Evaluation of the Oncology Care Model

Supplemental Appendices

Final Report

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SB. Payment Outcome Analyses

Exhibit SB-1: Reductions in Total Episode Payments Were Driven by Higher-Risk Episodes

Total Episode Payments	OCM N=1,746,368			COMP N=1,919,516			Impact Estimates Through PP11			
	Number of Episodes	Baseline Mean	Int Mean	Number of Episodes	Baseline Mean	Int Mean	DID	90% LCL	90% UCL	Percent Change
Episode risk group										
Lower-risk episodes	568,673	$7,339	$7,583	654,543	$7,388	$7,613	$18	-$95	$132	0.2%
Higher-risk episodes	1,177,695	$40,304	$50,604	1,264,973	$39,578	$50,776	-$898	-$1,314	-$483	-2.2%
Cancer type										
Low-risk breast cancer	410,791	$5,400	$5,552	417,544	$5,441	$5,615	-$22	-$123	$79	-0.4%
Low-intensity prostate cancer	145,974	$11,440	$11,992	215,930	$11,317	$11,914	-$45	-$308	$219	-0.4%
High-risk breast cancer	175,823	$35,986	$42,497	174,238	$34,750	$42,629	-$1,367	-$1,863	-$872	-3.8%
Lung cancer	162,906	$39,734	$57,611	171,530	$39,013	$58,106	-$1,217	-$1,816	-$617	-3.1%
Lymphoma	100,418	$44,925	$50,788	99,393	$45,418	$52,985	-$1,704	-$2,787	-$620	-3.8%
Colorectal cancer	90,598	$35,854	$36,558	94,206	$34,481	$36,667	-$1,482	-$2,283	-$682	-4.1%
Multiple myeloma	106,252	$54,340	$79,354	109,443	$53,880	$79,370	-$477	-$1,763	$809	-0.9%
Non-reconciliation eligible cancers[a]	88,398	$36,995	$49,252	117,909	$35,119	$47,555	-$178	-$1,088	$732	-0.5%
High-intensity prostate cancer	71,769	$41,633	$45,312	84,537	$41,060	$45,468	-$728	-$1,616	$161	-1.7%
Chronic leukemia	61,152	$44,629	$52,592	62,890	$44,561	$52,396	$128	-$762	$1,018	0.3%

Shading indicates statistically significant estimates at p≤0.01, p≤0.05, and p≤0.10, indicated by dark blue, medium blue, or light blue shading.
Source: Medicare claims 2014–2021.
Notes: [a]Non-reconciliation eligible cancers are types of cancer identified by CMS to be rare. OCM episodes for these cancer types are not included in performance-based payments, although practices may submit claims for Monthly Enhanced Oncology Services payment during treatment episodes for these types of cancer. OCM: OCM intervention group. COMP: Comparison group. Int.: Intervention period. PP: Performance period. DID: Difference-in-differences. LCL: Lower confidence limit. UCL: Upper confidence limit.

Exhibit SB-2: OCM Reduced TEP for Higher-Risk Episodes and for Several Individual Cancers; Impact Varied by Performance Period

Total Episode Payments	Period-by-Period Impact Estimates										
	PP1	PP2	PP3	PP4	PP5	PP6	PP7	PP8	PP9	PP10	PP11
Episode risk group											
Lower-risk episodes	$91	$216	$214	$164	$63	$50	$96	-$184	-$55	-$198	-$350
Higher-risk episodes	-$70	-$504	-$553	-$559	-$517	-$376	-$989	-$1,595	-$1,233	-$1,816	-$1,714
Cancer type											
Low-risk breast cancer	$30	$120	$163	$104	-$17	-$195	$86	-$173	-$86	-$194	-$117
Low-intensity prostate cancer	$117	$373	$158	$257	$88	$319	-$70	-$464	-$263	-$237	-$982
High-risk breast cancer	-$712	-$594	-$594	-$1,112	-$806	-$1,459	-$1,459	-$1,770	-$1,751	-$2,968	-$2,092
Lung cancer	-$570	-$1,031	-$1,167	-$1,396	-$1,833	-$301	$68	-$1,798	-$1,565	-$1,759	-$2,438
Lymphoma	-$456	-$391	-$1,076	-$1,066	-$1,362	-$286	-$2,961	-$3,496	-$1,703	-$4,666	-$1,941
Colorectal/small intestine cancer	-$446	-$575	-$1,560	-$946	-$1,234	-$710	-$1,894	-$2,229	-$2,138	-$2,228	-$2,960
Multiple myeloma	$745	-$373	$73	$619	$145	-$597	-$1,697	-$1640	-$284	-$1,155	-$912
Non-reconciliation-eligible cancers	-$208	$726	-$94	$249	$114	$680	-$1,147	-$829	-$751	-$391	-$324
High-intensity prostate cancer	$359	-$274	-$314	-$1,108	-$473	-$260	-$619	-$1,493	-$843	-$1,890	-$653
Chronic leukemia	-$110	-$613	$102	$927	$1,902	$1,423	$1,198	$99	-$1,311	-$730	-$1,051

Shading indicates statistically significant estimates at $p \leq 0.01$, $p \leq 0.05$, and $p \leq 0.10$, indicated by dark blue, medium blue, or light blue shading.
Source: Medicare claims 2014–2021.
Notes: TEP: Total episode payments. PP: Performance period.

Exhibit SB-3: Part A Payments Declined Slightly More for OCM Episodes than for Comparison Episodes

Measure	% of Part A Payments	OCM N=1,746,368		COMP N=1,919,516		PP11			
		Baseline Mean	Int. Mean	Baseline Mean	Int. Mean	DID	90% LCL	90% UCL	Percent Change
All Part A payments	100.0%	$6,230	$5,712	$6,078	$5,737	-$176	-$288	-$63	-2.8%
ACH payments	64.6%	$4,026	$3,858	$3,780	$3,589	$23	-$56	$102	0.6%
SNF payments	10.9%	$676	$556	$627	$529	-$22	-$44	-$1	-3.3%
HHA payments	11.3%	$704	$564	$673	$568	-$34	-$66	-$3	-4.9%
Hospice care payments	7.6%	$471	$442	$430	$413	-$13	-$29	$3	-2.8%
IRF payments	3.6%	$223	$244	$200	$215	$6	-$6	$19	2.9%
LTCH payments	2.0%	$124	$76	$118	$72	-$2	-$23	$19	-1.6%
OIP payments	0.1%	$5	-$27	$250	$351	-$133	-$221	-$45	-2707%

Shading indicates statistically significant estimates at p≤0.01, p≤0.05, and p≤0.10, indicated by dark blue, medium blue, or light blue shading.
Source: Medicare claims 2014–2021.
Notes: ACH: Acute care hospital. SNF: Skilled nursing facility. HHA: Home health agency. IRF: Inpatient rehabilitation facility. LTCH: Long-term care hospital. OIP: Other inpatient facility.
OCM: OCM intervention group. COMP: Comparison group. Int.: Intervention period. PP: Performance period. DID: Difference-in-differences. LCL: Lower confidence limit.
UCL: Upper confidence limit.

Exhibit SB-4: Reductions in Part B Payments Increased Over Time

All Part B Payments	Period-by-Period Impact Estimates N=3,665,884										
	PP1 DID	PP2 DID	PP3 DID	PP4 DID	PP5 DID	PP6 DID	PP7 DID	PP8 DID	PP9 DID	PP10 DID	PP11 DID
Episode risk group											
Lower-risk episodes	$41	$122	$49	$134	$42	$100	$27	-$83	-$57	-$91	-$174
Higher-risk episodes	-$71	-$320	-$260	-$412	-$274	-$297	-$341	-$725	-$746	-$980	-$833
Cancer type											
Low-risk breast cancer	-$2	-$9	$23	$21	$38	-$67	-$24	-$72	-$41	-$87	-$60
Low-intensity prostate cancer	$58	$315	-$44	$275	-$90	$287	-$46	-$237	-$259	-$141	-$506
High-risk breast cancer	-$805	-$601	-$619	-$955	-$637	-$1,342	-$1,114	-$1,304	-$1,286	-$2,005	-$1,491
Lung cancer	-$324	-$748	-$715	-$1,039	-$1,244	-$66	$625	-$818	-$881	-$681	-$1,198
Lymphoma	$167	-$100	-$246	-$831	-$416	$339	-$891	-$1,432	-$998	-$1,609	-$1,041
Colorectal/small intestine cancer	-$392	-$725	-$1,187	-$846	-$1,139	-$1,224	-$1,210	-$1,747	-$1,719	-$1,818	-$2,414
Multiple myeloma	$58	-$311	$78	-$13	-$72	-$587	-$1,454	-$1,116	$261	-$575	$336
Non-reconciliation eligible cancers[a]	$9	$24	$26	-$427	$146	$397	-$543	-$570	-$493	-$197	-$507
High-intensity prostate cancer	-$280	-$1,325	-$619	-$855	-$655	-$791	-$528	-$965	-$1,444	-$1,872	-$756
Chronic leukemia	-$54	-$263	$188	$64	$688	$9	$39	-$65	-$891	-$455	-$786

Shading indicates statistically significant estimates at p≤0.01, p≤0.05, and p≤0.10, indicated by dark blue, medium blue, or light blue shading.
Source: Medicare claims 2014–2021.
Notes: [a]Non-reconciliation eligible cancers are types of cancer identified by CMS to be rare. OCM episodes for these cancer types are not included in performance-based payments, although practices may submit claims for Monthly Enhanced Oncology Services payment during treatment episodes for these types of cancer. PP: Performance period. DID: Difference-in-differences.

Exhibit SB-5: Decreases in Part B Non-Chemotherapy Drugs for Higher-Risk Cancers Were Much Larger in the Second Half of the Model

Part B Non-Chemo Drug Payments	Period-by-Period Impact Estimates N=3,665,884										
	PP1 DID	PP2 DID	PP3 DID	PP4 DID	PP5 DID	PP6 DID	PP7 DID	PP8 DID	PP9 DID	PP10 DID	PP11 DID
Episode risk group											
Lower-risk episodes	5	77	-18	47	-33	11	-53	-66	-45	-2	-91
Higher-risk episodes	-125	-221	-235	-263	-291	-357	-529	-615	-650	-683	-692
Cancer type											
Low-risk breast cancer	$9	$2	$29	$24	-$5	-$18	-$9	-$31	$5	$4	-$15
Low-intensity prostate cancer	-$47	$223	-$116	$105	-$69	$100	-$116	-$97	-$97	$37	-$212
High-risk breast cancer	-$193	-$245	-$227	-$172	-$346	-$525	-$651	-$700	-$698	-$632	-$651
Lung cancer	-$100	-$227	-$322	-$197	-$391	-$526	-$547	-$705	-$865	-$992	-$837
Lymphoma	$158	$169	$104	$243	$244	$537	-$328	-$528	-$377	-$282	-$514
Colorectal/small intestine cancer	-$26	-$218	-$572	-$752	-$856	-$1,061	-$870	-$997	-$1,234	-$1,293	-$1,399
Multiple myeloma	-$33	-$30	-$118	-$123	-$111	-$63	-$364	-$354	-$312	-$463	-$695
Non-reconciliation eligible cancers[a]	-$297	-$329	-$150	-$307	-$68	-$270	-$521	-$617	-$500	-$520	-$608
High-intensity prostate cancer	-$12	-$342	-$129	-$676	-$484	-$690	-$645	-$701	-$1,046	-$1,029	-$870
Chronic leukemia	$170	$45	$50	$72	$232	$49	-$44	-$161	-$432	-$505	-$365

Shading indicates statistically significant estimates at p≤0.01, p≤0.05, and p≤0.10, indicated by dark blue, medium blue, or light blue shading.
Source: Medicare claims 2014–2021.
Notes: [a]Non-reconciliation eligible cancers are types of cancer identified by CMS to be rare. OCM episodes for these cancer types are not included in performance-based payments, although practices may submit claims for Monthly Enhanced Oncology Services payment during treatment episodes for these types of cancer. PP: Performance period. DID: Difference-in-differences.

Exhibit SB-6: Outside of High-Risk Breast Cancer Episodes, OCM Had No Sustained Impact on Part B Chemotherapy Payments

Part B Chemo Payments	Period-by-Period Impact Estimates N=3,665,884										
	PP1 DID	PP2 DID	PP3 DID	PP4 DID	PP5 DID	PP6 DID	PP7 DID	PP8 DID	PP9 DID	PP10 DID	PP11 DID
Episode risk group											
Lower-risk episodes	$3	$0	$0	-$2	-$4	-$5	$6	-$3	-$7	-$17	-$14
Higher-risk episodes	$98	-$77	$89	-$42	$63	$188	$355	$172	$105	$8	$115
Cancer type											
Low-intensity prostate cancer	$9	-$3	-$7	-$11	-$11	-$17	$19	-$4	-$20	-$26	-$14
High-risk breast cancer	-$530	-$292	-$426	-$687	-$299	-$687	-$321	-$365	-$440	-$962	-$663
Lung cancer	-$187	-$526	$3	-$657	-$683	$850	$1,405	$206	$185	$660	$30
Lymphoma	-$54	-$216	-$317	-$924	-$461	$26	-$200	-$214	-$274	-$827	-$73
Colorectal/small intestine cancer	-$104	-$296	-$61	$264	$192	$167	$139	-$99	-$58	$53	-$495
Multiple myeloma	$52	-$394	$159	$44	$19	-$426	-$1,049	-$665	$575	-$93	$863
High-intensity prostate cancer	-$307	-$882	-$401	-$7	-$315	-$112	$79	-$228	-$292	-$654	$186
Chronic leukemia	-$347	-$481	-$66	$16	$253	$20	-$181	$13	-$433	-$60	-$353

Shading indicates statistically significant estimates at p≤0.01, p≤0.05, and p≤0.10, indicated by dark blue, medium blue, or light blue shading.
Source: Medicare claims 2014–2021.
Notes: PP: Performance period. DID: Difference-in-differences.

Exhibit SB-7: Payment Reductions Were Robust to Analytic Adjustments Made to Account for COVID-19

Measure	OCM			COMP			Impact Estimates through PP11			
	Number of Episodes	Baseline Mean	Int. Mean	Number of Episodes	Baseline Mean	Int. Mean	DID	90% LCL	90% UCL	Percent Change
Original estimates										
TEP without MEOS	1,746,368	$29,206	$36,190	1,919,516	$28,788	$36,388	-$616	-$912	-$321	-2.1%
Part A payments	1,746,368	$6,229	$5,712	1,919,516	$6,078	$5,736	-$176	-$288	-$63	-2.8%
Part B payments	1,746,368	$17,286	$21,673	1,919,516	$17,029	$21,756	-$340	-$529	-$149	-2.0%
Without COVID-19 controls[a]										
TEP without MEOS	1,773,166	$29,226	$36,505	1,945,140	$28,821	$36,707	-$607	-$911	-$303	-2.1%
Part A payments	1,773,166	$6,188	$5,914	1,945,140	$6,046	$5,929	-$157	-$273	-$42	-2.5%
Part B payments	1,773,166	$17,254	$21,746	1,945,140	$16,999	$21,845	-$354	-$546	-$163	-2.1%

Shading indicates statistically significant estimates at p≤0.01, p≤0.05, and p≤0.10, indicated by dark blue, medium blue, or light blue shading.
Source: Medicare claims 2014–2022.
Notes: aThe sensitivity analyses dropped the four variables that controlled for local COVID-19 intensity, and also included episodes that were dropped from the main analyses due to COVID-19 diagnoses. TEP: Total episode payments. MEOS: Monthly Enhanced Oncology Services payment. OCM: OCM intervention group. COMP: Comparison group. Int.: Intervention period. PP: Performance period. DID: Difference-in-differences. LCL: Lower confidence limit. UCL: Upper confidence limit.

SC. Patient Survey Findings

SC.1 Patient-Reported Care Experience

SC.1.1 Patient-Reported Care Experience Composite Measures and Rating of the Cancer Team

Exhibit SC-1: No Meaningful Changes over Time in Adjusted Composite Measures of Quality of Care Among All OCM Patients

Period	Composite Measures (Scale 0–10), All OCM Respondents						
	Shared Decision Making	Access to Care	Communication	Exchange of Information	Self-Management	Symptom Management	Rating of Cancer Team
N	198,350	202,290	200,524	199,317	198,101	99,402	193,208
Baseline Period Mean							
4/16–9/16	7.46	8.88	9.02	8.52	5.92	7.32	9.30
Intervention Period Means							
7/16–12/16	7.41	8.79	8.98	8.43	5.84	7.19	9.26
10/16–3/17	7.32	8.78	8.93	8.38	5.90	7.35	9.29
1/17–6/17	7.44	8.78	8.93	8.41	5.87	7.28	9.23
4/17–9/17	7.48	8.79	8.99	8.46	5.89	7.23	9.25
7/17–12/17	7.48	8.83	8.95	8.52	5.97	7.32	9.21
10/17–3/18	7.56	8.87	8.99	8.46	5.83	7.20	9.26
1/18–6/18	7.37	8.79	8.98	8.41	5.92	7.17	9.27
4/18–9/18	7.47	8.87	9.04	8.48	6.06	7.26	9.27
7/18–12/18	7.49	8.85	8.99	8.37	5.91	7.08	9.29
10/18–3/19	7.54	8.86	9.02	8.42	5.92	7.08	9.29
1/19–6/19	7.58	8.89	9.06	8.49	6.01	7.18	9.34
4/19–9/19	7.48	8.87	9.01	8.53	5.93	7.12	9.27
7/19–12/19	7.71	8.92	9.00	8.45	6.06	7.30	9.28
10/19–3/20	7.66	8.90	9.00	8.45	5.87	7.08	9.31
1/20–6/20	7.53	8.85	8.99	8.38	5.80	7.04	9.22
4/20–9/20	7.46	8.83	8.99	8.32	5.84	6.97	9.19
7/20–12/20	7.32	8.86	8.99	8.30	5.85	7.00	9.25
10/20–3/21	7.54	8.89	8.98	8.41	5.77	7.05	9.17
1/21–6/21	7.46	8.89	9.02	8.38	5.87	6.95	9.26
4/21–9/21	7.49	8.85	8.96	8.34	5.79	6.95	9.15
7/21–12/21	7.34	8.95	9.00	8.40	5.78	7.00	9.12
10/21–12/21	7.38	8.83	9.01	8.27	5.67	6.80	9.16

Source: OCM Patient and Caregiver Surveys, April 2016–December 2021; data collection for these episodes occurred from January 2017 through August 2022.

Notes: The dates in the exhibit indicate the range of episode start dates included in each survey wave. OCM episodes lasted for 180 days, and patients typically received surveys roughly 6–9 months following the start of their episode. Estimates were weighted for sampling and nonresponse and adjusted for demographic characteristics, health status, cancer type and treatment duration, the calendar month when the episode was triggered, practice characteristics, and the incidence and prevalence of COVID-19 cases and deaths during each episode. Patients with a COVID-19 diagnosis during the episode were excluded from analysis.

Exhibit SC-2: No Meaningful Changes over Time in Adjusted Composite Measures of Quality of Care among OCM Patients with Higher-Risk Episodes

Period	Composite Measures (Scale 0–10), Higher-Risk Episodes						
	Shared Decision Making	Access to Care	Communication	Exchange of Information	Self-Management	Symptom Management	Rating of Cancer Team
N	138,505	141,685	140,582	140,098	139,185	84,690	135,319
Baseline Period Mean							
4/16–9/16	7.42	9.01	9.03	8.62	6.43	7.50	9.28
Intervention Period Means							
7/16–12/16	7.44	8.96	9.07	8.58	6.35	7.45	9.31
10/16–3/17	7.33	8.93	8.99	8.53	6.45	7.59	9.32
1/17–6/17	7.47	8.95	8.97	8.53	6.39	7.53	9.23
4/17–9/17	7.50	8.96	8.97	8.58	6.40	7.41	9.23
7/17–12/17	7.56	9.03	9.03	8.68	6.52	7.42	9.25
10/17–3/18	7.56	9.02	9.03	8.62	6.35	7.42	9.26
1/18–6/18	7.34	8.98	9.02	8.56	6.40	7.44	9.29
4/18–9/18	7.55	9.01	9.07	8.66	6.58	7.46	9.27
7/18–12/18	7.50	9.02	9.02	8.49	6.42	7.34	9.32
10/18–3/19	7.53	8.98	9.00	8.53	6.42	7.29	9.26
1/19–6/19	7.58	9.03	9.07	8.59	6.43	7.39	9.30
4/19–9/19	7.53	9.03	9.05	8.69	6.46	7.38	9.26
7/19–12/19	7.70	9.04	9.06	8.64	6.55	7.52	9.30
10/19–3/20	7.64	9.02	9.00	8.58	6.33	7.28	9.32
1/20–6/20	7.57	8.98	9.00	8.50	6.31	7.28	9.25
4/20–9/20	7.43	8.94	8.95	8.50	6.25	7.22	9.14
7/20–12/20	7.28	8.94	8.91	8.42	6.32	7.11	9.23
10/20–3/21	7.47	9.01	9.01	8.55	6.31	7.33	9.18
1/21–6/21	7.55	9.03	9.09	8.65	6.43	7.33	9.28
4/21–9/21	7.49	8.98	9.00	8.57	6.43	7.27	9.17
7/21–12/21	7.40	9.08	9.01	8.61	6.38	7.37	9.19
10/21–12/21	7.28	8.94	9.04	8.44	6.22	7.10	9.20

Source: OCM Patient and Caregiver Surveys, April 2016–December 2021; data collection for these episodes occurred from January 2017 through August 2022.

Notes: The dates in the exhibit indicate the range of episode start dates included in each survey wave. OCM episodes lasted for 180 days, and patients typically received surveys roughly 6–9 months following the start of their episode. Estimates were weighted for sampling and nonresponse and adjusted for demographic characteristics, health status, cancer type and treatment duration, the calendar month when the episode was triggered, practice characteristics, and the incidence and prevalence of COVID-19 cases and deaths during each episode. Patients with a COVID-19 diagnosis during the episode were excluded from analysis.

Exhibit SC-3: No Meaningful Changes over Time in Adjusted Composite Measures of Quality of Care among OCM Patients with Lower-Risk Episodes

Period	Composite Measures (scale 0–10), Lower-Risk Episodes						
	Shared Decision Making	Access to Care	Communication	Exchange of Information	Self-Management	Symptom Management	Rating of Cancer Team
N	59,845	60,605	59,942	59,219	58,916	14,712	57,889
Baseline Period Mean							
4/16–9/16	7.57	8.55	9.00	8.24	4.62	6.15	9.36
Intervention Period Means							
7/16–12/16	7.33	8.36	8.75	8.04	4.53	5.57	9.16
10/16–3/17	7.30	8.42	8.81	8.00	4.54	5.91	9.24
1/17–6/17	7.37	8.39	8.84	8.09	4.54	5.80	9.25
4/17–9/17	7.45	8.39	9.00	8.15	4.61	6.01	9.29
7/17–12/17	7.28	8.33	8.79	8.08	4.58	6.51	9.14
10/17–3/18	7.56	8.51	8.89	8.06	4.52	5.96	9.27
1/18–6/18	7.45	8.35	8.90	8.00	4.68	5.57	9.22
4/18–9/18	7.25	8.52	8.98	8.01	4.76	6.02	9.27
7/18–12/18	7.42	8.41	8.88	8.01	4.59	5.43	9.19
10/18–3/19	7.52	8.54	9.04	8.10	4.64	5.74	9.36
1/19–6/19	7.58	8.54	9.03	8.24	4.89	5.92	9.42
4/19–9/19	7.35	8.45	8.88	8.12	4.57	5.58	9.32
7/19–12/19	7.75	8.60	8.87	7.98	4.80	6.09	9.23
10/19–3/20	7.67	8.61	9.03	8.10	4.75	5.99	9.29
1/20–6/20	7.39	8.50	8.94	8.06	4.45	5.58	9.12
4/20–9/20	7.49	8.57	9.09	7.86	4.82	5.51	9.34
7/20–12/20	7.44	8.65	9.22	8.01	4.66	6.23	9.28
10/20–3/21	7.77	8.62	8.92	8.10	4.42	5.49	9.13
1/21–6/21	7.25	8.56	8.83	7.73	4.45	4.72	9.21
4/21–9/21	7.48	8.50	8.86	7.80	4.13	5.20	9.10
7/21–12/21	7.22	8.59	8.97	7.86	4.19	4.83	8.91
10/21–12/21	7.69	8.55	8.90	7.84	4.16	5.08	9.02

Source: OCM Patient and Caregiver Surveys, April 2016–December 2021; data collection for these episodes occurred from January 2017 through August 2022.

Notes: The dates in the exhibit indicate the range of episode start dates included in each survey wave. OCM episodes lasted for 180 days, and patients typically received surveys roughly 6–9 months following the start of their episode. Estimates were weighted for sampling and nonresponse and adjusted for demographic characteristics, health status, cancer type and treatment duration, the calendar month when the episode was triggered, practice characteristics, and the incidence and prevalence of COVID-19 cases and deaths during each episode. Patients with a COVID-19 diagnosis during the episode were excluded from analysis.

SC.1.2 Patient-Reported Management of Symptoms

Exhibit SC-4: OCM Patients Reported Involvement of Their Cancer Therapy Team in Managing Some Symptoms Declined during the COVID-19 PHE, All Patients

Period	Cancer Therapy Team Tried to Help Deal with Symptoms, All OCM Respondents							
	Pain	Energy Level	Emotional Problems	Nausea	Breathing	Coughing	Constipation or Diarrhea	Neuropathy
N	103,277	147,054	93,274	62,210	51,299	46,299	114,682	87,413
Baseline Period Mean								
4/16–9/16	75.5%	53.4%	45.8%	80.2%	58.8%	49.3%	67.8%	49.0%
Intervention Period Means								
7/16–12/16	74.9%	50.4%	47.1%	79.4%	57.2%	57.5%	65.2%	47.5%
10/16–3/17	74.7%	49.8%	47.0%	77.3%	60.0%	54.6%	69.9%	47.9%
1/17–6/17	75.8%	51.6%	49.2%	79.1%	57.9%	53.9%	69.8%	45.6%
4/17–9/17	72.1%	51.7%	48.2%	78.0%	54.3%	49.9%	66.1%	45.0%
7/17–12/17	73.8%	52.4%	48.8%	77.0%	59.9%	55.1%	68.4%	49.5%
10/17–3/18	75.2%	50.4%	45.4%	80.1%	53.3%	52.9%	66.4%	47.8%
1/18–6/18	73.4%	50.6%	46.2%	77.7%	56.1%	49.4%	65.4%	47.9%
4/18–9/18	74.0%	53.4%	47.8%	79.6%	58.5%	50.2%	68.1%	48.2%
7/18–12/18	72.0%	49.7%	44.9%	79.0%	54.5%	48.5%	67.0%	45.2%
10/18–3/19	72.5%	50.0%	45.7%	79.5%	55.8%	48.5%	67.2%	44.1%
1/19–6/19	72.8%	53.0%	45.6%	80.3%	57.5%	48.9%	66.1%	46.7%
4/19–9/19	71.8%	50.2%	45.9%	79.3%	54.5%	52.1%	66.2%	49.0%
7/19–12/19	74.5%	52.9%	50.7%	79.5%	61.2%	49.7%	66.6%	47.6%
10/19–3/20	74.1%	49.9%	46.3%	77.5%	52.1%	46.8%	65.5%	46.3%
1/20–6/20	68.9%	49.6%	41.5%	74.3%	54.8%	49.4%	63.6%	44.1%
4/20–9/20	71.5%	47.5%	42.4%	78.9%	50.1%	37.0%	61.6%	44.3%
7/20–12/20	72.5%	47.4%	40.0%	76.7%	49.0%	42.2%	60.1%	45.6%
10/20–3/21	71.7%	47.9%	41.4%	77.6%	55.0%	48.3%	61.1%	48.0%
1/21–6/21	72.8%	44.6%	40.1%	83.6%	51.8%	51.1%	58.9%	45.0%
4/21–9/21	67.4%	47.2%	38.9%	81.7%	45.8%	45.3%	55.8%	42.4%
7/21–12/21	71.3%	43.4%	35.8%	84.0%	50.0%	47.2%	55.6%	42.5%
10/21–12/21	67.5%	39.0%	33.1%	85.2%	43.5%	44.4%	49.8%	38.7%

Source: OCM Patient and Caregiver Surveys, April 2016–December 2021; data collection for these episodes occurred from January 2017 through August 2022.

Notes: The dates in the exhibit indicate the range of episode start dates included in each survey wave. OCM episodes lasted for 180 days, and patients typically received surveys roughly 6–9 months following the start of their episode. Estimates were weighted for sampling and nonresponse and adjusted for demographic characteristics, health status, cancer type and treatment duration, the calendar month when the episode was triggered, practice characteristics, and the incidence and prevalence of COVID-19 cases and deaths during each episode. Patients with a COVID-19 diagnosis during the episode were excluded from analysis. PHE: Public health emergency.

Exhibit SC-5: OCM Patients with Higher-Risk Episodes Reported That Involvement of Their Cancer Therapy Team in Managing Some Symptoms Declined during the COVID-19 PHE

Period	Cancer Therapy Team Tried to Help Deal with Symptoms, Higher-Risk Episodes							
	Pain	Energy Level	Emotional Problems	Nausea	Breathing	Coughing	Constipation or Diarrhea	Neuropathy
N	81,029	114,266	72,256	55,700	44,604	39,512	96,497	70,239
Baseline Period Mean								
4/16–9/16	79.1%	54.1%	45.4%	81.7%	59.8%	50.1%	71.1%	51.6%
Intervention Period Means								
7/16–12/16	78.7%	52.5%	48.0%	81.7%	58.7%	60.9%	68.7%	50.8%
10/16–3/17	79.0%	51.5%	48.7%	79.2%	62.2%	56.2%	73.1%	51.6%
1/17–6/17	79.0%	54.0%	52.0%	80.1%	60.0%	55.6%	73.7%	48.1%
4/17–9/17	75.8%	53.4%	47.9%	80.1%	57.3%	50.8%	69.4%	48.0%
7/17–12/17	77.2%	53.7%	48.1%	77.3%	61.4%	55.0%	70.7%	50.8%
10/17–3/18	77.9%	52.6%	46.1%	81.3%	55.9%	56.7%	70.0%	51.0%
1/18–6/18	77.9%	52.7%	47.2%	80.1%	56.8%	50.2%	68.5%	51.1%
4/18–9/18	77.1%	55.5%	47.1%	81.0%	60.4%	52.3%	70.8%	51.0%
7/18–12/18	76.3%	51.1%	46.0%	80.8%	56.4%	49.9%	70.6%	48.7%
10/18–3/19	75.2%	51.8%	46.4%	81.0%	56.7%	50.3%	70.1%	47.5%
1/19–6/19	75.0%	54.0%	46.0%	81.2%	58.6%	50.1%	68.8%	49.5%
4/19–9/19	75.8%	52.2%	47.4%	81.1%	57.3%	55.8%	69.3%	52.1%
7/19–12/19	78.5%	54.7%	50.5%	81.7%	64.2%	54.0%	69.3%	51.5%
10/19–3/20	76.6%	51.4%	47.4%	79.8%	54.1%	48.8%	68.0%	48.5%
1/20–6/20	72.9%	51.9%	43.0%	76.4%	56.4%	51.9%	66.5%	46.8%
4/20–9/20	73.2%	49.8%	44.0%	80.9%	51.5%	38.5%	64.4%	46.2%
7/20–12/20	73.7%	49.8%	42.8%	77.7%	50.2%	45.8%	62.5%	46.9%
10/20–3/21	74.4%	51.7%	45.7%	79.9%	59.7%	54.3%	65.7%	52.5%
1/21–6/21	76.8%	49.1%	46.2%	86.6%	56.8%	57.8%	64.7%	50.9%
4/21–9/21	70.9%	51.7%	44.7%	85.1%	51.9%	53.1%	62.4%	48.7%
7/21–12/21	73.9%	49.9%	46.3%	87.2%	54.7%	55.4%	63.2%	48.5%
10/21–12/21	70.3%	44.8%	41.7%	87.6%	51.0%	55.3%	56.9%	43.5%

Source: OCM Patient and Caregiver Surveys, April 2016–December 2021; data collection for these episodes occurred from January 2017 through August 2022.

Notes: The dates in the exhibit indicate the range of episode start dates included in each survey wave. OCM episodes lasted for 180 days, and patients typically received surveys roughly 6–9 months following the start of their episode. Estimates were weighted for sampling and nonresponse and adjusted for demographic characteristics, health status, cancer type and treatment duration, the calendar month when the episode was triggered, practice characteristics, and the incidence and prevalence of COVID-19 cases and deaths during each episode. Patients with a COVID-19 diagnosis during the episode were excluded from analysis. PHE: Public health emergency.

Exhibit SC-6: OCM Patients with Lower-Risk Episodes Reported That Involvement of Their Cancer Therapy Team in Managing Some Symptoms Declined during the COVID-19 PHE

Period	Cancer Therapy Team Tried to Help Deal with Symptoms, Lower-Risk Episodes							
	Pain	Energy Level	Emotional Problems	Nausea	Breathing	Coughing	Constipation or Diarrhea	Neuropathy
N	22,240	32,788	21,018	6,505	6,695	6,786	18,185	17,174
Baseline Period Mean								
4/16–9/16	61.1%	50.2%	46.8%	62.6%	48.4%	44.8%	49.0%	38.5%
Intervention Period Means								
7/16–12/16	60.4%	42.6%	44.3%	56.7%	46.0%	34.6%	43.9%	33.9%
10/16–3/17	58.4%	43.5%	42.2%	58.8%	45.5%	43.9%	51.5%	33.2%
1/17–6/17	63.1%	42.7%	40.3%	63.3%	42.6%	43.2%	47.6%	35.7%
4/17–9/17	58.2%	44.9%	48.3%	56.7%	32.6%	42.1%	46.5%	31.2%
7/17–12/17	59.3%	47.7%	49.5%	67.4%	46.2%	50.8%	53.7%	43.0%
10/17–3/18	64.9%	42.3%	43.1%	66.5%	34.4%	29.2%	46.1%	35.7%
1/18–6/18	56.4%	43.1%	43.4%	57.1%	50.7%	41.9%	47.9%	35.7%
4/18–9/18	62.3%	45.7%	50.0%	63.9%	43.0%	36.4%	52.5%	37.6%
7/18–12/18	54.2%	44.1%	41.4%	59.3%	41.9%	39.5%	47.1%	29.4%
10/18–3/19	62.4%	42.4%	43.2%	65.1%	46.1%	38.1%	50.2%	29.4%
1/19–6/19	64.2%	48.1%	43.5%	69.4%	47.4%	41.4%	50.4%	35.0%
4/19–9/19	57.4%	42.8%	40.4%	66.6%	35.4%	30.9%	49.8%	36.5%
7/19–12/19	58.6%	46.1%	51.2%	56.1%	36.3%	23.5%	52.0%	30.8%
10/19–3/20	65.2%	44.9%	43.3%	54.7%	37.3%	32.5%	52.9%	38.7%
1/20–6/20	52.8%	40.4%	36.6%	52.8%	35.7%	34.2%	46.7%	30.0%
4/20–9/20	65.0%	39.5%	38.2%	62.8%	38.8%	29.5%	46.8%	36.8%
7/20–12/20	66.2%	38.4%	30.5%	69.4%	40.2%	21.6%	46.5%	36.8%
10/20–3/21	62.2%	35.0%	28.5%	61.9%	21.8%	15.7%	37.2%	29.2%
1/21–6/21	56.0%	28.5%	20.6%	57.0%	22.7%	13.6%	28.0%	18.0%
4/21–9/21	52.7%	31.3%	21.1%	56.5%	13.1%	10.9%	23.9%	15.7%
7/21–12/21	58.9%	22.2%	10.0%	58.5%	23.0%	8.2%	20.4%	15.0%
10/21–12/21	54.1%	19.7%	10.6%	61.3%	13.5%	5.0%	16.2%	14.8%

Source: OCM Patient and Caregiver Surveys, April 2016–December 2021; data collection for these episodes occurred from January 2017 through August 2022.

Notes: The dates in the exhibit indicate the range of episode start dates included in each survey wave. OCM episodes lasted for 180 days, and patients typically received surveys roughly 6–9 months following the start of their episode. Estimates were weighted for sampling and nonresponse and adjusted for demographic characteristics, health status, cancer type and treatment duration, the calendar month when the episode was triggered, practice characteristics, and the incidence and prevalence of COVID-19 cases and deaths during each episode. Patients with a COVID-19 diagnosis during the episode were excluded from analysis. PHE: Public health emergency.

SC.1.3 Caregiver-Reported Experiences during Patients' Last Month of Life

Exhibit SC-7: Overall Caregiver Experiences with Care in Patients' Last Month of Life Changed Little During OCM

			Higher-Risk Episodes					
Period	Care Team Rated Excellent or Very Good, %	Provider Followed End-of-Life Wishes a Great Deal of the Time, %	End-of-Life Care Experience Composite (Range 0–10), Mean	Provider Always Showed Respect, %*	Provider Always Listened Carefully, %*	Provider Was Always Direct and Straight-Forward, %*	Provider Always Explained Things in a Way Patient Could Understand, %*	Provider Always Spent Enough Time, %*
N	10,468	8,721	10,452	10,306	10,239	10,161	10,100	10,275
Baseline Period Mean								
4/16–9/16	77.8%	82.6%	8.4	75.1%	69.9%	61.9%	63.1%	56.0%
Intervention Period Means								
7/16–12/16	78.4%	84.3%	8.3	74.3%	69.1%	59.5%	62.3%	51.7%
10/16–3/17	76.8%	80.4%	8.4	75.0%	69.9%	63.4%	63.8%	53.6%
1/17–6/17	77.0%	82.1%	8.5	75.2%	72.0%	66.0%	64.4%	55.0%
4/17–9/17	78.2%	82.8%	8.5	77.3%	70.4%	65.9%	69.0%	55.6%
7/17–12/17	75.2%	78.5%	8.3	72.8%	68.6%	62.0%	62.1%	55.7%
10/17–3/18	80.0%	83.5%	8.4	75.0%	71.5%	66.5%	67.1%	54.5%
1/18–6/18	76.6%	83.3%	8.3	73.8%	69.3%	61.4%	62.2%	51.7%
4/18–9/18	77.0%	80.1%	8.3	71.0%	65.7%	60.0%	60.8%	51.1%
7/18–12/18	74.3%	82.7%	8.4	74.8%	69.8%	64.4%	65.3%	56.1%
10/18–3/19	76.6%	80.5%	8.4	74.1%	68.7%	66.0%	65.5%	58.0%
1/19–6/19	74.0%	82.4%	8.4	74.4%	71.3%	64.4%	64.3%	55.6%
4/19–9/19	75.6%	81.8%	8.4	74.4%	71.8%	65.7%	65.3%	55.9%
7/19–12/19	81.9%	83.8%	8.5	74.9%	70.6%	64.1%	68.5%	57.1%
10/19–3/20	78.1%	82.6%	8.6	77.9%	73.5%	66.5%	68.2%	58.9%
1/20–6/20	77.5%	81.0%	8.5	77.7%	72.6%	64.7%	65.9%	59.0%
4/20–9/20	75.6%	83.6%	8.5	75.5%	71.4%	64.7%	64.8%	56.1%
7/20–12/20	71.1%	80.1%	8.1	71.2%	69.9%	55.9%	54.4%	51.5%
10/20–3/21	73.2%	79.6%	8.1	72.1%	67.7%	62.8%	61.5%	53.4%
1/21–6/21	77.6%	82.5%	8.5	77.0%	71.7%	66.5%	62.0%	54.5%
4/21–9/21	72.0%	76.8%	8.2	68.3%	61.2%	56.7%	60.8%	50.3%
7/21–12/21	70.5%	81.9%	8.3	79.1%	71.5%	62.1%	65.4%	55.0%
10/21–12/21	75.7%	81.8%	8.5	75.0%	71.4%	67.3%	70.4%	53.8%

Source: OCM Caregiver Survey, April 2016–December 2021.

Notes: Estimates were weighted for sampling and nonresponse and adjusted for demographic characteristics, health status, cancer type and treatment duration, the calendar month when the episode was triggered, practice characteristics, and the incidence and prevalence of COVID-19 cases and deaths during each episode. Patients with a COVID-19 diagnosis during the episode were excluded from analysis. *These five items were included in the End-of-Life Care Experience Composite measure.

Exhibit SC-8: Caregiver Experiences Related to Hospice Care in Patients' Last Month of Life Changed Little During OCM

Period	Higher-Risk Episodes		
	Any Provider Discussed Hospice Care, %	Patient Ever Entered Hospice Care, %	Hospice Care Started at the Right Time, %
N	10,244	8,338	6,652
Baseline Period Mean			
4/16–9/16	82.5%	84.3%	76.1%
Intervention Period Means			
7/16–12/16	79.6%	82.7%	81.1%
10/16–3/17	83.4%	84.6%	74.1%
1/17–6/17	87.0%	85.1%	76.3%
4/17–9/17	80.0%	83.8%	81.5%
7/17–12/17	80.2%	87.4%	74.6%
10/17–3/18	79.6%	84.5%	80.7%
1/18–6/18	84.3%	84.2%	79.2%
4/18–9/18	80.1%	87.6%	79.5%
7/18–12/18	81.8%	85.1%	78.3%
10/18–3/19	79.5%	85.6%	78.2%
1/19–6/19	78.7%	86.2%	81.8%
4/19–9/19	80.8%	86.1%	75.2%
7/19–12/19	84.7%	84.4%	80.4%
10/19–3/20	78.9%	86.2%	81.7%
1/20–6/20	79.6%	89.5%	80.1%
4/20–9/20	85.4%	86.0%	77.8%
7/20–12/20	81.9%	84.6%	75.7%
10/20–3/21	81.5%	85.6%	76.8%
1/21–6/21	81.0%	87.9%	79.3%
4/21–9/21	79.7%	85.4%	77.5%
7/21–12/21	78.4%	89.1%	76.7%
10/21–12/21	81.4%	83.2%	74.5%

Source: OCM Caregiver Survey, April 2016–December 2021; data collection for these episodes occurred from January 2017 through August 2022.

Notes: Estimates were weighted for sampling and nonresponse and adjusted for demographic characteristics, health status, cancer type and treatment duration, the calendar month when the episode was triggered, practice characteristics, and the incidence and prevalence of COVID-19 cases and deaths during each episode. Patients with a COVID-19 diagnosis during the episode were excluded from analysis.

Exhibit SC-9: During the COVID-19 PHE, Caregiver Reports That Patients Died at Home and Preferred to Die at Home Increased Relative to Before the COVID-19 PHE, but Trends Reverted Back to Baseline Levels in the Second Year of the COVID-19 PHE

Period	Higher-Risk Episodes		
	Patient Died At Home, %	Patient Preferred to Die at Home, %	Patient Died in Preferred Location, %
N	10,584	9,165	9,086
Baseline Period Mean			
4/16–9/16	48.4%	76.7%	75.3%
Intervention Period Means			
7/16–12/16	44.4%	79.2%	68.4%
10/16–3/17	45.9%	75.4%	72.5%
1/17–6/17	51.4%	81.1%	75.2%
4/17–9/17	49.5%	80.7%	74.1%
7/17–12/17	45.2%	77.5%	71.5%
10/17–3/18	49.0%	81.6%	71.3%
1/18–6/18	49.1%	79.7%	73.8%
4/18–9/18	48.6%	78.7%	74.7%
7/18–12/18	50.7%	78.5%	74.0%
10/18–3/19	47.5%	79.4%	70.7%
1/19–6/19	48.6%	77.6%	74.6%
4/19–9/19	49.2%	83.0%	71.4%
7/19–12/19	48.1%	80.4%	72.0%
10/19–3/20	63.9%	84.3%	80.7%
1/20–6/20	65.0%	87.7%	81.1%
4/20–9/20	67.8%	90.5%	81.3%
7/20–12/20	59.9%	87.1%	76.2%
10/20–3/21	61.2%	91.6%	77.5%
1/21–6/21	58.9%	88.1%	78.7%
4/21–9/21	63.3%	88.5%	80.4%
7/21–12/21	53.8%	83.0%	75.3%
10/21–12/21	47.0%	83.3%	72.2%

Source: OCM Caregiver Survey, April 2016–December 2021; data collection for these episodes occurred from January 2017 through August 2022.

Notes: Estimates were weighted for sampling and nonresponse and adjusted for demographic characteristics, health status, cancer type and treatment duration, the calendar month when the episode was triggered, practice characteristics, and the incidence and prevalence of COVID-19 cases and deaths during each episode. Patients with a COVID-19 diagnosis during the episode were excluded from analysis. PHE: Public health emergency.

SC.2 Patient-Reported Health Outcomes

SC.2.1 Overall Health Status

Exhibit SC-10: Patient-Reported Health Status Declined during the COVID-19 PHE, All OCM Patients

Period	All OCM Respondents		
	Health Thermometer (Range 0–100), mean	Overall Health Very Good or Excellent, %	Mental or Emotional Health, Very Good or Excellent, %
N	178,667	182,872	182,872
Baseline Period Mean			
4/16–9/16	71.9	38.3%	57.9%
Intervention Period Means			
7/16–12/16	71.4	33.2%	56.2%
10/16–3/17	72.5	38.7%	56.6%
1/17–6/17	72.6	37.6%	56.2%
4/17–9/17	72.0	36.1%	56.2%
7/17–12/17	69.3	31.7%	52.4%
10/17–3/18	72.2	36.5%	56.3%
1/18–6/18	72.0	37.5%	56.2%
4/18–9/18	72.5	39.4%	57.0%
7/18–12/18	72.0	36.0%	57.0%
10/18–3/19	72.3	38.0%	55.6%
1/19–6/19	71.9	37.6%	55.4%
4/19–9/19	71.5	37.0%	56.8%
7/19–12/19	72.9	38.8%	55.7%
10/19–3/20	72.7	38.4%	56.9%
1/20–6/20	72.5	38.7%	54.4%
4/20–9/20	71.9	34.1%	52.5%
7/20–12/20	70.6	35.9%	52.1%
10/20–3/21	69.4	34.7%	52.2%
1/21–6/21	70.0	36.5%	52.7%
4/21–9/21	71.2	39.2%	54.0%
7/21–12/21	69.6	36.9%	50.8%
10/21–12/21	68.7	32.6%	50.3%

Source: OCM Patient and Caregiver Surveys, April 2016–December 2021; data collection for these episodes occurred from January 2017 through August 2022.

Notes: The dates in the exhibit indicate the range of episode start dates included in each survey wave. OCM episodes lasted for 180 days, and patients typically received surveys roughly 6-9 months following the start of their episode. Estimates were weighted for sampling and nonresponse and adjusted for demographic characteristics, health status, cancer type and treatment duration, the calendar month when the episode was triggered, practice characteristics, and the incidence and prevalence of COVID-19 cases and deaths during each episode. Patients with a COVID-19 diagnosis during the episode were excluded from analysis. PHE: Public health emergency.

Exhibit SC-11: Among Patients with Higher-Risk Episodes, Patient-Reported Health Status Declined during the COVID-19 PHE

Period	Higher-Risk Episodes		
	Health Thermometer (Range 0–100), mean	Overall Health Very Good or Excellent, %	Mental or Emotional Health, Very Good or Excellent, %
N	121,076	124,003	124,003
Baseline Period Mean			
4/16–9/16	69.9	32.7%	54.4%
Intervention Period Means			
7/16–12/16	69.7	29.1%	54.9%
10/16–3/17	71.1	35.7%	55.2%
1/17–6/17	71.5	33.0%	54.9%
4/17–9/17	69.9	29.7%	53.0%
7/17–12/17	67.3	26.9%	50.6%
10/17–3/18	70.4	30.7%	53.9%
1/18–6/18	70.5	31.9%	54.4%
4/18–9/18	70.8	33.5%	54.3%
7/18–12/18	70.0	30.3%	54.2%
10/18–3/19	70.5	32.5%	52.2%
1/19–6/19	69.8	32.4%	53.3%
4/19–9/19	69.3	32.2%	56.1%
7/19–12/19	70.9	33.0%	53.0%
10/19–3/20	71.2	33.8%	54.7%
1/20–6/20	70.6	33.7%	50.8%
4/20–9/20	69.0	26.7%	50.3%
7/20–12/20	68.3	29.4%	51.0%
10/20–3/21	67.9	31.1%	51.9%
1/21–6/21	68.4	33.7%	54.2%
4/21–9/21	68.9	33.5%	53.2%
7/21–12/21	67.7	34.5%	51.9%
10/21–12/21	66.8	31.1%	54.4%

Source: OCM Patient and Caregiver Surveys, April 2016–December 2021; data collection for these episodes occurred from January 2017 through August 2022.

Notes: The dates in the exhibit indicate the range of episode start dates included in each survey wave. OCM episodes lasted for 180 days, and patients typically received surveys roughly 6-9 months following the start of their episode. Estimates were weighted for sampling and nonresponse and adjusted for demographic characteristics, health status, cancer type and treatment duration, the calendar month when the episode was triggered, practice characteristics, and the incidence and prevalence of COVID-19 cases and deaths during each episode. Patients with a COVID-19 diagnosis during the episode were excluded from analysis. PHE: Public health emergency.

Exhibit SC-12: Among Patients with Lower-Risk Episodes, Patient-Reported Health Status Declined during the COVID-19 PHE

Period	Health Thermometer (Range 0–100), mean	Lower-risk episodes Overall health very good or excellent, %	Mental or emotional health, very good or excellent, %
N	57,591	58,869	58,869
Baseline Period Mean			
4/16–9/16	76.6	51.4%	65.7%
Intervention Period Means			
7/16–12/16	75.5	42.5%	59.2%
10/16–3/17	75.9	46.8%	59.7%
1/17–6/17	75.2	48.8%	59.4%
4/17–9/17	76.6	50.5%	62.9%
7/17–12/17	74.4	44.3%	57.7%
10/17–3/18	76.2	49.6%	61.7%
1/18–6/18	75.3	50.3%	60.3%
4/18–9/18	76.5	52.9%	63.1%
7/18–12/18	76.5	48.8%	63.1%
10/18–3/19	76.3	50.5%	62.7%
1/19–6/19	76.3	49.3%	60.0%
4/19–9/19	76.5	47.8%	57.6%
7/19–12/19	77.2	51.5%	61.2%
10/19–3/20	76.2	48.6%	61.6%
1/20–6/20	77.2	50.1%	63.2%
4/20–9/20	78.8	52.1%	57.1%
7/20–12/20	75.8	50.2%	54.0%
10/20–3/21	72.6	42.7%	52.6%
1/21–6/21	73.6	42.7%	49.2%
4/21–9/21	76.2	50.9%	55.3%
7/21–12/21	74.2	41.8%	48.7%
10/21–12/21	73.2	35.0%	41.4%

Source: OCM Patient and Caregiver Surveys, April 2016–December 2021; data collection for these episodes occurred from January 2017 through August 2022.

Notes: The dates in the exhibit indicate the range of episode start dates included in each survey wave. OCM episodes lasted for 180 days, and patients typically received surveys roughly 6–9 months following the start of their episode. Estimates were weighted for sampling and nonresponse and adjusted for demographic characteristics, health status, cancer type and treatment duration, the calendar month when the episode was triggered, practice characteristics, and the incidence and prevalence of COVID-19 cases and deaths during each episode. Patients with a COVID-19 diagnosis during the episode were excluded from analysis. PHE: Public health emergency.

SC.2.2 Prevalence of Patient-Reported Symptoms

Exhibit SC-13: Patient-Reported Symptoms Improved Slightly over Time among All OCM Patients

Period	Prevalence of Symptoms, All OCM Respondents							
	Pain	Energy Level	Emotional Problems	Nausea	Breathing	Coughing	Constipation or Diarrhea	Neuropathy
N	194,657	195,744	195,050	194,019	194,434	194,108	196,005	194,844
Baseline Period Mean								
4/16–9/16	54.4%	76.1%	48.8%	33.7%	28.4%	25.5%	60.9%	46.7%
Intervention Period Means								
7/16–12/16	57.0%	79.3%	51.4%	34.6%	28.9%	25.9%	61.8%	47.3%
10/16–3/17	55.4%	76.9%	48.7%	36.5%	28.7%	26.8%	60.1%	46.2%
1/17–6/17	54.4%	77.6%	50.7%	35.6%	28.1%	27.2%	61.5%	46.0%
4/17–9/17	55.1%	73.6%	47.7%	33.0%	26.5%	23.3%	58.7%	47.6%
7/17–12/17	55.9%	76.4%	50.1%	35.3%	29.7%	25.1%	62.6%	49.5%
10/17–3/18	53.2%	75.1%	46.8%	33.0%	26.9%	25.0%	58.8%	46.3%
1/18–6/18	55.1%	76.9%	49.1%	33.8%	26.9%	26.2%	60.2%	45.7%
4/18–9/18	53.2%	74.3%	49.5%	33.8%	25.8%	26.2%	58.6%	45.7%
7/18–12/18	52.1%	76.1%	47.5%	31.8%	27.3%	24.8%	58.7%	44.9%
10/18–3/19	55.1%	76.1%	49.1%	33.4%	29.3%	25.2%	59.0%	45.1%
1/19–6/19	52.5%	74.7%	48.3%	33.6%	28.2%	25.1%	58.9%	44.8%
4/19–9/19	54.3%	74.6%	48.3%	33.1%	27.2%	24.2%	58.2%	46.5%
7/19–12/19	52.5%	71.4%	46.5%	31.5%	25.1%	22.8%	58.7%	46.2%
10/19–3/20	53.8%	73.5%	46.5%	32.8%	24.3%	21.5%	57.3%	45.8%
1/20–6/20	55.1%	77.8%	52.1%	34.2%	27.7%	20.8%	60.3%	49.8%
4/20–9/20	52.7%	73.5%	48.4%	30.5%	24.5%	22.8%	60.1%	44.8%
7/20–12/20	54.6%	75.3%	49.5%	29.7%	27.0%	20.6%	60.2%	49.1%
10/20–3/21	53.6%	76.4%	48.4%	31.7%	25.3%	22.7%	59.9%	48.4%
1/21–6/21	51.5%	73.8%	48.5%	29.2%	23.7%	20.5%	59.0%	44.8%
4/21–9/21	49.1%	73.0%	45.4%	27.4%	21.9%	19.9%	57.2%	45.1%
7/21–12/21	50.4%	77.0%	50.1%	27.7%	22.0%	20.7%	58.6%	45.7%
10/21–12/21	48.0%	75.8%	46.4%	25.7%	23.3%	21.6%	59.9%	46.2%

Source: OCM Patient and Caregiver Surveys, April 2016–December 2021; data collection for these episodes occurred from January 2017 through August 2022.

Notes: The dates in the exhibit indicate the range of episode start dates included in each survey wave. OCM episodes lasted for 180 days, and patients typically received surveys roughly 6–9 months following the start of their episode. Estimates were weighted for sampling and nonresponse and adjusted for demographic characteristics, health status, cancer type and treatment duration, the calendar month when the episode was triggered, practice characteristics, and the incidence and prevalence of COVID-19 cases and deaths during each episode. Patients with a COVID-19 diagnosis during the episode were excluded from analysis.

Exhibit SC-14: Patient-Reported Symptoms Improved Slightly over Time Among Patients with Higher-Risk Episodes

Period	Prevalence of Symptoms, Higher-Risk Episodes							
	Pain	Energy Level	Emotional Problems	Nausea	Breathing	Coughing	Constipation or Diarrhea	Neuropathy
N	136,799	137,696	136,908	136,380	136,589	136,301	137,956	136,986
Baseline Period Mean								
4/16–9/16	59.8%	84.2%	52.5%	41.8%	34.5%	30.4%	72.3%	53.5%
Intervention Period Means								
7/16–12/16	61.5%	85.4%	53.9%	42.9%	34.1%	30.9%	71.8%	52.7%
10/16–3/17	62.2%	85.5%	52.9%	44.5%	35.0%	32.3%	71.9%	53.3%
1/17–6/17	60.3%	82.8%	54.7%	43.9%	33.6%	32.0%	72.6%	52.2%
4/17–9/17	61.8%	82.0%	53.3%	40.9%	32.5%	27.8%	70.9%	55.6%
7/17–12/17	62.9%	83.8%	55.1%	43.0%	36.1%	30.6%	73.0%	54.8%
10/17–3/18	59.3%	83.2%	50.6%	41.3%	33.5%	29.7%	69.8%	52.2%
1/18–6/18	60.2%	83.9%	53.0%	40.8%	31.9%	30.3%	70.2%	50.0%
4/18–9/18	58.5%	82.4%	53.8%	41.8%	31.1%	31.2%	69.2%	51.9%
7/18–12/18	58.3%	84.0%	51.7%	39.3%	33.2%	29.5%	68.9%	51.1%
10/18–3/19	61.6%	82.4%	54.7%	40.6%	35.8%	29.9%	69.9%	51.1%
1/19–6/19	58.7%	81.7%	51.8%	41.2%	34.2%	30.3%	70.1%	51.2%
4/19–9/19	59.4%	82.8%	51.5%	41.8%	32.7%	29.1%	70.3%	53.2%
7/19–12/19	59.2%	78.6%	50.2%	40.4%	31.3%	27.5%	69.2%	52.2%
10/19–3/20	59.3%	80.6%	51.0%	41.3%	29.6%	26.0%	68.4%	51.3%
1/20–6/20	60.0%	83.9%	55.3%	42.0%	32.9%	24.1%	70.3%	55.7%
4/20–9/20	58.4%	81.7%	51.8%	38.5%	30.4%	27.6%	70.7%	51.7%
7/20–12/20	59.4%	82.5%	53.7%	37.8%	32.5%	24.0%	68.6%	53.8%
10/20–3/21	58.6%	83.7%	54.0%	40.7%	31.7%	28.2%	69.9%	54.6%
1/21–6/21	58.0%	82.7%	55.6%	37.7%	30.2%	25.5%	70.3%	51.4%
4/21–9/21	55.2%	81.4%	51.9%	37.4%	28.3%	25.3%	69.1%	51.1%
7/21–12/21	54.3%	83.7%	56.1%	37.5%	27.5%	25.5%	68.6%	51.9%
10/21–12/21	54.6%	84.7%	55.0%	35.2%	28.7%	26.2%	71.0%	54.8%

Source: OCM Patient and Caregiver Surveys, April 2016–December 2021; data collection for these episodes occurred from January 2017 through August 2022.

Notes: The dates in the exhibit indicate the range of episode start dates included in each survey wave. OCM episodes lasted for 180 days, and patients typically received surveys roughly 6–9 months following the start of their episode. Estimates were weighted for sampling and nonresponse and adjusted for demographic characteristics, health status, cancer type and treatment duration, the calendar month when the episode was triggered, practice characteristics, and the incidence and prevalence of COVID-19 cases and deaths during each episode. Patients with a COVID-19 diagnosis during the episode were excluded from analysis.

Exhibit SC-15: Minimal Change in Patient-Reported Symptoms over Time among Patients with Lower-Risk Episodes

Period	Prevalence of Symptoms, Lower-Risk Episodes							
	Pain	Energy Level	Emotional Problems	Nausea	Breathing	Coughing	Constipation or Diarrhea	Neuropathy
N	57,858	58,048	58,142	57,639	57,845	57,807	58,049	57,858
Baseline Period Mean								
4/16–9/16	40.7%	55.6%	39.2%	13.3%	12.8%	12.9%	31.9%	29.7%
Intervention Period Means								
7/16–12/16	45.1%	63.2%	45.1%	13.1%	15.2%	12.6%	35.9%	33.6%
10/16–3/17	38.2%	55.2%	38.0%	16.4%	12.6%	12.9%	30.0%	27.7%
1/17–6/17	39.5%	64.1%	40.6%	14.9%	14.3%	14.6%	32.9%	30.3%
4/17–9/17	38.3%	52.7%	34.2%	12.8%	11.1%	11.2%	27.7%	27.9%
7/17–12/17	38.1%	57.2%	37.4%	15.1%	13.2%	10.9%	35.0%	34.6%
10/17–3/18	37.8%	55.3%	37.3%	12.1%	10.1%	12.7%	31.1%	31.7%
1/18–6/18	41.8%	59.0%	39.0%	17.0%	14.0%	15.4%	34.6%	34.6%
4/18–9/18	38.9%	53.9%	38.3%	14.3%	12.2%	13.1%	31.6%	29.7%
7/18–12/18	36.4%	56.1%	36.8%	13.4%	12.3%	12.7%	33.0%	29.2%
10/18–3/19	38.6%	59.9%	35.1%	16.1%	13.3%	13.3%	31.5%	30.3%
1/19–6/19	36.8%	56.9%	40.0%	14.5%	12.9%	12.0%	30.4%	28.9%
4/19–9/19	41.9%	54.5%	40.9%	11.1%	13.2%	11.7%	27.1%	29.6%
7/19–12/19	36.1%	53.6%	37.6%	9.0%	9.6%	11.0%	32.3%	31.3%
10/19–3/20	41.0%	56.0%	35.2%	11.5%	10.9%	10.0%	29.3%	32.8%
1/20–6/20	43.3%	62.5%	44.2%	14.9%	14.4%	12.9%	35.0%	35.5%
4/20–9/20	38.0%	52.4%	40.2%	10.6%	9.2%	10.8%	33.5%	26.4%
7/20–12/20	43.1%	56.8%	39.2%	9.7%	13.6%	12.5%	39.5%	37.1%
10/20–3/21	40.8%	57.5%	34.2%	10.0%	9.8%	8.8%	34.9%	32.8%
1/21–6/21	33.9%	49.8%	30.1%	8.2%	7.8%	7.9%	29.5%	28.6%
4/21–9/21	33.8%	51.4%	29.3%	4.6%	6.8%	7.1%	26.8%	29.5%
7/21–12/21	39.7%	57.7%	33.9%	5.0%	8.1%	9.1%	31.8%	29.0%
10/21–12/21	30.6%	50.9%	25.0%	4.1%	9.2%	10.5%	30.2%	24.5%

Source: OCM Patient and Caregiver Surveys, April 2016–December 2021; data collection for these episodes occurred from January 2017 through August 2022.

Notes: The dates in the exhibit indicate the range of episode start dates included in each survey wave. OCM episodes lasted for 180 days, and patients typically received surveys roughly 6–9 months following the start of their episode. Estimates were weighted for sampling and nonresponse and adjusted for demographic characteristics, health status, cancer type and treatment duration, the calendar month when the episode was triggered, practice characteristics, and the incidence and prevalence of COVID-19 cases and deaths during each episode. Patients with a COVID-19 diagnosis during the episode were excluded from analysis.

SD. Clinical Analyses

Exhibit SD-1: Use of Originator Rituximab, Subcutaneous Rituximab, and Biosimilar Rituximab for OCM vs. Comparison Episodes by Quarter, Unadjusted
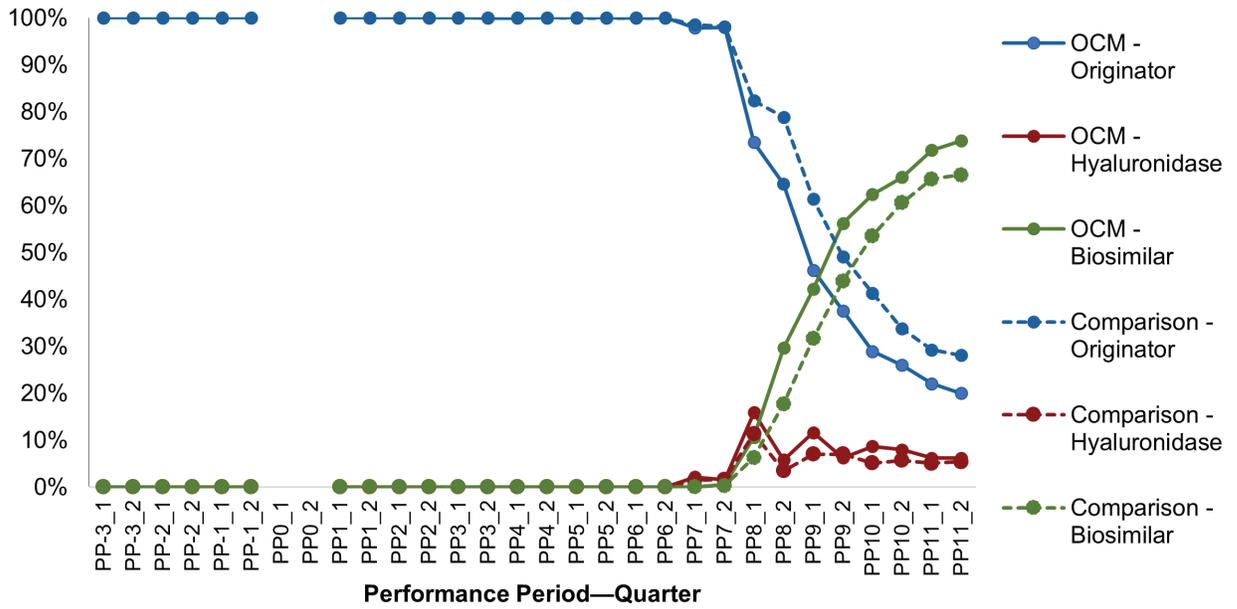
Source: Medicare claims 2014–2022.

Exhibit SD-2: Use of Biosimilar Rituximab for OCM vs. Comparison Episodes by Quarter, Unadjusted
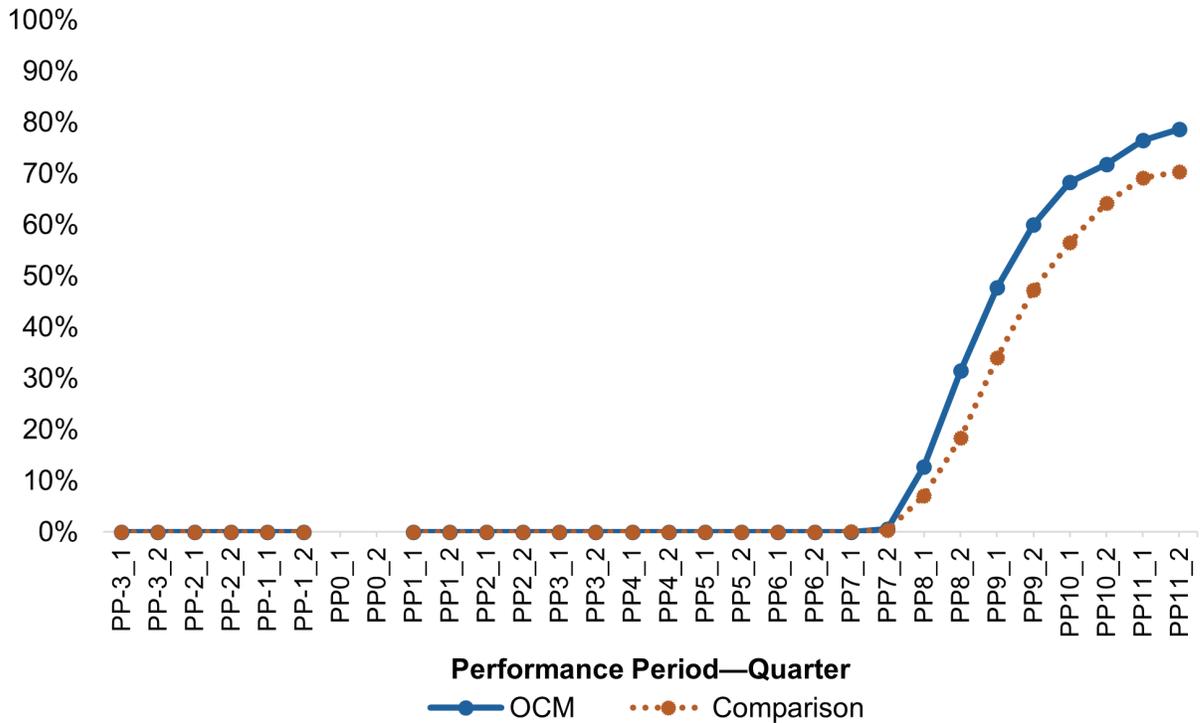
Source: Medicare claims 2014–2022.

Exhibit SD-3: Use of Originator, Biosimilar, and Subcutaneous Trastuzumab by Quarter, Unadjusted

Legend:
- OCM - Originator
- OCM - Hyaluronidase
- OCM - Biosimilar
- Comparison - Originator
- Comparison - Hyaluronidase
- Comparison - Biosimilar
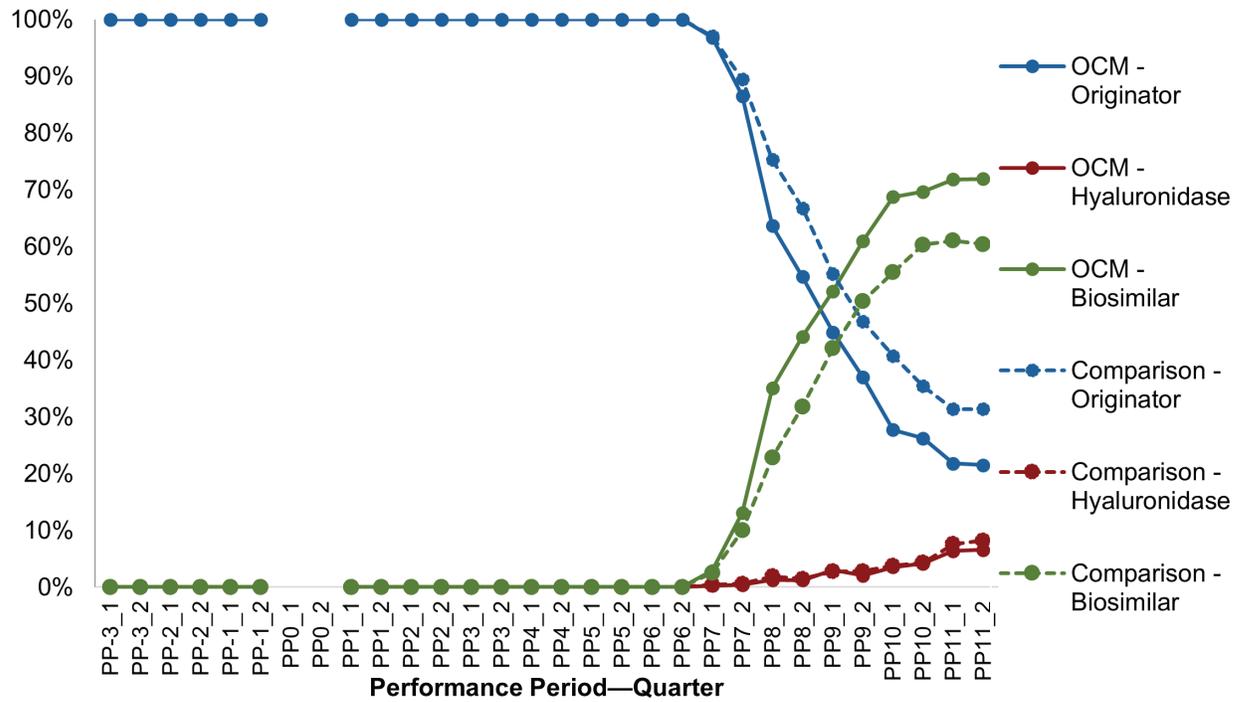
Source: Medicare claims 2014–2022.

Exhibit SD-4: Use of Trastuzumab Biosimilar by Quarter, Unadjusted

Performance Period—Quarter

OCM ······· Comparison
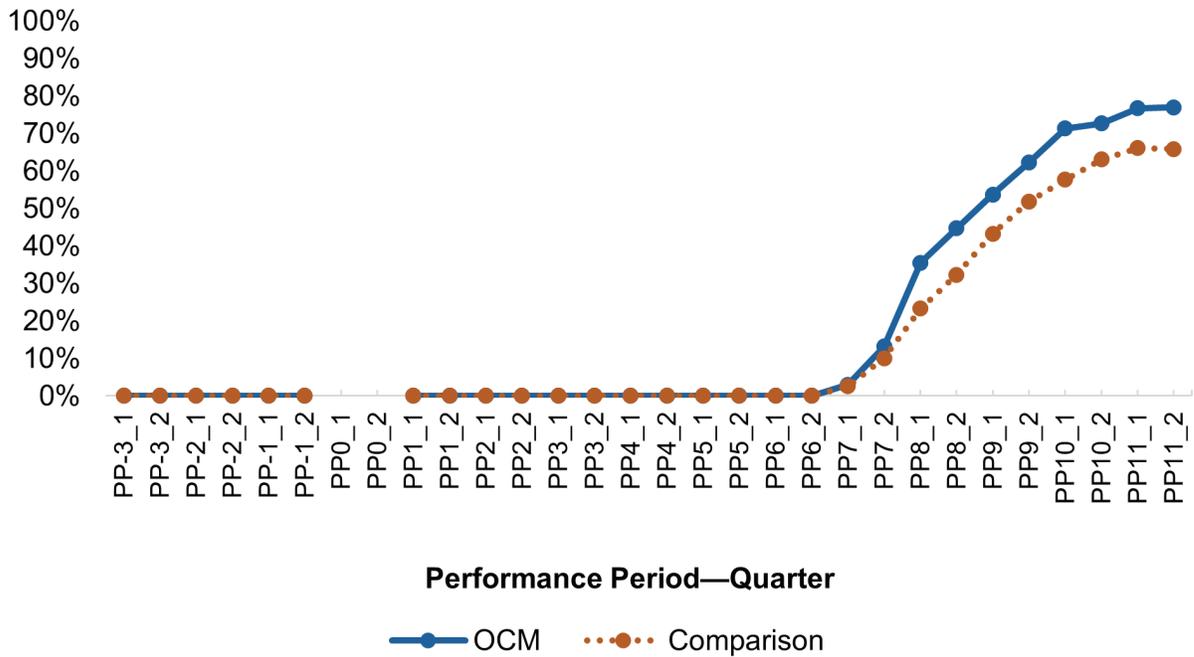
Source: Medicare claims 2014–2022.

Exhibit SD-5: Use of Bevacizumab Biosimilar by Quarter, Unadjusted
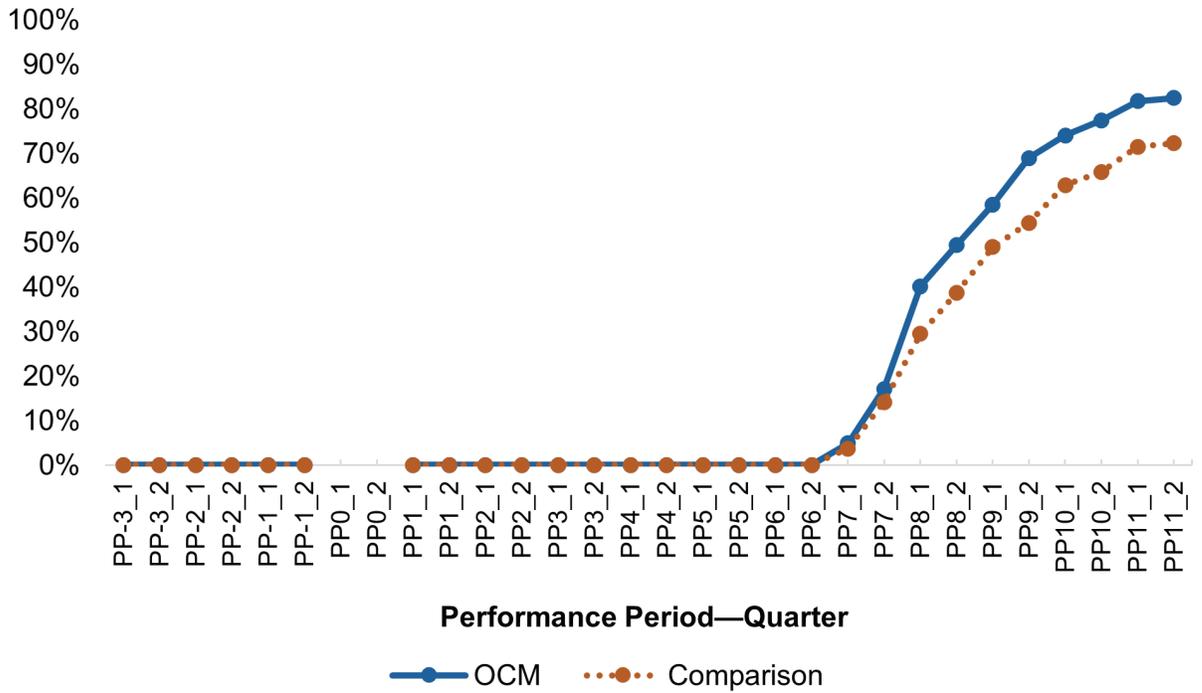
Source: Medicare claims 2014–2022.

Exhibit SD-6: OCM Led to Lower Part B Chemotherapy Payments for Protein-Bound Paclitaxel Consistently Over Time

	DID Impact PP 1–11	90% CI	DID Impact PP 1–3	90% CI	DID Impact PP 4–6	90% CI	DID Impact PP 7–9	90% CI	DID Impact PP 10-11	90% CI
Protein-bound Paclitaxel	-$126	-$199, -$52	-$144	-$212, -$77	-$112	-$193, -$30	-$115	-$219, -$12	$-158	-$277, - $39

Shading indicates statistically significant estimates at p≤0.01, p≤0.05, and p≤0.10, indicated by dark blue, medium blue, or light blue shading.
Source: Medicare claims 2014–2022.
Notes: DID: Difference-in-differences. CI: Confidence interval. PP: Performance Period.

Exhibit SD-7: Spending on Protein-Bound Paclitaxel Among All OCM and Comparison Episodes Over Time, Unadjusted
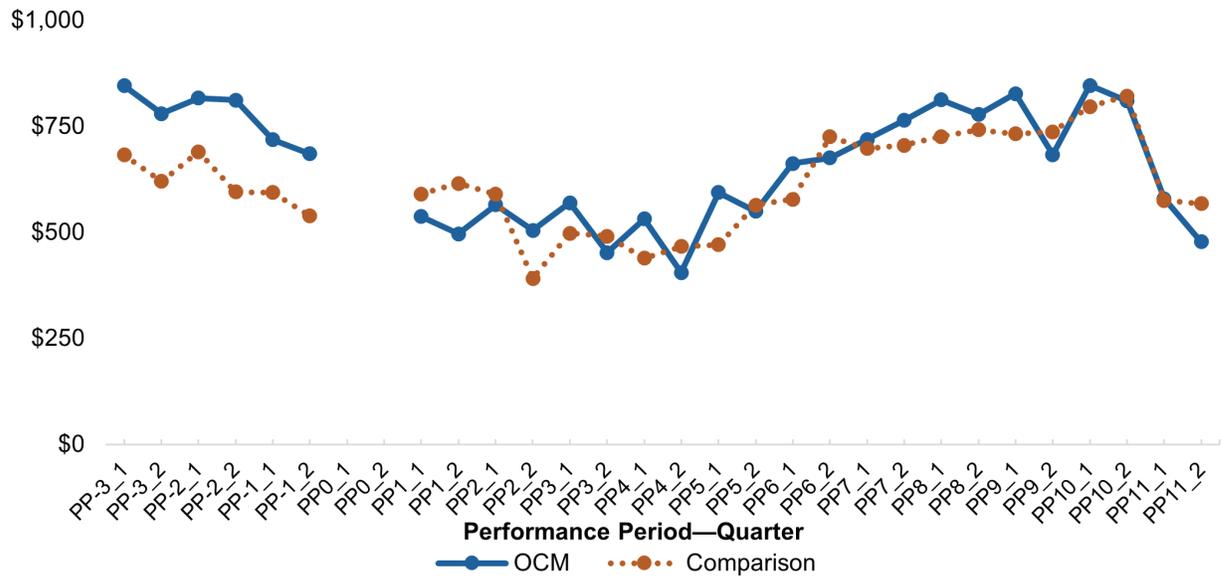
Source: Medicare claims 2014–2022.
Notes: OCM quarterly trend versus comparison group trend in baseline period: -$8.2 per quarter (95% confidence interval: -$38, $22), P=0.59.
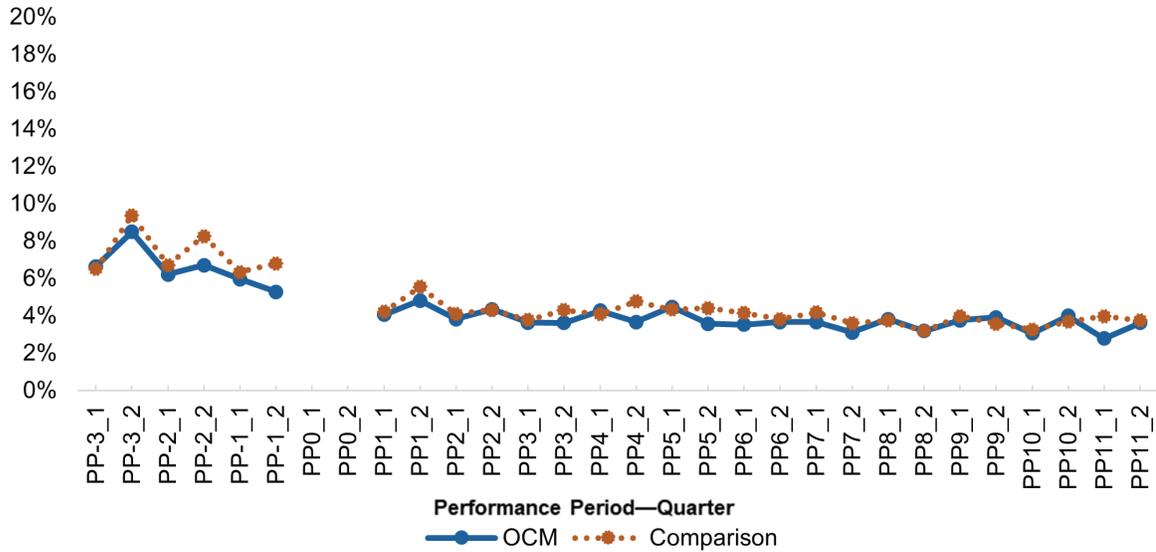
Exhibit SD-8: Spending on Fulvestrant among All OCM and Comparison Episodes over Time, Unadjusted
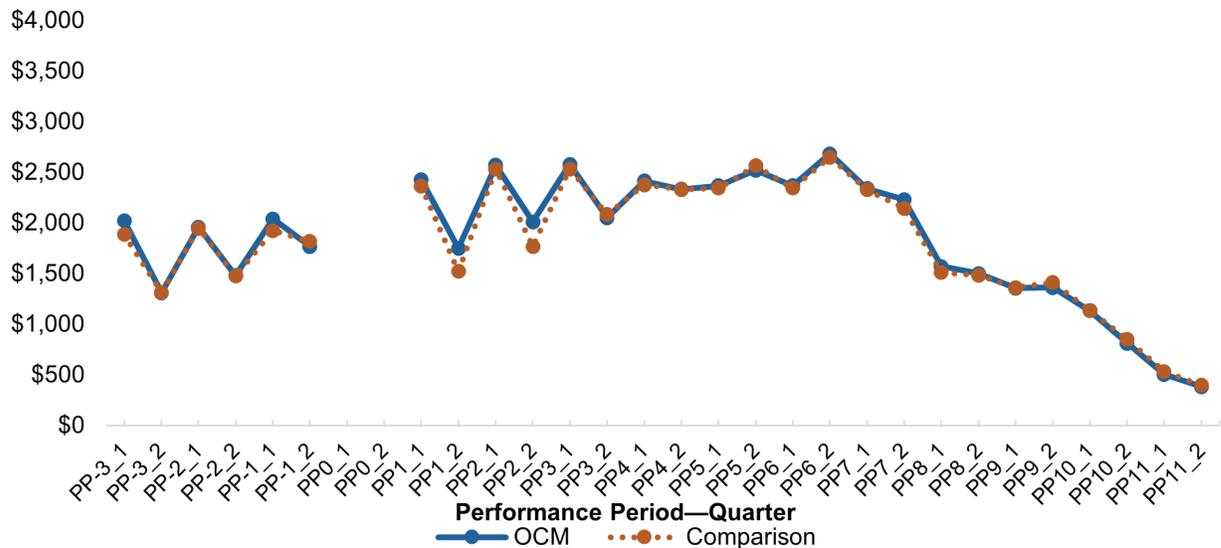
Source: Medicare claims 2014–2022.
Notes: OCM quarterly trend versus comparison group trend in baseline period: -$18 per quarter (95% confidence interval: -$43, $6.2), P=0.15.

Exhibit SD-9: Spending on Eribulin among All OCM and Comparison Episodes over Time, Unadjusted
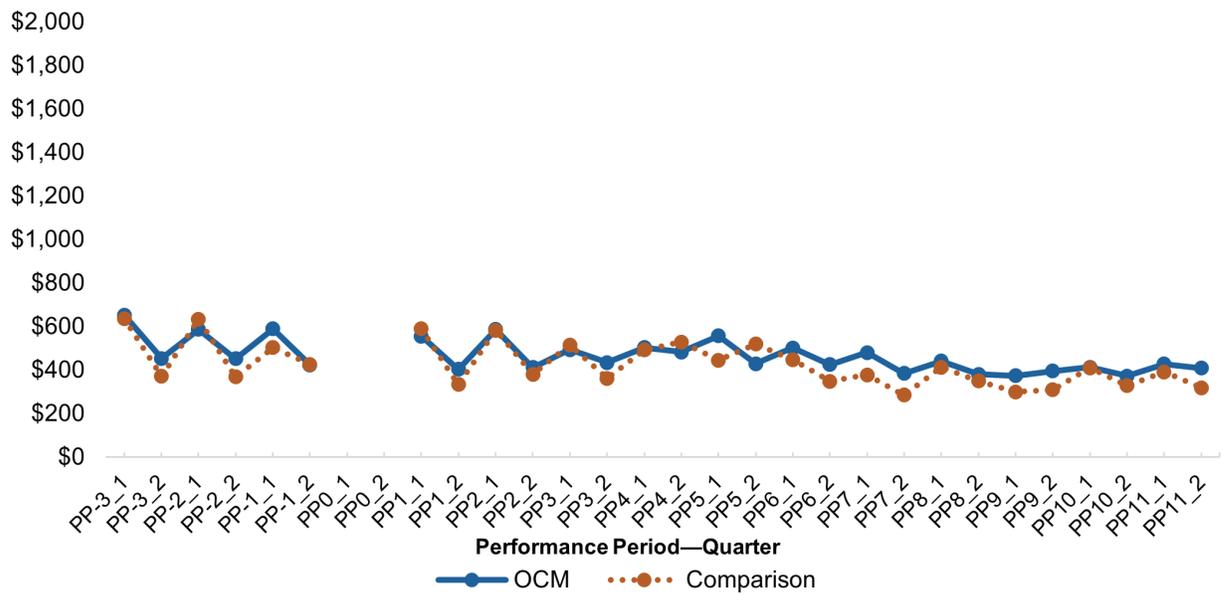
Source: Medicare claims 2014–2022.
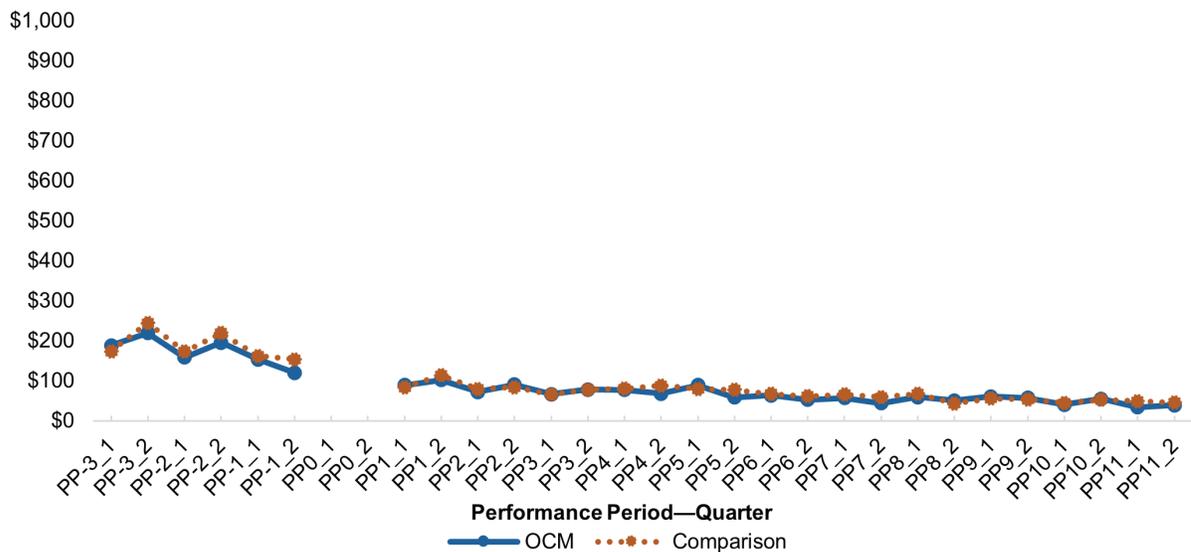Notes: OCM quarterly trend versus comparison group trend in baseline period: $2.3 per quarter (95% confidence interval: -$25, $30), P=0.87.

Exhibit SD-10: Spending on Docetaxel among All OCM and Comparison Episodes over Time, Unadjusted
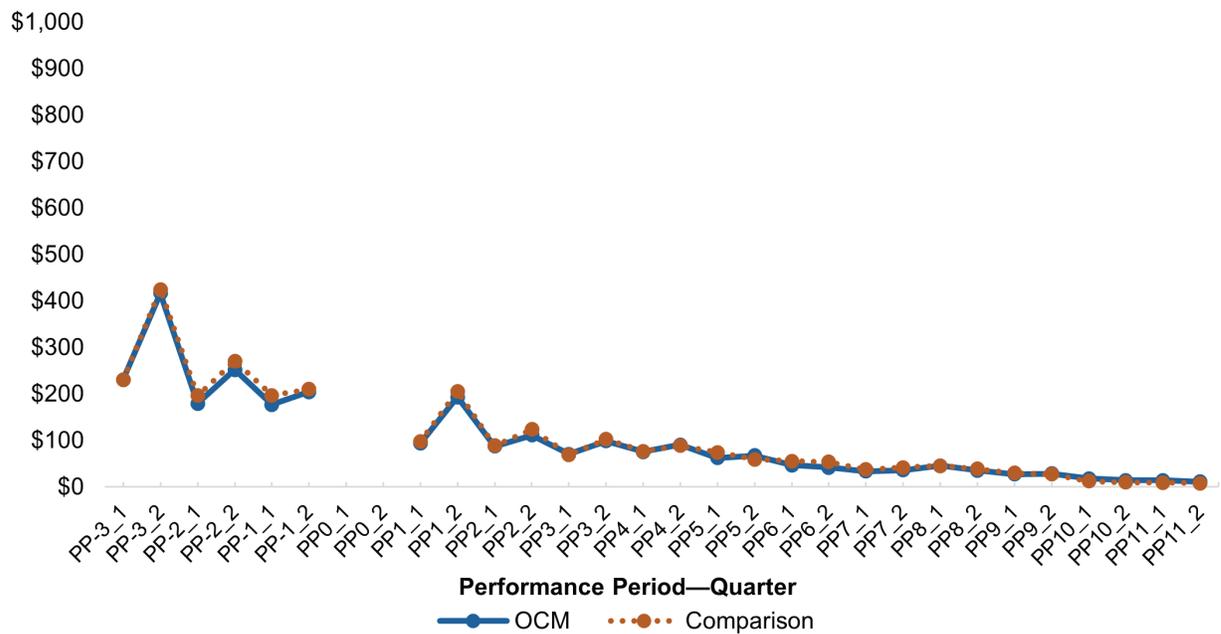
Source: Medicare claims 2014–2022.
Notes: OCM quarterly trend versus comparison group trend in baseline period: -$2.9 per quarter (95% confidence interval: -$9.0, $3.1), P=0.34.

Exhibit SD-11: Spending on Doxorubicin among All OCM and Comparison Episodes over Time, Unadjusted
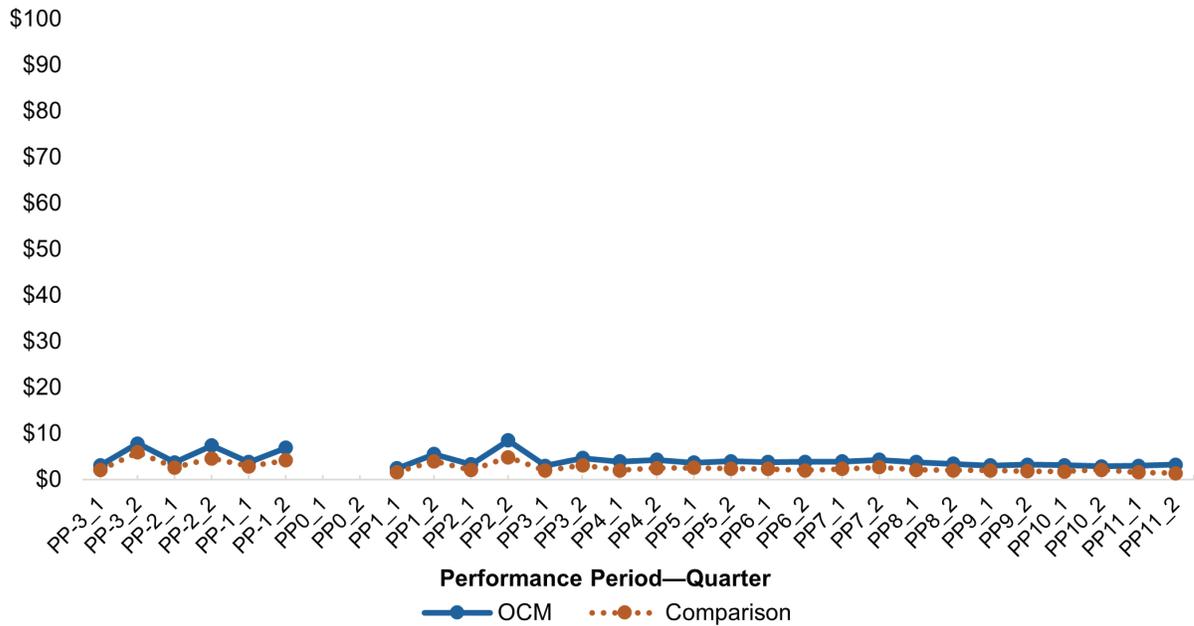
Performance Period—Quarter

OCM ••••• Comparison

Source: Medicare claims 2014–2022.
Notes: OCM quarterly trend versus comparison group trend in baseline period: -$0.2 per quarter (95% confidence interval: -$0.1, $0.4), P=0.10.

Exhibit SD-12: Spending on Everolimus among All OCM and Comparison Episodes over Time, Unadjusted

Performance Period—Quarter
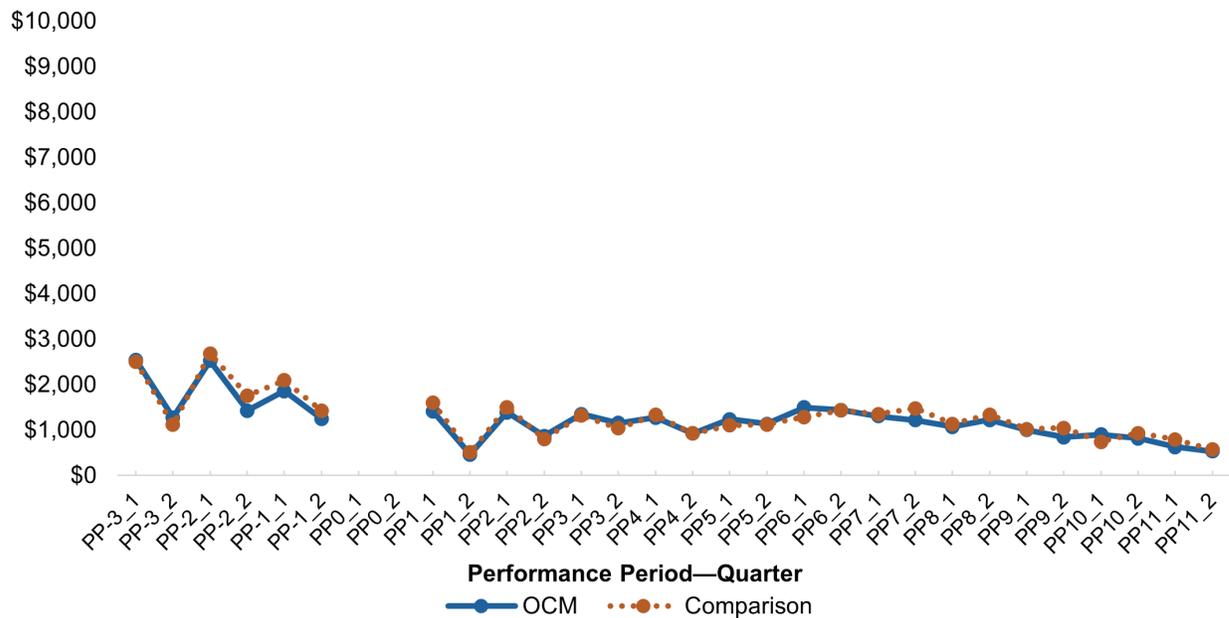
OCM ••••• Comparison

Source: Medicare claims 2014–2022.
Notes: Spending based on Part D Gross Drug Cost; OCM quarterly trend versus comparison group trend in baseline period: -$75 per quarter (95% confidence interval: -$156, $6), P=0.07.

Exhibit SD-13: Spending on Elotuzumab Among All OCM and Comparison Myeloma Episodes Over Time, Unadjusted
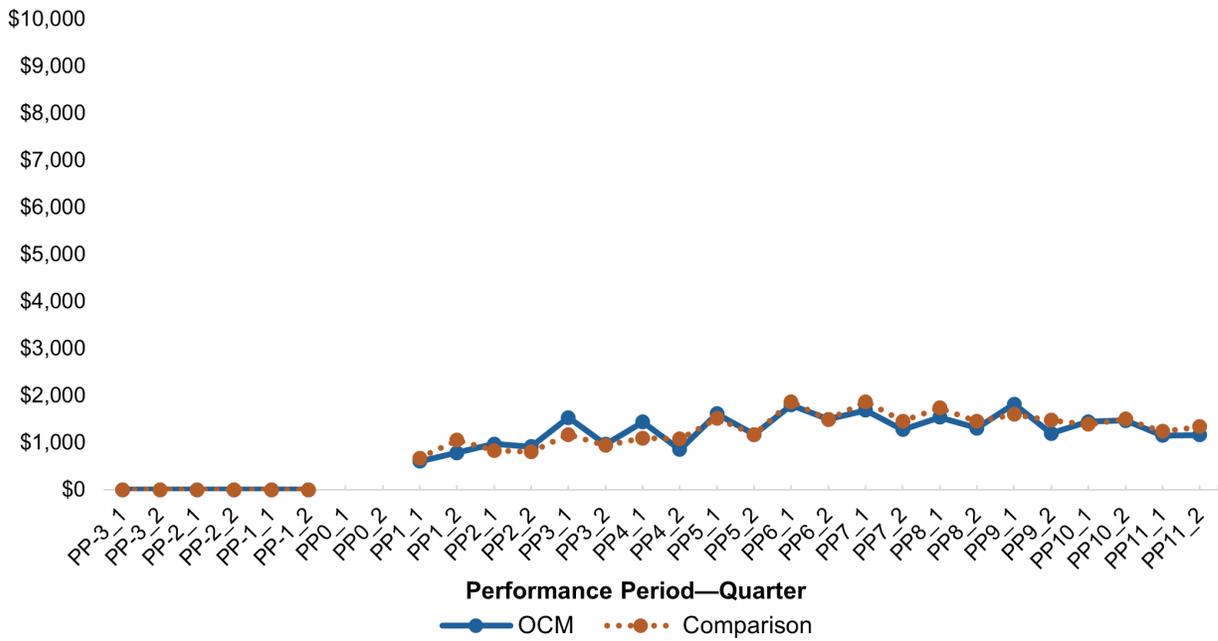
Source: Medicare claims 2014–2022.

Exhibit SD-14: Spending on Isatuximab Among All OCM and Comparison Myeloma Episodes Over Time, Unadjusted
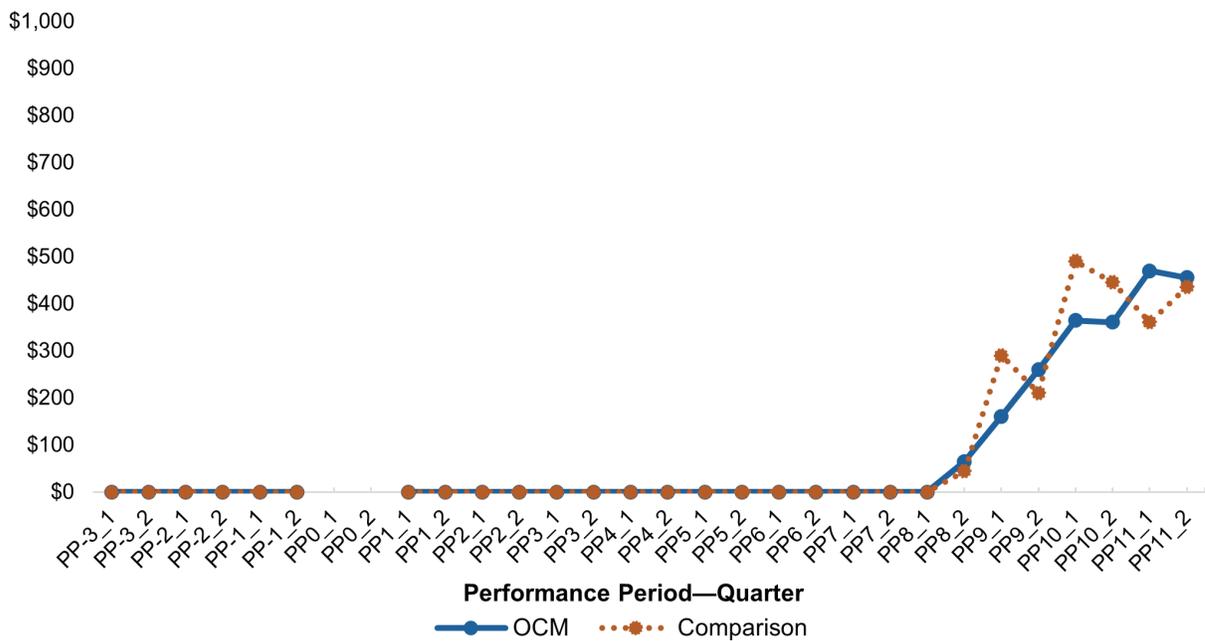
Source: Medicare claims 2014–2022.

Exhibit SD-15: Chemotherapy Drug Use per Episode – Selinexor

Performance Period—Quarter
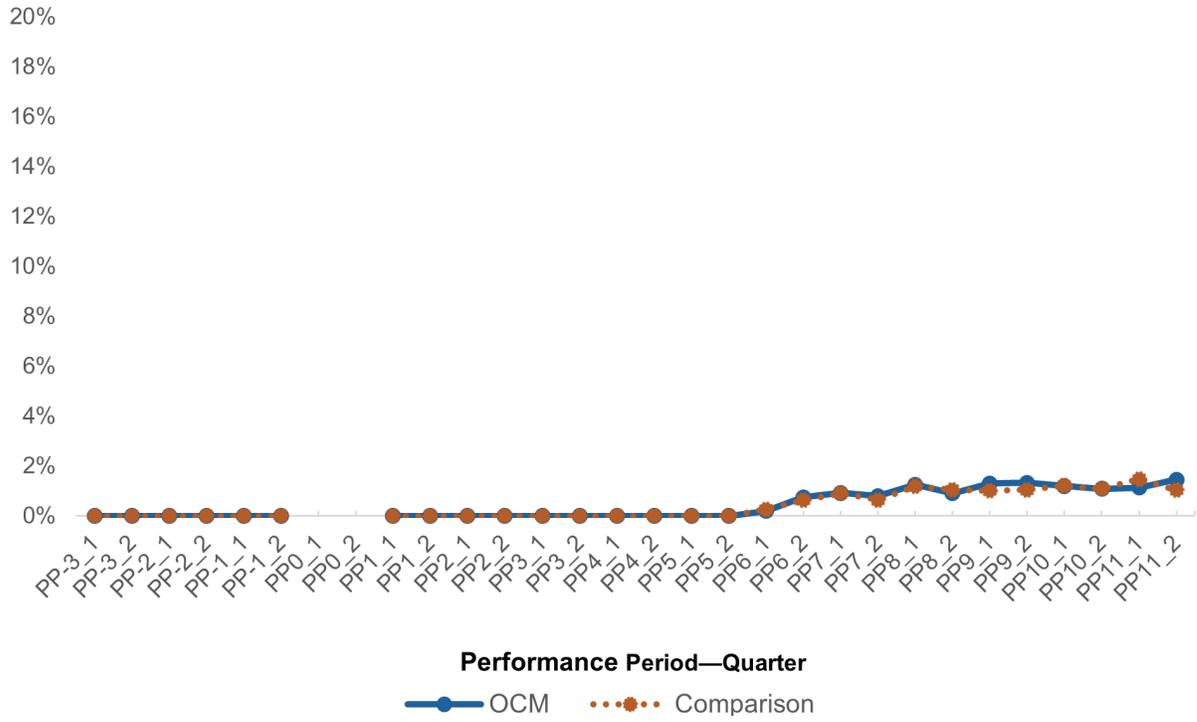
OCM ••••••• Comparison

Source: Medicare claims 2014–2022.

Exhibit SD-16: Spending on Selinexor Among All OCM and Comparison Myeloma Episodes Over Time, Unadjusted

Performance Period—Quarter
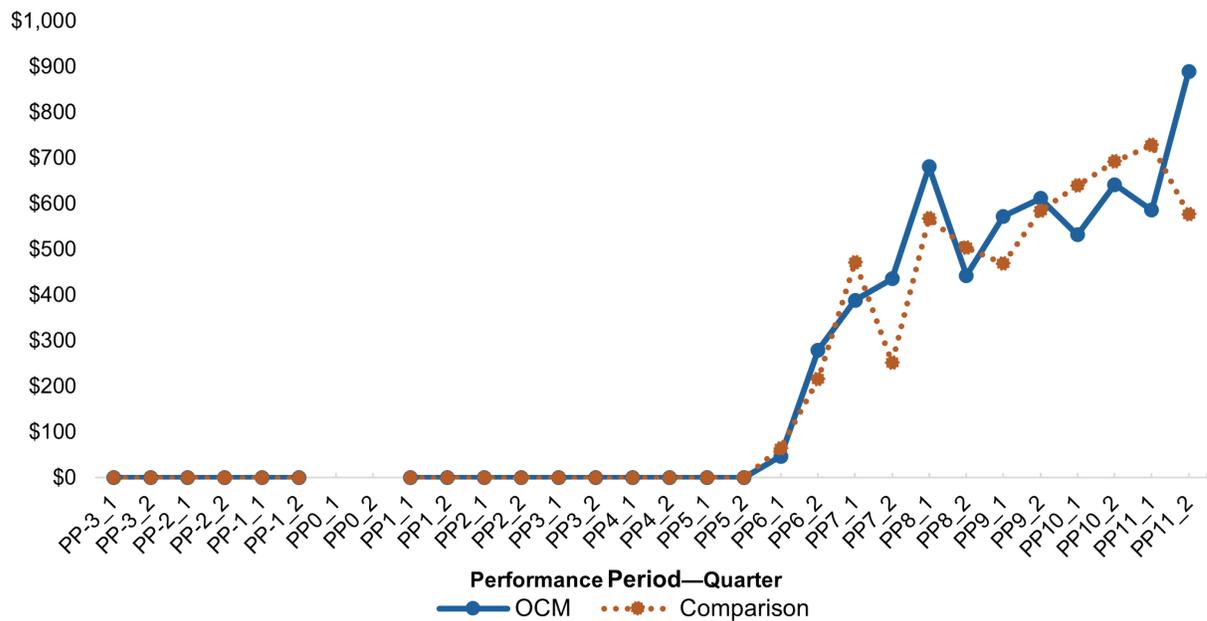
OCM ••••••• Comparison

Source: Medicare claims 2014–2022.

Exhibit SD-17: Chemotherapy Drug Use (Part B) per Episode - Melphalan

Performance Period—Quarter
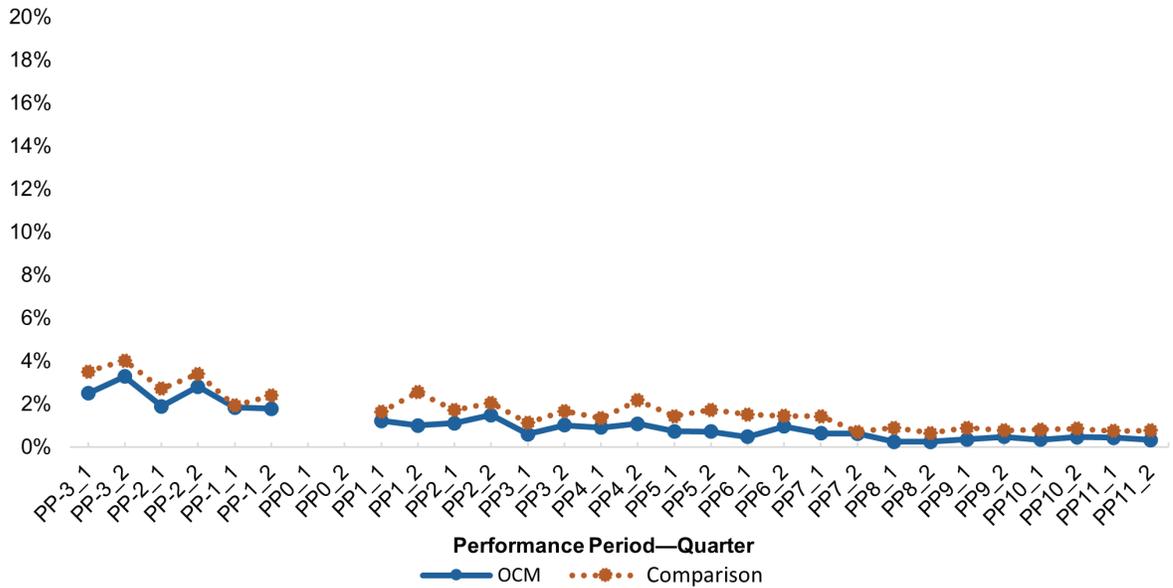
— OCM   •••• Comparison

Source: Medicare claims 2014–2022.

Exhibit SD-18: Spending on Melphalan Among All OCM and Comparison Myeloma Episodes Over Time, Unadjusted
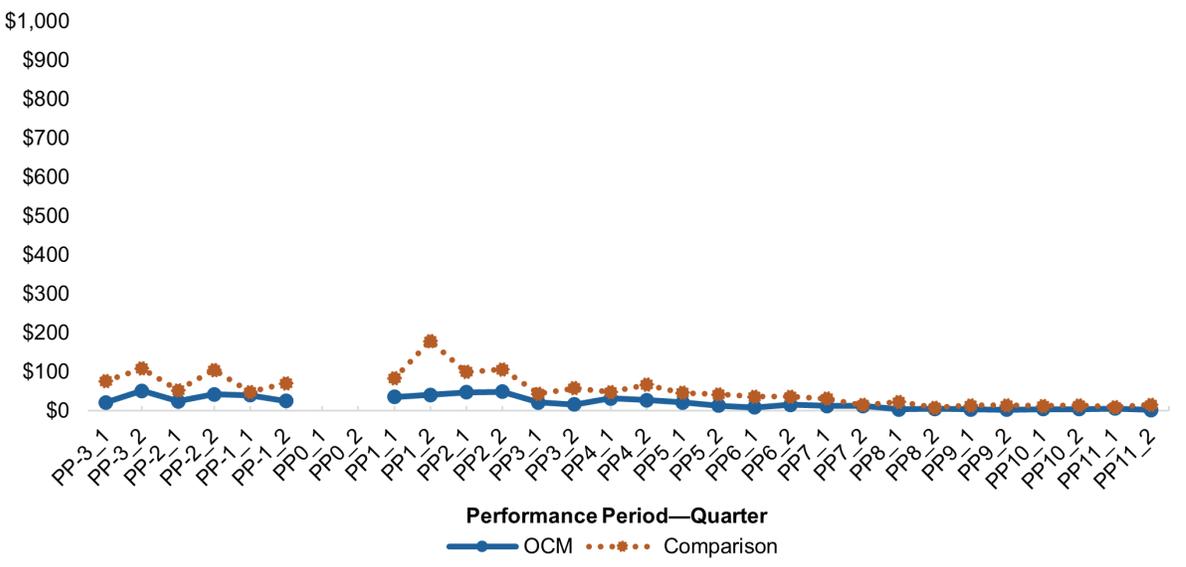
Performance Period—Quarter

— OCM   •••• Comparison

Source: Medicare claims 2014–2022.
Notes: OCM quarterly trend versus comparison group trend: $6.2 per quarter (95% confidence interval: $0.4, $12.0), P=0.036.

Exhibit SD-19: Chemotherapy Drug Use (Part B) per Episode – Cyclophosphamide

Source: Medicare claims 2014–2022.

Exhibit SD-20: Spending on Cyclophosphamide Among All OCM and Comparison Myeloma Episodes Over Time, Unadjusted

Source: Medicare claims 2014–2022.
Notes: OCM quarterly trend versus comparison group trend: -$4.6 per quarter (95% confidence interval: -$13.6, $4.4), P=0.32.

Exhibit SD-21: Chemotherapy regimens (all myeloma episodes), includes beneficiaries with and without Part D

| Initial Treatment Regimen	OCM		COMP	
	Baseline Mean	Int. Mean	Baseline Mean	Int. Mean
Lenalidomide	34.7	27.3	33.7	28.7
Bortezomib	31.8	18.7	31.3	17.4
Bortezomib + Lenalidomide	6.5	8.0	7.7	8.5
Daratumumab	0.0	9.3	0.0	9.0
Carfilzomib	7.3	4.9	6.3	4.3
Pomalidomide	5.7	3.9	6.0	4.3
Daratumumab + Pomalidomide	0.0	3.7	0.0	3.7
Daratumumab + Lenalidomide	0.0	2.7	0.0	2.6
Bortezomib + Daratumumab	0.0	2.4	0.0	2.6
Bortezomib + Cyclophosphamide	3.0	1.3	3.3	1.5
Ixazomib	0.0	2.1	0.0	2.0
Other	11.0	15.7	11.7	15.4

Source: Medicare claims 2014–2022.

Exhibit SD-22: Chemotherapy regimens (among beneficiaries with no chemotherapy in prior 6 months), includes beneficiaries with and without Part D

Initial Treatment Regimen	OCM		COMP	
	Baseline Mean	Int. Mean	Baseline Mean	Int. Mean
Bortezomib	42.6	26.0	41.5	24.0
Lenalidomide	25.1	17.7	23.9	18.7
Bortezomib + Lenalidomide	9.7	18.1	10.2	18.8
Daratumumab	0.0	7.6	0.0	7.6
Carfilzomib	5.9	3.8	5.4	3.4
Bortezomib + Cyclophosphamide	5.3	3.2	6.3	3.8
Pomalidomide	2.9	2.3	3.4	2.3
Bortezomib + Daratumumab	0.0	2.9	0.0	3.1
Daratumumab + Lenalidomide	0.0	2.3	0.0	2.3
Other	8.5	16.1	9.3	16.0

Source: Medicare claims 2014–2022.

Exhibit SD-23: No OCM Impacts on Timeliness of Adjuvant Chemotherapy for Colorectal Cancer or Breast Cancer over Time, Except in One Performance Period

Measure	DID Impact PP 1–11	90% CI	DID Impact PP 1–3	90% CI	DID Impact PP 4–6	90% CI	DID Impact PP 7–9	90% CI	DID Impact PP 10-11	90% CI
Colorectal cancer	-0.3pp	-2.2pp, 1.7pp	-0.4pp	-2.7pp, 1.9pp	-1.2pp	-3.6pp,1.2pp	0.3pp	-2.3pp, 3.0pp	0.7pp	-2.2pp, 3.6pp
Breast cancer (high-risk)	1.1pp	-0.8pp, 3.0pp	0.4pp	-1.9pp, 2.7pp	2.7pp	0.4pp, 5.0pp	0.7pp	-1.5pp, 2.9pp	0.1pp	-2.8pp, 3.0pp

Shading indicates statistically significant estimates at p≤0.01, p≤0.05, and p≤0.10, indicated by dark blue, medium blue, or light blue shading.
Source: Medicare claims 2014–2022.
Notes: DID: Difference-in-differences. CI: Confidence interval. PP: Performance Period. pp: Percentage points.

Exhibit SD-24: Chemotherapy Initiation within 60 Days of Surgery for Patients with Colorectal Cancer Who Underwent Surgery in OCM and Comparison Episodes, by Quarter, Unadjusted
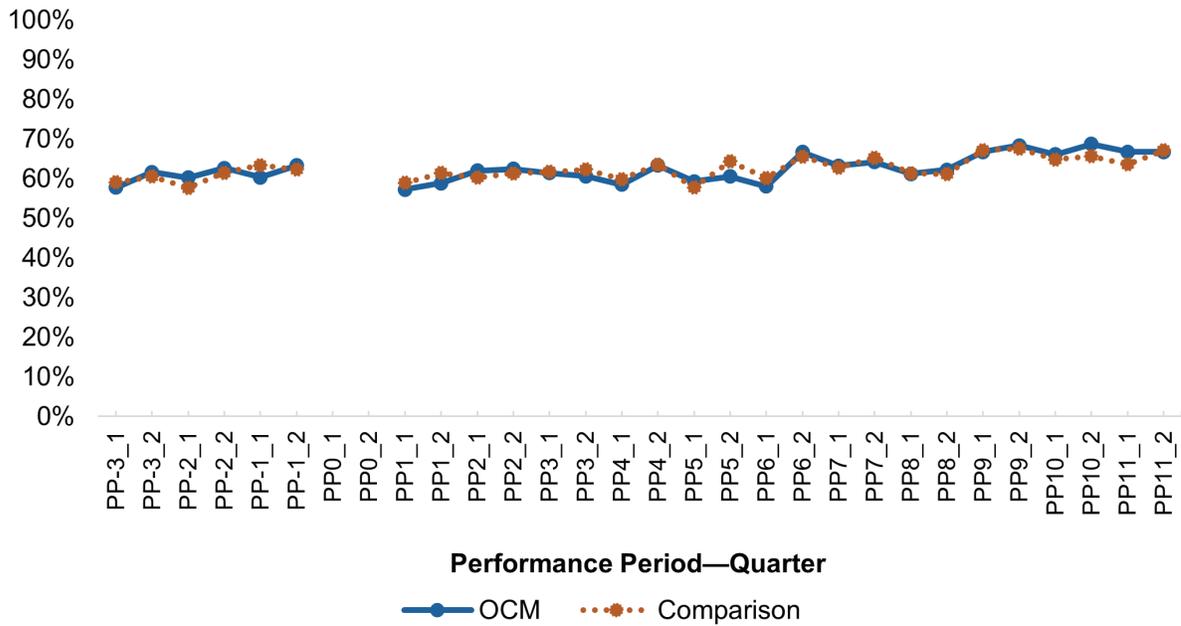
Source: Medicare claims 2014–2022.
Notes: OCM quarterly trend versus comparison group trend in baseline period: -0.2% per quarter (95% confidence interval: -1.3%, 1.0%), P=0.80. PP: Performance period.

Exhibit SD-25: Chemotherapy Initiation within 60 Days of Surgery for Patients with High-Risk Breast Cancer who Underwent Surgery in OCM and Comparison Episodes, by Quarter, Unadjusted
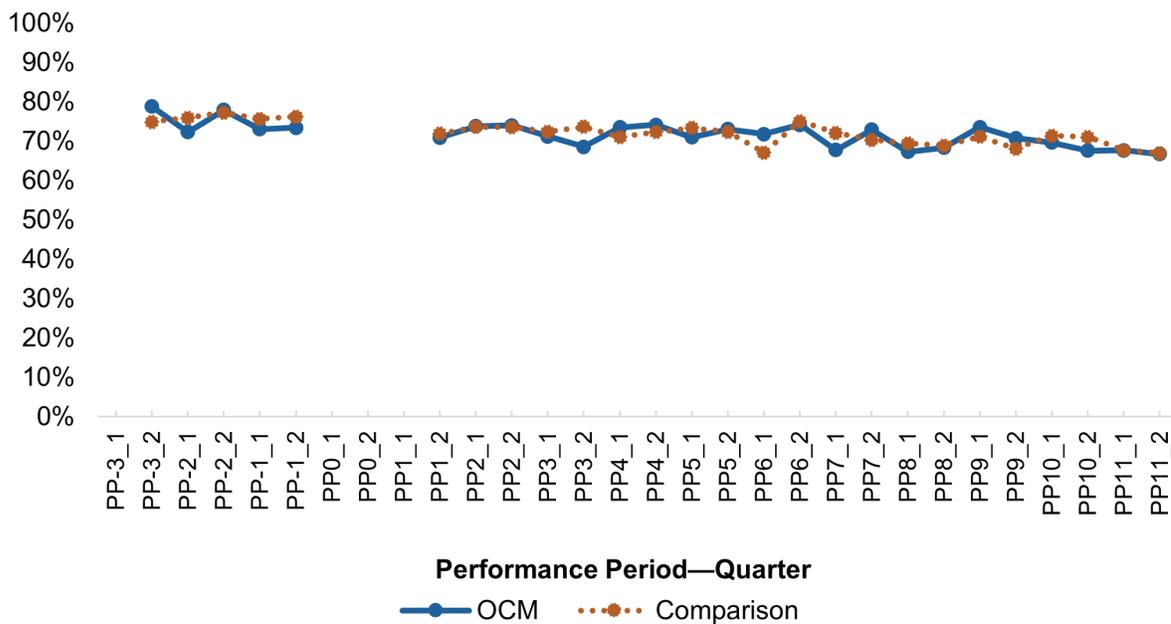
Source: Medicare claims 2014–2022.
Notes: OCM quarterly trend versus comparison group trend in baseline period: -0.8% per quarter (95% confidence interval: -2.0%, 0.5%), P=0.22.

Exhibit SD-26: Adherence to TKIs for Chronic Myeloid Leukemia in OCM and Comparison Episodes by Quarter, Unadjusted
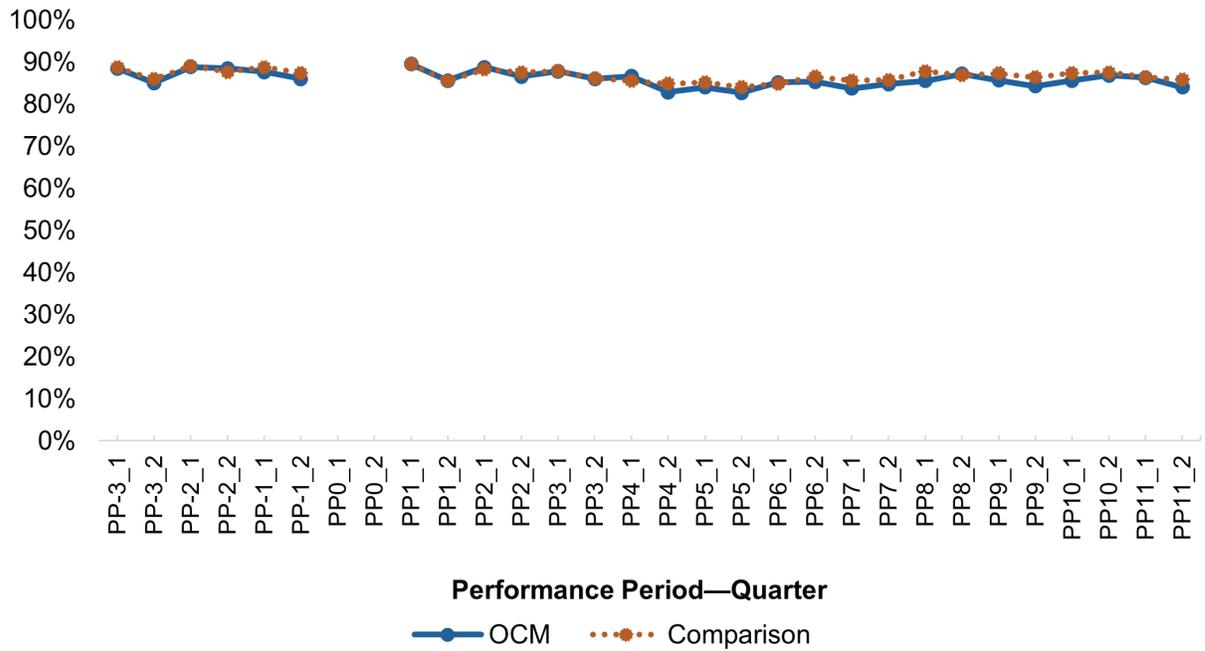
Performance Period—Quarter

OCM ••••••• Comparison

Source: Medicare claims 2014–2022.
Notes: OCM quarterly trend versus comparison group trend in baseline period: -0.2% per quarter (95% confidence interval: -0.6%, 0.2%), P=0.24.

Exhibit SD-27: Adherence to Abiraterone or Enzalutamide in OCM and Comparison Episodes by Quarter, Unadjusted
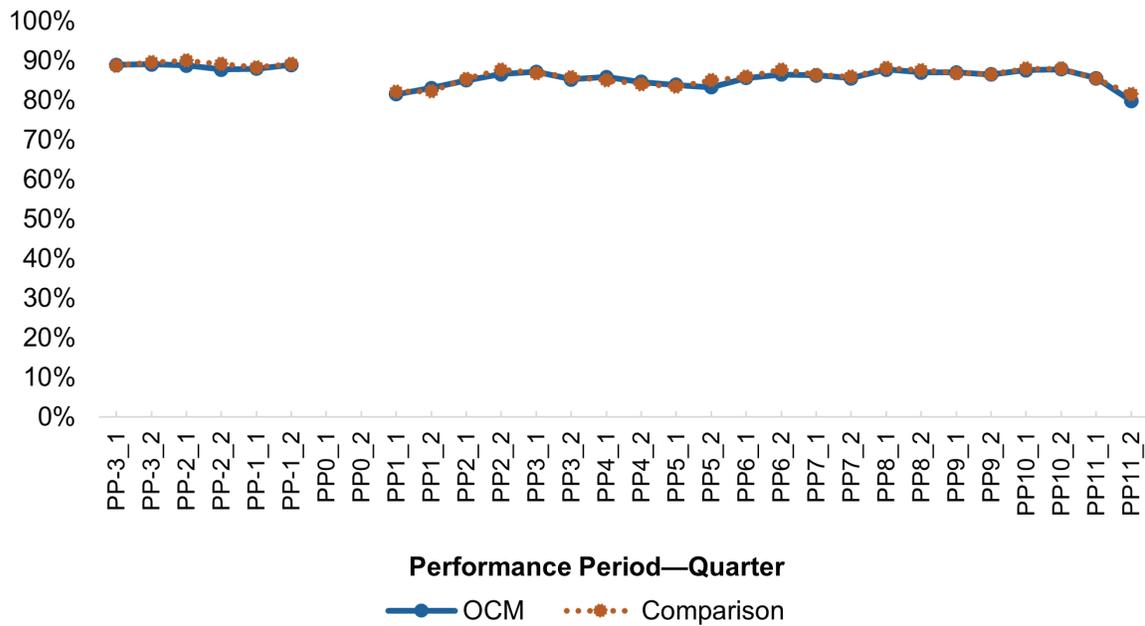
Performance Period—Quarter

OCM ••••••• Comparison

Source: Medicare claims 2014–2022.
Notes: OCM quarterly trend versus comparison group trend in baseline period: 0.0% per quarter (95% confidence interval: -0.3%, 0.3%), P=0.97.
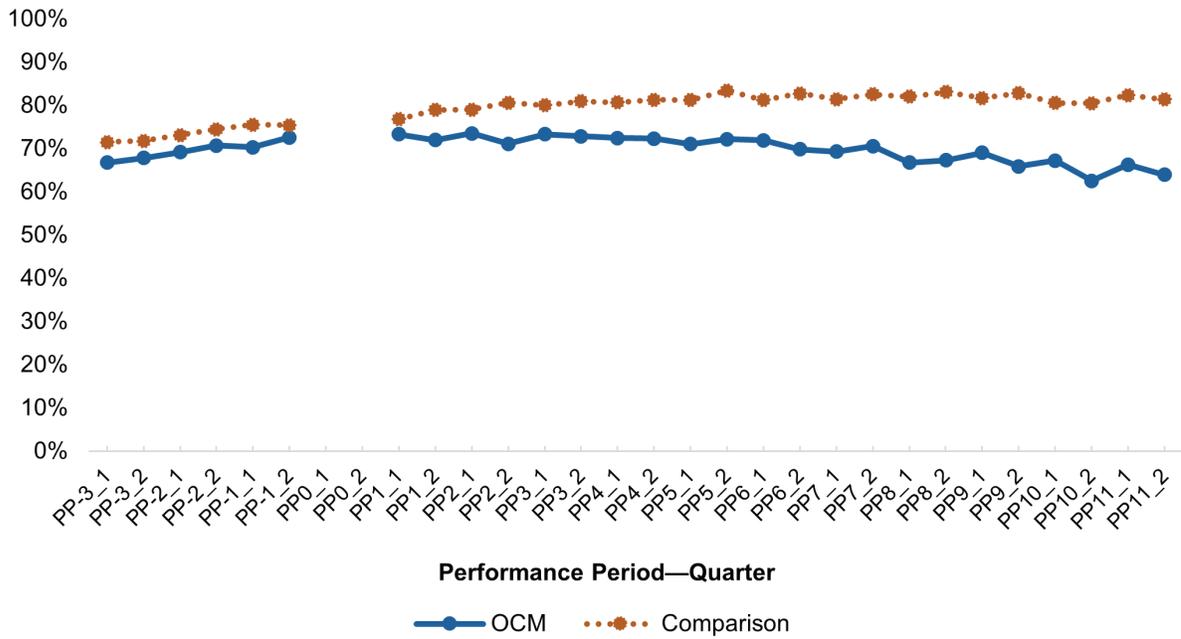
Exhibit SD-28: Similar Quarterly Trends in Use of Any Bone-Modifying Medication among Patients with Breast Cancer, Unadjusted
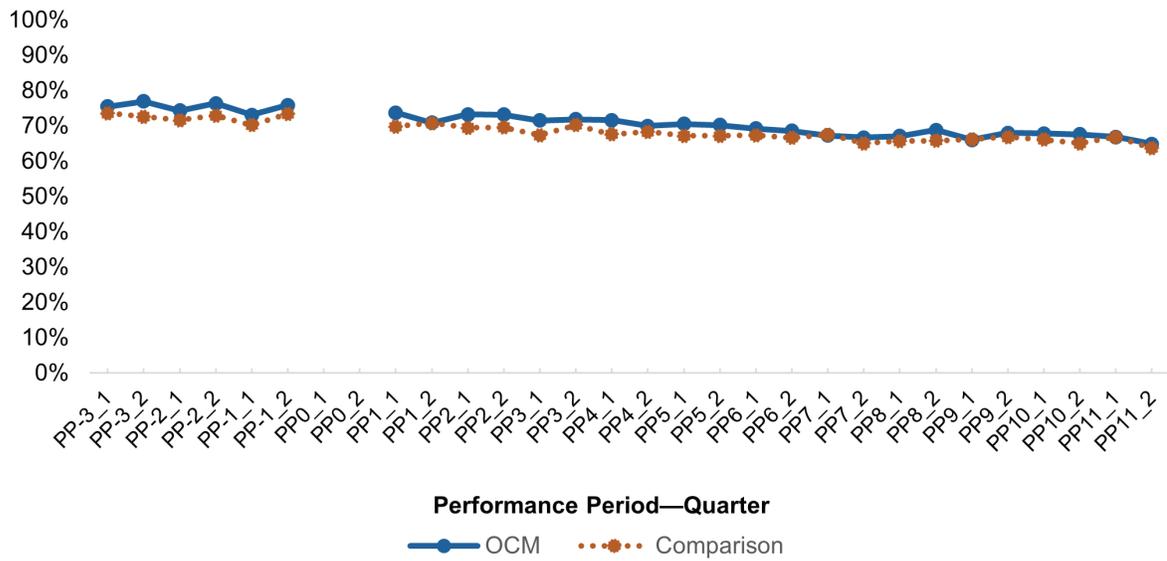
Performance Period—Quarter

OCM ••••••• Comparison

Source: Medicare claims 2014–2022.
Notes: OCM quarterly trend versus comparison group trend in baseline period: 0.0% per quarter (95% confidence interval: -0.4%, 0.5%), P=0.86.

Exhibit SD-29: Similar Quarterly Trends in Use of Any Bone-Modifying Medication among Patients with Prostate Cancer, Unadjusted
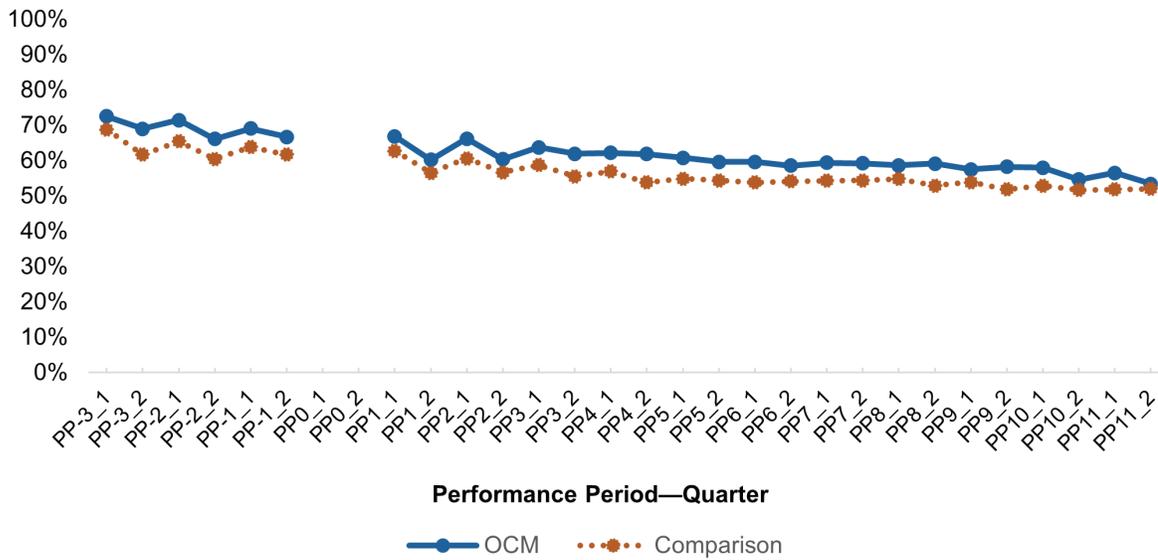
Performance Period—Quarter

OCM ••••••• Comparison

Source: Medicare claims 2014–2022.
Notes: OCM quarterly trend versus comparison group trend in baseline period: 0.1% per quarter (95% confidence interval: -0.5%, 0.7%), P=0.77.

Exhibit SD-30: Similar Quarterly Trends in Use of Any Bone-Modifying Medication among Patients with Lung Cancer, Unadjusted
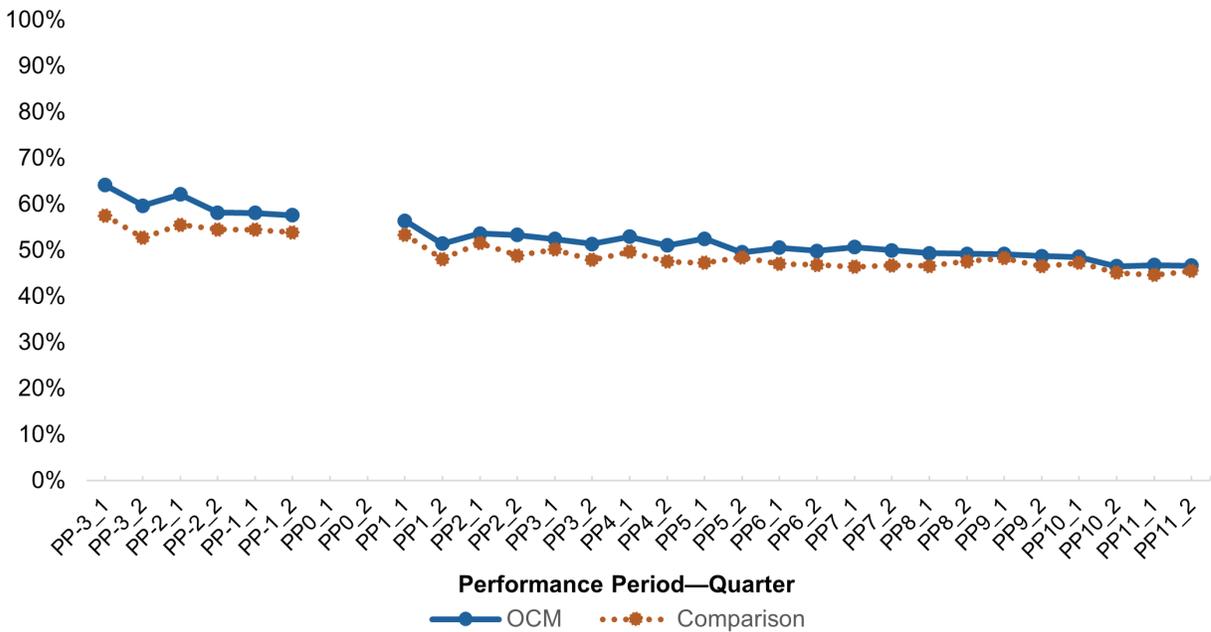
Performance Period—Quarter

OCM ••••• Comparison

Source: Medicare claims 2014–2022.
Notes: OCM quarterly trend versus comparison group trend in baseline period: -0.7% per quarter (95% confidence interval: -1.6%, 0.3%), P=0.18.

Exhibit SD-31: Unadjusted Quarterly Trends in Use of Any Denosumab among Patients with Breast Cancer, with Divergence after OCM Implementation
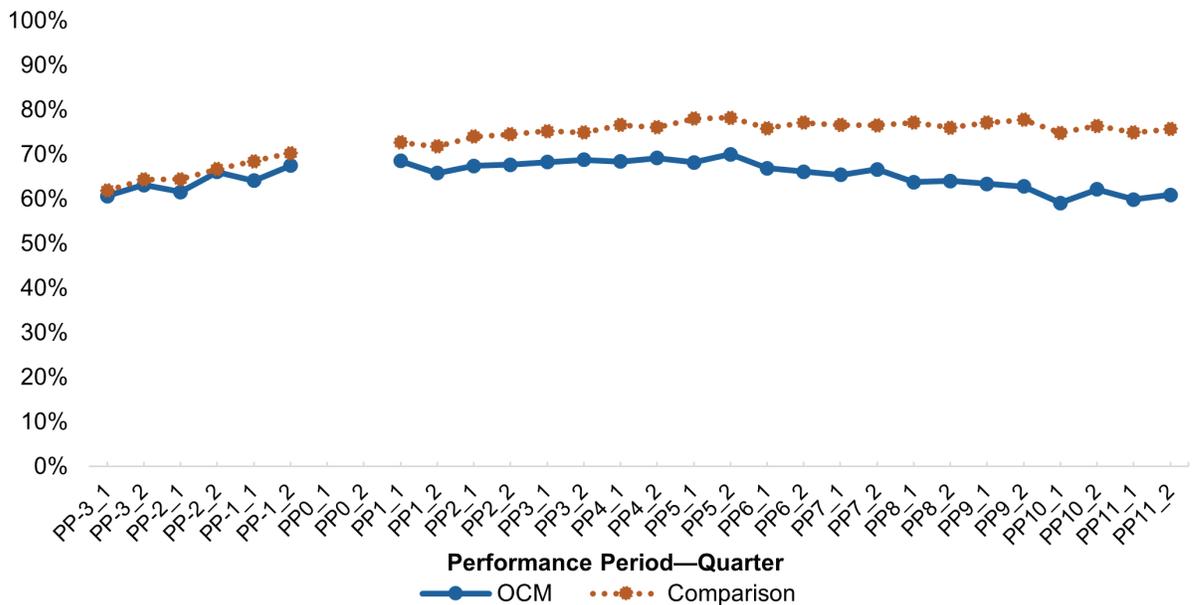
Performance Period—Quarter

OCM ••••• Comparison

Source: Medicare claims 2014–2022.
Notes: OCM quarterly trend versus comparison group trend in baseline period: -0.5% per quarter (95% confidence interval: -1.2%, 0.2%), P=0.18.

Exhibit SD-32: Unadjusted Quarterly Trends in Use of Any Denosumab among Patients with Prostate Cancer, with Divergence after OCM Implementation

Source: Medicare claims 2014–2022.
Notes: OCM quarterly trend versus comparison group trend in baseline period: 0.1% per quarter (95% confidence interval: -0.6%, 0.8%), P=0.82.

Exhibit SD-33: Unadjusted Quarterly Trends in Use of Any Denosumab among Patients with Lung Cancer by Quarter, with Divergence after OCM Implementation
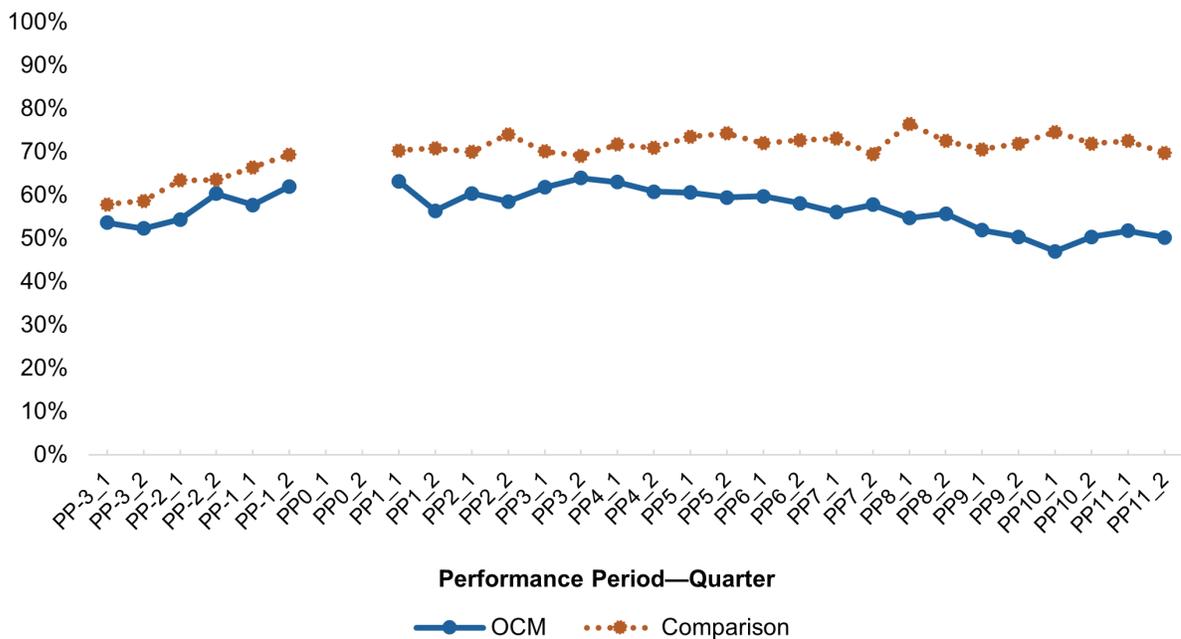
Source: Medicare claims 2014–2022.
Notes: OCM quarterly trend versus comparison group trend in baseline period: -0.5% per quarter (95% confidence interval: -1.8%, 0.8%), P=0.49.

Exhibit SD-34: Prophylactic Use of NK1 Antagonists in OCM and Comparison Episodes, Unadjusted
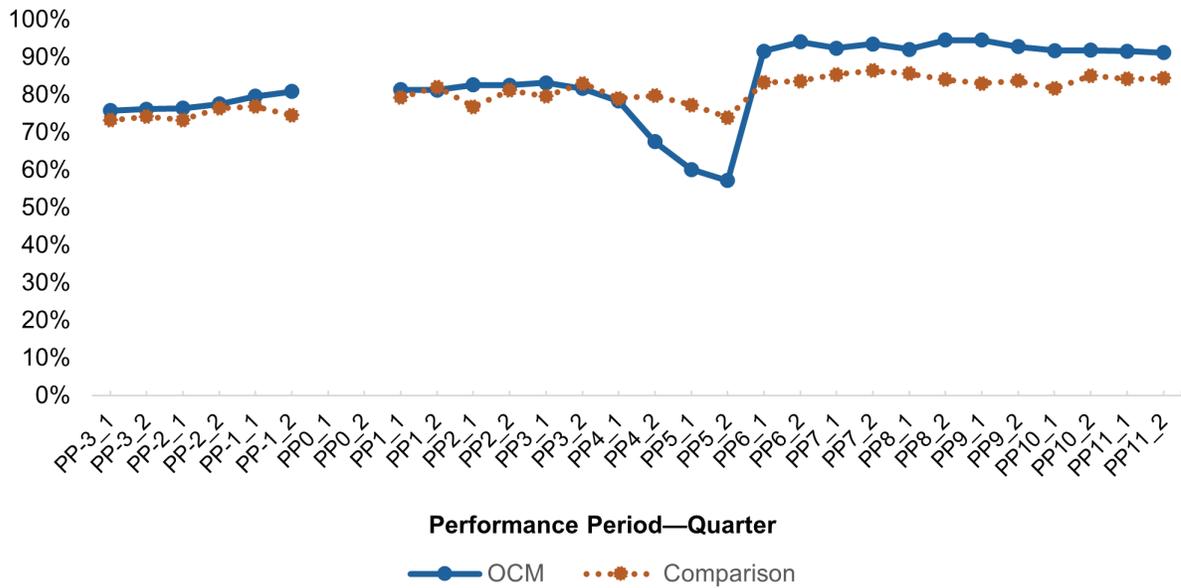
Source: Medicare claims 2014–2022.
Notes: OCM quarterly trend versus comparison group trend in baseline period: 0.9% per quarter (95% confidence interval: 0.02%, 1.9%), P=0.045.
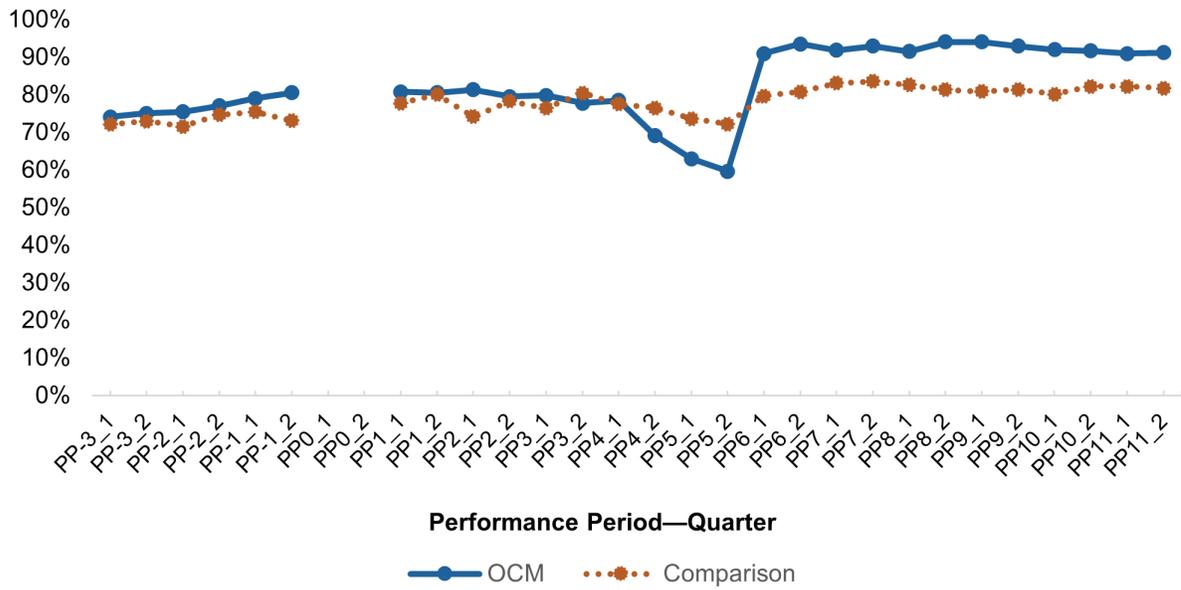
Exhibit SD-35: Prophylactic Use of Palonosetron in OCM and Comparison Episodes, Unadjusted
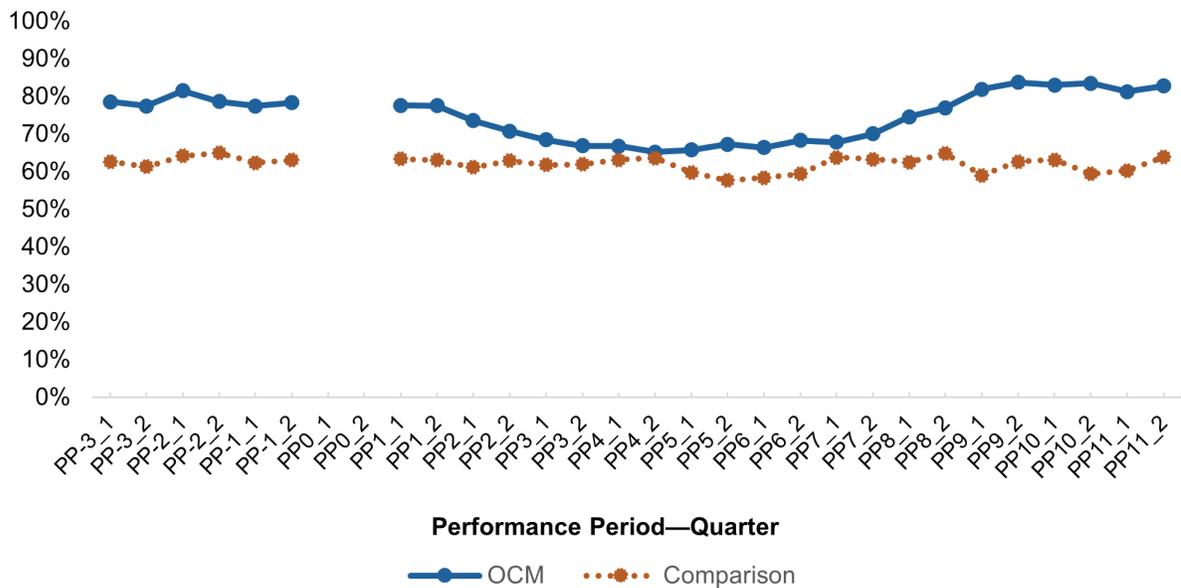
Source: Medicare claims 2014–2022.
Notes: OCM quarterly trend versus comparison group trend in baseline period: -0.1% per quarter (95% confidence interval: -1.2%, 1.0%), P=0.82.

Exhibit SD-36: Prophylactic Use of Guideline-Recommended Antiemetic Therapies in OCM and Comparison Episodes, Unadjusted

Performance Period—Quarter

OCM ●——● Comparison

Source: Medicare claims 2014–2022.
Notes: OCM quarterly trend versus comparison group trend in baseline period: 1.3% per quarter (95% confidence interval: 0.4%, 2.3%), P=0.007.

Exhibit SD-37: Higher-Value Use of White Blood Cell Growth Factors Increased over Time

Chemotherapy Regimen Fever & Neutropenia Risk Category	DID Impact PP 1–11	90% CI	DID Impact PP 1–3	90% CI	DID Impact PP 4–6	90% CI	DID Impact PP 7–9	90% CI	DID Impact PP 10-11	90% CI
Use of growth factors—breast cancer										
High-risk	1.3pp	-1.0pp, 3.7pp	0.0pp	-2.3pp, 2.4pp	2.2pp	-0.9pp, 5.2pp	1.4pp	-1.3pp, 4.1pp	0.6pp	-1.7pp, 3.0 pp
Intermediate-risk	-8.1pp	-12.7pp, -3.5pp	-7.4pp	-12.7pp, -2.1pp	-6.4pp	-12.3pp, -0.6pp	-8.2pp	-13.5pp, -2.8pp	-11.7pp	-18.0pp, -5.3pp
Low-risk	-0.2pp	-0.6pp, 0.3pp	0.0pp	-0.6pp, 0.5pp	-0.2pp	-0.7pp, 0.4pp	-0.6pp	-1.3pp, 0.0pp	0.4pp	-0.3pp, 1.0pp
Use of growth factors—colorectal cancer										
Intermediate-risk	-0.9pp	-3.0pp, 1.2pp	1.5pp	-0.7pp, 3.8pp	1.2pp	-0.9pp, 3.4pp	-2.8pp	-5.6pp, 0.0pp	-5.1pp	-8.9pp, -1.3pp
Low-risk	-1.2pp	-2.2pp, -0.1pp	0.0pp	-1.0pp, 1.0pp	-1.5pp	-2.6pp, -0.4pp	-2.0pp	-3.4pp, -0.6pp	-0.9pp	-2.6pp, 0.7pp
Use of growth factors—lung cancer										
Intermediate-risk	-2.5pp	-4.7pp, -0.2pp	-1.0pp	-3.2pp, 1.2pp	-2.2pp	-4.5pp, 0.2pp	-2.7pp	-5.5pp, -0.0pp	-4.7pp	-7.9pp, -1.4pp
Low-risk	-1.6pp	-3.7pp, 0.5pp	-0.2pp	-2.1pp, 1.6pp	-0.9pp	-3.2pp, 1.5pp	-1.9pp	-4.5pp, 0.7pp	-4.7pp	-7.4pp, -2.0pp

Shading indicates statistically significant estimates at p≤0.01, p≤0.05, and p≤0.10, indicated by dark blue, medium blue, or light blue shading.
Source: Medicare claims 2014–2022.
Notes: DID: Difference-in-differences. CI: Confidence interval. PP: Performance Period. pp: Percentage points.
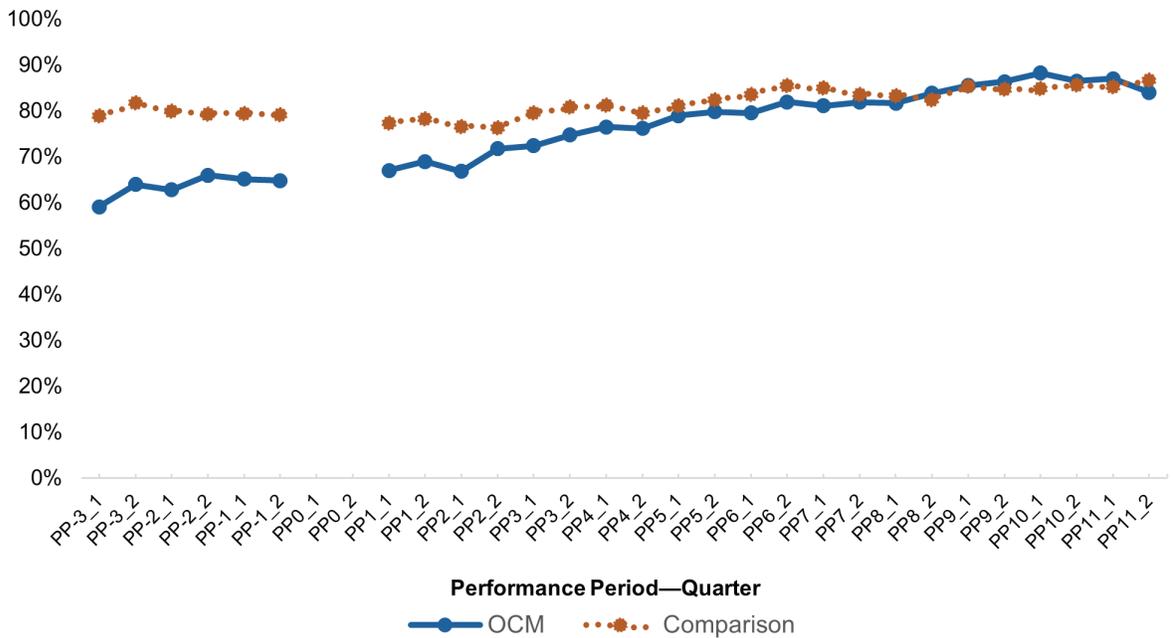
Exhibit SD-38: Any Use of Leucovorin or Levoleucovorin with Fluorouracil Chemotherapy
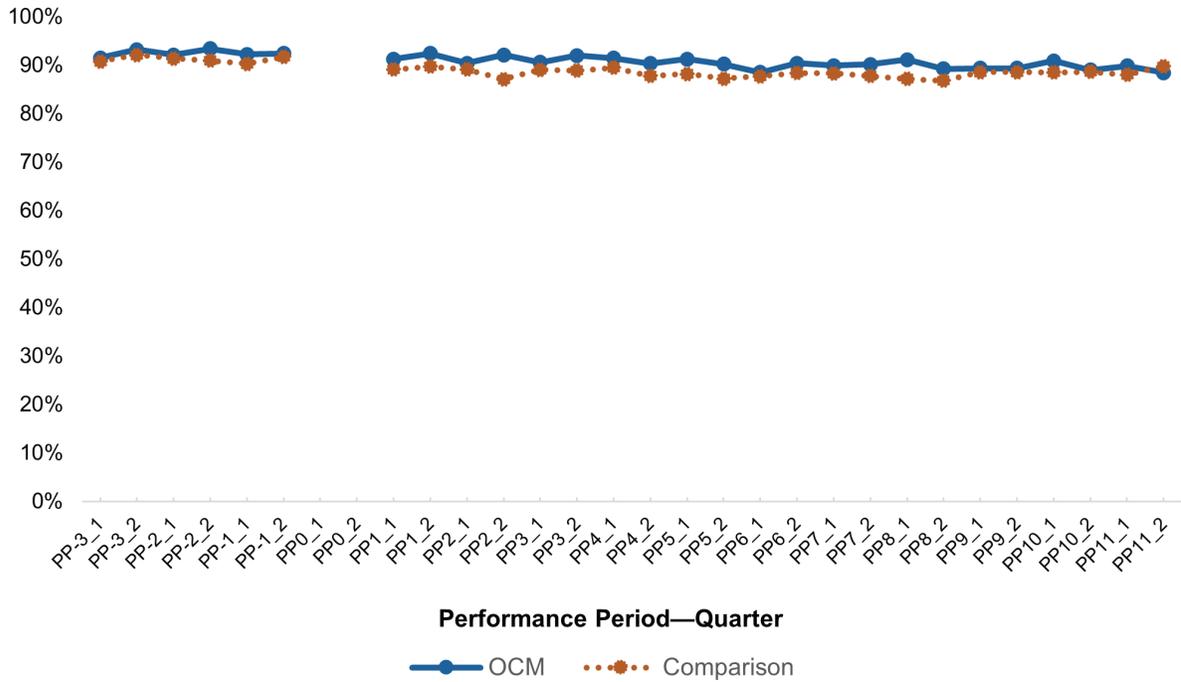
Performance Period—Quarter

OCM · · · Comparison

Source: Medicare claims 2014–2022.
Notes: OCM quarterly trend versus comparison group trend in baseline period: 0.2% per quarter (95% confidence interval: -0.3%, 0.6%), P=0.43.
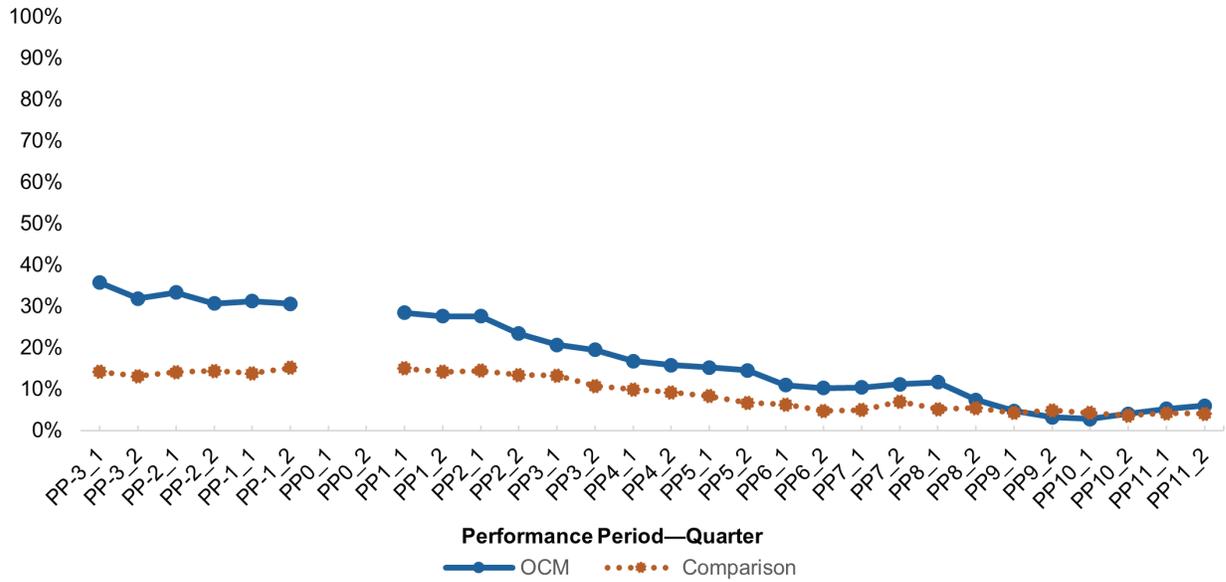
Exhibit SD-39: Use of Leucovorin with Fluorouracil Chemotherapy

Performance Period—Quarter

OCM · · · Comparison

Source: Medicare claims 2014–2022.
Notes: OCM quarterly trend versus comparison group trend in baseline period: 0.7% per quarter (95% confidence interval: -0.4%, 1.8%), P=0.21.
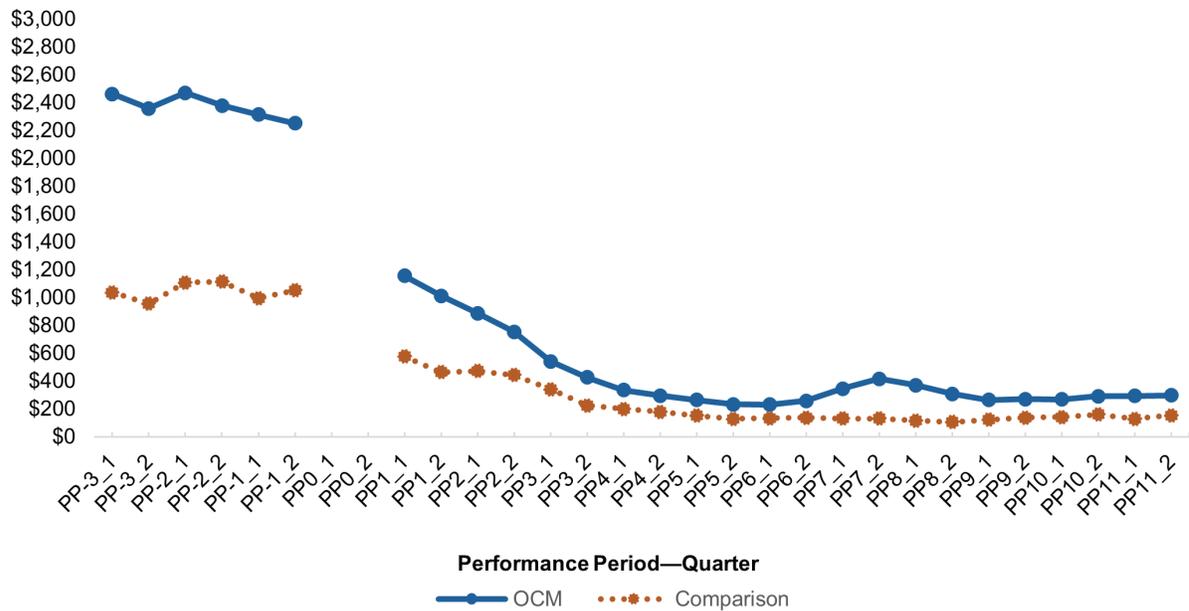
Exhibit SD-40: Use of Levoleucovorin with Fluorouracil Chemotherapy

Performance Period—Quarter

OCM ••••• Comparison

Source: Medicare claims 2014–2022.
Notes: OCM quarterly trend versus comparison group trend in baseline period: -0.6% per quarter (95% confidence interval: -1.8%, 0.5%), P=0.28.

Exhibit SD-41: Drug Payments per Episode for Leucovorins

Performance Period—Quarter

OCM ••••• Comparison

Source: Medicare claims 2014–2022.
Notes: OCM quarterly trend versus comparison group trend in baseline period: -$8.0 per quarter (95% confidence interval: -$93.3, $77.3), P=0.85.

Exhibit SD-42: OCM Impact on Use of Leucovorin and Levoleucovorin Over Time

Measure	DID Impact PP 1–11	90% CI	DID Impact PP 1–3	90% CI	DID Impact PP 4–6	90% CI	DID Impact PP 7–9	90% CI	DID Impact PP 10-11	90% CI
Leucovorin and levoleucovorin	0.6pp	-1.1pp, 2.3pp	1.0pp	-0.4pp, 2.5pp	0.5pp	-1.4pp, 2.3pp	0.7pp	-1.5pp, 3.0pp	-0.2pp	-2.7pp, 2.3pp
Leucovorin	8.7pp	3.6pp, 13.8pp	5.4pp	1.2pp, 9.6pp	8.1pp	2.4pp, 13.8pp	10.4pp	4.5pp, 16.2pp	12.2pp	3.8pp, 20.7pp
Levoleucovorin	-5.2pp	-9.0pp, -1.4pp	-4.0pp	-7.8pp, -0.2pp	-4.4pp	-8.9pp, 0.0pp	-4.9pp	-9.4pp, -0.4pp	-5.4pp	-12.6pp, 1.8pp

Shading indicates statistically significant estimates at p≤0.01, p≤0.05, and p≤0.10, indicated by dark blue, medium blue, or light blue shading.
Source: Medicare claims 2014–2022.
Notes: DID: Difference-in-differences. CI: Confidence interval. PP: Performance Period. pp: Percentage points.

Exhibit SD-43: OCM Impact on Drug Payments for Leucovorin and Levoleucovorin Over Time

Measure	DID Impact PP 1–11	90% CI	DID Impact PP 1–3	90% CI	DID Impact PP 4–6	90% CI	DID Impact PP 7–9	90% CI	DID Impact PP 10-11	90% CI
Leucovorin and levoleucovorin	-$994	-$1,575, $-414	-$803	-$1,237, -$369	-$1,086	-$1,730, -$442	-$1,026	-$1,676, -$376	-$1,103	-$1,752, -$453
Leucovorin	$31	$14, $49	$16	$3, $29	$23	$4, $41	$43	$22, $63	$57	$234, $90
Levoleucovorin	-$1,025	-$1,618, -$433	-$819	-$1,259, -$380	-$1,109	-$1,762, -$455	-$1,069	-$1,733, -$405	-$1,159	-$1,837, -$482

Shading indicates statistically significant estimates at p≤0.01, p≤0.05, and p≤0.10, indicated by dark blue, medium blue, or light blue shading.
Source: Medicare claims 2014–2022.
Notes: DID: Difference-in-differences. CI: Confidence interval. PP: Performance Period. pp: Percentage points.