

Supplementary Information for

Between-hospital variations in three-year survival among patients with newly diagnosed gastric, colorectal, and lung cancer

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Supplementary Table S1 Association of prognostic factors with three-year overall survival in patients with gastric, colorectal, and lung cancer using complete-case data

	Gastric cancer (n=9814)		Colorectal cancer (n=8829)		Lung cancer (n=7612)	
	Adjusted odds ratio	P value	Adjusted odds ratio	P value	Adjusted odds ratio	P value
Age (years; Ref = 18–64)						
65–69	0.83 (0.68–1.02)	0.076	0.94 (0.77–1.15)	0.545	0.68 (0.57–0.82)	<0.001
70–74	0.63 (0.51–0.76)	<0.001	0.84 (0.69–1.01)	0.064	0.55 (0.46–0.65)	<0.001
75–79	0.44 (0.36–0.53)	<0.001	0.53 (0.43–0.64)	<0.001	0.33 (0.28–0.40)	<0.001
80–99	0.25 (0.21–0.31)	<0.001	0.35 (0.29–0.42)	<0.001	0.18 (0.15–0.23)	<0.001
Sex (Ref = female)						
Male	0.68 (0.58–0.80)	<0.001	0.78 (0.68–0.89)	<0.001	0.54 (0.46–0.63)	<0.001
Stage (Ref = I)						
II	0.37 (0.30–0.45)	<0.001	0.94 (0.77–1.14)	0.508	0.31 (0.26–0.38)	<0.001
III	0.11 (0.09–0.12)	<0.001	0.43 (0.36–0.51)	<0.001	0.12 (0.10–0.14)	<0.001
IV	0.01 (0.01–0.01)	<0.001	0.04 (0.03–0.05)	<0.001	0.03 (0.03–0.04)	<0.001
Tumor localization (Ref = left-sided)						
Right-sided	–		0.93 (0.82–1.06)	0.258	–	
Histology (Ref = NSCLC)						
SCLC	–		–		0.39 (0.31–0.49)	<0.001
Comorbidity (Ref = no comorbidity)						
Moderate comorbidities	0.65 (0.57–0.75)	<0.001	0.63 (0.55–0.72)	<0.001	0.88 (0.76–1.01)	0.060
Severe comorbidities	0.34 (0.25–0.46)	<0.001	0.34 (0.26–0.45)	<0.001	0.59 (0.45–0.79)	<0.001
ADL (Ref = no disability)						
Moderate disability	0.50 (0.40–0.63)	<0.001	0.49 (0.40–0.62)	<0.001	0.50 (0.40–0.63)	<0.001
Severe disability	0.20 (0.15–0.28)	<0.001	0.33 (0.26–0.41)	<0.001	0.24 (0.16–0.36)	<0.001
Type of admission (Ref = elective)						
Emergency	0.70 (0.55–0.89)	0.004	0.68 (0.58–0.81)	<0.001	0.52 (0.37–0.73)	<0.001
Smoking status (Ref = never smoker)						
Current or ex-smoker	0.91 (0.79–1.05)	0.181	0.86 (0.75–0.99)	0.035	0.48 (0.41–0.57)	<0.001
Body mass index (Ref = 18.5–24.9)						
<18.5	0.55 (0.46–0.66)	<0.001	0.66 (0.55–0.78)	<0.001	0.55 (0.46–0.67)	<0.001
25.0–29.9	1.25 (1.05–1.47)	0.010	1.39 (1.18–1.64)	<0.001	1.13 (0.97–1.33)	0.125
≥30.0	1.51 (0.96–2.36)	0.074	1.20 (0.82–1.75)	0.351	1.01 (0.67–1.52)	0.964

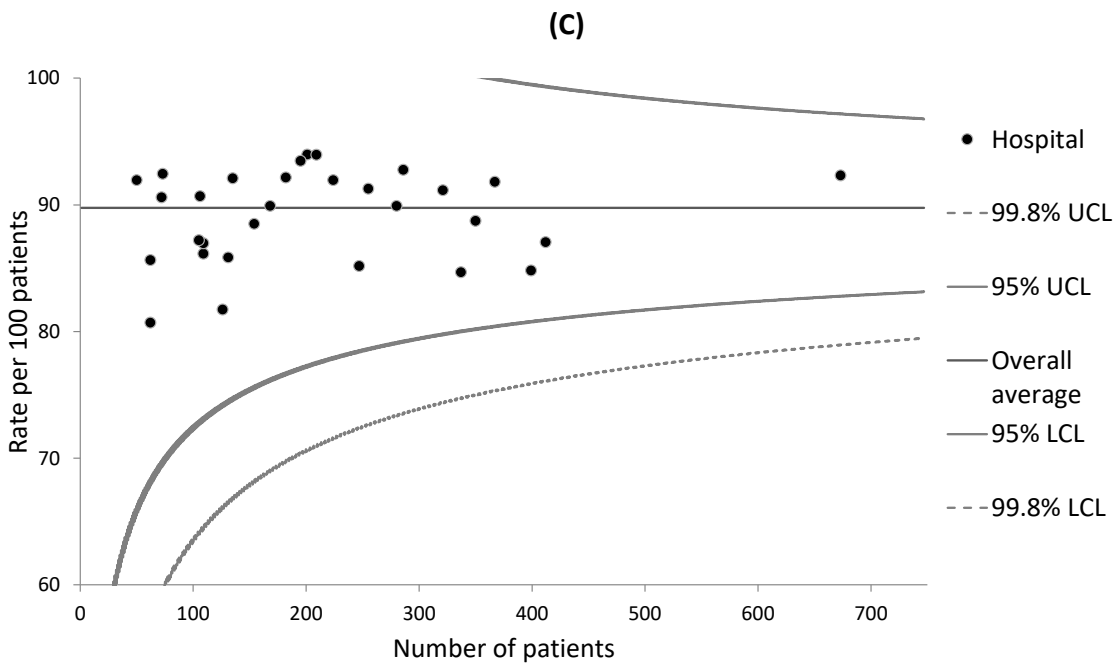
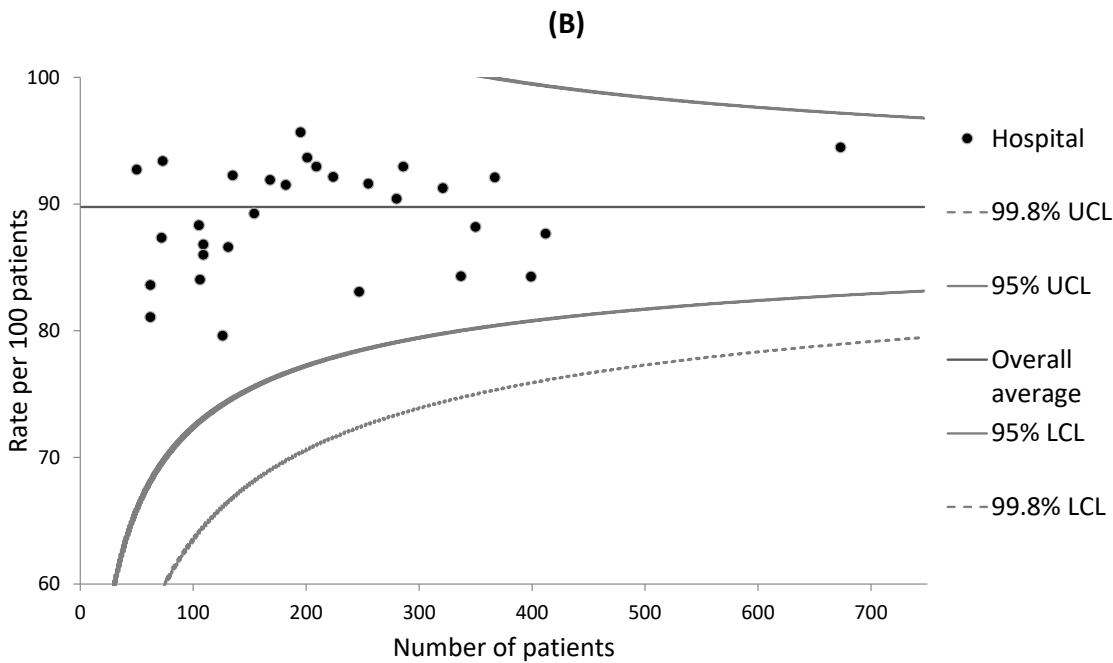
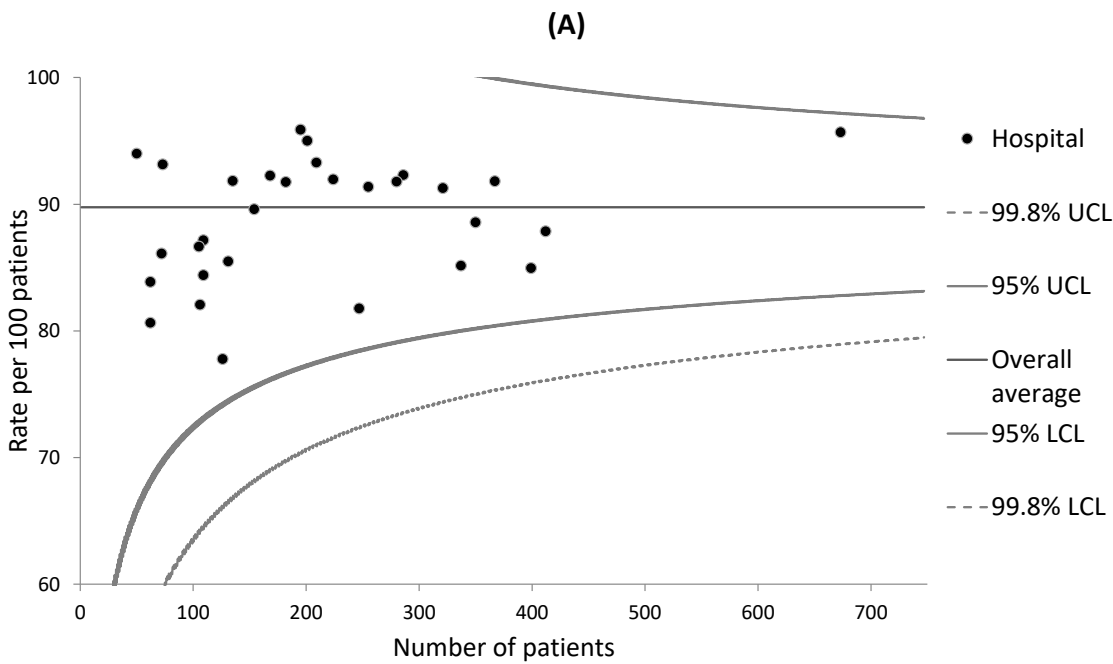
ADL, activities of daily living; NSCLC, non-small cell lung cancer; Ref, reference; SCLC, small cell lung cancer.

Supplementary Table S2 Association of prognostic factors with three-year overall survival in patients with stage I gastric, stage I colorectal, and stage I lung cancer using data from multiple imputation models

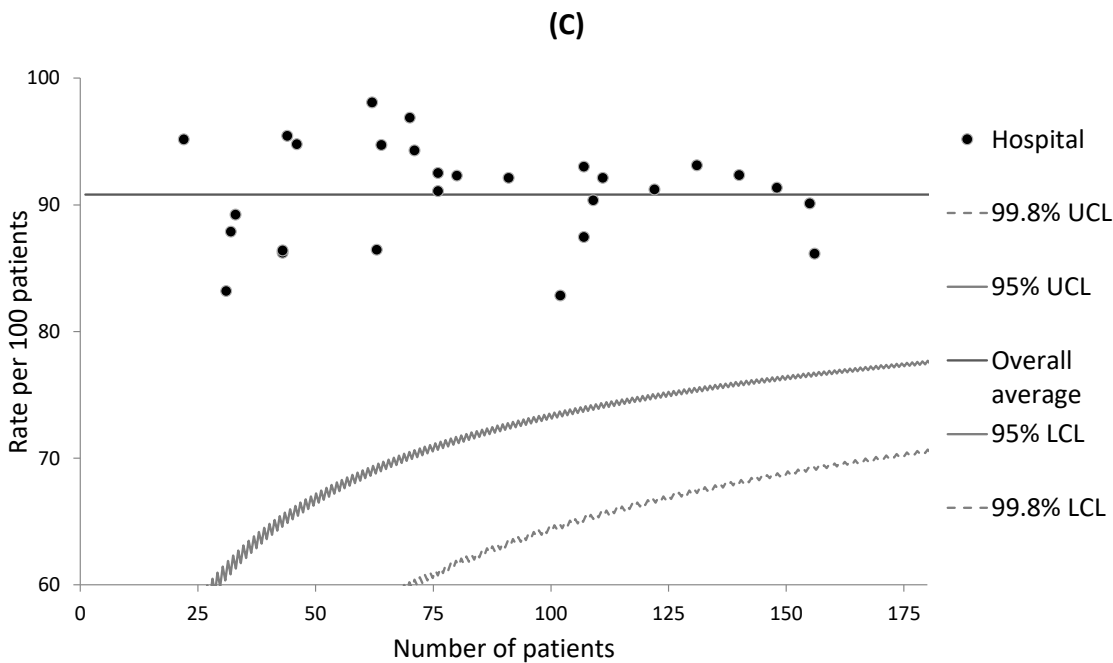
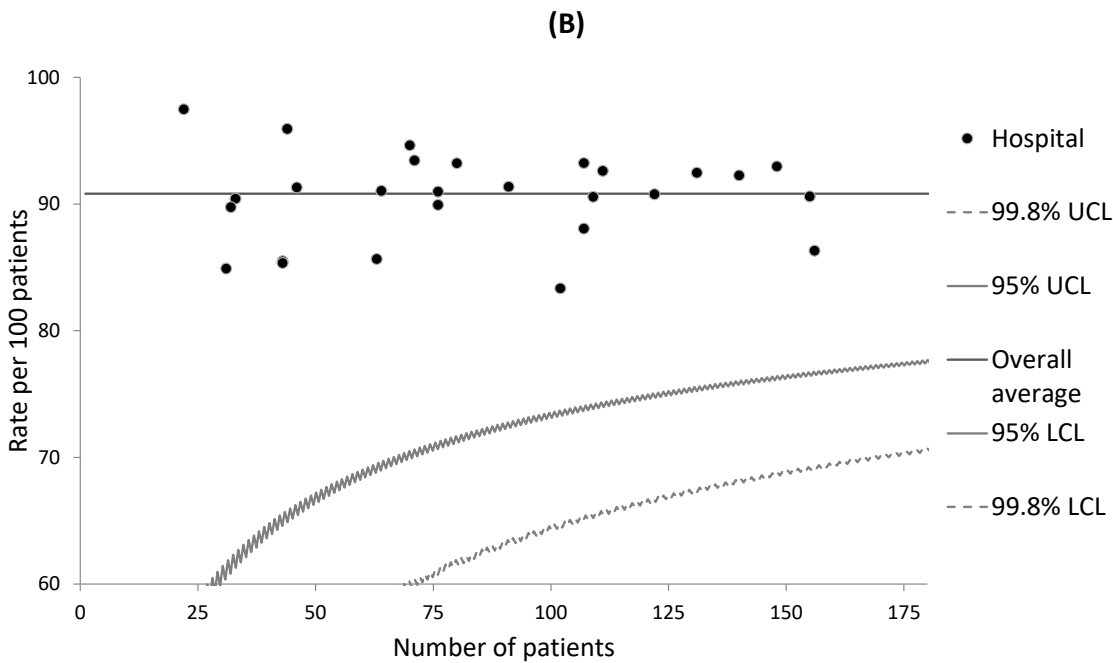
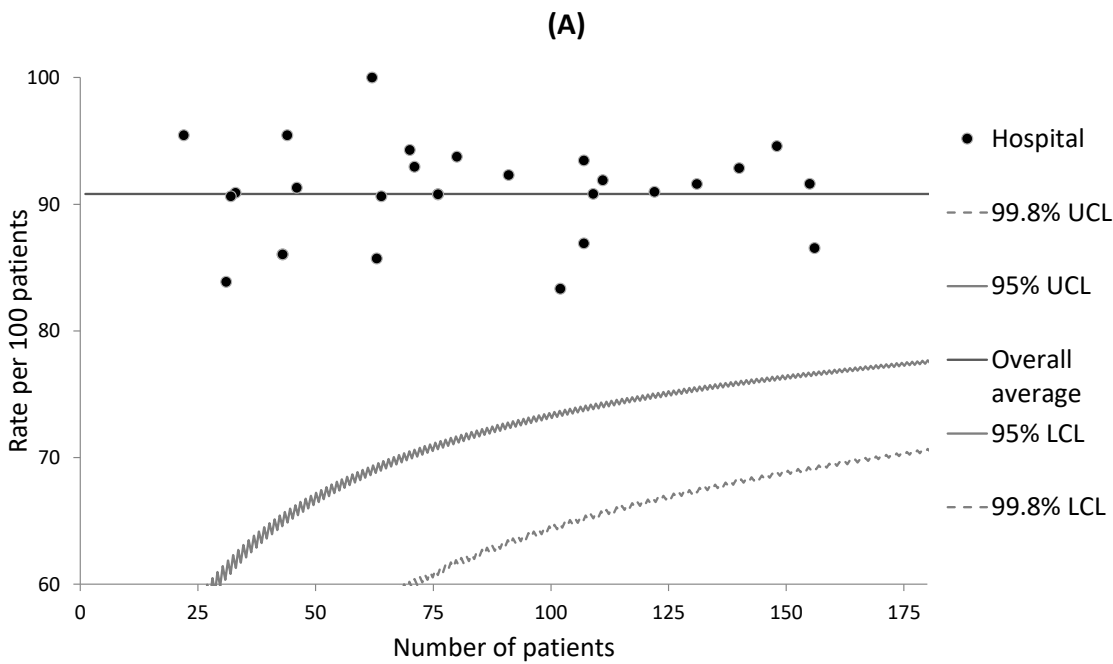
	Gastric cancer (n=6400)		Colorectal cancer (n=2536)		Lung cancer (n=2548)	
	Adjusted odds ratio	P value	Adjusted odds ratio	P value	Adjusted odds ratio	P value
Age (years; Ref = 18–64)						
65–69	0.50 (0.34–0.75)	<0.001	0.67 (0.39–1.15)	0.145	0.52 (0.33–0.82)	0.005
70–74	0.35 (0.24–0.50)	<0.001	0.50 (0.30–0.83)	0.007	0.47 (0.31–0.71)	<0.001
75–79	0.24 (0.17–0.35)	<0.001	0.40 (0.24–0.66)	<0.001	0.34 (0.22–0.52)	<0.001
80–99	0.15 (0.10–0.21)	<0.001	0.23 (0.14–0.38)	<0.001	0.15 (0.09–0.23)	<0.001
Sex (Ref = female)						
Male	0.58 (0.46–0.74)	<0.001	0.58 (0.40–0.83)	0.003	0.67 (0.49–0.90)	0.009
Tumor localization (Ref = left-sided)						
Right-sided	–		1.42 (1.02–1.97)	0.036	–	
Histology (Ref = NSCLC)						
SCLC	–		–		0.25 (0.14–0.46)	<0.001
Comorbidity (Ref = no comorbidity)						
Moderate comorbidities	0.47 (0.39–0.57)	<0.001	0.51 (0.37–0.71)	<0.001	0.71 (0.55–0.91)	0.007
Severe comorbidities	0.30 (0.21–0.43)	<0.001	0.23 (0.13–0.39)	<0.001	0.48 (0.31–0.74)	<0.001
ADL (Ref = no disability)						
Moderate disability	0.43 (0.31–0.58)	<0.001	0.36 (0.22–0.59)	<0.001	0.46 (0.31–0.69)	<0.001
Severe disability	0.16 (0.11–0.23)	<0.001	0.30 (0.16–0.53)	<0.001	0.06 (0.03–0.13)	<0.001
Type of admission (Ref = elective)						
Emergency	0.44 (0.28–0.68)	<0.001	0.34 (0.19–0.62)	<0.001	0.55 (0.19–1.53)	0.250
Smoking status (Ref = never smoker)						
Current or ex-smoker	0.76 (0.61–0.93)	0.010	0.83 (0.59–1.16)	0.276	0.34 (0.24–0.48)	<0.001
Body mass index (Ref = 18.5–24.9)						
<18.5	0.43 (0.34–0.56)	<0.001	0.41 (0.27–0.63)	<0.001	0.46 (0.32–0.64)	<0.001
25.0–29.9	1.40 (1.09–1.79)	0.008	1.43 (0.96–2.12)	0.081	1.02 (0.76–1.38)	0.900
≥30.0	1.24 (0.65–2.37)	0.521	1.90 (0.62–5.77)	0.258	0.79 (0.37–1.66)	0.535

ADL, activities of daily living; NSCLC, non-small cell lung cancer; Ref, reference; SCLC, small cell lung cancer.

Supplementary Figure S1



Supplementary Figure S2



Supplementary Figure S3

