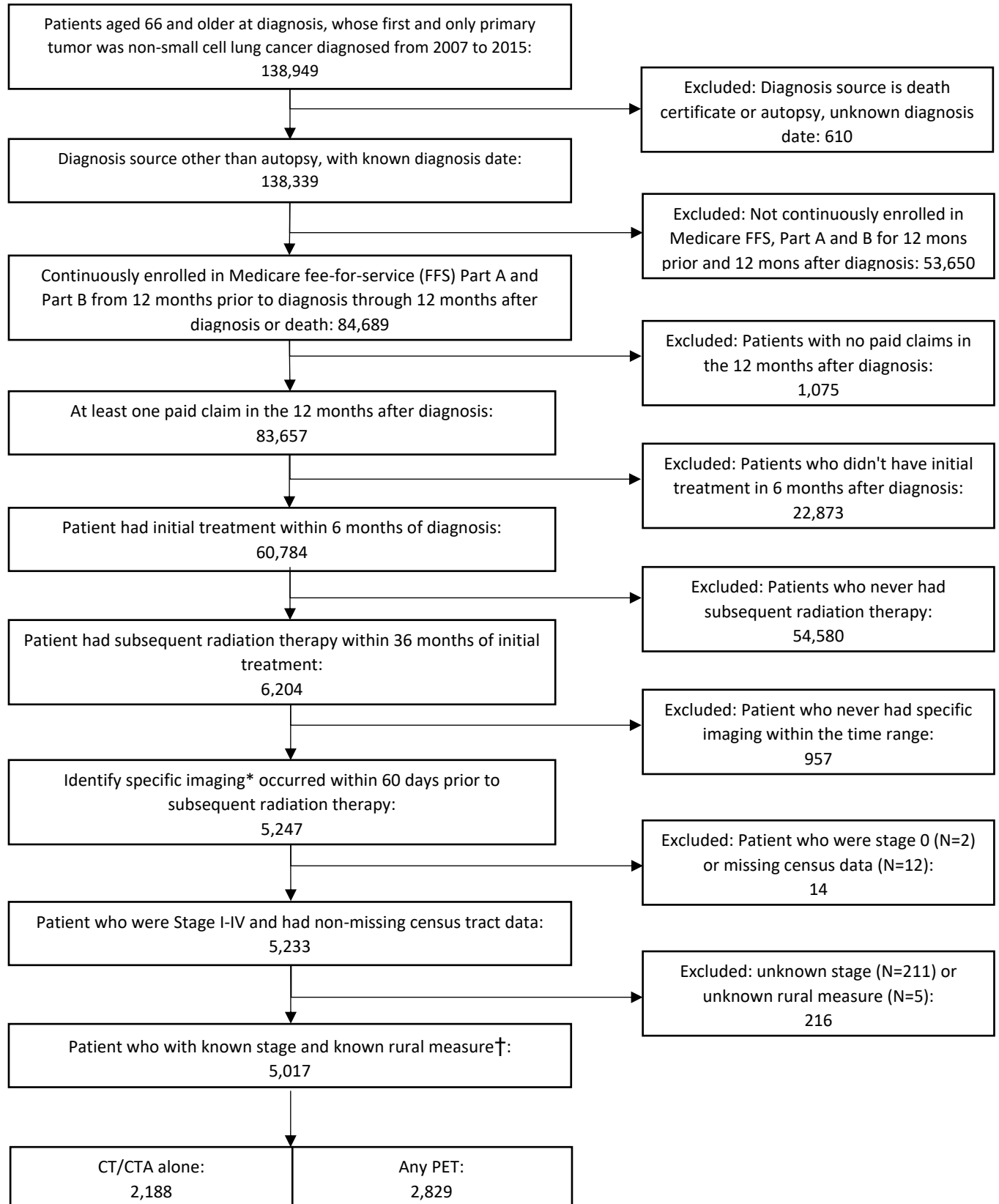


Supplemental Figure 1: Exclusion Flow Chart



Abbreviations: CT, Computerized tomography imaging; PET, Positron emission tomography imaging; HS, High school; NCI, National Cancer Institute; AJCC, American Joint Committee on Cancer.

*: Please see Appendix B Coding Manual for all imaging codes we used in the analysis. Noted that codes of CT/CTA imaging are for chest, Abdomen, and abdomen & pelvis.

†: Rurality classification is based on US Department of Agriculture's Rural Urban Commuting Area Codes version 2010.

Supplemental Table 1: Coding Manual List

Histology Codes:

Non-small cell lung cancer: 8015, 8050, 8140, 8141, 8143-8145, 8147, 8190, 8201, 8211, 8250-8255, 8260, 8290, 8310, 8320, 8323, 8333, 8401, 8440, 8470, 8471, 8480, 8481, 8490, 8503, 8507, 8550, 8570-8572, 8574, 8576, 8051, 8052, 8070, 8076, 8078, 8083, 8084, 8090, 8094, 8120, 8123, 8012-8014, 8021, 8034, 8082, 8003, 8004, 8022, 8030-8033, 8035, 8200, 8240, 8241, 8243-8246, 8249, 8430, 8525, 8560, 8562, 8575, 8046.

Initial treatment – Chemotherapy Codes:

ICD-9 Diagnosis: V58.1, V58.11, V58.12.

ICD-9 Procedure: 0010, 9925, 9928, 9929, 0015, 1770.

ICD-10 Diagnosis: Z511, Z5111, Z5112.

ICD-10 Procedure:

3E06003, 3E06303, 3E04003, 3E04303, 3E0S303, 3E05003, 3E05303, 3E03003, 3E03303, 3E0R303, 3E0J30M, 3E0J70M, 3E0J80M, 3E0A30M, 3E0V30M, 3E0600M, 3E0630M, 3E0400M, 3E0430M, 3E0Q30M, 3E0Q70M, 3E0BX0M, 3E0B30M, 3E0B70M, 3E0S30M, 3E0CX0M, 3E0C30M, 3E0C70M, 3E0P30M, 3E0P70M, 3E0P80M, 3E0K30M, 3E0K70M, 3E0K80M, 3E0U30M, 3E0H30M, 3E0H70M, 3E0H80M, 3E0W30M, 3E0N30M, 3E0N70M, 3E0N80M, 3E0DX0M, 3E0D30M, 3E0D70M, 3E0230M, 3E09X0M, 3E0930M, 3E0970M, 3E0Y30M, 3E0Y70M, 3E0500M, 3E0530M 3E0300M, 3E0330M, 3E0M30M, 3E0M70M, 3E0L30M, 3E0L70M, 3E0E30M, 3E0E70M 3E0E80M, 3E0F30M, 3E0F70M, 3E0F80M, 3E00X0M 3E0R30M, 3E0130M, 3E0G30M, 3E0G70M, 3E0G80M, 3E06005, 3E06305, 3E04005, 3E04305, 3E0BX05, 3E0B305, 3E0B705, 3E0S305, 3E0CX05, 3E0C305, 3E0C705, 3E0U305, 3E0DX05, 3E0D305, 3E0D705, 3E09X05, 3E09305, 3E09705, 3E05005, 3E05305, 3E03005, 3E03305, 3E0R305, 3E0600P, 3E0630P, 3E0400P, 3E0430P, 3E0500P, 3E0530P, 3E0300P, 3E0330P, XW04351, XW03351.

HCPCS:

96400-96549, J8999-J9999, 0519F, 4180F, A9522, A9600, A9604, A9605, C1084, C1086, C1166, C1167, C1178, C8953, C8954, C8955, C9004, C9012, C9027, C9110, C9131, C9205, C9207, C9213, C9214, C9215, C9216, C9230, C9235, C9237, C9257, C9262, C9265, C9272, C9284, C9287, C9297, C9414, C9415, C9416, C9417, C9418, C9419, C9420, C9421, C9422, C9423, C9424, C9425, C9426, C9427, C9429, C9431, C9432, C9433, C9434, C9437, C9438, C9440, C9480, G0355, G0356, G0357, G0358, G0359, G0360, G0361, G0362, G8372, G8373, G8374, G8381, G9021, G9022, G9023, G9024, G9025, G9026, G9027, G9028, G9029, G9030, G9031, G9032, J0128, J0129, J0178, J0202, J0207, J0340, J0490, J0594, J0640, J0641, J0894, J0897, J0900, J1050, J1051, J1060, J1070, J1080, J1090, J1190, J1457, J1620, J1675, J1826, J1930, J1950, J2320, J2321, J2322, J2323, J2352, J2353, J2354, J2430, J2675, J3120, J3130, J3140, J3150, J3262, J3315, J7150, J7527, J8510, J8520 J8521, J8530, J8560, J8561, J8562, J8565, J8600, J8610, J8700, J8705, Q0083, Q0084, Q0085,

Q2017, Q2020, Q2024, Q2043, Q2044, Q2046, Q2048, Q2049, Q2050, Q4079, S0087, S0088, S0108, S0115, S0116, S0146, S0156, S0165, S0170, S0172, S0175, S0176, S0177, S0178, S0179 S0182, S0187, S2107, S5019, S5020, S9329, S9330, S9331, 36640, 61517, 81350, 83520.

Initial treatment – Radiation therapy Codes:

ICD-9 Diagnoses: V58.0, V66.1, V67.1, E8732, E8792

ICD-9 Procedures: 922, 9221-9229, 923, 9231-9233, 9239, 9241

ICD-10 Diagnoses: Z510

ICD-10 Procedures: D0%, D7%, D8%, D9%, DB%, DD%, DF%, DG%, DH%, DM%

HCPCS: 0073T, 0082T, 0182T, 0190T, 0197T, 19296, 19297, 19298, 20555, 20660, 31463, 32553, 41019, 49411, 49412, 52250, 55859, 55860, 55875, 55876, 55920, 57155, 57156, 58346, 61720, 61735, 61770, 61781, 61782, 61783, 61793, 61795—61800, 63620, 63621, 73670, 76950, 76965, 77370—77373, 77380, 77381, 77385, 77386, 77387, 77399, 77400—77418, 77421, 77422, 77423, 77470, 77520, 77522, 77523, 77525, 77750, 77761, 77762, 77763, 77776—77799, 77781–77787, 79005, 79030, 79035, 79100, 79101, 79200, 79300, 79400, 79403, 79420, 79440, 79445, 79999, G0173, G0174, G0178, G0243, G0251, G0256, G0273, G0274, G0339, G0340, G0458, G6003—G6016, C1350, C2632, C9714, C9715, C9726, C9728, S2270, S8049.

Revenue Center Codes: 0330, 0333.

Initial treatment – Surgery for lung specific:

ICD-9 Procedures: 3201, 3209, 321, 3220, 3221, 3222, 3223, 3224, 3225, 3226, 3227, 3228, 3229, 3230, 3239, 3241, 3249, 3250, 3259, 329, 3401, 4029.

ICD-10 Procedures:

0B53%, 0B54%, 0B55%, 0B56%, 0B57%, 0B58%, 0B59%, 0B5B%, 0BB3%, 0BB4%, 0BB5%, 0B5K%, 0B5L%, 0B5M%, 0BB6%, 0BB7%, 0BB8%, 0BB9%, 0BBB%, 0BBK%, 0BBL%, 0BBM%, 0BT3%, 0BT4%, 0BT5%, 0BT6%, 0BT7%, 0BT8%, 0BT9%, 0BTB%, 0BTC%, 0BTD%, 0BTF%, 0BTG%, 0BTH%, 0BTJ%, 0BTK%, 0BTL%, 0BTM%, 0BQK%, 0BQL%, 0BQM%, 0BBC4ZZ, 0BBD4ZZ, 0BBF4ZZ, 0BBG4ZZ, 0BBH4ZZ, 0BBJ4ZZ, 0BBK4ZZ, 0BBL4ZZ, 01B30ZZ, 01BL0ZZ, 0PB10ZZ, 0PB20ZZ, 0W9800Z, 0W980ZZ, 0W9830Z, 0W983Z, 0W9840Z, 0W984ZZ, 0WP80JZ, 0WP83JZ, 0WP84JZ, 07B70ZZ, 07B73ZZ, 07B74ZZ.

HCPCS: 32480, 32482, 32486, 32663, 32520, 32503, 32504, 32522, 32525, 32484, 32500, 32657, 32440, 32442, 32445, 32488, 38746, 32310, 32320, 32656.

Subsequent treatment – Radiation therapy Codes:

HCPCS:

77301, 77334, 77338, 77370, 77373, 77380, 77381, 77385, 77386, 77387, 77399, 77408, 77410, 77412, 77413, 77417, 77418, 77421, 77423, 77520, 77522, 77523, 77525, 0073T, 0082T, 0083T, 0197T, C9715, G0173, G0174, G0178, G0243, G0251, G0339, G0340, G6008, G6012, G6015, G6016.

Imaging codes:

CT & CTA Codes:

Abdomen:

ICD-9 Procedures: 8801.

ICD-10 Procedures: BW2000Z, BW200ZZ, BW2010Z, BW201ZZ, BW20Y0Z, BW20YZZ, BW20ZZZ.

HCPCS: 74177, 74160, 74176, 74150, 74178, 74170.

Chest:

CT: 71260, 71250, 71270; CTA: 71275.

Abdomen & Pelvis:

CTA: 74174, 74175.

PET Codes:

PET alone: 78811, 78812, 78813.

PET/CT: 78815, 78814, 78816.

Supplemental Table 2: Characteristics by imaging modality before subsequent radiation therapy of NSCLC patients

Characteristic	Total	CT/CTA Alone*	Any PET	p-value [†]
All Patients	5,017	2,188	2,829	.
Age at Diagnosis				
66 to 69	1,287 (25.7)	585 (26.7)	702 (24.8)	0.2567
70 to 74	1,579 (31.5)	670 (30.6)	909 (32.1)	.
75 and Older	2,151 (42.9)	933 (42.6)	1,218 (43.1)	.
Race/Ethnicity Category				
White NH	4,223 (84.2)	1,786 (81.6)	2,437 (86.1)	<.0001
Black NH	337 (6.7)	183 (8.4)	154 (5.4)	.
Hispanic	179 (3.6)	80 (3.7)	99 (3.5)	.
Other/Unknown	278 (5.5)	139 (6.4)	139 (4.9)	.
Marital Status Category				
Non-Married	2,122 (42.3)	931 (42.6)	1,191 (42.1)	0.7487
Married or Partnered	2,895 (57.7)	1,257 (57.4)	1,638 (57.9)	.
Patient Region at Diagnosis				
East	1,061 (21.1)	493 (22.5)	568 (20.1)	0.0215
Midwest	617 (12.3)	285 (13.0)	332 (11.7)	.
South	1,510 (30.1)	618 (28.2)	892 (31.5)	.
West	1,829 (36.5)	792 (36.2)	1,037 (36.7)	.
Census Tract Rurality Category (RUCA) [‡]				
Urban Commuting Area	4,397 (87.6)	1,934 (88.4)	2,463 (87.1)	0.1562
Not Urban Commuting Area	620 (12.4)	254 (11.6)	366 (12.9)	.
Census Tract Poverty Level [§]				
Less than Median	2,695 (53.7)	1,185 (54.2)	1,510 (53.4)	0.5811
Median or Higher	2,322 (46.3)	1,003 (45.8)	1,319 (46.6)	.
Census Tract % HS Education Or Less				
Less than Median	2,617 (52.2)	1,149 (52.5)	1,468 (51.9)	0.6615
Median or Higher	2,400 (47.8)	1,039 (47.5)	1,361 (48.1)	.
Charlson Comorbidity Index Category [¶]				
0	1,818 (36.2)	826 (37.8)	992 (35.1)	0.0610
1	1,603 (32.0)	701 (32.0)	902 (31.9)	.
2 or more	1,596 (31.8)	661 (30.2)	935 (33.1)	.
Facility Types				
NCI Center	605 (12.1)	296 (13.5)	309 (10.9)	0.0179
Teaching Hospital	2,021 (40.3)	873 (39.9)	1,148 (40.6)	.
Other/No Hospital	2,391 (47.7)	1,019 (46.6)	1,372 (48.5)	.
Derived AJCC Stage Group 6th Edition [#]				
Stage I	1,597 (31.8)	518 (23.7)	1,079 (38.1)	<.0001
Stage II	472 (9.4)	160 (7.3)	312 (11.0)	.
Stage III	1,511 (30.1)	675 (30.9)	836 (29.6)	.
Stage IVA	1,437 (28.6)	835 (38.2)	602 (21.3)	.
Initial Treatment				

Radiation	943 (18.8)	385 (17.6)	558 (19.7)	<.0001
Surgery	1,217 (24.3)	421 (19.2)	796 (28.1)	.
Chemotherapy	659 (13.1)	402 (18.4)	257 (9.1)	.
Surgery and Radiation	112 (2.2)	39 (1.8)	73 (2.6)	.
Chemotherapy and Radiation	1,348 (26.9)	676 (30.9)	672 (23.8)	.
Chemotherapy and Surgery	488 (9.7)	158 (7.2)	330 (11.7)	.
Chemotherapy, Surgery and Radiation	250 (5.0)	107 (4.9)	143 (5.1)	.
Diagnostic Imaging Category**				
CT/CTA Alone	531 (10.6)	285 (13.0)	246 (8.7)	<.0001
Any PET	4,440 (88.5)	1,885 (86.2)	2,555 (90.3)	.
No related imaging	46 (0.9)	18 (0.8)	28 (1.0)	.
Histologic Subtype of NSCLC***				
Adenocarcinoma	2,546 (50.7)	1,157 (52.9)	1,389 (49.1)	<.0001
Adenosquamous	120 (2.4)	47 (2.1)	73 (2.6)	.
Large cell carcinoma	117 (2.3)	54 (2.5)	63 (2.2)	.
Neuroendocrine	89 (1.8)	57 (2.6)	32 (1.1)	.
Squamous cell carcinoma	1,542 (30.7)	601 (27.5)	941 (33.3)	.
Other/Not-specified	603 (12.0)	272 (12.4)	331 (11.7)	.

Note: Data presented as No. (Column %), highlighted significance level of $p < 0.05$ in red.

Abbreviations: CT, Computerized tomography imaging; PET, Positron emission tomography imaging; HS, High school; NCI, National Cancer Institute; AJCC, American Joint Committee on Cancer.

*: Sites of CT/CTA alone are abdomen, chest and abdomen & pelvis. Definition by codes: 8801(ICD-9 Procedures); BW2000Z, BW200ZZ, BW2010Z, BW201ZZ, BW20Y0Z, BW20YZZ, BW20ZZZ (ICD-10 Procedures); and 71260, 71250, 71270, 71275, 74150, 74160, 74170, 74174, 74175, 74176, 74177, 74178 (HCPCS).

†: P-value is comparing patients who had CT/CTA alone and those who received any PET.

‡: Rural classification is based on US Department of Agriculture's Rural Urban Commuting Area Codes version 2010.

§: Census Tract variable from American Community Survey (ACS) 5-Year data Income and Poverty for Poverty Status (using 100% level) in the past 12 months.

||: Census Tract variable from American Community Survey (ACS) 5-Year Data Educational Attainment for the population 25 Years and over.

¶: This is the NCI Comorbidity Index with 16 conditions included. Here we used the macros provided by NCI to define the comorbidity index category, more detailed introduction can be found in this website:

<https://healthcaredelivery.cancer.gov/seermedicare/considerations/comorbidity.html>

#: Staging by AJCC 6th Edition.

**: The diagnostic imaging category is the same as the outcome imaging category before subsequent radiation therapy. Sites of CT/CTA alone are abdomen, chest and abdomen & pelvis. Those who had no related imaging can be without any imaging (CT/CTA scans or PET) or with other site-specific imaging not in the CT/CTA along list.

***: Histologic subtype of NSCLC is based on <https://www.cancer.org/cancer/lung-cancer/about/what-is.html>.

Supplemental Table 3: Logistic regression predicting whether patients received PET or not

Characteristics	OR (95% CI)	p-value	Global p-value
Year of Diagnosis			
2007 (ref)		.	0.0518
2008 vs 2007	1.028 (0.81, 1.30)	0.8203	.
2009 vs 2007	1.175 (0.93, 1.49)	0.1852	.
2010 vs 2007	1.164 (0.92, 1.48)	0.2116	.
2011 vs 2007	1.373 (1.08, 1.75)	0.0098	.
2012 vs 2007	1.393 (1.09, 1.78)	0.0077	.
2013 vs 2007	1.056 (0.83, 1.34)	0.6528	.
2014 vs 2007	1.150 (0.90, 1.47)	0.2597	.
2015 vs 2007	1.336 (1.01, 1.77)	0.0423	.
Age Category			
66 to 69 (ref)		.	0.2254
70 to 74 vs 66 to 69	1.106 (0.95, 1.29)	0.2001	.
75 and Older vs 66 to 69	0.985 (0.85, 1.14)	0.8422	.
Sex			
Male (ref)		.	0.6872
Female vs Male	1.026 (0.91, 1.16)	0.6872	.
Race/Ethnicity Category			
White NH (ref))		.	0.0044
Black NH vs White NH	0.688 (0.54, 0.88)	0.0023	.
Hispanic vs White NH	0.958 (0.70, 1.32)	0.7944	.
Other/Unknown vs White NH	0.752 (0.58, 0.98)	0.0336	.
Marital Status Category			
Married or Partnered (ref)		.	0.9247
Non-Married vs Married or Partnered	0.994 (0.88, 1.13)	0.9247	.
Patient Region at Diagnosis			
West (ref)		.	0.0374
East vs West	0.799 (0.67, 0.95)	0.0111	.
Midwest vs West	0.856 (0.70, 1.05)	0.1390	.
South vs West	0.996 (0.85, 1.17)	0.9655	.
Census Tract Rurality Category (RUCA)			
Urban Commuting Area (ref)		.	0.7894
Not Urban Commuting Area vs Urban Commuting Area	1.026 (0.85, 1.24)	0.7894	.
Census Tract Poverty Level			
Less than Median (ref)		.	0.9059
Median or Higher vs Less than Median	1.009 (0.87, 1.17)	0.9059	.
Census Tract % HS Education Or Less			
Less than Median (ref)		.	0.9761
Median or Higher vs Less than Median	1.002 (0.87, 1.16)	0.9761	.
Charlson Comorbidity Index Category			
0 (ref)		.	0.4290
1 vs 0	0.916 (0.79, 1.06)	0.2279	.

2 or more vs 0	0.988 (0.85, 1.14)	0.8738	.
Derived AJCC Stage Group 6 th Edition			
Stage I (ref)		.	<.0001
Stage II vs Stage I	0.880 (0.70, 1.11)	0.2769	.
Stage III vs Stage I	0.695 (0.58, 0.83)	<.0001	.
Stage IVA vs Stage I	0.455 (0.38, 0.55)	<.0001	.
Facility Types			
NCI Center (ref)		.	0.3908
Other/No Hospital vs NCI Center	1.111 (0.91, 1.35)	0.2906	.
Teaching Hospital vs NCI Center	1.144 (0.94, 1.39)	0.1705	.
Initial Treatment			
Radiation (ref)		.	<.0001
Chemotherapy vs Radiation	0.625 (0.50, 0.78)	<.0001	.
Chemotherapy and Radiation vs Radiation	0.827 (0.69, 1.00)	0.0464	.
Chemotherapy and Surgery vs Radiation	1.337 (1.04, 1.72)	0.0223	.
Chemotherapy, Surgery and Radiation vs Radiation	0.969 (0.72, 1.31)	0.8356	.
Surgery vs Radiation	1.093 (0.90, 1.33)	0.3676	.
Surgery and Radiation vs Radiation	1.259 (0.83, 1.92)	0.2843	.
Diagnostic Imaging Category			
Any PET (ref)		.	0.0002
CT/CTA Alone vs Any PET	0.673 (0.56, 0.81)	<.0001	.
No related imaging vs Any PET	1.178 (0.64, 2.18)	0.6019	.
Histologic Subtype of NSCLC			
Adenocarcinoma (ref)		.	0.0183
Adenosquamous vs Adenocarcinoma	1.065 (0.72, 1.57)	0.7528	.
Large cell carcinoma vs Adenocarcinoma	0.920 (0.62, 1.35)	0.6718	.
Neuroendocrine vs Adenocarcinoma	0.576 (0.36, 0.91)	0.0187	.
Squamous cell carcinoma vs Adenocarcinoma	1.176 (1.02, 1.35)	0.0212	.
Other/Not-specified vs Adenocarcinoma	1.148 (0.95, 1.39)	0.1537	.

Note: Data presented as odds ratio and 95% confident interval, highlighted level-specific p-values and global (class-level) p-values in red at 0.05 level.

Abbreviations: OR, odds ratio; CI, confidence interval; HS, High school; NCI, National Cancer Institute; AJCC, American Joint Committee on Cancer; NSCLC, Non-Small Cell Lung Cancer.

Supplemental Table 4: Multivariate Analysis of Survival at 3-year Follow Up. Left: Overall Survival; Right: Cancer-Specific Survival

Overall Survival				Cancer-Specific Survival			
Characteristics	HR (LCL-UCL)	P-value	Global p-value		HR (LCL-UCL)	P-value	Global p-value
Year of Diagnosis							
2007 (ref)			<.0001				0.0024
2008	0.955 (0.83, 1.10)	0.5186	.		0.970 (0.84,1.12)	0.6759	.
2009	0.893 (0.78, 1.03)	0.1162	.		0.922 (0.80,1.07)	0.2698	.
2010	0.878 (0.76, 1.01)	0.0719	.		0.875 (0.76,1.01)	0.0746	.
2011	0.793 (0.69, 0.91)	0.0015	.		0.783 (0.67,0.91)	0.0013	.
2012	0.888 (0.77, 1.03)	0.1062	.		0.885 (0.76,1.03)	0.1116	.
2013	0.767 (0.66, 0.89)	0.0003	.		0.749 (0.64,0.88)	0.0003	.
2014	0.967 (0.84, 1.12)	0.6513	.		0.792 (0.65,0.97)	0.0246	.
2015	1.641 (1.39, 1.94)	<.0001	.		0.578 (0.27,1.23)	0.1555	.
Age Category							
66 to 69 (ref)			0.0066				0.0079
70 to 74	0.988 (0.90, 1.08)	0.7992	.		0.940 (0.85, 1.04)	0.2436	.
75 and Older	1.115 (1.02, 1.22)	0.0157	.		1.089 (0.99, 1.20)	0.0901	.
Sex							
Male (ref)			0.0012				0.0008
Female	0.886 (0.82, 0.95)	0.0012	.		0.869 (0.80, 0.94)	0.0008	.
Race/Ethnicity Category							
White NH (ref)			0.0912				0.0638
Black NH	0.942 (0.82, 1.08)	0.4048	.		0.931 (0.80, 1.09)	0.3743	.
Hispanic	0.904 (0.75, 1.10)	0.3068	.		0.867 (0.69, 1.08)	0.2046	.
Other/Unknown	0.823 (0.70, 0.97)	0.0195	.		0.799 (0.67, 0.96)	0.0162	.
Marital Status Category							
Married or Partnered (ref)			0.0940				0.0672
Non-Married	1.065 (0.99, 1.15)	0.0940	.		1.081 (0.99, 1.17)	0.0672	.
Patient Region at Diagnosis							
West (ref)			0.2749				0.3012
East	1.008 (0.91, 1.12)	0.8754	.		0.971 (0.86, 1.09)	0.6202	.
Midwest	1.093 (0.97, 1.24)	0.1519	.		1.063 (0.93, 1.22)	0.3827	.
South	0.970 (0.88, 1.07)	0.5315	.		0.939 (0.84, 1.05)	0.2584	.
Charlson Comorbidity Index Category							
0 (ref)			0.0354				0.4237
1	1.004 (0.92, 1.09)	0.9317	.		1.009 (0.92, 1.11)	0.8547	.
2 or more	1.107 (1.01, 1.21)	0.0220	.		1.064 (0.96, 1.17)	0.2197	.
Census Tract Rurality Category (RUCA)							
Urban Commuting Area (ref)			0.7804				0.8201
Not Urban Commuting Area	1.016 (0.91, 1.13)	0.7804	.		1.014 (0.90, 1.15)	0.8201	.
Census Tract Poverty Level							
Less than Median (ref)			0.0775				0.0568

Median or Higher	1.080 (0.99, 1.18)	0.0775	.		1.099 (1.00, 1.21)	0.0568	.
Census Tract % HS Education Or Less							
Less than Median (ref)			0.4948				0.5456
Median or Higher	1.030 (0.95, 1.12)	0.4948	.		1.030 (0.94, 1.13)	0.5456	.
Facility Types							
NCI Center (ref)			0.0174				0.0191
Other/No Hospital	1.151 (1.02, 1.30)	0.0205	.		1.164 (1.02, 1.33)	0.0280	.
Teaching Hospital	1.050 (0.93, 1.18)	0.4213	.		1.047 (0.91, 1.20)	0.5064	.
Derived AJCC Stage Group 6 th Edition							
Stage I (ref)			<.0001				<.0001
Stage II	1.906 (1.62, 2.25)	<.0001	.		1.920 (1.59, 2.31)	<.0001	.
Stage III	2.057 (1.67, 2.54)	<.0001	.		2.135 (1.70, 2.69)	<.0001	.
Stage IVA	2.810 (2.11, 3.74)	<.0001	.		2.846 (2.08, 3.89)	<.0001	.
Initial Treatment							
Radiation (ref)			<.0001				<.0001
Chemotherapy	0.681 (0.58, 0.80)	<.0001	.		0.696 (0.58, 0.83)	<.0001	.
Chemotherapy and Radiation	0.533 (0.42, 0.67)	<.0001	.		0.537 (0.42, 0.69)	<.0001	.
Chemotherapy and Surgery	0.278 (0.20, 0.38)	<.0001	.		0.272 (0.19, 0.38)	<.0001	.
Chemotherapy, Surgery, and Radiation	0.337 (0.23, 0.49)	<.0001	.		0.330 (0.22, 0.50)	<.0001	.
Surgery	0.673 (0.59, 0.76)	<.0001	.		0.675 (0.58, 0.78)	<.0001	.
Surgery and Radiation	0.466 (0.34, 0.63)	<.0001	.		0.415 (0.29, 0.59)	<.0001	.
Histologic Subtype of NSCLC							
Adenocarcinoma (ref)			<.0001				0.0005
Adenosquamous	1.471 (1.17, 1.85)	0.0010	.		1.392 (1.07, 1.81)	0.0138	.
Large cell carcinoma	1.416 (1.11, 1.81)	0.0059	.		1.315 (1.00, 1.72)	0.0470	.
Neuroendocrine	1.375 (1.02, 1.85)	0.0342	.		1.455 (1.05, 2.01)	0.0232	.
Squamous cell carcinoma	1.719 (1.40, 2.11)	<.0001	.		1.644 (1.32, 2.05)	<.0001	.
Other/Not-specified	1.728 (1.34, 2.23)	<.0001	.		1.687 (1.28, 2.22)	0.0002	.
Diagnostic Imaging Category							
Any PET (ref)			<.0001				0.0001
CT/CTA Alone	2.089 (1.55, 2.81)	<.0001	.		1.986 (1.45, 2.73)	<.0001	.
No related imaging	0.438 (0.27, 0.72)	0.0011	.		0.448 (0.26, 0.77)	0.0039	.
Imaging Category Before Subsequent Radiation Therapy							
Any PET (ref)			<.0001				<.0001
CT/CTA Alone	1.417 (1.32, 1.52)	<.0001	.		1.430 (1.32, 1.55)	<.0001	.

Note: Data presented as hazard ratio and lower and upper control limit at 95% level, highlighted level-specific p-values and global (class-level) p-values in red at 0.05 level.

Abbreviations: HR, hazard ratio; LCL, lower control limit; UCL, upper control limit. HS, High school; NCI, National Cancer Institute; AJCC, American Joint Committee on Cancer.