

Supplementary Online Content

Lipitz-Snyderman A, Sima CS, Atoria CL, et al. Physician-driven variation in nonrecommended services among older adults diagnosed with cancer [published online August 15, 2016]. *JAMA Intern Med*. doi:10.1001/jamainternmed.2016.4426.

eTable 1. Nonrecommended service use by select patient characteristics

eTable 2. Likelihood of patient receiving service by select patient characteristics

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

eTable 1. Nonrecommended service use by select patient characteristics

	Non-recommended Service Use (%)				
	Imaging for staging in early stage prostate cancer	Imaging for staging in early stage breast cancer	Imaging for post-treatment surveillance in low risk breast cancer	IMRT for whole breast radiotherapy as part of breast conservation therapy	Extended fractionation schemes for palliation of bone metastases
	(n=32,093)	(n=89,006)	(n=44,216)	(n=25,271)	(n=3,464)
Characteristic					
All patients	0.40	0.14	0.26	0.18	0.35
Prior patient received service ¹					
Yes	0.60	0.28	0.28	0.69	0.41
No	0.26	0.12	0.25	0.07	0.32
Age at diagnosis (years)					
66-69	0.40	0.15	0.25	0.18	0.34
70-74	0.40	0.15	0.26	0.18	0.34
75-79	0.40	0.14	0.26	0.18	0.32
80-84	0.39	0.14	0.27	0.18	0.38
85+	0.32	0.12	0.26	0.17	0.44
Race					
White	0.39	0.14	0.26	0.18	0.36

Black	0.45	0.16	0.27	0.24	0.30
Other	0.39	0.15	0.22	0.09	0.35
Region					
Northeast	0.53	0.19	0.28	0.17	0.31
South	0.38	0.11	0.27	0.28	0.38
Midwest	0.42	0.16	0.25	0.30	0.33
West	0.31	0.13	0.24	0.11	0.37
AJCC Stage ²					
In-situ	NA	0.05	0.22	NA	NA
I	0.39	0.13	0.27	0.18	0.32
II	0.42	0.22	NA	0.17	0.34
III	NA	NA	NA	NA	0.38
IV	NA	NA	NA	NA	0.38
Unknown	NA	NA	NA	NA	0.42
Charlson comorbidity score					
0	0.39	0.13	0.23	0.18	0.36
1	0.41	0.15	0.30	0.18	0.36
2+	0.42	0.17	0.36	0.19	0.31

¹Applies to patients whose physicians had a prior patient.

²For prostate cancer services, we used clinical T staging.

eTable 2. Likelihood of patient receiving service by select patient characteristics

	Adjusted Odds Ratio¹ [95% Confidence Interval)				
	Imaging for staging in early stage prostate cancer	Imaging for staging in early stage breast cancer	Imaging for post-treatment surveillance in low risk breast cancer	IMRT for whole breast radiotherapy as part of breast conservation therapy	Extended fractionation schemes for palliation of bone metastases
Prior patient					
Did not receive service	Ref	Ref	Ref	Ref	Ref
Did receive service	3.90 [3.71-4.10]	3.02 [2.88-3.17]	1.12 [1.07-1.18]	24.91 [22.86-27.15]	1.48 [1.26-1.75]
Age at diagnosis (years)					
66-69	Ref	Ref	Ref	Ref	Ref
70-74	0.96 [0.91-1.03]	0.96 [0.91-1.02]	1.08 [1.01-1.14]	0.97 [0.87-1.09]	1.03 [0.82-1.31]
75-79	0.96 [0.89-1.04]	0.85 [0.80-0.91]	1.01 [0.95-1.08]	0.97 [0.86-1.09]	0.85 [0.66-1.09]
80-84	1.02 [0.92-1.13]	0.77 [0.72-0.82]	1.03 [0.96-1.11]	0.95 [0.83-1.09]	1.03 [0.79-1.35]
85+	0.80 [0.68-0.94]	0.60 [0.56-0.65]	1.00 [0.91-1.10]	0.89 [0.72-1.09]	1.39 [1.01-1.91]
Race					
White	Ref	Ref	Ref	Ref	Ref
Black	1.13 [1.04-1.18]	1.01 [0.93-1.10]	0.90 [0.81-0.98]	1.09 [0.92-1.30]	0.75 [0.56-1.00]
Other	1.13 [1.02-1.26]	1.03 [0.94-1.13]	0.83 [0.74-0.92]	0.73 [0.58-0.94]	0.99 [0.73-1.36]
Region					
Northeast	Ref	Ref	Ref	Ref	Ref
South	0.60 [0.56-0.64]	0.51 [0.48-0.54]	0.97 [0.91-1.04]	1.83 [1.62-2.08]	1.34 [1.03-1.76]
Midwest	0.70 [0.63-0.77]	0.77 [0.72-0.83]	0.91 [0.84-0.98]	1.95 [1.69-2.24]	1.17 [0.88-1.57]
West	0.50 [0.47-0.54]	0.64 [0.61-0.67]	0.86 [0.81-0.92]	0.71 [0.63-0.80]	1.26 [1.01-1.57]
AJCC Stage²					
In-situ	NA	Ref	Ref	NA	NA
I	Ref	2.99 [2.74-3.28]	1.38 [1.28-1.48]	Ref	Ref
II	1.01 [0.94-1.10]	3.93 [3.52-4.39]	NA	0.92 [0.82-1.03]	0.92 [0.75-1.12]
III	NA	NA	NA	NA	1.09 [0.78-1.53]
IV	NA	NA	NA	NA	1.12 [0.80-1.57]
Unknown	NA	NA	NA	NA	NA

Charlson comorbidity score					
0	Ref	Ref	Ref	Ref	Ref
1	1.11 [1.04-1.18]	1.09 [1.03-1.14]	1.43 [1.36-1.51]	0.93 [0.83-1.03]	1.03 [0.84-1.27]
2+	1.17 [1.08-1.27]	1.20 [1.13-1.27]	1.92 [1.79-2.05]	0.91 [0.79-1.10]	0.87 [0.68-1.12]

[†]Likelihood of patient receiving imaging; logistic model. Adjusted for: age, race, a modified Charlson comorbidity index, marital status, median income of Census tract of residence, geographic region, metropolitan location, stage, year of diagnosis, treatment, tumor characteristics.