

Supplementary Table S1: Reimbursement claims codes used for definition of variables and patient selection.

Definition	Code Type	Codes
Cervical Cancer	ICD-10	C53 - C53.9
HIV	ICD-10	B20-B24
ART	ATC	J05AE, J05AF, J05AG, J05AJ, J05AR
Cancer stage	ICD-10	C77-C79.9
	ICD-O-3	M8000/6, M8010/6, M8070/6, M8140/6, M8230/6
Squamous histology	ICD-O-3	M8051/3, M8052/3, M8070/3, M8071/3, M8072/3, M8076/3, M8082/3, M8083/3, M8120/3
Glandular histology	ICD-O-3	M8140/3, M8144/3, M8262/3, M8310/3, M8380/3, M8441/3, M8480/3, M8482/3, M8490/3, M9110/3
Other histology	ICD-O-3	M8013/3, M8015/3, M8020/3, M8041/3, M8098/3, M8200/3, M8240/3, M8249/3, M8560/3, M8570/3, M8720/3, M8805/3, M8890/3, M8910/3, M8931/3, M8980/3, M8933/3, M8960/3, M9071/3, M9120/3, M9540/3, M9581/3
Radiotherapy	ICD-10	Z51.0
	NRPL	5635-5861, 5882-5893, 88801-88819
	CPT	57155, 57156, 58346, 77014, 77295-77620, 77750-77799, 79005, 79101, 79403
Chemotherapy	ICD-10	Z51.1, Z51.2
	CPT	96413-96416
	NRPL	5790-5795, 88851, 88853-88855, 99951, 99953-99955, 99959
	ATC	L01XA01, L01XA02, L01CD01, L01CE01, L01CD02, L01AA06, L01BC02, L01CE02, L01BC05, L01DC03, L01XC07, L01XC18, L01BA04, L01CA04
Surgery	CPT	57530-57556, 58150, 58152, 58200-58294, 58548-58554, 58570-58575
	NRPL	2343, 2345, 2349, 2357, 2407, 2471, 2473, 2475, 2532

Supplementary Table S2: Unadjusted odds ratios for receiving cancer treatment within 6 months after cervical cancer diagnosis.

Characteristic	Patients treated (N)	OR for radiotherapy (95% CI)	Patients treated (N)	OR for chemotherapy (95% CI)	Patients treated (N)	OR for surgery (95% CI)
HIV status						
Negative	236	1	284	1	121	1
Positive	113	2.31 (1.42-3.89)	125	2.52 (1.33-5.2)	29	0.51 (0.31-0.8)
Age category						
<40 years	63	1	73	1	38	1
40-59 years	203	1.27 (0.75-2.13)	238	1.63 (0.86-3.01)	81	0.59 (0.36-0.96)
≥60 years	83	1.05 (0.58-1.91)	98	1.21 (0.59-2.45)	31	0.50 (0.28-0.89)
Ethnicity*						
Black	-	1	-	1	-	1
Other**	-	0.80 (0.51-1.28)	-	0.61 (0.36-1.05)	-	1.80 (1.16-2.77)
Histological tumour type*						
Squamous cell carcinoma	-	1	-	1	-	1
Adenocarcinoma	-	0.24 (0.14-0.42)	-	0.42 (0.21-0.84)	-	1.58 (0.91-2.73)
Other	-	0.18 (0.07-0.45)	-	0.16 (0.06-0.44)	-	2.57 (1.04-6.35)
Cancer stage						
Localised	318	1	361	1	141	1
Metastatised	31	0.52 (0.29-0.96)	48	2.33 (0.91-7.89)	9	0.43 (0.19-0.87)

* Missing values for ethnicity and histological tumour type were imputed using multiple imputation.

** Other include White, Indian/Asian, and Mixed ancestry ethnicities.

Supplementary Table S3: Odds ratios for receiving cancer treatment within 6 months after cervical cancer diagnosis, including separate categories for patients with missing values on ethnicity and histological tumour type (sensitivity analysis).

Characteristic	Patients treated (N)	Radiotherapy		Patients treated (N)	Chemotherapy		Patients treated (N)	Surgery	
		Univariable OR for radiotherapy (95% CI)	Multivariable OR for radiotherapy (95% CI)		Univariable OR for chemotherapy (95% CI)	Multivariable OR for chemotherapy (95% CI)		Univariable OR for surgery (95% CI)	Multivariable OR for surgery (95% CI)
HIV status									
Negative	236	1		284	1	1	121	1	1
Positive	113	2.31 (1.42-3.89)	1.91 (1.08-3.47)	125	2.52 (1.33-5.2)	1.96 (0.93-4.43)	29	0.51 (0.31-0.8)	0.5 (0.29-0.84)
Age category									
<40 years	63	1	1	73	1	1	38	1	1
40-59 years	203	1.27 (0.75-2.13)	1.44 (0.81-2.54)	238	1.63 (0.86-3.01)	1.86 (0.93-3.68)	81	0.59 (0.36-0.96)	0.57 (0.34-0.96)
≥60 years	83	1.05 (0.58-1.91)	1.74 (0.88-3.46)	98	1.21 (0.59-2.45)	1.59 (0.71-3.55)	31	0.5 (0.28-0.89)	0.37 (0.19-0.7)
Ethnicity									
Black	209	1	1	243	1	1	82	1	1
Other*	81	0.78 (0.49-1.24)	1.04 (0.62-1.75)	92	0.59 (0.34-1.02)	0.8 (0.44-1.46)	51	1.86 (1.19-2.9)	1.49 (0.92-2.43)
Unknown	59	1.07 (0.61-1.93)	0.97 (0.53-1.84)	74	2.56 (1.06-7.61)	2.26 (0.9-6.93)	17	0.68 (0.37-1.21)	0.77 (0.41-1.41)
Type of tumour									
Squamous cell carcinoma									
Squamous cell carcinoma	190	1	1	206	1	1	59	1	1
Adenocarcinoma	34	0.24 (0.12-0.48)	0.27 (0.13-0.56)	45	0.27 (0.1-0.7)	0.31 (0.12-0.84)	21	1.7 (0.9-3.16)	1.69 (0.85-3.32)
Other	8	0.19 (0.06-0.61)	0.2 (0.06-0.67)	10	0.13 (0.04-0.55)	0.14 (0.04-0.57)	6	2.01 (0.64-6.02)	2.07 (0.63-6.54)
Unknown	117	0.21 (0.12-0.33)	0.22 (0.13-0.37)	148	0.16 (0.08-0.3)	0.17 (0.08-0.33)	64	1.28 (0.84-1.95)	1.16 (0.75-1.82)
Cancer stage									
Localised	318	1	1	361	1	1	141	1	1
Metastasised	31	0.52 (0.29-0.96)	0.59 (0.31-1.12)	48	2.33 (0.91-7.89)	2.77 (1.05-9.6)	9	0.43 (0.19-0.87)	0.42 (0.18-0.87)

* Other include: (radiotherapy) 52 White, 14 Indian/Asian, 15 Mixed ancestry; (chemotherapy) 60 White, 15 Indian/Asian, 17 Mixed ancestry; (surgery) 35 White, 7 Indian/Asian, 9 Mixed ancestry

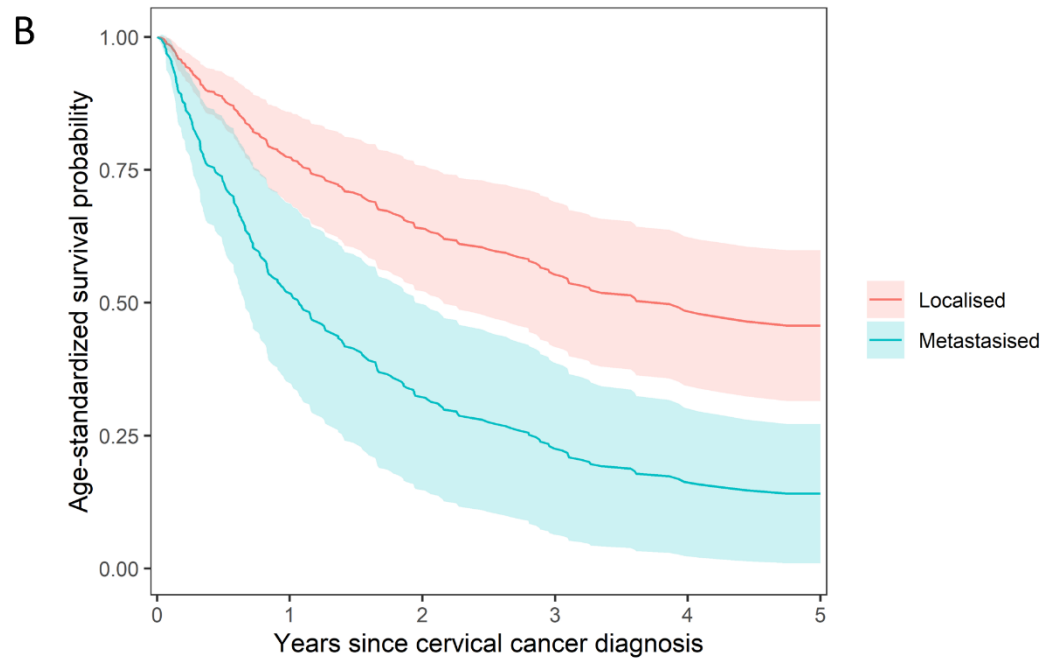
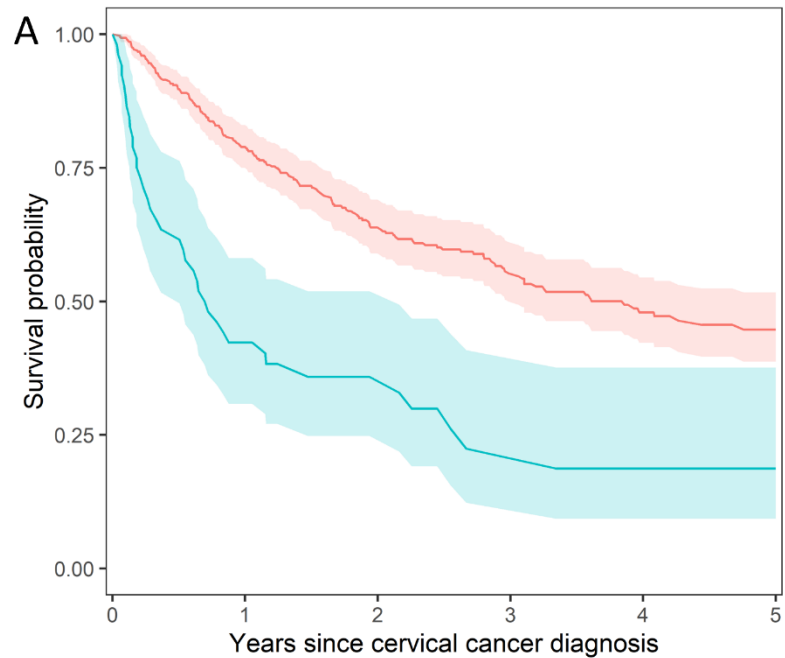
Supplementary Table S4: Unadjusted and adjusted hazard ratios for all-cause mortality after cervical cancer diagnosis, including separate categories for patients with missing values on ethnicity and histological tumour type (sensitivity analysis).

Characteristic	Deaths (N)	Univariable Hazard Ratio (95% CI)	Multivariable Hazard Ratio (95% CI)
HIV status			
Negative	149	1	1
Positive	63	1.18 (0.88-1.58)	1.57 (1.1-2.24)
Age category			
<40 years	36	1	1
40-59 years	105	1.07 (0.73-1.56)	1.13 (0.77-1.66)
≥60 years	71	2.01 (1.35-3.02)	2.34 (1.49-3.66)
Ethnicity			
Black	132	1	1
Other*	43	0.72 (0.51-1.01)	0.73 (0.51-1.06)
Unknown	37	1.03 (0.71-1.48)	0.97 (0.66-1.4)
Type of tumour			
Squamous cell carcinoma	78	1	1
Adenocarcinoma	30	1.52 (1-2.32)	1.27 (0.81-1.99)
Other	8	2.03 (0.98-4.21)	2.05 (0.98-4.3)
Unknown	96	1.29 (0.96-1.74)	1.35 (0.99-1.84)
Cancer stage (mortality up to 9 months)			
Localised	67	1	1
Metastasised	27	4.37 (2.79-6.84)	3.78 (2.38-6.00)
Cancer stage (mortality after 9 months)			
Localised	107	1	1
Metastasised	11	1.54 (0.83-2.87)	1.37 (0.72-2.57)

* Other include 80 White, 18 Indian/Asian, 21 Mixed ancestry

The adjusted hazard ratios for HIV status, age, and ethnicity, are obtained from a single model stratified with respect to the cancer stage variable. The hazard ratios (both adjusted and unadjusted) for cancer stage are obtained from separate models, one censoring time-at-risk at 9 months, and another starting time-at-risk at 9 months.

Supplementary Figure S1: Kaplan-Meier (Panel A) and age-standardized overall survival curves (Panel B), stratified by cancer stage.



Supplementary Figure S2: Kaplan-Meier (Panel A) and age-standardized overall survival curves (Panel B), stratified by HIV and ART status.

