

Supplemental Online Content

Sun L, Brody R, Candelieri D, et al. Association between up-front surgery and risk of stroke in US veterans with oropharyngeal carcinoma. *JAMA Otolaryngol Head Neck Surg*. Published online June 23, 2022. doi:10.1001/jamaoto.2022.1327

eTable 1. Coding Definitions

eFigure 1. Kaplan-Meier Curves for Overall Survival, Up-Front Surgery vs Nonsurgical Treatment Groups

eFigure 2. Propensity Score Overlap Between Unweighted and Weighted Treatment Groups

eFigure 3. Stroke Incidence by Surgical vs Non-Surgical Treatment in Key Subgroups, Weighted Kaplan-Meier Curves

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

eTable 1. Coding Definitions

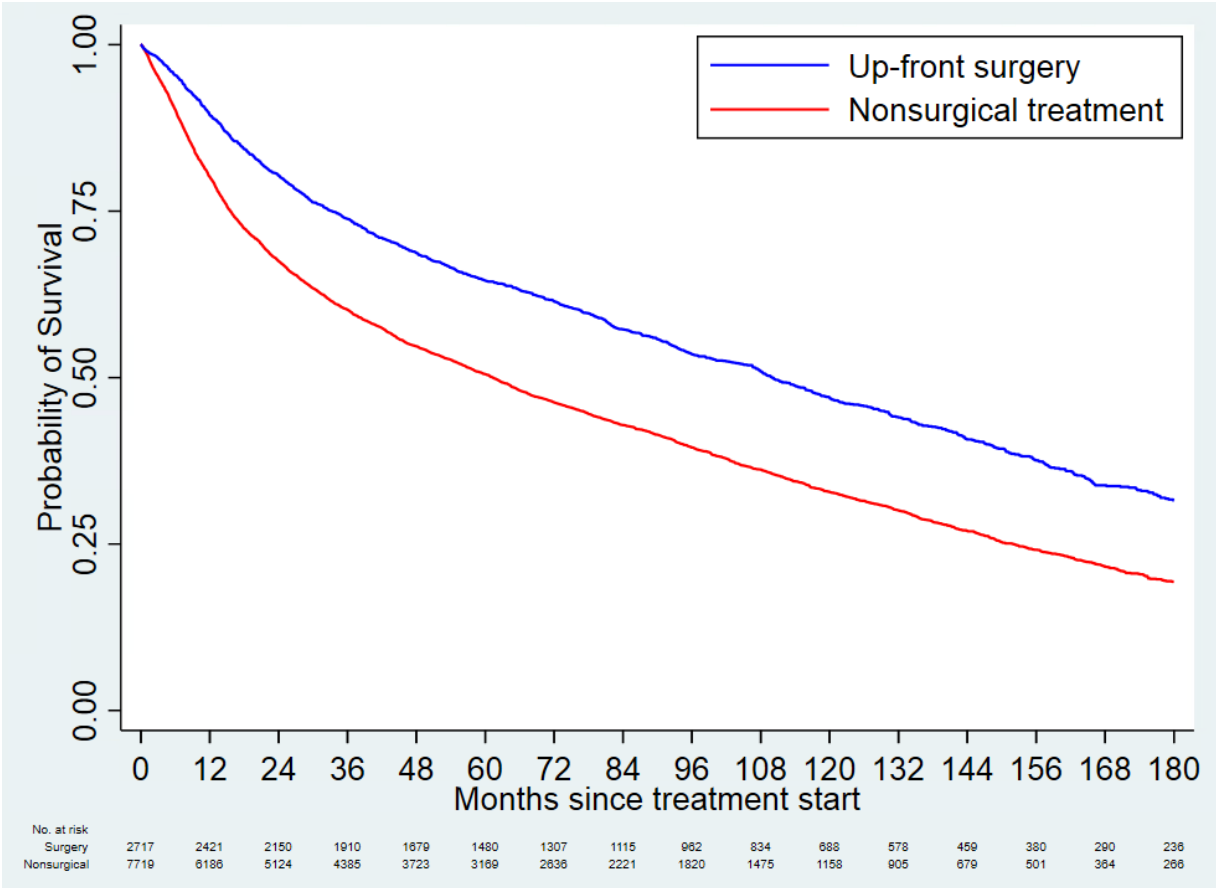
Cohort Definition	
Oropharynx primary site	Keywords (ICDDescription, CPTname): Tonsil, soft palate, base of tongue, retromolar, oropharynx, vallecular, Waldeyer, adenoid, uvula
Radiation	0073T, 0197T, 77373, 77385, 77386, 77401, 77402, 77403, 77404, 77407, 77408, 77409, 77412, 77413, 77414, 77416, 77418, G0178, G0251, G6012, G6015, G6016
Primary Outcome	
Stroke/TIA ¹	ICD-9-CM 430X, 431X, 432.9, 433.X, 434.x, 435X, 436X, V12.54, 362.3X, ICD-10-CM I60X, I61X, I62.9, I63X, I64X, G45X, H34X, I67.81, I67.82, I67.84x, z86.73
Baseline comorbidities	
Hypertension	ICD9: 401X, 402X, 403X, 404X, 405 ICD10 I10X, I11X, I12X, I13X, I15X, I16X
Diabetes	ICD9: 250X ICD10: E10X, E11X, E12X, E13X, E14X
Hyperlipidemia	ICD 9: 272.0, 272.1, 272.2, 272.4, 272.5, 272.8, 272.9 ICD 10: E78.0X, E78.1, E78.2, E78.4, E78.5
Atrial fibrillation	ICD 9: 427.3 ICD10: I48.0,I48.1,I48.2,I48.3, I48.4,I48.9
Obesity	ICD-9: 278.0 ICD-10: E66.0,E66.1,E66.2E66.8,E66.9
Carotid artery stenosis	ICD9: 433.10 ICD10: I65.2
Coronary artery disease	ICD9-9-CM 410X, 411X, 412X, 413X, 414X, 429.2, 429.7, V45.82, V45.81 ICD-10-CM I20X, I21X, I22X, I23X, I24X, I25X, Z95.5, Z98.61, Z95.1 CPT Codes: 00566, 33510, 33511, 33512, 33513, 33514, 33515, 33516, 33517, 33518, 33519, 33521, 33522, 33523, 33530, 33533, 33534, 33535, 33536, 33572, G8158, G8159, G8161, G8162, G8163, G8164, G8165, G8166, G8167, G8170, G8171, G8172, 92920, 92921, 92924, 92925, 92928, 92929, 92933, 92934, 92937, 92938, 92941, 92943, 92944, 92973, 92975, 92980, 92981, 92982, 92984, 92995, 92996, C9600, C9601, C9602, C9603, C9604, C9605, C9606, C9607, C9608, G0290, G029 Procedure codes ICD-9-CM: 36.03, 36.04, 36.06, 36.07, 36.09, 36.1X, 36.2, 36.3X, 17.55, 00.66 ICD-10-PCS: 02703XX 02704XX 02713XX 02714XX 02723XX 02724XX 2733XX 02734XX 02C03XX 02C04XX 02C13XX 02C14XX 02C23XX 02C24XX 02C33XX 02C34XX 02700XX 02710XX 02720XX 02730XX 02100XX 02110XX 02120XX 02130XX
Renal disease	ICD9: 403.01, 403.11, 403.91, 404.02, 404.03, 404.12, 404.13, 404.92, 404.93, 582.X, 583.X, 585.X, 586., 588, V42.0, V45.1X, V56.X ICD10: I12.0, N03.2-N03.7, N05.2, N05.7, N18.1-N18.9, N25.0, Z49.01, Z49.02, Z94.0, Z99.2

Abbreviations: ICD, international coding definition; CPT: current procedural terminology; TIA: transient ischemic attack.

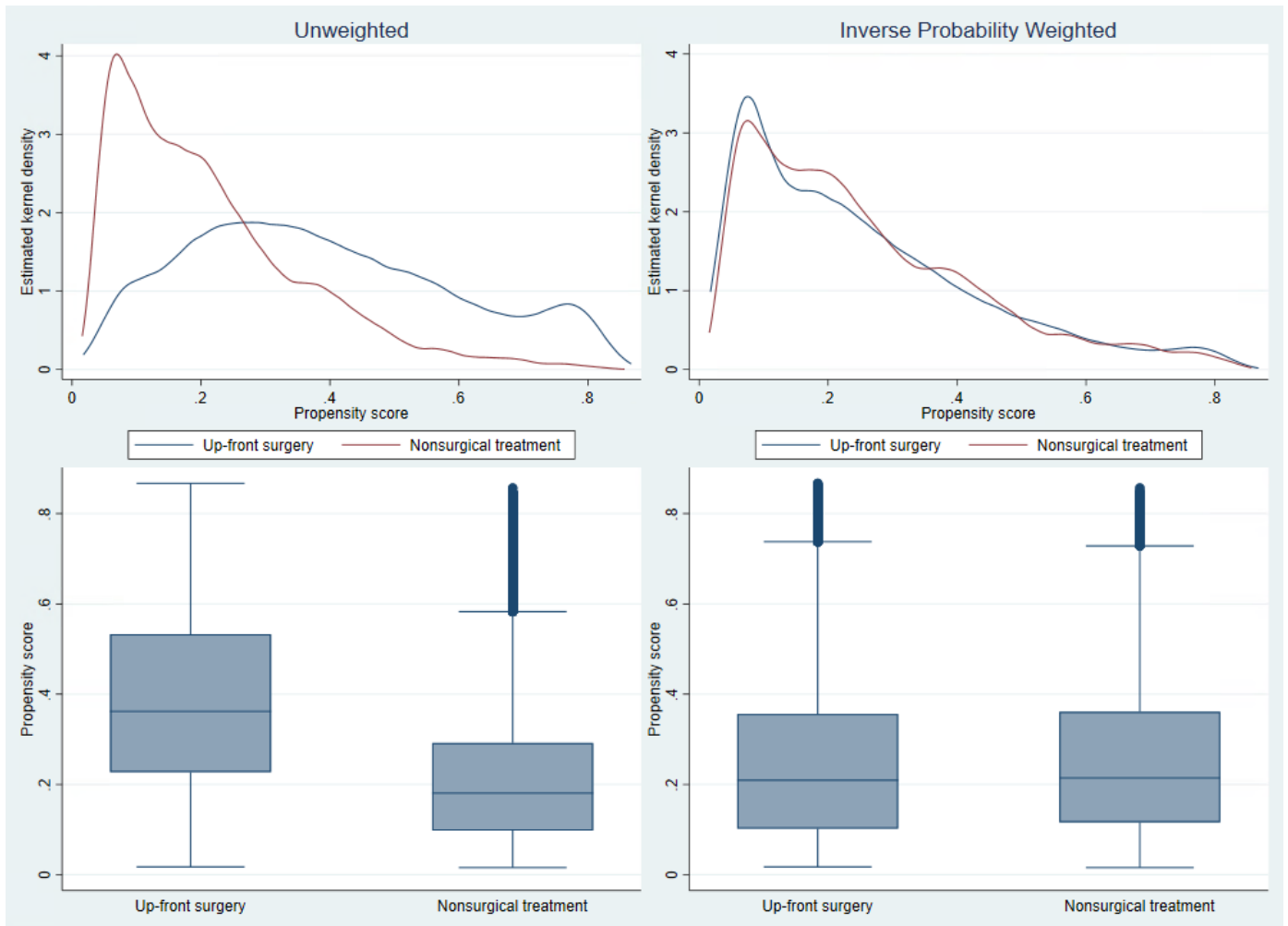
¹Incident: ≥2 outpatient or ≥1 inpatient diagnosis codes, with first date of diagnosis used.

Prevalent (excluded): ≥2 outpatient or ≥1 inpatient diagnosis codes prior to index date

eFigure 1. Kaplan-Meier curves for overall survival, up-front surgery vs nonsurgical treatment groups

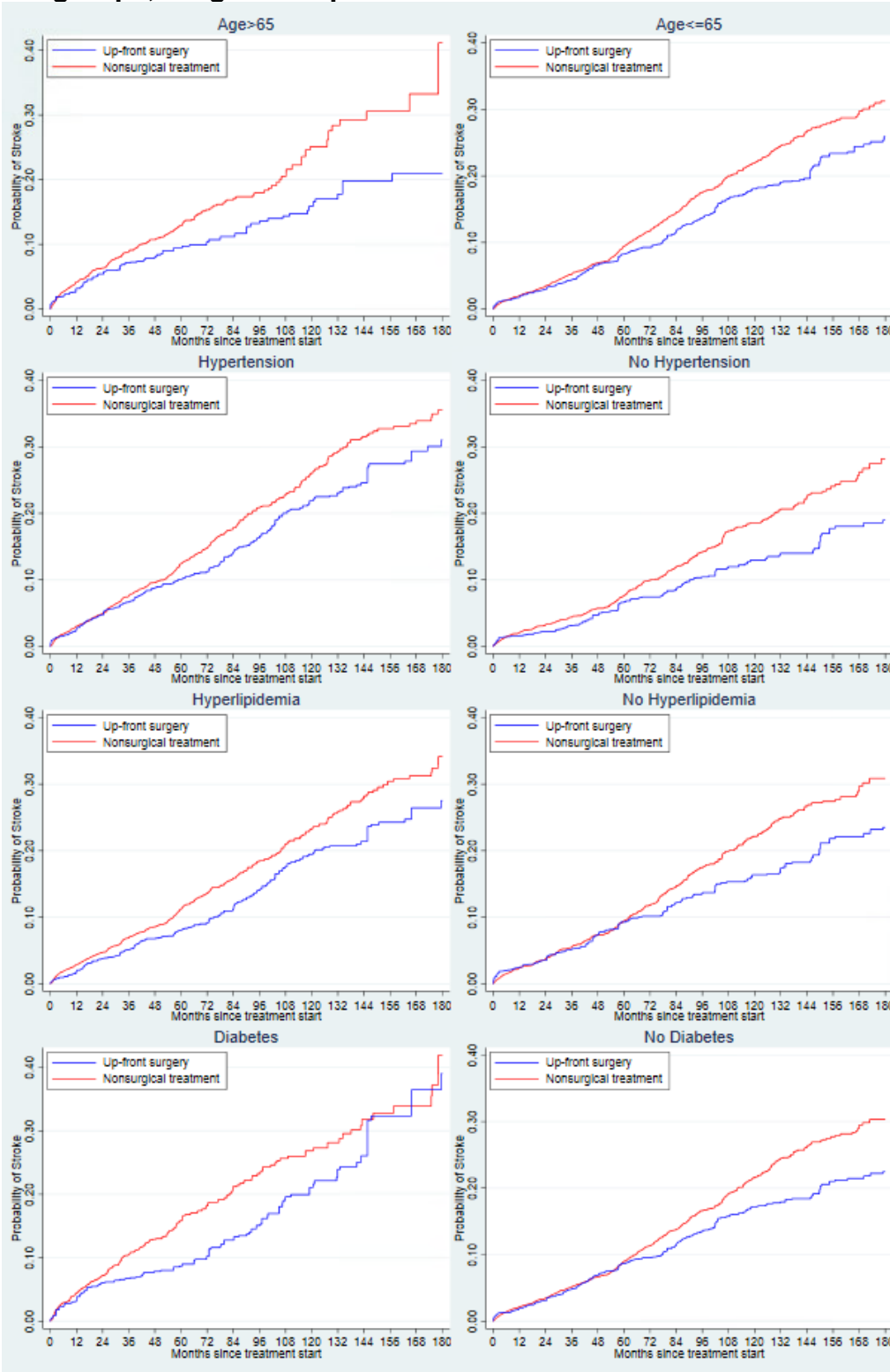


eFigure 2. Propensity score overlap between unweighted and weighted treatment groups



Kernel density and box-and-whisker plots showing improved balance of pseudo-populations after inverse probability treatment weighting (R) compared to original unweighted populations (L).

eFigure 3. Stroke incidence by surgical vs non-surgical treatment in key subgroups, weighted Kaplan-Meier curves



Weighted Kaplan-Meier failure curves of stroke incidence, inverse probability weighted pseudopopulations.