

Healthcare Resource Utilization and Costs in US Patients With 2L+ Recurrent or Progressive Endometrial Cancer

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Objectives

- Describe healthcare resource utilization (HRU) and costs among patients treated with ≥2 lines of therapy (LOTs) to understand economic burden in patients with advanced endometrial cancer (EC)

Conclusions

- In this real-world cohort of patients with EC receiving ≥2 LOTs, hospitalizations were common (affecting ~25% of patients), along with frequent outpatient visits, leading to considerable EC-related HRU and associated costs among commercial- (~USD 34K per-patient-per-month [PPPM]) and Medicare-insured (~USD 19K PPPM) patient populations
- HRU remained persistently high across Commercial and Medicare treatment settings despite progression through multiple prior LOTs, underscoring sustained disease burden and ongoing unmet clinical need

Limitations

- This study is based on a commercially insured population and may not be fully generalizable to patients covered by Medicare or other healthcare systems
- Limited sample sizes in later lines of therapy may reduce precision and generalizability of the finding
- As with all claims-based analyses, clinical detail is limited; disease progression and lines of therapy are algorithm-derived and may be subject to misclassification
- HRU and costs are derived from observed claims and may not capture all care received or indirect costs associated with disease burden

Acknowledgments

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Disclosure

Rachel Bhak is an employee of Genmab A/S.

References

- Ferlay J, et al. Global cancer observatory: Cancer today (version 1.1). International Agency for Research on Cancer. Available at: <https://gco.iarc.who.int/today>. Accessed March 30, 2026.
- American Cancer Society. Key Statistics for Endometrial Cancer. Available at: <https://www.cancer.org/cancer/types/endometrial-cancer/about/key-statistics.html>. Updated May 30, 2025. Accessed April 23, 2026.
- Beavis AL, Fader AN. *J Clin Oncol*. 2022;40(33):3790–3795.
- Legge F, et al. *Int J Gynecol Cancer*. 2020;30(2):193–200.
- American Cancer Society; American Society of Clinical Oncology (ASCO). Immunotherapy for Endometrial Cancer. Available at: <https://www.cancer.org/cancer/types/endometrial-cancer/treating/immunotherapy.html>. Accessed April 23, 2026.
- Coleman LR, et al. *JHEOR*. 2023;10(2):82–90.
- Kebede N, et al. *Future Onco*. 2022;18:953–964.
- Prabhu VS, et al. *J Med Econ*. 2024;27:1410–1420.
- Kobayashi M, et al. *JHEOR*. 2023;10:104–110.

Abbreviations

1L, first-line; 2L, second-line; 3L, third-line; 4L, fourth-line; EBRT, external beam radiation therapy; EC, endometrial cancer; ED, emergency department; G-CSF, granulocyte colony-stimulating factor; HCPCS, Healthcare Common Procedure Coding System; HRU, healthcare resource utilization; ICD-10, International Classification of Diseases, Tenth Revision; ICI, immune checkpoint inhibitor; LOT, line of therapy; NDC, National Drug Code; PPPM, per-patient-per-month.

Introduction

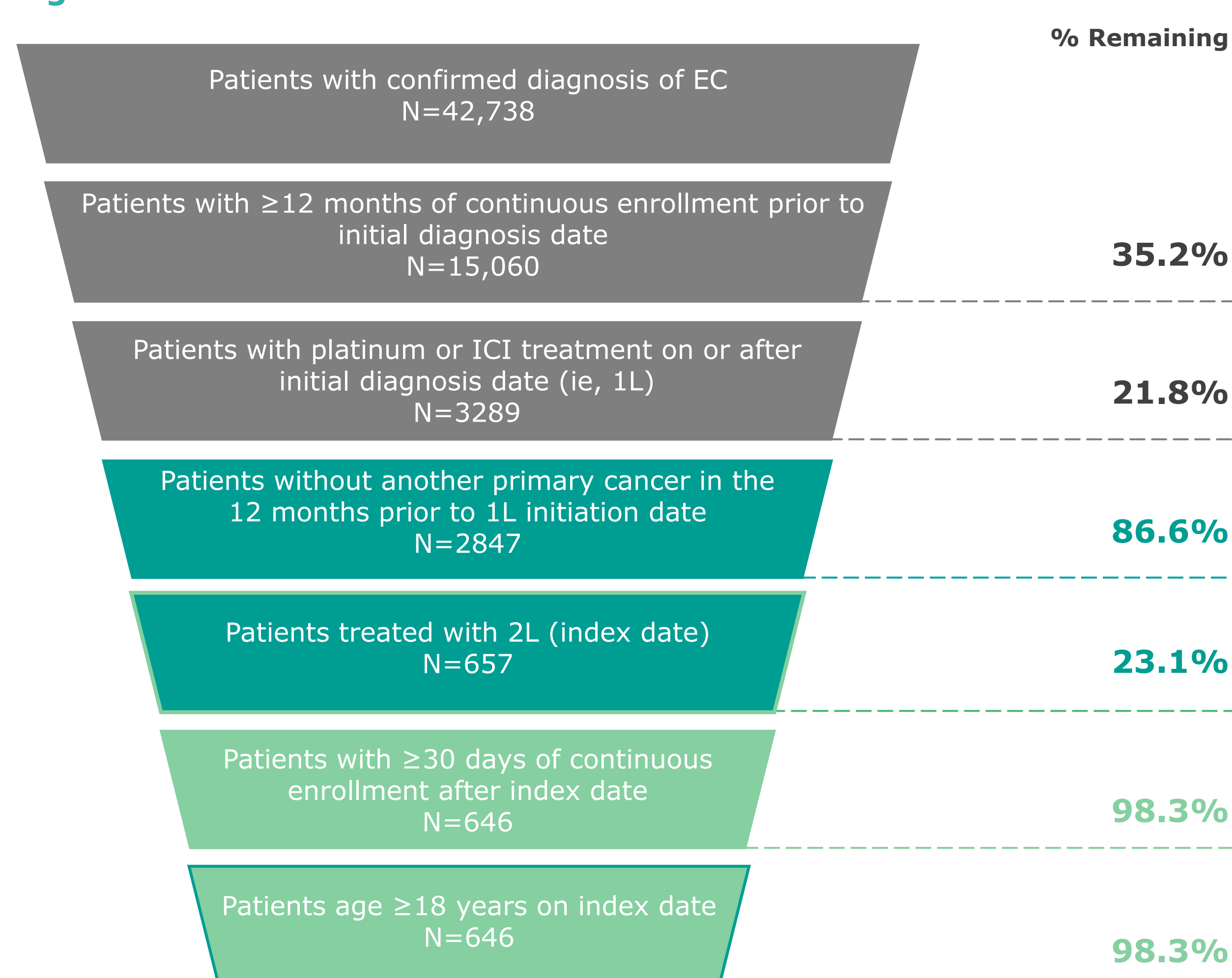
- Endometrial cancer (EC) is the second most prevalent gynecologic cancer globally¹; in the United States, EC is the most common gynecologic malignancy, with 68,270 new cases projected to occur in 2026²
- Approximately 15%-20% of patients with EC experience recurrence after initial treatment.³ Prognosis after recurrence is generally poor, with a median overall survival of ~12 months⁴
- Guidelines recommend platinum-based chemotherapy (PBC) with or without immune checkpoint inhibitors (ICI) as first-line (1L) treatment for patients with advanced or recurrent EC⁵
- Disease progression following 1L therapy remains associated with limited treatment options,⁶ and patients receiving later LOTs experience higher disease burden which may lead to increased HRU and associated costs^{7,8}
- Evidence quantifying the HRU and economic burden in patients with EC remains limited, particularly in advanced and later-line settings⁹
- This study describes the HRU and costs among patients with EC treated with ≥2 LOTs to understand economic burden in advanced EC

Results

Patient selection

- A total of 646 adult female patients were included (Figure 2)

Figure 2. Patient attrition flow chart



1L, first-line; 2L, second-line; EC, endometrial cancer; ICI, immune checkpoint inhibitor.

Patient demographics at index date

- Patient demographics at index date are presented in Table 1
- The median age was 62 years, with almost one-third of patients ≥65 years of age, consistent with the insurance distribution
- Patients included in the analysis were representative of the four US regions
- Overall, 70.9% and 29.1% of patients were covered by commercial and Medicare plans, respectively
- 2L treatment initiation occurred between 2022 and 2024 in 65.2% of patients

Table 1. Patient demographics at index date

Characteristic	2L (N=646)
Age, ^a median (IQR), years	62 (57, 68)
≥65 years, n (%)	205 (31.7)
Geographic region, n (%)	
Northeast	119 (18.4)
South	241 (37.3)
Midwest	207 (32.0)
West	78 (12.1)
Unknown/not documented	1 (0.2)
Insurance type, n (%)	
Commercial	458 (70.9)
Medicare	188 (29.1)
2L initiation year, n (%)	
2019	22 (3.4)
2020	106 (16.4)
2021	97 (15.0)
2022	140 (21.7)
2023	160 (24.8)
2024	121 (18.7)

^aAge at advanced diagnosis date. 2L, second-line.

Therapeutic interventions and comorbidities at index date

- Therapeutic interventions and common comorbidities occurring in ≥5% of patients at index date are presented in Table 2
- Brachytherapy and surgical interventions were the most commonly utilized therapeutic interventions
- Patients exhibited a high comorbidity burden, as reflected by elevated Quan Charlson Comorbidity Index scores
 - Common comorbid conditions included mild liver disease, diabetes, peripheral vascular disease, and chronic pulmonary disease

Methods

Study design

- US patients with advanced or recurrent EC who received ≥2 LOTs (second-line [2L] to fourth-line [4L]) between January 2018 to December 2024 were included (Figure 1)
 - The study period was defined to capture treatment patterns and associated costs relevant to EC management
 - A 12-month period prior to 1L initiation date was used to assess baseline HCR and costs
 - The 2L treatment initiation date is considered the index date
- Patients were followed longitudinally until disenrollment, end of data availability, or loss to follow-up

Study outcomes

- Treatment patterns were assessed from 1L to 4L including regimen distribution, treatment sequencing, and therapy transitions
- HRU and costs were assessed and stratified by LOT (2L-4L), capturing changes across treatment trajectory
- All-cause and EC-specific HRU and costs were evaluated by LOT and stratified by commercial and Medicare payer type. All outcomes were reported on a per-patient-per-month (PPPM) basis, including all-cause and EC-specific measures

Table 2. Therapeutic interventions and comorbidities^a

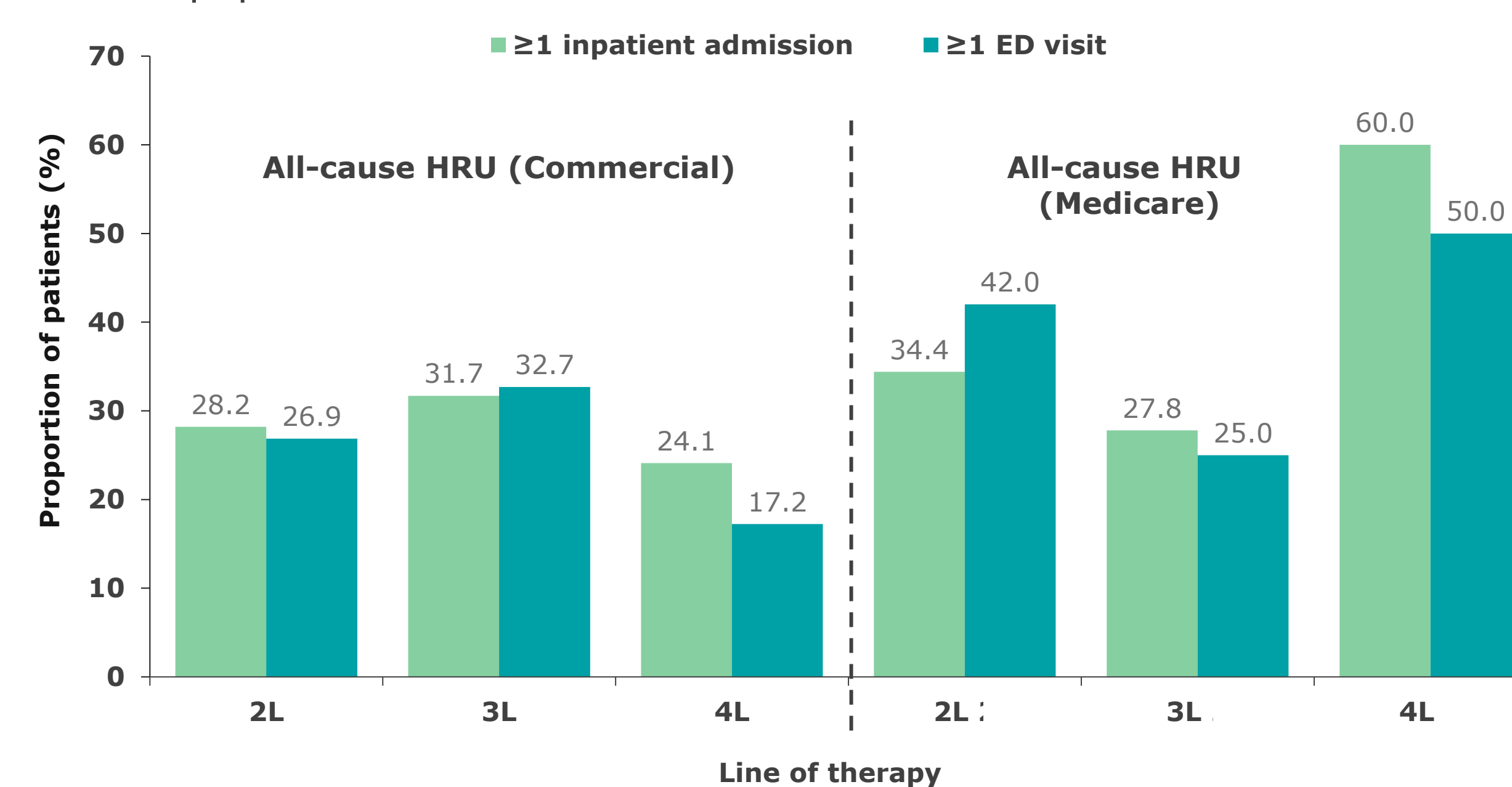
Characteristic	2L (N=646)
Radiation prior to index, n (%)	
EBRT	53 (8.2)
Brachytherapy	141 (21.8)
Surgery prior to index, n (%)	
Total hysterectomy	318 (49.2)
Bilateral salpingo-oophorectomy	224 (34.7)
Subtotal hysterectomy	196 (30.3)
Radical hysterectomy	150 (23.2)
Unilateral salpingo-oophorectomy	21 (3.3)
Concomitant G-CSF use, n (%)	125 (19.4)
Quan Charlson Comorbidity Index, mean (SD)	6.7 (1.9)
Mild liver disease, n (%)	177 (27.4)
Diabetes without chronic complication, n (%)	169 (26.2)
Peripheral vascular disease, n (%)	117 (18.1)
Chronic pulmonary disease, n (%)	98 (15.2)
Diabetes with chronic complication, n (%)	83 (12.9)
Renal disease, n (%)	63 (9.8)
Cerebrovascular disease, n (%)	48 (7.4)
Congestive heart failure, n (%)	44 (6.8)

^aComorbidities occurring in ≥5% of patients are presented. 2L, second-line; EBRT, external beam radiation therapy; G-CSF, granulocyte colony-stimulating factor.

Healthcare resource utilization

- Substantial HRU was observed with advancing LOTs, with a higher proportion of patients experiencing ≥1 hospitalization; a similar trend was observed with emergency department (ED) visits (Figure 3)

Figure 3. HRU with advancing LOTs among Commercial- and Medicare-insured populations



2L, second-line; 3L, third-line; 4L, fourth-line; ED, emergency department; HRU, healthcare resource utilization; LOT, line of therapy.

Healthcare resource utilization: Commercially insured population

- Substantial HRU was observed, with ~25% of patients experiencing all-cause hospitalization (median length of stay at 2L: 7 days) (Table 3)
- All-cause inpatient PPPM increased with advancing LOTs
- Outpatient visits were frequent (~5-6 PPPM)
- HRU was largely driven by EC-related care

Table 3. HRU - Commercial

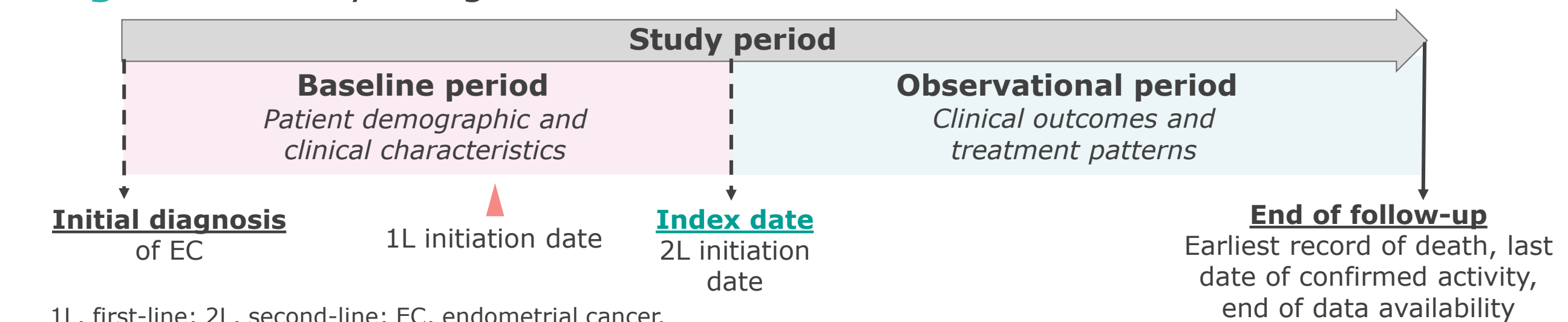
Characteristic	2L (N=387)	3L (N=104)	4L (N=29)
All-cause HRU			
Patients with an inpatient admission, n (%)	109 (28.2)	33 (31.7)	7 (24.1)
Length of stay, median (IQR)	7 (3, 11)	5 (2, 9)	6 (2, 10)
Inpatient admissions, PPPM, mean (SD)	0.1 (0.3)	0.2 (0.4)	0.2 (0.3)
Outpatient visits, PPPM, mean (SD)	5.4 (3.1)	5.9 (3.0)	5.4 (2.5)
EC-related HRU			
Patients with an inpatient admission, n (%)	79 (20.4)	27 (26.0)	5 (17.2)
Length of stay, median (IQR)	6 (3, 11)	6 (2, 9)	5 (2, 6)
Inpatient admissions, PPPM, mean (SD)	0.1 (0.3)	0.2 (0.4)	0.1 (0.2)
Outpatient visits, PPPM, mean (SD)	3.5 (2.6)	3.8 (2.1)	3.8 (2.1)

2L, second-line; 3L, third-line; 4L, fourth-line; EC, endometrial cancer; HRU, healthcare resource utilization; PPPM, per-patient-per-month.

Healthcare costs

- EC-related costs made up the bulk of the all-cause costs (Figure 4)
- Mean all-cause total costs PPPM were highest in 2L (\$41K), followed by \$35K and \$31K for 3L and 4L, respectively, and were primarily driven by outpatient costs, including ICI treatment and administration

Figure 1. Study design

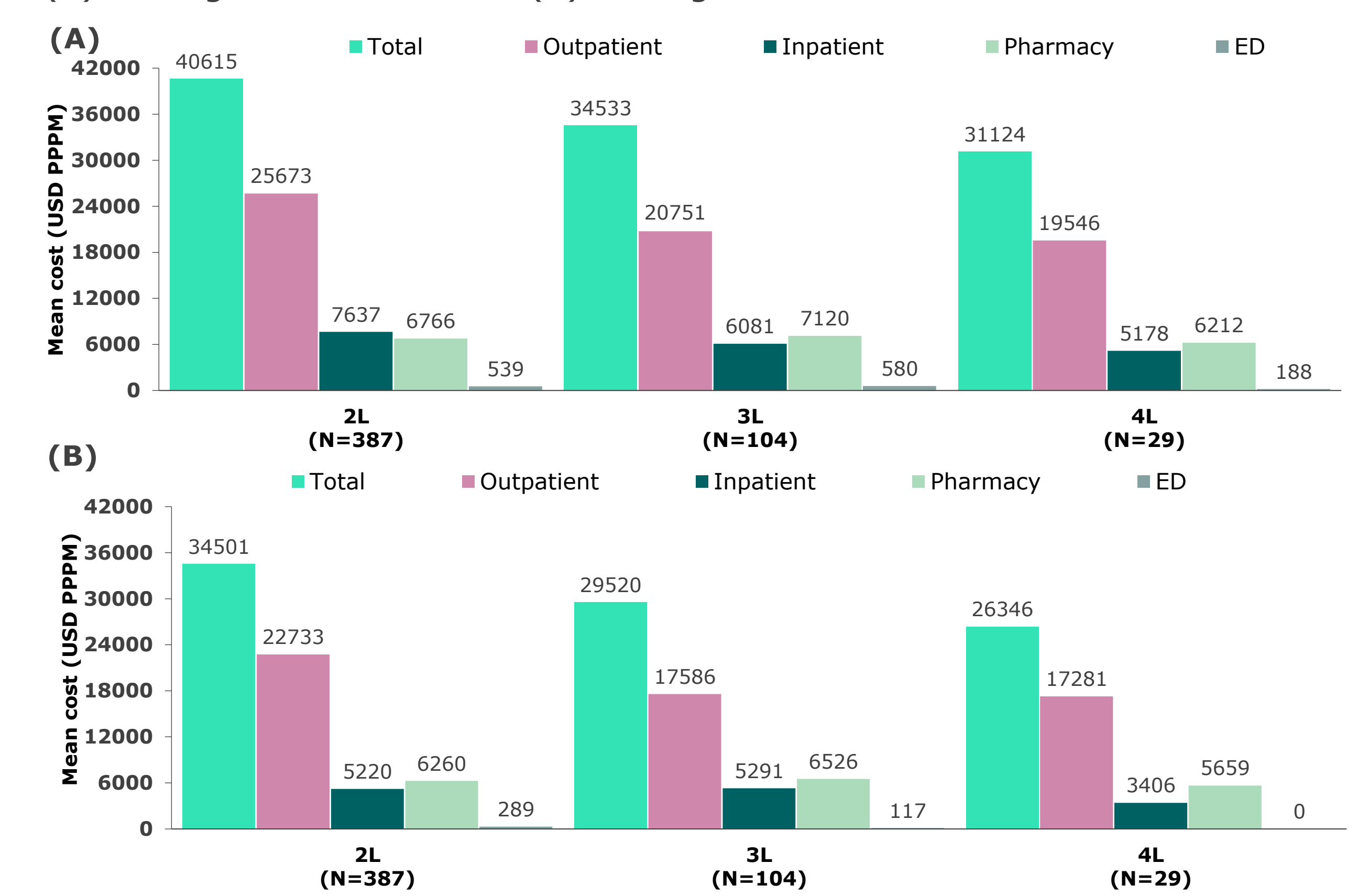


1L, first-line; 2L, second-line; EC, endometrial cancer.

Data source

- De-identified claims data were derived from the Merative™ MarketScan® Commercial Claims and Encounters database, capturing longitudinal, patient-level healthcare utilization and treatment data
- The database includes inpatient, outpatient, and outpatient pharmacy claims linked at the individual patient level, representing a large, commercially insured population and enabling a comprehensive view of HRU and costs
- All costs were inflation-adjusted to 2025 US dollars using the healthcare component of the Consumer Price Index to ensure comparability over time

Figure 4. Healthcare costs across treatment lines – Commercial. (A) Average all-cause costs. (B) Average EC-related costs



2L, second-line; 3L, third-line; 4L, fourth-line; EC, endometrial cancer; ED, emergency department; PPPM, per-patient-per-month.

Healthcare resource utilization: Medicare-insured population

- 28%-60% of patients experienced an all-cause hospitalization (median length of stay at 2L: 7 days; Table 4)
- All-cause outpatient visits were frequent, with mean ~5-6 PPPM
- HRU was again largely driven by EC-related care

Table 4. HRU - Medicare

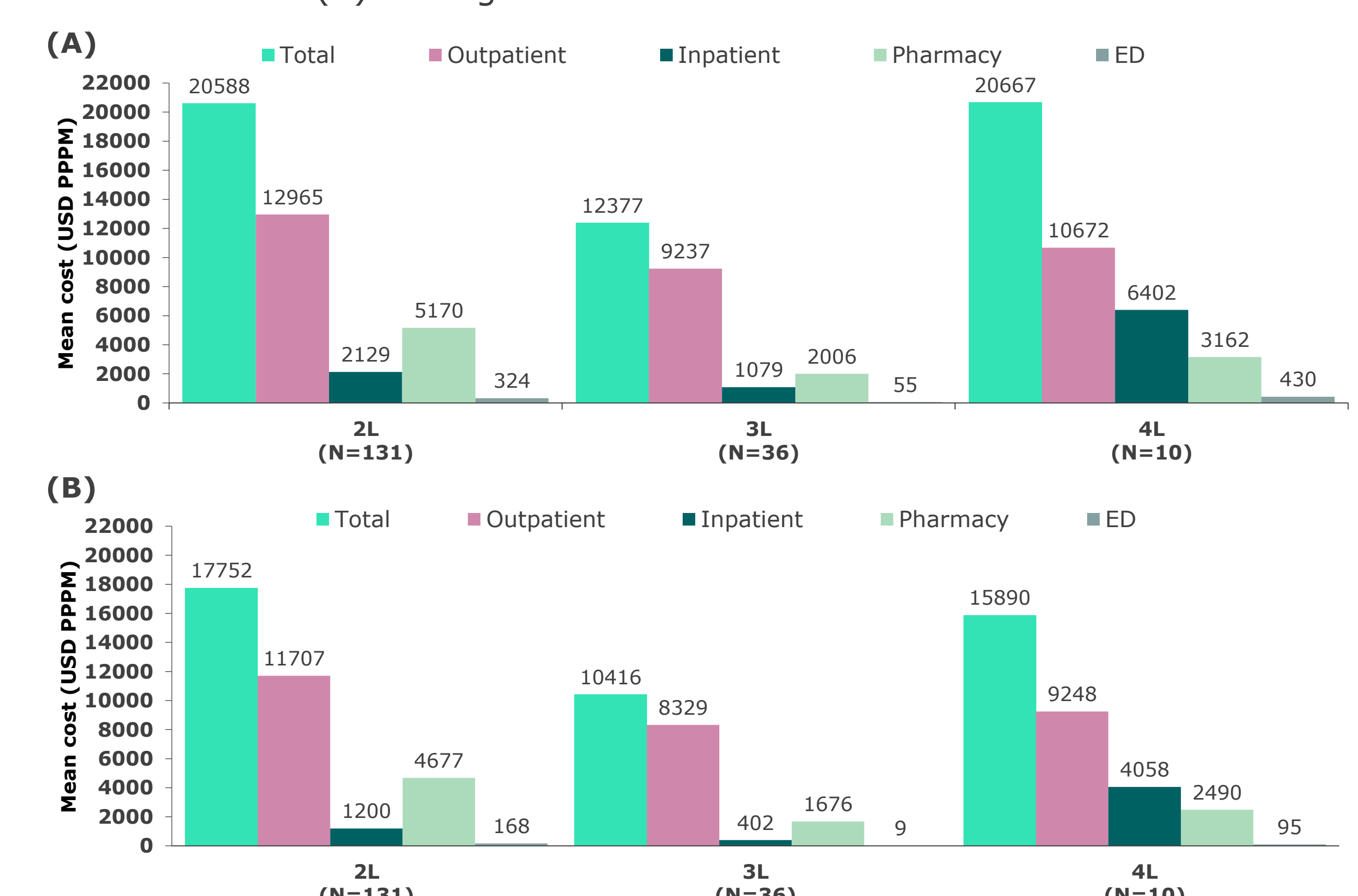
Characteristic	2L (N=131)	3L (N=36)	4L (N=10)
All-cause HRU			
Patients with an inpatient admission, n (%)	45 (34.4)	10 (27.8)	6 (60.0)
Length of stay, median (IQR)	7 (2, 14)	3.5 (2, 7)	4 (1, 16)
Inpatient admissions, PPPM, mean (SD)	0.1 (0.3)	0.1 (0.1)	0.3 (0.4)
Outpatient visits, PPPM, mean (SD)	5.7 (3.0)	6.1 (2.7)	6.3 (2.8)
EC-related HRU			
Patients with an inpatient admission, n (%)	28 (21.4)	7 (19.4)	4 (40.0)
Length of stay, median (IQR)	4.5 (2, 10.5)	4 (3, 7)	7.5 (1, 16)
Inpatient admissions, PPPM, mean (SD)	0.1 (0.2)	0.0 (0.1)	0.2 (0.3)
Outpatient visits, PPPM, mean (SD)	3.4 (1.9)	4.1 (2.4)	3.9 (1.8)

2L, second-line; 3L, third-line; 4L, fourth-line; EC, endometrial cancer; HRU, healthcare resource utilization; PPPM, per-patient-per-month.

Healthcare costs

- EC-related costs comprised the bulk of the all-cause costs (Figure 5)
- Mean all-cause total costs PPPM were high in 2L and 4L (\$21K), followed by \$12K for 3L, and were primarily driven by outpatient costs

Figure 5. Healthcare costs across treatment lines – Medicare. (A) Average all-cause costs. (B) Average EC-related costs



2L, second-line; 3L, third-line; 4L, fourth-line; EC, endometrial cancer; ED, emergency department; PPPM, per-patient-per-month.