

**Cost-Motivated
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Changes in
Medicare Part B:
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Under prevailing benefit designs in both public and private health insurance systems, patients may find that pivotal decisions about their health care hinge on financial, not medical, factors. In some cases, cost-sharing burdens or changes in patients' financial situations may lead patients and their health care providers to select or switch treatment options because they are affordable for the patient, not necessarily because they present the best treatment options. In other situations, patients may face the prospect of "non-medical switching" from one prescription drug or biological to another therapy. Whether by conscious design or inadvertent result, patients with significant chronic disease whose condition has been stabilized on a particular drug regimen can lose access to continued coverage for their therapy, forcing physicians to switch the patient's prescription to an alternative drug.

Sometimes, non-medical switching occurs due to changes in the degree of cost sharing obligations the patient faces. In other cases involving private payers, it is the conscious result of explicit care management interventions, such as formulary changes, insurer incentives or limitation or rejection of copay coupons. Whatever the mechanism by which non-medical switching is induced, it raises significant clinical issues for patients who find themselves being switched from a therapy known to be working toward a therapy of presently unknown efficacy.

The immediate consequence of cost-motivated treatment changes is the potential for treatment failure. In the intermediate and longer term, the consequences of remediating that treatment failure may be substantial, potentially off-setting some or all of the immediate "savings" that accrue because of the switch in therapies.

To begin exploring the impact of cost-motivated changes in treatment, the Institute for Patient Access retained The Moran Company to investigate whether the effect of such changes on Medicare spending could be demonstrated by analyses of Medicare claims data. In the present study, our analysis is limited to Medicare Part B, since data on this program are readily available and present a picture of patients with generally stable health coverage. In follow-on work, we expect to use commercial claims data to look at non-medical switching issues more broadly.

For the current study, we conducted a set of descriptive analyses performed employing historical Medicare claims data to understand the prevalence of therapeutic switching in Medicare, as well as the patterns of service and resource use downstream of switching events. Our focus in this study was a longitudinal analysis of patient use of drugs and biologicals covered by Medicare Part B, as well as Medicare spending of selected patients before and after a switching event. Our analyses focused on patients with rheumatoid arthritis, Crohn's disease, and a diagnosis of immunodeficiency.

Highlights of Our Findings:

- Switching between Part B drugs for patients in our study ranged from 8.1% to 29.4% of patients treated with Part B drugs.
- Once a patient switched between Part B therapies, they were more likely do to so again.
 - 8.1% of patients with Crohn's disease who were treated with Part B drugs switched therapies in our study period. Of the patients that switched once, 44.6% switched a second time.
 - 9.9% of patients with rheumatoid arthritis treated with Part B therapies switched once; 32.6% of these patients switched a second time.
 - 29.4% of patients with immunodeficiency who were treated with Part B drugs switched therapies during our study period. 46% of these patients who switched once switched a second time.
- For Medicare patients with rheumatoid arthritis, we found material differences in total medical spending net of spending on Part B drugs, after a switch occurred.
 - For patients with no switches and no gaps in therapy over 60 days, the increase in payments from the year preceding the first Part B service to the year after was \$3,228.36.
 - Payments for patients with no gap in therapy and one switch increased \$8,711.52.
 - Payments for patients with two switches and no gaps in therapy increased \$8,827.32.
 - A similar pattern was found in patients with a gap of at least 60 days in therapy and with two switches.
- We did not, however, have similar findings in spending differences for either the immunodeficiency or Crohn's populations.
- We further examined the impact on cost of switches among rheumatoid arthritis patients based on the costs of the Part B drugs in question.
 - We found that switches to more expensive Part B drugs had negligible effect on utilization of medical resources in the next year, with a \$238.44 increase in yearly expenses.
 - A switch to a less expensive Part B drug resulted in additional yearly medical payments of \$14,127.79 (switch to Part B drug within \$1,000 in cost), and \$6,254.16 (switch to Part B drug more than \$1,000 less expensive). The last result is counter intuitive, but any switch to a less expensive Part B drug results in greater healthcare payments in the following year.
 - When all patients are analyzed, a switch to a drug that is over \$1,000 less expensive results in \$1,608.12 additional payments over patients who switch to Part B drugs that are less expensive but within \$1,000, and \$2,889.96 than a patient who did not switch.
 - Of the patients whose first switch was to a more expensive Part B drug, 25.9% switched a second time, significantly less ($t= 2.265$, $p < .01$) than the 37.1% of patients whose first switch was to a less expensive Part B drug.
- Further analysis of rheumatoid arthritis patients showed some connection between stability of treatment and smaller annual cost increases.

- We found that patients who were on the same treatment for 271 days or more had a yearly increase in payments of just \$201.24, suggesting that the most stable patients show the smallest year over year cost increases.
- Patients on the same treatment for no more than 90 days had \$7,629.96 in additional annual payments, and those on the on the same treatment from 91 to 180 days, \$9,390.60.
- Patients with from 181 to 270 days of continuous treatment on the same Part B drug had a \$4,205.76 yearly increase.
- Claims data do not provide a rationale for changing a course of treatment, and hence cannot tell directly whether a switch is economically motivated or is due to clinical reasons.
 - When we see patients being switched to a higher cost drug, we believe it is reasonable to conclude that such switches are not economically motivated.
 - When we see a patient being switched to a materially lower-cost drug, we believe that such switches are potential candidates for consideration as “non-medical switches”, and hence have framed our analysis to look at the difference in consequences downstream between these two alternative case types.
- Our finding for rheumatoid arthritis patients is that the downstream costs of switches known not to be economically motivated are modest, while Medicare costs downstream of cases that are candidates for non-medical switching are significant.
- This finding suggests that concerns about non-medical switching, and its adverse consequences, are potentially justified for this patient population.
- Further research is required to determine whether Medicare claims data can be used to rigorously demonstrate the character and magnitude of these adverse consequences.

The balance of this paper provides more information on the methodology we used to analyze these issues, and further discussion of our findings.

Methodology

Sample Selection

We used the 2011-2014 Medicare 5% Standard Analytical Files (SAFs) in this analysis (Part B carrier, outpatient, durable medical equipment, home health, hospice, skilled nursing facility, and inpatient hospitalization). In order to identify the study patients, we first identified all diagnosed patients, and then those who were treated with Part B drugs. We then identified all patients who received Part B drugs that are indicated for one of the conditions under study, creating three populations of patients, one for rheumatoid arthritis, Crohn's disease, and immunodeficiency Part B drugs. These claims were derived from three SAFs (outpatient, durable medical equipment, and Part B carrier). Each population was then trimmed to include only patients with a diagnosis for the disease in question. Patients had to have been eligible for both Medicare Part A and B to be included in this study. All frequencies are projected to the national level.

Projected to the national level, the two-year prevalence for each condition was:

- Crohn's disease: 242,420 diagnosed patients;
- Immunodeficiency: 57,640 diagnosed patients; and
- Rheumatoid arthritis: 1,521,660 diagnosed patients.

Of those diagnosed patients:

- 22,720 patients (9.4%) diagnosed with Crohn's disease were treated with Part B drugs during the same two years.
- 10,220 patients (17.7%) diagnosed with immunodeficiency were treated with Part B drugs.
- 98,440 patients diagnosed with rheumatoid arthritis were treated with Part B drugs.

Table One presents selected demographic statistics of study patients. As can be seen in the table, not all patients diagnosed with the diseases in question were treated with Part B drugs. Our analyses focus on the subset of each group of Medicare beneficiaries that was treated with Part B drugs.

Table One: Demographic Characteristics of Study Patients

		Crohn's Disease		Immunodeficiency		Rheumatoid Arthritis	
		n	%/SD	n	%/SD	n	%/SD
Total Diagnosed with Disease 2012 - 2013		242,420	100%	57,640	100%	1,521,660	100%
Who are also treated with Part B Drugs		45,340	19%	19,240	33%	157,140	10%
Total Treated with Part B Drugs Eligible for Medicare Part A and B		22,720	9.4%	10,220	17.7%	98,440	6.5%
Total Study Population		22,720	100%	10,220		98,440	
Gender	Male	8,120	35.7%	3,200	31.3%	23,380	23.8%
	Female	14,600	64.3%	7,020	68.7%	75,060	76.2%
Average Age	Mean / Std	61.9	15.2	65.9	12.9	68.1	11.1
Age Group	Less than 65	10,100	44.5%	3,500	34.2%	26,020	26.4%
	65 to 74	7,940	34.9%	4,080	39.9%	45,740	46.5%
	75 to 84	4,160	18.3%	2,300	22.5%	22,880	23.2%
	85 +	520	2.3%	340	3.3%	3,800	3.9%
Race	White	20,200	88.9%	9,760	95.5%	84,020	85.4%
	Black	1,720	7.6%	240	2.3%	8,820	9.0%
	Other	800	3.5%	220	2.2%	5,600	5.7%
Current Reason for Medicare Enrollement is Disability		10,160	44.7%	3,640	35.6%	27,880	28.3%

Estimated Monthly Medicare Payments for Part B Drugs

To obtain average monthly Medicare payments for each drug, we used six months of Part B therapy for each Healthcare Common Procedure Coding System (HCPCS) code for each disease beginning with the first treatment for a Part B drug and ending six months after the first treatment (e.g. rheumatoid arthritis, Crohn's disease, or immunodeficiency). Average Medicare payments for a drug are calculated by multiplying the average 2014 Average Sales Price (ASP) plus 6% value by the number of units received.

- The dollars per patient per month for each HCPCS code was summed over six months. This total was divided by the total number of administrations to obtain an average monthly payment per HCPCS.
- To adjust for regimens that were weekly, monthly, and were provided less often than monthly, we calculated an average number of fills per person per month.
- The average payments per month were weighted by the average fills per patient per month to obtain an average payment per patient per month.
- We then categorized these values in order to determine if a switch was a switch to a higher cost drug (not non-medical), a switch to a lower cost drug, or in the case of rheumatoid arthritis and immunodeficiency, a switch to a drug that costs at least \$1,000 less per month.¹

Tables Two through Four present information on these estimated monthly payment amounts.

¹ There were insufficient cases in Crohn's disease and immunodeficiency to make a distinction between switches to drugs that were within \$1,000 and those that cost less than \$1,000 less.

Table Two: Estimated Average Monthly Payments for Part B Drugs to Treat Crohn's Disease based on ASP + 6 Prices

Class of Drug	Drug Name	HCPCS	Average Monthly Payment (ASP + 6)
Antibiotic	Ciprofloxacin	J0744	\$ 0.64
Corticosteroid	Methylprednisolone	J1020	\$ 1.43
Corticosteroid	Methylprednisolone	J1030	\$ 1.11
Corticosteroid	Methylprednisolone	J1040	\$ 2.17
Corticosteroid	Hydrocortisone	J1720	\$ 3.39
Corticosteroid	Methylprednisolone	J2920	\$ 1.03
Corticosteroid	Methylprednisolone	J2930	\$ 1.04
Corticosteroid	Prednisone	J7506	\$ 0.54
Biologic	Natalizumab	J2323	\$ 6,503.63
Immunomodulator	Tacrolimus	J7507	\$ 333.10

Humira (J0135) is covered under Medicare Part-D

Table Three: Estimated Average Monthly Payments for Part B Drugs to Treat Immunodeficiency based on ASP + 6 Prices

Class of Drug	Drug Name	HCPCS	Average Monthly Payment (ASP + 6)
IVIg	Flebogamma injection	J1572	\$ 2,668.01
IVIg	Gammalex injection	J1557	\$ 1,993.17
IVIg	Immune globulin, powder	J1566	\$ 1,403.18
IVIg	Inj IVIG privigen 500 mg	J1459	\$ 1,767.89
IVIg	Octagam injection	J1568	\$ 1,781.79
SCIg	Hizentra injection	J1559	\$ 3,083.59
SCIg*	Gamma globulin > 10 CC inj	J1561	\$ 2,442.81
SCIg*	Gammagard liquid injection	J1569	\$ 3,078.63
* Can be either IVIg or SCIg			

Table Four: Estimated Average Monthly Payments for Part B Drugs to Treat Rheumatoid Arthritis based on ASP + 6 Prices

Class of Drug	Drug Name	HCPCS	Average Monthly Payment (ASP + 6)
DMARD	Azathioprine oral 50mg	J7500	\$ 2.96
DMARD	Cyclosporine oral 100 mg	J7502	\$ 83.37
DMARD	Methotrexate oral 2.5 MG	J8610	\$ 0.68
DMARD	Methotrexate Sodium 5 mg	J9250	\$ 1.57
DMARD	Methotrexate Sodium 50 mg	J9260	\$ 5.55
DMARD	Mycophenolic acid	J7518	\$ 664.06
Biologic	Abatacept injection	J0129	\$ 1,967.45
Biologic	Adalimumab injection	J0135	\$ 781.78
Biologic	Certolizumab Pegol Inj 1mg	J0717	\$ 1,184.82
Biologic	Certolizumab Pegol Inj 1mg	J0718*	\$ 1,723.08
Biologic	Golimumab for iv use 1mg	J1602	\$ 1,704.72
Biologic	Infliximab injection	J1745	\$ 2,173.53
Biologic	Rituximab injection	J9310	\$ 2,703.37
Biologic	Tocilizumab injection	J3262	\$ 1,903.94

DMARD is an acronym for disease-modifying anti-rheumatic agent.

*J0718 is a physician injection of Certolizumab Pegol. No ASP value was available so Medicare payments from the SAFS were substituted.

First Diagnosis, Drug Therapy, and Switch

The date of diagnosis for the disease in question is the start of the evaluation period for particular patients. The overall evaluation period of the study was from January 1, 2012 – December 31, 2013. We examined claims for switching events during this period and then compared total payments before and after the event dates—as defined below. For each of the disease states, we have limited our categories of events to those with at least 11 patients.

We compared costs before and after particular events:

Rheumatoid arthritis:

- date of first prescription for a Part B drug;
- date of a switch to a Part B drug that is at more than \$1,000 less expensive;
- date of a switch to a Part B drug that is less expensive but within \$1,000 in cost; and
- date of a switch to any Part B drug.

Immunodeficiency:

- date of first prescription for a Part B drug,
- date of a switch to a Part B drug that is less expensive; and
- date of a switch to any Part B drug.

Crohn's disease:

- date of first prescription for a Part B drug; and
- date of a switch to any Part B drug.

Gaps in Part B Therapy

If there was more than a 60-day break between two fills for Part B drugs used to treat a disease, we considered this as a gap in therapy between Part B drugs.² Any patient with at least one gap in therapy is defined as having a gap in therapy. The time between the last fill in the study period and the end of the period does not count as gap in therapy.

Duration of Index Therapy

In order to assess the stability of the patients' drug treatment, we measured the duration of the Part B therapy initially received for the disease. Because we do not have a variable that reports days of therapy, we subtracted the date of the first treatment with a Part B drug from the last date of treatment of the same drug within a one year period. We then classified that variable into four categories, 1 to 90 days, 91 to 180 days, 181 to 270 days, and 270 to 365 days.

Total Non-Part B Drug Payments per Patient per Month

For each of the three diseases, we evaluated total payments one year before and after the event date. For patients that did not switch therapies, the event date was the index date, for those that switched it was the first switch date. All payments from the seven payment systems in the year before the event date were summed to calculate the total payments prior to the event date. All costs one year after the event date or to the date of death were summed to calculate the total payments after the event date. The prior event payments were divided by 12, and post event payments were then divided by the number of months a patient survived in the post period to create monthly spending per capita. The yearly payments prior to the event (first fill, etc.) was subtracted from the yearly payments after the first event to produce additional payments or savings per capita post event.

² Our study does not include Part D data, so we're unable to determine whether any gaps in Part B therapy represented switches to Part D drugs.

Discussion of Results

Level of Switching

Table Five below presents overall information about switching by Medicare patients in our study populations. As shown in that table, patients with immunodeficiency treated with Part B drugs showed the highest level of switching with 29.4% of patients having at least one switch—and 46% of those patients switching a second time.

Table Five: Switches Between Part B Drugs by Disease State

	Total Patients	Total Switches	Number of Patients who Switched One or more times	Number of Patients who Switched 2+ Times	Percentage of Patients with at Least One Switch	Percentage of Patients with Switches Who Switched Again	Total Switches to lower cost Part B Drugs	Total Switches to Part B Drug with an Average Price of at least \$1,000 Less
Crohns Disease	22,720	3,800	1,840	820	8.1%	44.6%	*	*
Immunodeficiency	10,220	5,400	3,000	1,380	29.4%	46.0%	2,060	980
Rheumatoid Arthritis	98,440	22,940	9,740	3,180	9.9%	32.6%	5,880	1,820

Of the patients treated with Part B drugs for Crohn’s disease, 8.1% switched to a second Part B drug treatment at least once. For rheumatoid arthritis patients, 9.9% switched to a second Part B drug treatment—and 32.6% of those patients switched a second time.

Spending Comparisons for Rheumatoid Arthritis Patients

Once we identified patients where switches had occurred, we examined spending before and after these switches to explore the potential effect of switching on Medicare spending. As noted above, we did not observe a pattern for patients with immunodeficiency and Crohn’s disease. For rheumatoid arthritis patients, we measured the per member per month spending on medical services, net of Part B drugs, for one year prior to the first switch or in the case of patients who did not switch, the first receipt of a Part B drug to treat the disease in question, and one year after that event.

Table Six: Total Payments for RA Patients for Healthcare Services Reported by Number of Switches during Post Period and No Gaps in Therapy of more than 60 days

Switches in Part-B Therapy	Gap of more than 60 Days in Part-B Therapy	Frequency	Average Monthly Payments Per Patient for One Year Before Event	Average Monthly Payments Per Patient for One Year After Event	Difference between Monthly Per Patient Payments Before & After Event	Difference between Yearly Per Patient Payments Before & After Event
None	No	52,160	\$1,233.57	\$1,502.60	\$269.03	\$3,228.36
One	No	2,320	\$1,110.47	\$1,836.43	\$725.96	\$8,711.52
Two	No	700	\$2,227.63	\$2,963.24	\$735.61	\$8,827.32
None	Yes	36,540	\$1,215.19	\$1,378.10	\$162.91	\$1,954.92
One	Yes	4,240	\$1,365.28	\$1,488.59	\$123.31	\$1,479.72
Two	Yes	820	\$1,050.44	\$1,741.30	\$690.86	\$8,290.32

The event is defined as either the first treatment with a Part B drug, or the first switch from a Part B drug to another. Payments exclude all those for Part-B drugs used to treat RA.

As shown in Table Six, for patients with no switches and no gaps in therapy over 60 days, the increase in payments from the year preceding the first Part B service to the year after was \$3,228.36. The increase in payments for patients with no gap in therapy and one switch was \$8,711.52, and for patients with two switches and no gaps in therapy, \$8,827.32. A similar pattern was found in patients with a gap of at least 60 days in therapy and with two switches.

We further classified a Part B drug to Part B drug switch as either:

- a switch to a more expensive drug;
- a switch to a less expensive drug, but one with a cost within \$1,000 of the original drug; or
- a switch to a less expensive drug with a cost of more than \$1,000 less than the original drug.

In order to have comparable populations, we limited this analysis to patients without gaps of more than 60 days. Table Seven presents these results.

Table Seven: Payments for RA Patients for Healthcare Services Reported by Type of First Switch for Patients with No Gaps in Therapy over 60 Days.

Type of Switch	Frequency	Pre Event Average Monthly Payments	Post Event Average Monthly Payments	Difference between Monthly Per Patient Post and Pre Event Payments	Difference between Yearly Per Patient Post and Pre Event Payments
None	52,160	\$1,233.57	\$1,502.60	\$269.03	\$3,228.36
Switch to a more expensive Part B Drug	780	\$1,422.37	\$1,442.24	\$19.87	\$238.44
Switch to Part B Drug that is within \$1,000 in price	1,320	\$898.77	\$2,076.09	\$1,177.32	\$14,127.79
Switch to Part B Drug that is more than \$1,000 less expensive	220	\$1,274.83	\$1,796.01	\$521.18	\$6,254.16

The event is defined as either the first treatment with a Part B drug, or the first switch from a Part B drug to another. Payments exclude all those for Part-B drugs used to treat RA.

As shown in the table, we found that switches to more expensive Part B drugs had negligible effect on utilization of medical resources in the next year, with a \$238.44 increase in yearly expenses. Patients with a switch to a less expensive Part B drug show additional Medicare

payments ranging from \$6,254 to \$14,127 depending on the level of difference between the costs of the drugs in question.³

When we expanded our analysis to all rheumatoid arthritis patients, and classified costs according to the drugs involved in the switch, similar patterns were found as for the sub-sample of those patients with no gaps in therapy.

As shown in Table Eight, the difference for the year to year change in Medicare payments was greatest for the category of patients who switched to a drug that was over \$1,000 less expensive, with an increase in payments of \$5,594. The patients who switched to more expensive drugs or to drugs that were less expensive, but within \$1,000 in cost, had year to year payment increases of \$3,877 and \$3,986, respectively. Overall, the patients with no switches had a year to year increase in payments of \$2,074, \$1,608 less than the year to year increase for patients who switched to drugs that were over \$1,000 less expensive on a monthly basis.

Table Eight: Payments for RA Patients for Healthcare Services Before and After First Drug or First Switch for Therapy Reported by Type of First Switch

Type of Switch	Frequency	Pre Event Average Monthly Payments	Post Event Average Monthly Payments	Difference between Monthly Per Patient Post and Pre Event Payments	Difference between Yearly Per Patient Post and Pre Event Payments
No Switch	88,700	\$ 1,226.00	\$ 1,451.31	\$ 225.31	\$2,703.72
Switch to Part B Drug that more expensive	3,860	\$ 1,511.13	\$ 1,834.21	\$ 323.08	\$3,876.96
Switch to Part B Drug that is within \$1,000 in price	1,820	\$ 1,675.64	\$ 2,007.77	\$ 332.13	\$3,985.56
Switch to Part B Drug that is more than \$1,000 less expensive	4,060	\$ 1,073.55	\$ 1,539.69	\$ 466.14	\$5,593.68

The event is defined as either the first treatment with a Part B drug, or the first switch from a Part B drug to another. Payments exclude all those for Part-B drugs used to treat RA.

To investigate the relationship between gaps in therapy on the one hand, and the number of switches from Part B drug to Part B drug on the other, we selected only patients with two or more switches during the year, and reported year to year differences in payments for patients with and without gaps in therapy. As shown in Table Nine, we found that patients with two or more switches who also had gaps in therapy of more than 60 days had year to year payment increases of \$8,316, while patients with two or more switches but no gaps in therapy, a pattern that suggests a more stable therapeutic regimen, had year to year payments increases of \$4,194.

³ We have not identified the reason that the level of cost difference involved influences the materiality of these results.

Table Nine: Payments for RA Patients for Healthcare Services Reported by Gaps in Therapy for Patients with Two or More Switches

	Frequency	Pre Event Average Monthly Payments	Post Event Average Monthly Payments	Difference between Monthly Per Patient Post and Pre Event Payments	Difference between Yearly Per Patient Post and Pre Event Payments
Gap In Therapy?					
No Gap in Therapy	1,920	\$1,587.74	\$1,933.51	\$345.77	\$4,149.24
Gap of 60 Days or More in Therapy	1,260	\$1,450.53	\$2,143.54	\$693.01	\$8,316.12
All Patients with 2 or more Switches	3,180	\$1,533.37	\$2,016.37	\$483.00	\$5,796.00

The event is defined as either the first treatment with a Part B drug, or the first switch from a Part B drug to another. Payments exclude all those for Part-B drugs used to treat RA.

To assess whether duration of continuous therapy on the same Part B drug affected medical payments, we calculated the number of days between the last treatment for the Part B drug and the first treatment for the same Part B drug.

As shown in Table Ten, we found that patients who were on the same treatment for 271 days or more had a yearly increase of payments of just \$201.24, suggesting that the most stable patients show the smallest year over year cost increases. Patients on the same treatment for no more than 90 days had \$7,629.96 in additional annual payments, and those on the on the same treatment from 91 to 180 days, \$9,390.60. Patients who experienced 181 to 270 days of continuous treatment on the same Part B drug had a \$4,205.76 yearly increase.

Table Ten: Payments for RA Patients for Healthcare Services Before and After First Drug or First Switch for Therapy Reported by Duration of Therapy on First Part B Drug Used to Treat RA

Duration of Index Therapy	Frequency	Average Monthly Payments Per Patient for One Year Before Event	Average Monthly Payments Per Patient for One Year After Event	Difference between Monthly Per Patient Payments Before & After Event	Difference between Yearly Per Patient Payments Before & After Event
Up to 90 Days	21,480	\$ 1,593.83	\$ 2,229.66	\$ 635.83	\$ 7,629.96
From 91 to 180 Days	7,040	\$ 1,477.37	\$ 2,259.92	\$ 782.55	\$ 9,390.60
From 181 to 270 Days	10,160	\$ 1,327.10	\$ 1,677.58	\$ 350.48	\$ 4,205.76
From 271 to 365 Days	59,760	\$ 1,068.73	\$ 1,085.50	\$ 16.77	\$ 201.24

The event is defined as either the first treatment with a Part B drug, or the first switch from a Part B drug to another. Payments exclude all those for Part-B drugs used to treat RA.

Conclusion

Our analyses for this project focused on what can be learned about the consequences of economically motivated switching between products for Medicare beneficiaries treated with Part B drugs. Our research found evidence in all three of the conditions studied that patients who are switched between Part B therapies once are more likely to switch again. In addition, for rheumatoid arthritis patients in particular, we found that patients claims data suggest are stable on a therapy tend to have lower costs than patients who are switched, have gaps in therapy or have therapy of shorter duration. In addition, we found evidence that suggests that non-medical switching for these patients may be occurring—and that switching of this type appears to be associated with higher Medicare costs.

It is important to note that in claims data—including Medicare claims—we have no direct evidence regarding the rationale for changing a course of treatment, and hence cannot tell directly whether a switch is economically motivated or is due to clinical reasons. When we see patients being switched to a higher cost drug, we believe it is reasonable to conclude that such switches are not economically motivated. When we see a patient being switched to a materially lower-cost drug, we believe that such switches are potential candidates for consideration as “non-medical switches”, and hence have framed our analysis to look at the difference in consequences downstream between these two alternative case types.

In the case of rheumatoid arthritis patients, our finding is that the downstream costs of switches known not to be economically motivated are modest, while Medicare costs downstream of cases that are candidates for non-medical switching are significant. This suggests that concerns about non-medical switching, and its adverse consequences, are potentially justified for this patient population. Further research is required to determine whether Medicare claims data can be used to rigorously demonstrate the character and magnitude of these adverse consequences.