Abstract #5532: Factors Associated with Receipt of Second-Line Recurrent or Metastatic Cervical Cancer Treatment in the US: A Retrospective Administrative Claims Analysis

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INTRODUCTION

- There is limited contemporary real-world data on the proportion of eligible recurrent or metastatic cervical cancer (r/mCC) patients receiving second-line (2L) treatment, following progression on first-line (1L) r/mCC systemic therapy.
- In addition, factors impacting initiation of 2L therapy are also not well-understood.
- The objectives of this study were twofold:
  - Estimate the proportion of patients initiating 2L therapy, among those with evidence of 1L treatment.
  - Examine the predictors of 2L therapy initiation.

MAIN TAKEAWAY

1 51% of patients initiated subsequent treatment after end of first-line (1L) therapy for recurrent or metastatic cervical cancer (r/mCC).

2 Geographic area of residence and not having prior exposure to bevacizumab are correlated with lower likelihood of initiating subsequent therapy for r/mCC.

METHODS

- We conducted a retrospective cohort study using the 2015-2020 MarketScan® and Medicare Supplemental commercial claims database
- Adult r/mCC patients had:
  a) ≥1 inpatient claim or 2 outpatient claims with a diagnosis for malignant neoplasm of the cervix (identified by the International Classification of Diseases Codes 180.XX and C53.XX).
  b) Utilization of ≥1 systemic therapy (indicative of 1L r/mCC treatment), beyond chemoradiation and surgery
- Patients were excluded from the overall study if they:
  a) were not continuously enrolled in a plan 3 months prior to and 12 months after end of 1L therapy (index date), or
  b) had no claims occurring within 30 days of cervical cancer diagnosis
- A multivariable logistic regression model adjusted for independent variables examined factors associated with initiation of 2L treatment.

RESULTS

- The final cohort comprised of 384 women; 196 (51.0%) patients initiated 2L therapy after 1L treatment (Table).
- The geographic location of the patient and prior exposure to bevacizumab were statistically significant predictors of initiating 2L therapy (Figure).
  - Patients from the South (adjusted odds ratio [aOR]=0.43 [95% CI: 0.23-0.84]) and Midwest (aOR=0.52 [95% CI: 0.28-0.95]) regions had a lower likelihood of initiating 2L therapies after 1L therapy, compared to those living in the Northeast.
  - Women who did not receive bevacizumab in 1L treatment were also less likely to initiate subsequent therapy (aOR=0.65 [95% CI:0.43-0.99]).

Table: Demographic characteristics of 1L-treated r/mCC patients.

Characteristics	Total	Received 2L N	Received 2L %	Did Not Receive 2L N	Did Not Receive 2L %	P
Total	384	196	100	188	100	
Age at Index, years						0.85
Mean (SD)	54.5	54.6	10.6	54.4	12.1	
Median (Q1-Q3)	55.0	55.0	48.0-62.0	55.0	47.5-62.0	
Index Year						0.32
2015	100	57	29.1%	43	22.9%	
2016	78	40	20.4%	38	20.2%	
2017	82	45	23.0%	37	19.7%	
2018	68	30	15.3%	38	20.2%	
2019	56	24	12.2%	32	17.0%	
Region						0.08
Northeast	62	40	20.4%	22	11.7%	
Midwest	93	41	20.9%	52	27.7%	
South	183	90	45.9%	93	49.5%	
West	46	25	12.8%	21	11.2%	
Rurality						0.50
Non-metropolitan	43	24	12.2%	19	10.1%	
Metropolitan	341	172	88.8%	169	89.9%	
Plan type						0.87
HMO	43	21	10.7%	22	11.7%	
Non-HMO Plan	341	175	89.3%	166	88.3%	
Data source						0.64
Commercial	337	174	88.8%	163	86.7%	
Medicare	47	22	11.2%	25	13.3%	
Index line contains Bevacizumab						0.08
No	229	108	55.1%	121	64.4%	
Yes	155	88	44.9%	67	35.6%	
Charlson Comorbidity Score						0.66
Mean (SD)	0.82	0.79	1.22	0.85	1.24	
CCI Categories						0.74
0	211	112	57.1%	99	52.7%	
1	97	47	24.0%	50	26.6%	
2	40	18	9.2%	22	11.7%	
3+	36	19	9.7%	17	9.0%	

Abbreviations: 1L, first-line; r/mCC, recurrent or metastatic cervical cancer; HMO, Health maintenance organization; CCI, Charlson Comorbidity Index; AIDS, Acquired Immunodeficiency Syndrome

Figure: Odds ratio for initiating 2L r/mCC treatment

Age
Region (South vs North-East)
Region (Midwest vs North-East)
Region (West vs North-East)
Plan type (Non-HMO vs HMO)
Group type (Medicare vs Commercial)
Bevacizumab history (No vs. Yes)
Charlson Comorbidity Index

0.0 0.5 1.0 1.5 2.0 2.5
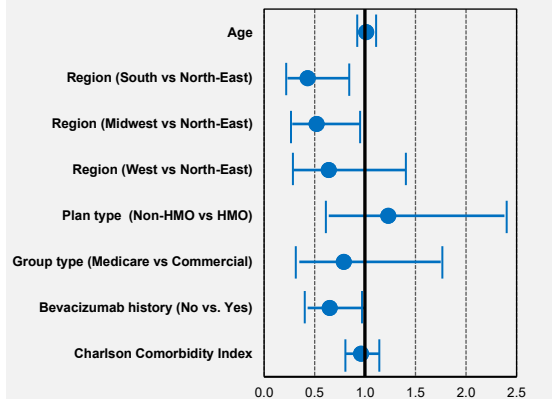
Abbreviations: 2L, second-line; 1L, first-line; r/mCC, recurrent or metastatic cervical cancer; HMO, Health maintenance organization.

FUTURE DIRECTIONS

Additional research and targeted outreach efforts are needed to understand geography-, population-, or practice-specific barriers impacting access to 2L r/mCC therapy.