

Supplemental online content for:

Delays in Care Associated With Non-English-Speaking Patients With Breast Cancer

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J Natl Compr Canc Netw, doi: 10.6004/jnccn.2020.7797

eFigure 1: Matched Cohort Diagram for NES to ES Patients

eTable 1: Distribution of Languages in Matched NES Patients

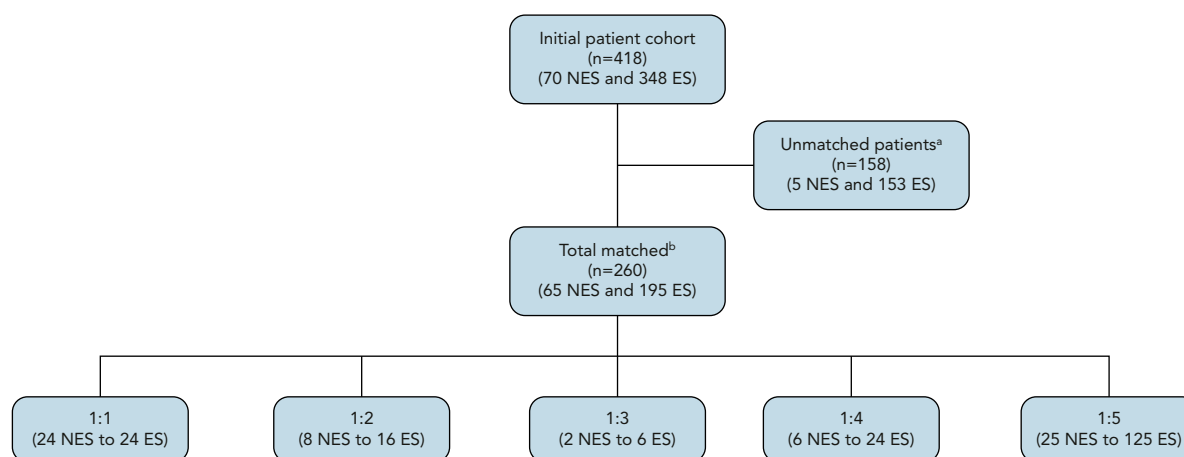
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eFigure 1. Matched cohort diagram for NES to ES patients.

Abbreviations: ES, English-speaking; NES, non-English-speaking.

^aPatients who were not able to successfully match on all 3 criteria (age, stage, and chemotherapy) were excluded from the analysis. Five NES patients were unable to match to ES patients within 5 years of age and were excluded. There were only 4 patients with stage IV disease, and all were ES patients; none were included because there were no NES patients with stage IV disease.

^bMatching was performed using propensity score matching where each NES patient was matched to at most 5 ES patients. The model required an exact match on both stage and chemotherapy status. After matching, the difference in age was computed and all pairs with an age difference >5 years were excluded.

eTable 1. Distribution of Languages in Matched NES Patients	
Language	n
Burmese	1
Cantonese	2
English	0
Farsi	4
French	1
Hindi	1
Hungarian	1
Korean	3
Mandarin	9
Polish	1
Portuguese	2
Punjabi (Panjabi)	1
Russian	1
Spanish	28
Tagalog	1
Vietnamese	8
Other	1
Total	65

Abbreviation: NES, non-English-speaking.

eTable 2. Statistical Model^a Analyzing Delays in Care at Each Time Interval						
	Initial Findings to Diagnostic Mammogram (P Value)	Diagnostic Mammogram to Biopsy (P Value)	Biopsy to Resection (P Value)	Resection to Start of RT (P Value)	Start of RT to End of RT (P Value)	Total Care-Path Time (P Value)
Race/Ethnicity	.150	.329	.690	.035	.022	.121
Language	.055^b	.880	.044	.108	.621	.083
Interaction between language and race/ethnicity ^b	.014	.968	.803	.289	.137	.024
Insurance	.802	.726	.462	.192	.660	.937

Bold indicates statistically significant variables at each interval.

Abbreviations: ES, English-speaking; NES, Non-English-speaking; RT, radiotherapy.

^aStatistical methods: each interval was analyzed in a mixed effects model with match ID as the random effect. NES and ES patients were matched based on cancer stage, chemotherapy, and age (± 5 years). Then individual predictors of language, insurance, and race/ethnicity were included in the model.

^bAll 2-way interactions between race/ethnicity, language, and insurance were examined. Only the interaction of language and race/ethnicity was included in the model because all others were not significant.

eTable 3. Time in Months for NES Versus ES at Each Time Interval

Interval	NES	ES	P Value
Total care-path time	9.71	8.18	.083
Initial findings to diagnostic mammogram	3.00	1.60	.055
Diagnostic mammogram to biopsy	0.47	0.49	.880
Biopsy to resection	2.61	2.20	.044
Resection to start of RT	2.63	3.08	.108
Start of RT to end of RT	0.92	0.89	.621

Bold indicates statistically significant *P* value.

Abbreviations: ES, English-speaking; NES, Non-English-speaking; RT, radiotherapy.

eTable 4. Time in Months for Each Race/Ethnicity at Each Time Interval

Interval	White	Asian	Latina	Black/Other	P Value
Total care-path time	7.60	8.40	10.55	9.22	.121
Initial findings to diagnostic mammogram	1.05	2.30	3.51	2.30	.150
Diagnostic mammogram to biopsy	0.33	0.45	0.74	0.41	.329
Biopsy to resection	2.48	2.39	2.20	2.56	.690
Resection to start of RT	2.76	2.60	3.58	2.76	.035
Start of RT to end of RT	0.91	0.97	0.77	1.00	.022

Bold indicates statistically significant *P* value.

Abbreviation: RT, radiotherapy

eTable 5. Time in Months for NES Versus ES Patients by Race/Ethnicity at Each Time Interval

Interval	NES				ES				P Value
	White	Asian	Latina	Black/Other	White	Asian	Latina	Black/Other	
Total care-path time	7.48	8.25	13.53	9.59	7.73	8.56	7.56	8.86	.024
Initial findings to diagnostic mammogram	0.61	2.27	6.09	3.02	1.50	2.34	0.93	1.61	.014
Diagnostic mammogram to biopsy	0.25	0.44	0.78	0.42	0.42	0.45	0.71	0.40	.968
Biopsy to resection	2.84	2.61	2.29	2.70	2.11	2.16	2.17	2.40	.803
Resection to start of RT	2.71	2.55	3.52	1.73	2.92	2.71	3.54	3.13	.289
Start of RT to end of RT	0.97	0.88	0.84	0.99	0.91	1.02	0.61	1.01	.137

Bold indicates statistically significant *P* value.

Abbreviations: ES, English-speaking; NES, Non-English-speaking; RT, radiotherapy.

eTable 6. Time in Months for Public Versus Private Insurance at Each Time Interval			
Interval	Public Insurance	Private Insurance	P Value
Total care-path time	8.97	8.91	.937
Initial findings to diagnostic mammogram	2.24	2.37	.802
Diagnostic mammogram to biopsy	0.46	0.51	.726
Biopsy to resection	2.48	2.33	.462
Resection to start of RT	3.02	2.68	.192
Start of RT to end of RT	0.89	0.92	.660

Abbreviation: RT, radiotherapy