

Supplementary Online Content

Jackson KM, Jones PC, Fluke LM, et al. Smoking status and survival in patients with early-stage primary cutaneous melanoma. *JAMA Netw Open*. 2024;7(2):e2354751. doi:10.1001/jamanetworkopen.2023.54751

eTable 1. Multivariate MSS, Overall Study Population (N = 6279)

eTable 2. Multivariate MSS by SLNB Status, MSLT1

eTable 3. Multivariate MSS by SLNB Status, MSLT2

eTable 4. Multivariate MSS by RT-PCR vs Histopathologic Analysis

eTable 5. Multivariate MSS in Current and Former Smokers

eTable 6. Multivariate MSS by SLNB Status in Current and Former Smokers

eTable 7. Multivariate MSS in Current and Never Smokers

eTable 8. Multivariate MSS by SLNB Status in Current and Never Smokers

This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Multivariate MSS, Overall Study Population (N = 6279)

Parameter	All Patients (n=6279)		
	HR	95% CI	p-value
Age, years	1.01	(1.01-1.02)	<0.001
Gender			
Female (ref)	1.00		
Male	1.29	(1.12-1.48)	<0.001
Breslow, mm	1.10	(1.08-1.12)	<0.001
Ulceration			
Absent (ref)	1.00		
Present	2.27	(1.99-2.58)	<0.001
Primary Site			
Extremity (ref)	1.00		
Head/Neck	1.23	(1.01-1.49)	0.042
Trunk	1.37	(1.18-1.58)	<0.001
Smoking Status			
Current	1.48	(1.26-1.75)	<0.001
Former	1.03	(0.89-1.20)	0.678
Never (ref)	1.00		
SLNB Status			
No SLNB	1.73	(1.41-2.11)	<0.001
SLNB Negative (ref)	1.00		
SLNB Positive	2.46	(2.13-2.85)	<0.001

eTable 2. Multivariate MSS by SLNB Status, MSLT1

Parameter	No SLNB (n=741)			SLNB Negative (n=876)			SLNB Positive (n=203)		
	HR	95% CI	p-value	HR	95% CI	p-value	HR	95% CI	p-value
Age, years	1.02	(1.00-1.03)	0.006	1.01	(1.00-1.03)	0.077	1.02	(1.00-1.04)	0.053
Gender									
Female (ref)	1.00			1.00			1.00		
Male	1.34	(0.92-1.96)	0.131	1.00	(0.68-1.46)	0.996	1.23	(0.76-2.01)	0.404
Breslow, mm	1.09	(1.06-1.13)	<0.001	1.19	(1.10-1.28)	<0.001	1.06	(0.96-1.17)	0.290
Ulceration									
Absent (ref)	1.00			1.00			1.00		
Present	1.75	(1.26-2.44)	0.001	2.04	(1.44-2.90)	<0.001	2.14	(1.34-3.41)	0.002
Primary Site									
Extremity (ref)	1.00			1.00			1.00		
Head/Neck	1.14	(0.68-1.90)	0.612	1.33	(0.80-2.22)	0.274	1.73	(0.84-3.54)	0.134
Trunk	1.94	(1.31-2.88)	0.001	1.90	(1.28-2.82)	0.001	1.19	(0.71-1.98)	0.510
Smoking Status									
Current	1.68	(1.09-2.61)	0.019	1.86	(1.18-2.94)	0.008	1.14	(0.65-2.01)	0.652
Former	1.03	(0.70-1.51)	0.888	1.09	(0.73-1.62)	0.681	0.76	(0.45-1.28)	0.299
Never (ref)	1.00			1.00			1.00		

eTable 3. Multivariate MSS by SLNB Status, MSLT2

Parameter	SLNB Negative (n=2302)			SLNB Positive (n=2157)		
	HR	95% CI	p-value	HR	95% CI	p-value
Age, years	1.02	(1.00-1.03)	0.008	1.01	(1.00-1.02)	0.012
Gender						
Female (ref)	1.00			1.00		
Male	1.40	(0.95-2.06)	0.085	1.28	(1.04-1.57)	0.018
Breslow, mm	1.08	(1.04-1.12)	<0.001	1.12	(1.09-1.15)	<0.001
Ulceration						
Absent (ref)	1.00			1.00		
Present	3.05	(2.17-4.28)	<0.001	2.29	(1.90-2.76)	<0.001
Primary Site						
Extremity (ref)	1.00			1.00		
Head/Neck	1.71	(1.05-2.79)	0.031	1.10	(0.82-1.48)	0.529
Trunk	1.48	(1.00-2.18)	0.049	1.19	(0.97-1.45)	0.099
Smoking Status						
Current	1.75	(1.13-2.70)	0.012	1.28	(1.02-1.61)	0.033
Former	1.17	(0.79-1.72)	0.436	0.95	(0.76-1.19)	0.664
Never (ref)	1.00			1.00		

eTable 4. Multivariate MSS by RT-PCR vs Histopathologic Analysis

Parameter	RT-PCR Pos (n=221)			Histopathologic Pos (n=2139)		
	HR	95% CI	p-value	HR	95% CI	p-value
Age, years	1.01	(0.98-1.05)	0.549	1.01	(1.00-1.02)	0.003
Gender						
Female (ref)	1.00			1.00		
Male	1.89	(0.65-5.51)	0.244	1.24	(1.03-1.50)	0.026
Breslow, mm	1.02	(0.78-1.33)	0.890	1.11	(1.09-1.14)	<0.001
Ulceration						
Absent (ref)	1.00			1.00		
Present	2.37	(1.01-5.56)	0.048	2.17	(1.81-2.59)	<0.001
Primary Site						
Extremity (ref)	1.00			1.00		
Head/Neck	2.59	(0.69-9.71)	0.158	1.28	(0.96-1.72)	0.093
Trunk	2.68	(0.68-10.6)	0.160	1.16	(0.96-1.40)	0.128
Smoking Status						
Current	1.28	(0.38-2.07)	0.690	1.27	(1.03-1.58)	0.028
Former	0.59	(0.21-1.68)	0.320	0.97	(0.79-1.20)	0.800
Never (ref)	1.00			1.00		

eTable 5. Multivariate MSS in Current and Former Smokers

Parameter	Current/Former Smokers (n=2586)		
	HR	95% CI	p-value
Age, years	1.02	(1.01-1.03)	<0.001
Gender			
Female (ref)	1.00		
Male	1.12	(0.91-1.39)	0.290
Breslow, mm	1.13	(1.10-1.16)	<0.001
Ulceration			
Absent (ref)	1.00		
Present	2.17	(1.80-2.62)	<0.001
Primary Site			
Extremity (ref)	1.00		
Head/Neck	1.26	(0.95-1.67)	0.110
Trunk	1.41	(1.14-1.74)	0.002
SLNB Status			
No SLNB	1.57	(1.20-2.06)	0.001
SLNB Negative (ref)	1.00		
SLNB Positive	2.05	(1.66-2.54)	<0.001
Smoking Status			
Current	1.48	(1.18-1.86)	<0.001
Former (ref)	1.00		
# Cigarettes/day			
1-9 (ref)	1.00		
10-19	1.12	(0.86-1.46)	0.387
20+	1.20	(0.94-1.52)	0.146
# Years Smoked	1.00	(0.99-1.00)	0.334

eTable 6. Multivariate MSS by SLNB Status in Current and Former Smokers

Parameter	No SLNB (n=386)			SLNB Negative (n=1246)			SLNB Positive (n=954)		
	HR	95% CI	p-value	HR	95% CI	p-value	HR	95% CI	p-value
Age, years	1.00	(0.98-1.02)	0.878	1.02	(1.00-1.03)	0.056	1.02	(1.01-1.03)	0.002
Gender									
Female (ref)	1.00			1.00			1.00		
Male	1.24	(0.73-2.10)	0.423	1.08	(0.72-1.60)	0.713	1.09	(0.82-1.46)	0.552
Breslow, mm	1.22	(1.13-1.33)	<0.001	1.16	(1.09-1.24)	<0.001	1.11	(1.08-1.15)	<0.001
Ulceration									
Absent (ref)	1.00			1.00			1.00		
Present	1.72	(1.12-2.66)	0.014	2.79	(1.98-3.94)	<0.001	1.98	(1.53-2.58)	<0.001
Primary Site									
Extremity (ref)	1.00			1.00			1.00		
Head/Neck	1.74	(0.90-3.34)	0.099	1.34	(0.79-2.26)	0.278	1.03	(0.68-1.55)	0.883
Trunk	2.36	(1.34-4.16)	0.003	1.75	(1.19-2.57)	0.004	1.13	(0.85-1.50)	0.401
Smoking Status									
Current	1.29	(0.75-2.24)	0.360	1.64	(1.08-2.49)	0.020	1.49	(1.10-2.03)	0.011
Former (ref)	1.00			1.00					
# Cigarettes/day									
1-9 (ref)	1.00			1.00			1.00		
10-19	0.59	(0.32-1.10)	0.096	1.32	(0.81-2.14)	0.266	1.19	(0.83-1.73)	0.345
20+	0.63	(0.37-1.06)	0.085	1.18	(0.74-1.88)	0.492	1.47	(1.05-2.06)	0.025
# Years Smoked	1.01	(0.99-1.03)	0.206	1.00	(0.98-1.02)	0.904	0.99	(0.98-1.00)	0.033

eTable 7. Multivariate MSS in Current and Never Smokers

Parameter	Current/Never Smokers (n=4536)		
	HR	95% CI	p-value
Age, years	1.02	(1.01-1.02)	<0.001
Gender			
Female (ref)	1.00		
Male	1.29	(1.09-1.52)	0.003
Breslow, mm	1.09	(1.07-1.11)	<0.001
Ulceration			
Absent (ref)	1.00		
Present	2.34	(2.00-2.73)	<0.001
Primary Site			
Extremity (ref)	1.00		
Head/Neck	1.18	(0.93-1.50)	0.167
Trunk	1.31	(1.10-1.56)	0.002
SLNB Status			
No SLNB	1.76	(1.37-2.26)	<0.001
SLNB Negative (ref)	1.00		
SLNB Positive	2.52	(2.11-2.99)	<0.001
# Cigarettes/day			
0 (ref)			
1-9	1.13	(0.81-1.58)	0.471
10-19	1.48	(1.13-1.93)	0.004
20+	1.63	(1.33-2.01)	<0.001

eTable 8. Multivariate MSS by SLNB Status in Current and Never Smokers

Parameter	No SNB (n=478)			SNB Negative (n=2304)			SNB Positive (n=1754)		
	HR	95% CI	p-value	HR	95% CI	p-value	HR	95% CI	p-value
Age, years	1.03	(1.01-1.04)	0.002	1.02	(1.00-1.02)	0.039	1.01	(1.00-1.02)	0.021
Gender									
Female (ref)	1.00			1.00			1.00		
Male	1.51	(0.95-2.40)	0.084	1.11	(0.81-1.51)	0.515	1.31	(1.05-1.62)	0.015
Breslow, mm	1.09	(1.05-1.13)	<0.001	1.08	(1.04-1.12)	<0.001	1.10	(1.07-1.14)	<0.001
Ulceration									
Absent (ref)	1.00			1.00			1.00		
Present	1.84	(1.22-2.79)	0.004	2.36	(1.76-3.17)	<0.001	2.46	(2.00-3.02)	<0.001
Primary Site									
Extremity (ref)	1.00			1.00			1.00		
Head/Neck	0.93	(0.48-1.81)	0.828	1.62	(1.06-2.48)	0.026	1.09	(0.79-1.50)	0.614
Trunk	1.78	(1.10-2.88)	0.018	1.44	(1.04-2.01)	0.030	1.19	(0.96-1.48)	0.120
# Cigarettes/day									
0 (ref)	1.00			1.00			1.00		
1-9	1.86	(0.88-3.94)	0.106	1.76	(1.04-2.98)	0.035	0.70	(0.41-1.19)	0.189
10-19	2.30	(1.10-4.80)	0.026	1.89	(1.12-3.19)	0.017	1.24	(0.88-1.74)	0.225
20+	1.49	(0.84-2.63)	0.173	2.06	(1.36-3.13)	<0.001	1.47	(1.12-1.92)	0.005