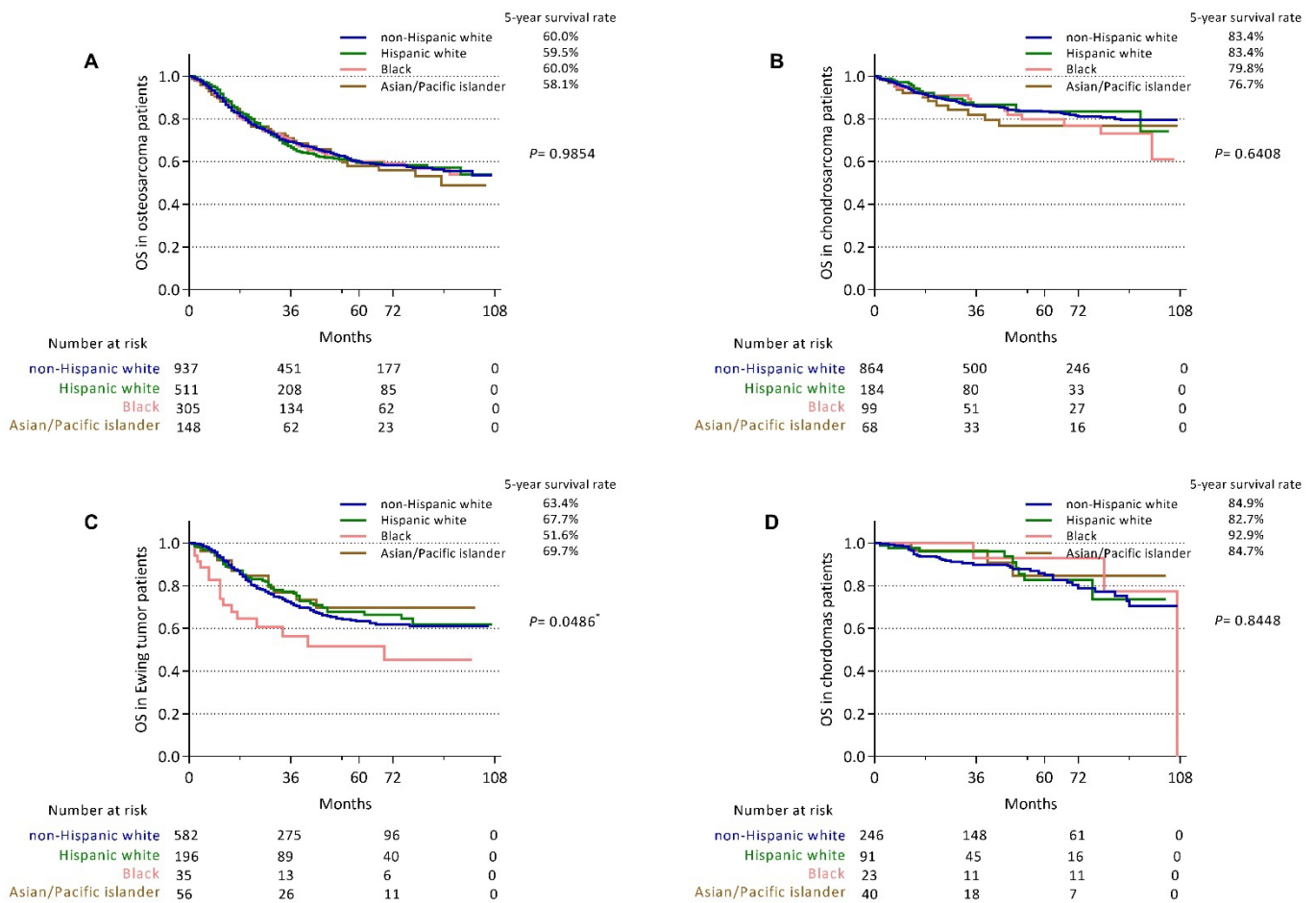


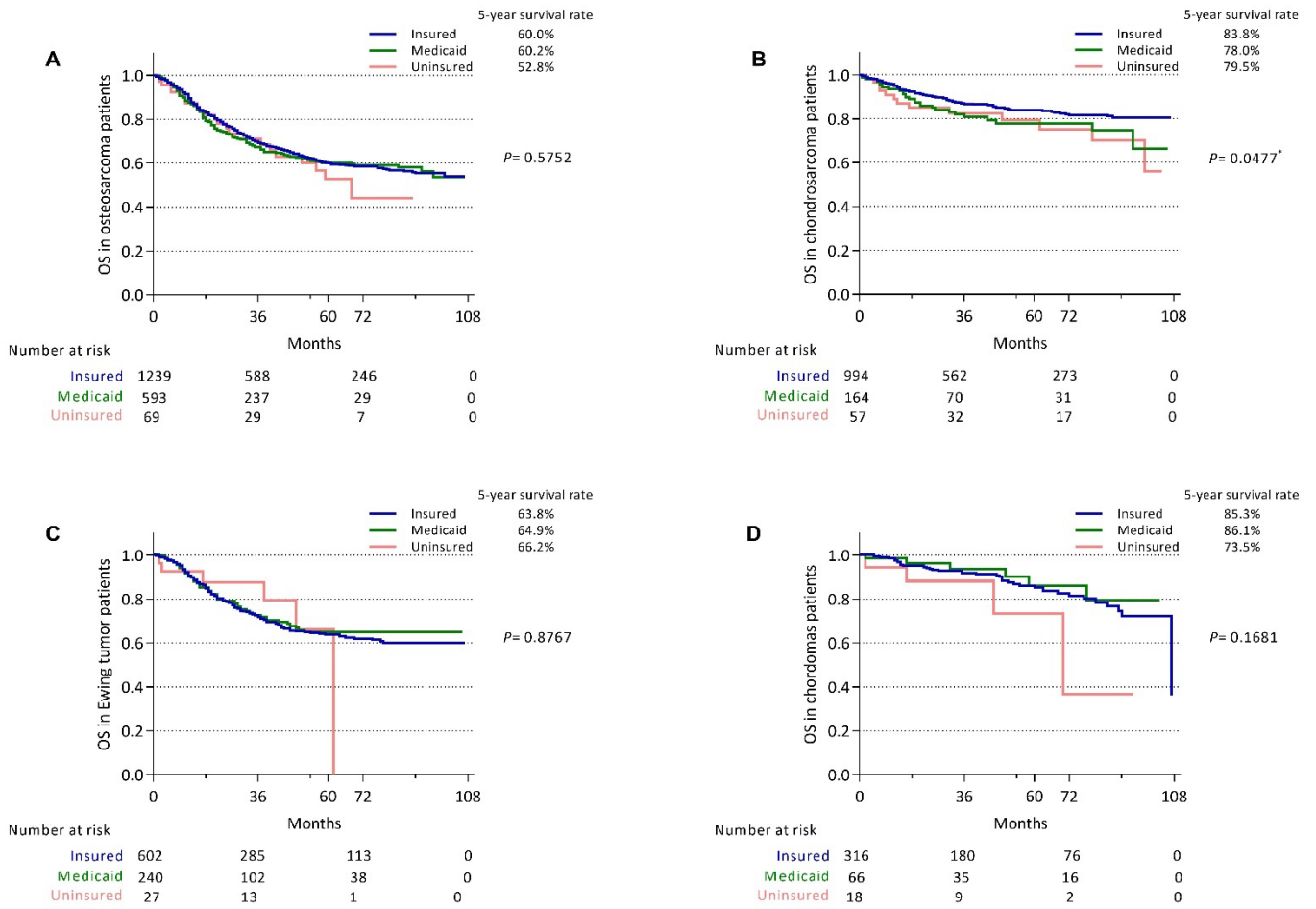


## Supplementary Material

10.1302/2046-3758.115.BJR-2021-0258.R2



**Fig a.** Kaplan-Meier curves comparing overall survival (OS) stratified by racial groups in a) osteosarcoma, b) chondrosarcoma, c) Ewing's sarcoma, and d) chordoma. p-values were calculated using log-rank test.



**Fig b.** Kaplan-Meier curves comparing overall survival (OS) stratified by insurance status in a) osteosarcoma, b) chondrosarcoma, c) Ewing’s sarcoma, and d) chordoma. p-values were calculated using log-rank test.

**Table i. Adjusted odds ratio for chemotherapy in bone sarcomas.**

Characteristic	Chemotherapy		Chemotherapy for osteosarcoma		Chemotherapy for chondrosarcoma		Chemotherapy for Ewing's sarcoma		Chemotherapy for chordoma	
	Adjusted OR (95% CI)	p-value	Adjusted OR (95% CI)	p-value	Adjusted OR (95% CI)	p-value	Adjusted OR (95% CI)	p-value	Adjusted OR (95% CI)	p-value
<b>Race</b>										
White	1.00		1.00		1.00		1.00		1.00	
Hispanic	0.94 (0.73-1.22)	0.651	0.98 (0.69-1.41)	0.932	0.99 (0.52-1.89)	0.970	0.54 (0.21-1.39)	0.200	1.01 (0.17-5.80)	0.995
Black	0.67 (0.49-0.91)	0.009	0.72 (0.49-1.06)	0.092	0.34 (0.10-1.09)	0.070	0.57 (0.11-3.01)	0.508	N/A	
Asian/Pacific Islander	1.33 (0.91-1.94)	0.142	1.27 (0.74-2.17)	0.382	2.17 (0.97-4.87)	0.059	1.28 (0.16-10.2)	0.818	3.80 (0.55-26.1)	0.175
<b>Insurance type</b>										
Insured	1.00		1.00		1.00		1.00		1.00	
Medicaid	1.18 (0.92-1.51)	0.205	1.41 (0.99-2.00)	0.054	1.50 (0.79-2.85)	0.212	1.48 (0.54-4.08)	0.451	0.26 (0.02-3.47)	0.306
Uninsured	0.80 (0.51-1.26)	0.332	0.89 (0.47-1.70)	0.733	1.47 (0.54-3.99)	0.450	0.74 (0.14-3.83)	0.720	1.64 (0.20-13.7)	0.647
<b>Age, yrs</b>										
< 18	1.00		1.00		1.00		1.00		1.00	
18 to 59	0.28 (0.21-0.37)	< 0.001	0.23 (0.16-0.34)	< 0.001	0.31 (0.12-0.80)	0.016	0.31 (0.13-0.74)	0.009	0.14 (0.01-1.37)	0.091
≥ 60	0.17 (0.11-0.26)	< 0.001	0.08 (0.04-0.15)	< 0.001	0.30 (0.10-0.93)	0.036	0.02 (0.003-0.19)	0.001	0.07 (0.004-1.29)	0.074
<b>Sex</b>										
Female	1.00		1.00		1.00		1.00		1.00	
Male	0.98 (0.81-1.20)	0.862	1.05 (0.79-1.38)	0.757	0.92 (0.56-1.49)	0.730	0.63 (0.26-1.50)	0.292	2.26 (0.57-8.97)	0.244
<b>Marital status</b>										
Married	1.00		1.00		1.00		1.00		1.00	
Not married	1.10 (0.88-1.39)	0.404	1.20 (0.86-1.67)	0.284	1.06 (0.63-1.78)	0.820	0.58 (0.17-1.95)	0.381	1.95 (0.42-8.98)	0.391
Unknown	0.48 (0.25-0.92)	0.027	0.62 (0.26-1.50)	0.292	0.14 (0.01-1.44)	0.099	0.53 (0.04-6.47)	0.616	6.37 (0.46-89.1)	0.169
<b>Tumour type</b>										
Others*	1.00		N/A		N/A		N/A		N/A	
Osteosarcoma	5.85 (4.42-7.73)	< 0.001	N/A		N/A		N/A		N/A	
Chondrosarcoma	0.15 (0.11-0.21)	< 0.001	N/A		N/A		N/A		N/A	
Ewing's sarcoma	27.5 (17.3-43.6)	< 0.001	N/A		N/A		N/A		N/A	
Chordoma	0.08 (0.05-0.15)	< 0.001	N/A		N/A		N/A		N/A	
<b>Tumour site</b>										
Lower limb	1.00		1.00		1.00		1.00		N/A	
Upper limb	0.93 (0.67-1.29)	0.673	0.93 (0.58-1.48)	0.761	1.01 (0.48-2.09)	0.988	1.01 (0.24-4.27)	0.987	N/A	
Sacropelvic	1.42 (1.03-1.97)	0.034	1.72 (0.96-3.11)	0.070	1.51 (0.81-2.82)	0.194	2.34 (0.57-9.52)	0.236	1.00	
Craniofacial	0.73 (0.50-1.05)	0.088	0.66 (0.40-1.11)	0.118	1.71 (0.72-4.07)	0.226	2.23 (0.24-20.6)	0.478	0.25 (0.03-2.38)	0.226
Rib, chest wall	0.76 (0.49-1.19)	0.235	0.54 (0.26-1.12)	0.098	0.85 (0.39-1.86)	0.691	0.90 (0.24-3.37)	0.874	N/A	
Others†	0.52 (0.39-0.70)	< 0.001	0.58 (0.39-0.87)	0.008	0.49 (0.17-1.46)	0.203	0.95 (0.33-2.74)	0.927	0.96 (0.16-5.64)	0.959
<b>AJCC stage</b>										
T1	1.00		1.00		1.00		1.00		1.00	
T2-3	2.42 (1.92-3.05)	< 0.001	1.99 (1.43-2.76)	< 0.001	4.09 (2.31-7.23)	< 0.001	3.58 (1.13-11.3)	0.030	7.98 (1.24-51.3)	0.029
Unknown	1.15 (0.86-1.55)	0.347	1.06 (0.69-1.64)	0.791	2.00 (0.98-4.11)	0.058	0.83 (0.31-2.22)	0.706	5.20 (0.80-33.9)	0.084
<b>AJCC N stage</b>										
N0	1.00		1.00		1.00		1.00		1.00	
N1	2.84 (1.36-5.91)	0.005	3.10 (0.71-13.6)	0.134	2.73 (0.66-11.3)	0.165	N/A		1.01 (0.03-40.8)	0.997
Unknown	0.70 (0.42-1.16)	0.167	0.68 (0.35-1.34)	0.266	0.64 (0.14-2.93)	0.564	0.53 (0.16-1.74)	0.295	2.06 (0.21-20.4)	0.539
<b>AJCC M stage</b>										
M0	1.00		1.00		1.00		1.00		1.00	
M1	5.25 (3.67-7.50)	< 0.001	2.81 (1.68-4.69)	< 0.001	24.2 (12.9-45.3)	< 0.001	0.78 (0.33-1.86)	0.572	28.3 (3.04-263.0)	0.003

Note: p-values were calculated using multivariable logistic regression analysis.

\*Tumour type of others included unspecified malignant bone tumours, miscellaneous malignant bone tumours, odontogenic malignant tumours, and malignant fibrous neoplasms of bone.



M0	1.00	-	1.00	-	1.00	-	1.00	-	1.00	-
M1	1.28 (0.98-1.67)	0.074	2.08 (1.21-3.59)	0.008	2.17 (0.97-4.84)	0.060	1.09 (0.75-1.59)	0.643	0.13 (0.01-1.33)	0.085

Note: p-values were calculated using multivariable logistic regression analysis.

\*Tumour type of others included unspecified malignant bone tumours, miscellaneous malignant bone tumours, odontogenic malignant tumours, and malignant fibrous neoplasms of bone.

†Tumour site of others included short bones, mandible, vertebral column, overlap bones, joints, and cartilage, and bone not otherwise specified.

AJCC, American Joint Committee on Cancer; CI, confidence interval; N/A, not available; OR, odds ratio.

**Table iii.** Association between race and insurance status, n (%).

<b>Insurance status</b>	<b>White (n = 2,807)</b>	<b>Hispanic (n = 1,064)</b>	<b>Black (n = 526)</b>	<b>Asian/Pacific Islander (n = 342)</b>	<b>p-value</b>
					< 0.001
Insured	2,310 (82.3)	531 (49.9)	290 (55.1)	270 (78.9)	
Medicaid	422 (15.0)	456 (42.9)	196 (37.3)	67 (19.6)	
Uninsured	75 (2.7)	77 (7.2)	40 (7.6)	5 (1.5)	

p-values were calculated using chi-square test.