Poster code: HSD38

Real-World Treatment Patterns and Outcomes in Patients With ≥2 Lines of Therapy for Recurrent or Progressive Endometrial Cancer

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Objective

- To describe real-world treatment patterns and clinical outcomes among patients with EC who received ≥2 LOTs in the recurrent or advanced setting, where no established SOC exists

Conclusions

- **In this real-world cohort of patients with advanced or progressive EC who received ≥2 LOTs, treatment regimens were fragmented and diverse, with declining platinum use and increasing reliance on non-platinum-based chemotherapy in later lines, reflecting the absence of a clear SOC**
- **Clinical outcomes were poor and worsened with each successive LOT, and no clear improvement was observed between ICI-containing regimens and non-platinum chemotherapy in patients with EC who received ≥2 LOTs, underscoring the need for innovative and more effective treatment options**

Limitations

- Findings from this study were limited to the population captured in the Flatiron Health Database, which was derived predominantly from medical records from community-based oncology centers; therefore, the results may not be generalizable to the overall population of patients with EC in the US
- Similarly, these data reflect US clinical practices only and may not represent global EC treatment patterns
- Real-world progression is derived from actual clinical practice settings and, unlike clinical trial settings, does not have specifically defined endpoints or scheduled assessments
- All data points were limited to clinical data contributed to the Flatiron Health Database; therefore, any patient care data generated outside of these clinics were not captured

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Disclosures

Rachel Bhak is an employee of Genmab A/S.

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Abbreviations

1L, first line; 2L, second line; 3L, third line; BMI, body mass index; EC, endometrial cancer; ECOG, Eastern Cooperative Oncology Group; EDM, enhanced data mart; G-CSF, granulocyte colony-stimulating factor; HR, hazard ratio; ICI, immune checkpoint inhibitor; LOT, line(s) of therapy; MMR, mismatch repair; MSI, microsatellite instability; PBC, platinum-based chemotherapy; rwOS, real-world overall survival; rwPFS, real-world progression-free survival; rwTTD, real-world time to treatment discontinuation; rwTTNT, real-world time to next treatment; SOC, standard of care; TKI, tyrosine kinase inhibitor; VEGF, vascular endothelial growth factor.

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Introduction

- Endometrial cancer (EC) is the second most prevalent gynecologic cancer globally,[1] and the most common gynecologic malignancy in the US, with 68,270 new cases projected to occur in 2026[2]
- Approximately 15%–20% of all patients with EC who receive treatment experience a recurrence,[3] after which prognosis is poor with a median overall survival of approximately 12 months[4]
- Guidelines recommend platinum-based chemotherapy (PBC) with or without immune checkpoint inhibitors (ICI) as first-line (1L) treatment for patients with advanced or recurrent EC[5]
- Patients who progress after 1L therapy have limited treatment options, highlighting the need for novel and efficacious therapies[6]

Methods

Data source:

- The Flatiron Health Database (2013–2024) was used in this study
- Database includes ~15% of the US patients with cancer across ~280 geographically diverse oncology clinics
- De-identified patient-level information on demographics, diagnoses, visits, labs, and therapies was included, as was unstructured data

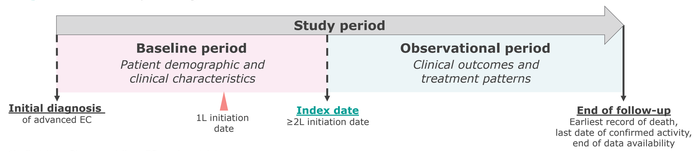
Study design:

- Non-interventional, retrospective, observational study
- Study period started with initial diagnosis of advanced EC until the end of follow-up (**Figure 1**)

Patient selection:

- **Inclusion criteria**: Adults (≥18 years) with advanced EC included in the Flatiron Health advanced EC enhanced data mart (EDM) who received 1 to 3 prior lines of therapy (LOT; on or after advanced diagnosis), including prior PBC
- **Exclusion criteria**: Patients with stage I/II EC without locoregional or distant recurrence; initial diagnosis or recurrence before January 1, 2013; receipt of a clinical study drug during the study period; or neuroendocrine tumors, carcinosarcoma, or uterine sarcoma

Figure 1. Study design



1L, first-line; 2L, second-line; EC, endometrial cancer.

Statistical analysis:

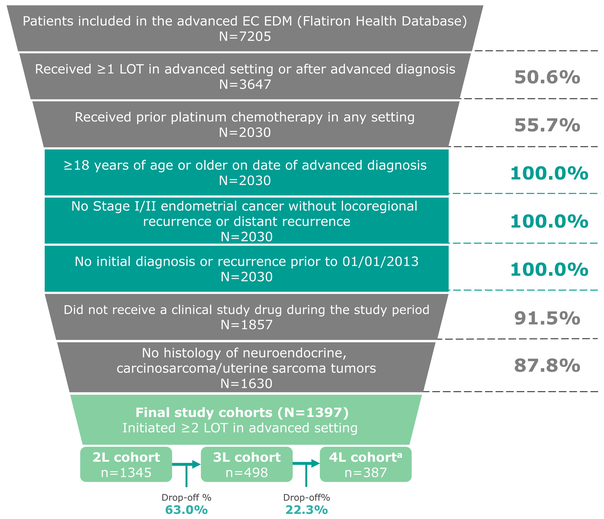
- Treatment patterns: regimen distribution, real-world time to next treatment (rwTTNT), and time to treatment discontinuation (rwTTD)
- Clinical outcomes: real-world progression-free survival (rwPFS) and overall survival (rwOS)
- Kaplan-Meier methods were used to evaluate rwTTNT, rwTTD, rwPFS, and rwOS, with medians and 95% CI
- Analyses were stratified by LOT (second-line [2L], third-line [3L], fourth-line [4L])
- Multivariable analyses for rwPFS and rwOS were evaluated with Cox proportional hazards models

Results

Patient selection

- A total of 1397 patients were included; 1345 in the 2L cohort, 498 in the 3L cohort, and 387 in the 4L cohort (**Figure 2**)

Figure 2. Patient selection



[a]Percentage of patients dropped-off from 2L cohort to 4L cohort was 71.2%.
EC, endometrial cancer; EDM, enhanced data mart; LOT, line of therapy.

Baseline characteristics

- Median age at advanced diagnosis was 67 years; patients were racially diverse and geographically distributed across the US (**Table 1**)
- Most patients were treated in community settings (75.2%), had commercial insurance (63.9%), and received a median of 3 LOTs

Table 1. Baseline characteristics

Characteristic	N=1397
Age,[a] median (IQR), years	67 (60, 72)
Race, n (%)	
White	847 (60.6)
Black or African American	255 (18.3)
Asian	26 (1.9)
Other race	141 (10.1)
Unknown/not documented	128 (9.2)
Geographic region, n (%)	
Northeast	142 (10.2)
South	495 (35.4)
Midwest	163 (11.7)
West	155 (11.1)
Unknown/not documented	442 (31.6)
Practice type, n (%)	
Academic	303 (21.7)
Community	1051 (75.2)
Both	43 (3.1)
Insurance type, n (%)	
Commercial	892 (63.9)
Medicare/Medicaid/other government program	217 (15.5)
Other/unknown	288 (20.6)
Total LOT received in advanced/recurrent setting, n (%)	
2–3	1010 (72.3)
4–6	341 (24.4)
7+	46 (3.3)
Median (IQR)	3 (2, 4)

Percentages may not sum to 100% due to rounding. [a]Age at advanced diagnosis date. LOT, line of therapy.

Clinical characteristics

- At 2L initiation, 55.5% of patients had Eastern Cooperative Oncology Group (ECOG) performance status 0/1
- Most patients at 2L, 3L, or 4L were obese (45.0%–48.9%) (**Table 2**)
- Common concomitant medications included granulocyte colony-stimulating factor and steroids

Table 2. Clinical characteristics

Characteristic	2L (N=1345)	3L (N=498)	4L (N=387)
ECOG performance status, n (%)			
0	369 (27.4)	109 (21.9)	89 (23.0)
1	377 (28.0)	164 (32.9)	122 (31.5)
2+	171 (12.7)	60 (12.0)	47 (12.1)
Missing	428 (31.8)	165 (33.1)	129 (33.3)
BMI, median (IQR), kg/m^2	30 (26, 36)	30 (26, 37)	29 (24, 36)
<18.5 Underweight, n (%)	25 (1.9)	10 (2.0)	10 (2.6)
18.5 – <25 Normal weight, n (%)	273 (20.3)	101 (20.3)	100 (25.8)
25 – <30 Overweight, n (%)	378 (28.1)	136 (27.3)	100 (25.8)
≥30 Obesity, n (%)	658 (48.9)	249 (50.0)	174 (45.0)
Unknown, n (%)	11 (0.8)	2 (0.4)	3 (0.8)
Concomitant medications, n (%)			
G-CSF	325 (24.2)	101 (20.3)	74 (19.1)
Steroids	862 (64.1)	313 (62.9)	239 (61.8)

BMI, body mass index; ECOG, Eastern Cooperative Oncology Group; G-CSF, granulocyte colony-stimulating factor.

Treatment patterns

- Both median rwTTNT and rwTTD decreased with later LOT (**Table 3**)
- Platinum rechallenge decreased and non-platinum chemotherapy use increased with advancing lines of therapy (**Table 3**)
- ICI-containing regimens were stable around 25%–27% across lines

Table 3. Real-world treatment patterns and regimens across 2L–4L

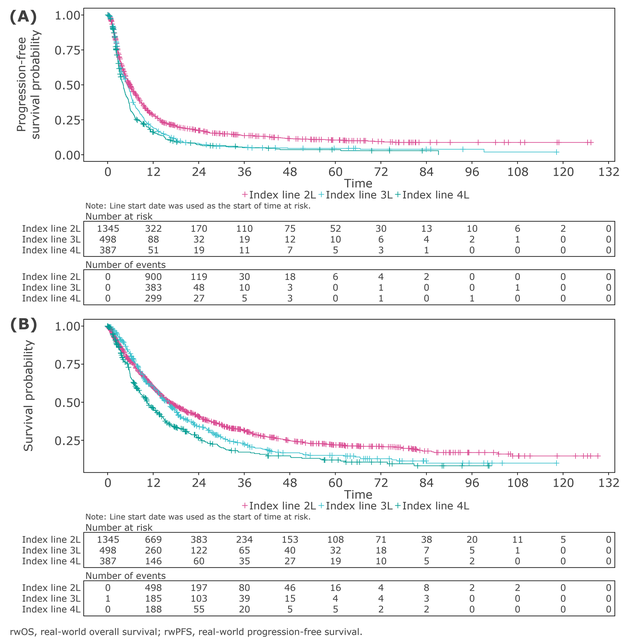
Treatment patterns		2L (N=1345)	3L (N=498)	4L (N=387)
rwTTNT, median (95% CI), months		6.9 (6.5, 7.4)	5.0 (4.6, 5.5)	5.3 (4.8, 5.8)
rwTTD, median (95% CI), months		3.7 (3.5, 3.9)	3.2 (3.0, 3.7)	2.9 (2.8, 3.6)
Hierarchical categorization	**Treatment regimen,** n (%)			
	Platinum-based + trastuzumab	31 (2.3)	8 (1.6)	1 (0.3)
	Platinum-based + ICI	39 (2.9)	11 (2.2)	8 (2.1)
	Platinum-based + VEGF	86 (6.4)	18 (3.6)	13 (3.4)
	Platinum-based ± other	263 (19.6)	72 (14.5)	38 (9.8)
	ICI + TKI	168 (12.5)	70 (14.1)	55 (14.2)
	Other ICI-containing regimen	140 (10.4)	44 (8.8)	41 (10.6)
	Non-platinum chemo + VEGF	56 (4.2)	47 (9.4)	19 (4.9)
	Non-platinum chemo	225 (16.7)	87 (17.5)	99 (25.6)
	Hormone therapy	237 (17.6)	78 (15.7)	55 (14.2)
	Other	100 (7.4)	63 (12.7)	58 (15.0)

ICI, immune checkpoint inhibitor; rwTTD, real-world time to treatment discontinuation; rwTTNT, real-world time to next treatment; TKI, tyrosine kinase inhibitor; VEGF, vascular endothelial growth factor.

Clinical outcomes across LOT

- rwPFS and rwOS decreased with increasing LOT
  - rwPFS was 5.8, 5.1, and 4.1 months, and rwOS was 16.4, 15.8, and 10.5 months for 2L, 3L, and 4L, respectively (**Figure 3**)

Figure 3. rwPFS (A) and rwOS (B) across 2L–4L



rwOS, real-world overall survival; rwPFS, real-world progression-free survival.

Multivariable analyses

- Higher ECOG performance status, ICI- or non-platinum–based regimens, and more prior LOTs were associated with increased risk of progression and mortality, whereas a longer platinum-free interval (≥6 months) was associated with reduced risk of both outcomes (**Table 4**)

Table 4. Multivariable analyses of rwPFS and rwOS

Select variables*	rwPFS HR (95% CI; *P* value)	rwOS HR (95% CI; *P* value)
Age ≥65 years[a]	1.08 (0.98–1.20; *P*=0.2)	1.30 (1.16–1.46; *P*=0.001)
ECOG[b]		
1	1.12 (0.99–1.28; *P*=0.086)	1.17 (1.01–1.36; *P*=0.055)
2+	1.57 (1.34–1.85; *P*<0.001)	1.86 (1.56–2.22; *P*<0.001)
Unknown	1.06 (0.94–1.21; *P*=0.4)	1.08 (0.93–1.25; *P*=0.4)
Treatment regimen[c]		
ICI-containing	1.19 (1.03–1.37; *P*=0.015)	1.23 (1.04–1.44; *P*=0.014)
Non-platinum chemo	1.44 (1.26–1.65; *P*<0.001)	1.44 (1.24–1.67; *P*<0.001)
Other	0.96 (0.84–1.10; *P*=0.6)	0.86 (0.74–1.00; *P*=0.037)
Number of prior lines[d]		
2	1.11 (0.97–1.28; *P*=0.094)	0.93 (0.80–1.08; *P*=0.3)
3–4	1.20 (1.02–1.41; *P*=0.02)	1.17 (0.98–1.40; *P*=0.079)
Platinum-free interval[e]		
≥6 months	0.77 (0.66–0.89; *P*<0.001)	0.77 (0.65–0.91; *P*<0.001)
Not applicable	1.08 (0.94–1.23; *P*=0.3)	1.08 (0.93–1.25; *P*=0.3)

*Other variables included in the model were: race, socioeconomic status, histology, group stage, other primary cancer, year of index regimen, MMR/MSI status, and BMI. [a]Patients age <65 years served as reference group. [b]ECOG 0 was used as the reference category. [c]Platinum-containing regimens were used as the reference group. [d]Patients with one prior line served as the reference group. [e]A platinum-free interval of <6 months was used as the reference category. BMI, body mass index; ECOG, Eastern Cooperative Oncology Group; HR, hazard ratio; ICI, immune checkpoint inhibitor; MMR, mismatch repair; MSI, microsatellite instability; rwOS, real-world overall survival; rwPFS, real-world progression-free survival.