	0.070	1.00 (Reference)		1.00 (Reference)	
	≥120	311,668	194	0.061	0.87 (0.75–1.03)	0.08	0.93 (0.80–1.08)	0.33
Cervical cancer	<60	354,180	210	0.060	3.04 (2.54–3.62)	<0.001	1.40 (1.16–1.69)	<0.001
	60–90	2,353,887	699	0.029	1.47 (1.29–1.69)	<0.001	1.05 (0.91–1.20)	0.50
	90–120	1,477,385	300	0.020	1.00 (Reference)		1.00 (Reference)	
	≥120	311,668	59	0.019	0.94 (0.71–1.24)	0.66	0.95 (0.72–1.26)	0.74
Corpus cancer	<60	354,180	82	0.023	1.48 (1.15–1.91)	0.002	0.72 (0.55–0.94)	0.01
	60–90	2,353,887	402	0.017	1.06 (0.90–1.24)	0.49	0.77 (0.66–0.91)	0.002
	90–120	1,477,385	240	0.016	1.00 (Reference)		1.00 (Reference)	
	≥120	311,668	35	0.011	0.70 (0.49–0.99)	0.05	0.73 (0.51–1.04)	0.08
Ovarian cancer	<60	354,180	279	0.079	2.11 (1.83–2.43)	<0.001	1.05 (0.90–1.22)	0.54
	60–90	2,353,887	1,231	0.051	1.35 (1.22–1.49)	<0.001	0.99 (0.89–1.09)	0.83
	90–120	1,477,385	577	0.038	1.00 (Reference)		1.00 (Reference)	
	≥120	311,668	109	0.034	0.90 (0.74–1.11)	0.32	0.95 (0.77–1.16)	0.60
Prostate cancer	<60	330,305	593	0.183	4.22 (3.80–4.70)	<0.001	1.04 (0.93–1.16)	0.50
	60–90	2,964,619	2,565	0.086	1.97 (1.82–2.14)	<0.001	1.02 (0.94–1.10)	0.68
	90–120	1,768,223	780	0.043	1.00 (Reference)		1.00 (Reference)	
	≥120	357,571	184	0.051	1.18 (1.00–1.38)	0.05	1.08 (0.92–1.27)	0.36
Testicular cancer	<60	330,305	1	0.000	0.61 (0.08–4.78)	0.63	0.52 (0.07–4.19)	0.54
	60–90	2,964,619	12	0.000	0.80 (0.34–1.89)	0.61	0.74 (0.31–1.78)	0.50
	90–120	1,768,223	9	0.001	1.00 (Reference)		1.00 (Reference)	
	≥120	357,571	3	0.001	1.66 (0.45–6.12)	0.45	1.64 (0.44–6.07)	0.46

CI, confidence interval; eGFR, estimated glomerular filtration rate; HR, hazard ratio; PY, person-year.

^aThe multivariable model was adjusted for age, sex, smoking, alcohol consumption, regular physical activity, history of diabetes mellitus, hypertension, dyslipidemia, presence of dipstick albuminuria, body mass index, systolic blood pressure, fasting glucose, and total cholesterol.