Coverage of Atypical Antipsychotics Among Medicare Drug Plans in the State of Washington: Changes Between 2007 and 2008

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Objective: To examine changes in the cost and coverage of atypical antipsychotics among Medicare prescription drug plans and Medicare advantage plans in the state of Washington.

Method: Coverage and cost data were obtained in February 2007 and 2008 from the Medicare Prescription Drug Plan Finder, an online database administered by the Centers for Medicare and Medicaid Services. Premiums, deductibles, out-of-pocket costs, and coverage limits were compared for prescription drug plans (PDPs)

and for Medicare advantage plans (MAPs).

Results: The number of PDPs in the state of Washington fell slightly from 57 in 2007 to 53 in 2008, while the number of MAPs rose from 43 in 2007 to 52 in 2008. In 2008, the mean monthly drug premium increased by 15% among PDPs and by 20% among MAPs. Mean copayments for the majority of atypical antipsychotics increased from 2007 to 2008. More plans added quantity limits for atypical antipsychotics, but use of other pharmacy management tools varied by type of plan and antipsychotic.

Conclusions: PDP and MAP participants in the state of Washington paid more for atypical antipsychotics in 2008 than they did in 2007. Affordability of atypical antipsychotics continues to be a concern, particularly for beneficiaries who are not eligible for Medicaid or the low-income subsidy.

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W ith the implementation of the prescription drug benefit in 2006, the Medicare program became the largest payer for prescription medications in the United States.¹ However, the program did not provide direct insurance coverage for prescriptions, but allowed Medicare beneficiaries to voluntarily enroll in private managed care programs called Medicare advantage plans (MAPs) or in stand-alone private prescription drug plans (PDPs). The Centers for Medicare and Medicaid Services (CMS) set broad regulatory standards, but allowed considerable latitude in drug coverage and pricing among these plans.²

One of the primary concerns during implementation of Medicare Part D was that some plans might refuse to cover costly but essential medications for chronic conditions, including mental illness. This concern led the CMS to establish special formulary guidelines requiring all approved Medicare prescription drug plans to cover "all or substantially all" antipsychotic medications.^{3,4} However, there was little federal guidance on how this coverage should be provided, allowing considerable latitude in copays, formulary restrictions, and other coverage limits.^{3,4} We assessed the variation in coverage in 2007 and published our study in a 2008 issue of The Primary Care Companion to the Journal of Clinical Psychiatry.⁵ However, there is some evidence that the plans are substantially changing their coverage and pricing strategies since the first year of Medicare Part D.6,7 Determining whether these changes affected patient access to antipsychotics becomes a crucial issue.

Antipsychotic medications are critical in the management of schizophrenia. When prescribed and taken correctly, these medications can effectively control symptoms of schizophrenia, reduce rates of hospitalization, and decrease other health costs.^{8–10} Unfortunately, medication nonadherence remains a serious clinical problem for many people with schizophrenia.^{10–12} Along with side effects,^{13–15} high out-of-pocket medication costs are one of the main reasons for medication nonadherence.^{16–18} Adherence can therefore be influenced by whether specific prescription medications are covered in a given insurance plan and by the way the costs of these medications are shared with the patient.

During the 1990s, several atypical antipsychotics became available for the treatment of schizophrenia. These atypical antipsychotics have similar clinical efficacy to the older, typical antipsychotics but are associated with a lower risk of extrapyramidal side effects.^{8,9,19} Overall prescription rates for atypical antipsychotics now eclipse those for typical antipsychotics.²⁰ However,

CLINICAL POINTS

- Medicare beneficiaries with schizophrenia in the state of Washington face rising out-of-pocket costs for atypical antipsychotics and concomitant risk of cost-related nonadherence, which may cause exacerbation of psychiatric symptoms.
- Although atypical antipsychotics may be similar in effect to placebo, there are often significant differences in effectiveness, which makes matching the medication to the patient critical in terms of response and treatment adherence. These agents are not interchangeable on the individual patient level. Changing formulary coverage, copay requirements, and premiums make it difficult for patients and physicians to select an appropriate and affordable insurance plan.
- Ongoing surveillance of drug coverage in the Medicare drug plans is a research and policy priority, especially for beneficiaries with schizophrenia who require a complex and costly drug regimen to manage their condition.

many atypical antipsychotics are still under patent protection and therefore cost much more than generic typical antipsychotics.²¹ Medicare drug plans can use various cost-sharing structures and pharmacy management tools (eg, step therapy, prior authorization, or quantity limits) to contain program costs.^{4,22,23} Patients who are responsible for a portion of these costs may have difficulty paying for and thus adhering to their medication regimens.¹⁶⁻¹⁸

The national Medicare drug plan market is rapidly changing, and patient and program costs are rising.^{6,7} If medication costs continue to rise, so will the risk of cost-related nonadherence,¹⁶⁻¹⁸ which in turn may compromise optimal patient outcomes. For this reason, it is important to track changes in coverage for atypical antipsychotics. This analysis is a longitudinal update of a 2007 study of coverage of atypical antipsychotics in the state of Washington.⁵ The objective of this study is to assess recent changes in coverage of atypical antipsychotics in Medicare drug plans.

METHOD

Coverage and cost data were obtained from the CMS Web site in February 2007 and February 2008 using the Medicare Prescription Drug Plan Finder section.²⁴ Each county in the state of Washington has the same number of stand-alone PDPs. By contrast, MAPs may not be available statewide. Washington MAPs were identified by entering multiple representative Washington zip codes into the plan finder, then eliminating duplicate plans.

The CMS Web site provides general information about each plan, including the company name, monthly premium, annual deductible, drug coverage information (tier), any pharmacy management tools used (eg, prior authorization, quantity limits, and step therapy), and copayments in the initial coverage level, gap coverage level (full costs of drugs), and catastrophic coverage level. All plan data are self-reported by the insurance companies.

In this study, we consulted with 3 psychiatrists practicing in Spokane, Washington, to identify a typical daily dosage for each atypical antipsychotic. The determined daily dosages used in the analysis were aripiprazole, 20 mg; clozapine, 600 mg; risperidone, 4 mg; ziprasidone, 160 mg; quetiapine, 600 mg; and olanzapine, 20 mg. All of these dosages are within the dose range that the prescription information available from the Drug Facts and Comparisons manual²⁵ has indicated as acceptable for adults with schizophrenia. These dosages are intended to generate results that will be pertinent to the majority of those individuals using each drug. We compared the monthly premium, annual deductible, and copayments for each atypical antipsychotic in 2007 and in 2008 and compared these to the general rate of inflation for prescribed medicines in the same time period.

RESULTS

The number of stand-alone PDPs offered in the state of Washington dropped slightly from 57 in 2007 to 53 in 2008; the number of MAPs grew from 43 in 2007 to 52 in 2008.

Mean monthly drug premiums increased by 15% among PDPs and by 20% among MAPs from 2007 to 2008 (Table 1), while the unadjusted percent change of the Consumer Price Index for prescriptions was only 3.5% in the same period.²⁶ There was no substantial change in the annual deductibles among PDPs and MAPs.

Table 2 shows that the cost sharing for all atypical antipsychotics among PDPs and MAPs varied widely in 2007 and 2008. Generally, copayments for atypical antipsychotics rose from 2007 to 2008, especially during the initial coverage (11%) and coverage gap periods (2%). During the initial coverage period, copayments for aripiprazole and clozapine had the highest growth rate (31% and 52%, respectively) among the PDPs, and aripiprazole had the highest copay increase (11%) among

Table 1. Change in Premiums and Deductibles for
Prescription Drug Plans (PDPs) and Medicare Advantage
Plans (MAPs) in the State of Washington Between 2007 and
2008 ^{a,b,c}

Variable	PDP	MAP
Mean monthly drug premium, US \$		
2007	37	20
2008	43	24
Change in mean monthly drug premium, %	+15	+20
Mean monthly health premium, US \$		
2007	NA	53
2008	NA	39
Change in mean monthly health premium, %	NA	-25
Change in annual drug deductibles, %		
Change of plans with no annual deductible	-1	-1
Change of plans with less than standard deductible	-1	+2
Change of plans with standard deductible	+3	-1

^aData from the Centers for Medicare and Medicaid Services collected in February 2007 and 2008⁻²4

^bPDPs = 57 in 2007 and 53 in 2008; MAPs = 43 in 2007 and 52 in 2008.

^cBoth PDPs and MAPs require a monthly drug premium and an annual drug deductible. MAPs also require a monthly health insurance premium.

Symbol: NA = not applicable.

MAPs. In both plan types, ziprasidone had the highest mean copay increase (PDPs: 12% and MAPs: 14%) in the coverage gap, while copays for clozapine (which is the only drug without patent protection in both years) declined (PDPs: -5% and MAPs: -8%).

Table 3 shows the use of tier restriction and pharmacy management tools among PDPs and MAPs in 2007 and 2008. In both years, most atypical antipsychotics were categorized in tier 2 or tier 3. However, in 2008, some PDPs started to categorize atypical antipsychotics with patent protection into tier 4, the specialty tier. Quantity limits continued to be the most common tool used for all atypical antipsychotics, and use of this tool increased from 2007 to 2008. All 6 drugs were less likely to be subject to prior authorization restrictions in 2008 than in 2007. Use of step therapy was uncommon in 2007 and 2008.

DISCUSSION

Medicare beneficiaries in the state of Washington have faced substantial growth in monthly drug premiums among PDPs and MAPs from 2007 to 2008. Some PDPs changed the cost-sharing structure and used higher tier restriction to make beneficiaries responsible for a higher proportion of out-of-pocket costs. If beneficiaries have fixed incomes, these increasing premiums and out-ofpocket costs may decrease medication adherence.¹⁶⁻¹⁸ This nonadherence may cause psychiatric symptom exacerbation, leading to more emergency room visits, greater rates of hospitalization, and higher hospital costs.¹⁰⁻¹²

Financial pressures may also force beneficiaries to switch to less expensive drugs.^{17,27} However, since atyp-

ical antipsychotics have limited interchangeability,^{4,28,29} physicians may find it challenging to select alternative medication.²² A better alternative is to switch plans, but changes in cost and coverage require regular reevaluation and make it difficult for beneficiaries to choose an appropriate plan.

This study was limited by inconsistent plan information on the CMS Web site, including a new reporting style for use of tier restrictions. For example, in 2007, every plan had its own tier coverage levels. By 2008, all plans used the same 3- or 4-tier designation, but placement of atypical antipsychotics within these tiers still varied by plan and drug. Some plans included only nonpreferred brand name drugs in tier 3, while others included both nonpreferred brand name drugs and nonpreferred generic drugs in tier 3.

Confusing definitions of coverage restrictions are an issue for providers and researchers and are especially challenging and frustrating for consumers who may have cognitive impairments associated with their condition. Insurance plans entered and left the Washington market during the study period, with some insurers consolidating plans and others offering new plan variations.

In brief, despite promises of cost containment due to competition,³⁰⁻³² Medicare beneficiaries in the state of Washington face rising drug costs and concomitant risk of cost-related nonadherence. Particularly for serious and persistent conditions like schizophrenia, our society has an economic as well as moral responsibility to make sure that patients get the necessary medicines and take them as prescribed. Ongoing surveillance of the Medicare drug plans should remain a high health policy priority, and future studies should investigate these issues in terms of coverage impact on particular subgroups within the Medicare population (such as those beneficiaries with dual eligibility and those who qualify for lowincome subsidies) and the population of people with schizophrenia (such as those who are institutionalized and those who are community dwelling).

Drug names: aripiprazole (Abilify), clozapine (FazaClo, Clozaril, and others), olanzapine (Zyprexa and others), quetiapine (Seroquel), risperidone (Risperdal and others), ziprasidone (Geodon). Author affiliations: Department of Health Policy and Administration (Dr Kennedy and Ms Wu) and Department of Pharmacotherapy (Dr Cohen), College of Pharmacy, Washington State University, Spokane; Washington Institute for Mental Illness Research and Training, Spokane (Dr Cohen); and Division of Pharmaceutical Outcomes and Policy, UNC Eshelman School of Pharmacy, University of North Carolina at Chapel Hill (Ms Wang). Potential conflicts of interest: Dr Cohen has served as a consultant to Eli Lilly, Wyeth, and AstraZeneca; has received honoraria from Eli Lilly and AstraZeneca; and has served on the speakers or advisory boards of Eli Lilly, AstraZeneca, and Forest. Dr Kennedy and Mss Wu and Wang report no financial affiliations relevant to the subject of this article.

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Cost	Plan	Aripip	razole	Ziprasi	idone	Risper	idone	Quetia	apine	Olanz	apine	Cloza	pine
Structure	Type	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
Initial coverage level, US \$ ^d													
Mean (SD)	PDP	71 (62)	93 (79)	59 (47)	64 (30)	44 (41)	47 (30)	59 (72)	58 (48)	82 (103)	79 (75)	29 (39)	44 (49)
	MAP	50 (24)	56 (49)	48 (16)	45 (22)	33 (14)	36 (17)	37 (25)	40 (31)	49 (34)	53 (65)	21 (15)	20 (31)
Median	PDP	50	70	50	65	30	35	30	35	32	41	10	25
	MAP	40	40	40	38	29	30	29	30	40	35	5	5
Range	PDP	20 - 371	22 - 370	20 - 334	20 - 131	18 - 300	15 - 144	18-491	15 - 180	18 - 657	15 - 391	0-127	0-165
	MAP	15 - 125	15 - 262	15 - 85	15 - 131	15 - 76	15 - 112	15 - 124	15 - 180	15 - 164	15 - 326	0-127	0-170
Coverage gap: full costs, US \$e													
Mean (SD)	PDP	490 (11)	488 (16)	331 (10)	369 (20)	299 (3)	316(11)	485 (17)	509 (20)	649 (19)	653 (17)	471 (30)	449 (58)
	MAP	493 (13)	530 (38)	333 (4)	379 (25)	298 (4)	323 (22)	489 (7)	522 (35)	648 (16)	682 (59)	480 (18)	440 (62)
Median	PDP	494	494	334	375	299	320	490	515	657	657	485	469
	MAP	494	523	334	375	299	320	490	515	650	673	482	467
Range	PDP	452–500	413 - 500	298–338	272–380	292-303	266–324	413-497	412-521	595-665	588-694	401 - 506	266–524
	MAP	448–541	487–708	329–344	366–503	295–311	312-429	484–514	503-691	595-657	588–934	408-506	266–491
Catastrophic coverage, US \$ ^f													
Mean (SD)	PDP	25 (1)	24 (1)	17 (1)	18 (1)	15(1)	16(1)	24 (2)	25(1)	33 (2)	33 (1)	23 (4)	22 (3)
	MAP	24 (3)	25 (5)	16(1)	18 (3)	15(1)	16(2)	24 (3)	25 (5)	31 (4)	31 (7)	24 (0)	21 (5)
Median	PDP	25	25	17	19	15	16	25	26	33	33	24	23
	MAP	24	26	17	19	15	16	24	26	32	33	24	23
Range	PDP	23 - 35	21 - 25	15 - 23	14 - 19	15 - 21	13 - 16	21 - 34	21 - 26	30–46	29–35	0-25	13 - 26
	MAP	10 - 25	0–27	10 - 17	0-19	10 - 15	0-16	10–25	0-26	10–33	0-36	24–25	0-25
^a Data from the Centers for Med	care and N	Iedicaid Serv	ices collected	in February	2007 and 200	8. ²⁴							
PDFS = 5/ III 200/ and 5 PDFS = 5/ III 200/ and 5/ III 200/ and	JUS; MAPS	1002 III 64 =	and 20 mi 20 mi	120				-			E		-
9 PDPs and 2 MAPs that did not	as rouows: t cover clos	aripiprazole zapine. The 2	, 20 mg; zipra 008 analysis (isidone, 100 n excludes 1 PE	ng; risperidon P and 5 MAI	e, 4 mg; que Ps that did no	t cover cloza	ng; otanzapin oine and 2 M	e, ∠u mg; and APs that did r	i ciozapine, o not cover olar	JU mg. 1ne 20 zapine.	u/ compariso	is exclude
^d Medicare covers 75%, while th	e total drug	costs exceed	the annual d	eductible.				_			ł		
^e After reaching the coverage gal ^f After the catastrophic coverage	o, beneficia is reached	rries are respo 95% of drug	onsible for ful costs are cov	l drug costs u /ered.	ntil total drug	g costs meet t	he threshold	of catastrophi	c coverage.				

Table 3. Coverage of Atypica	l Antipsyc	hotics Amo	ng Prescrip	tion Drug F	lans (PDPs	s) and Medi	care Advant	age Plans (I	MAPs) in W/	A in 2007 ar	id 2008 ^{a,b,c}		
	Plan	Aripipr	azole	Ziprasi	done	Risper	idone	Quetia	npine	Olanza	apine	Clozap	bine ^d
Variable	Type	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
Coverage level, no. (%) ^e Not on formulary	PDP	:	:	:	:	•	:	:	:	:	:	9 (17)	1 (2)
	MAP	:	:	:	:	:	:	:	:	:	2 (4)	:	5(10)
Tier 1: generic	PDP	:	1 (2)	:	1 (2)	:	1 (2)	:	1 (2)	:	1 (2)	28 (53)	24 (45)
	MAP	:	:	:	:	:	:	:	:	:	:	27 (69)	31 (60)
Tier 2: preferred brand	PDP	30 (57)	21 (40)	33 (62)	28 (53)	51(96)	46 (87)	51 (96)	49 (92)	44 (83)	39 (74)	16(30)	27 (51)
ı	MAP	16(41)	31 (60)	16(41)	37 (71)	39 (100)	52 (100)	39 (100)	52 (100)	23 (59)	42 (81)	12 (31)	16 (31)
Tier 3: nonpreferred brand	PDP	23 (43)	30 (57)	20 (38)	21 (40)	2 (4)	:	2 (4)	2 (4)	9 (17)	12 (23)	:	1 (2)
ı	MAP	23 (59)	21 (40)	23 (59)	15 (29)	:	:	:	:	16 (41)	8 (15)	:	:
Tier 4: specialty	PDP	:	1(2)	:	3 (6)	:	6 (11)	:	1 (2)		1 (2)	:	:
	MAP	:	:	:	:	:	:	:	:	:	:	:	:
Pharmacy management													
tools, no. (%)													
Prior authorization	PDP	7 (12)	7 (13)	9 (16)	7 (13)	:	:	3 (5)	:	7 (12)	2 (4)	:	:
	MAP	9 (21)	2 (4)	9 (21)	2 (4)	:	:	2 (5)	:	8 (19)	1 (2)	:	:
Quantity limits	PDP	32 (56)	31 (58)	28 (49)	28 (53)	27 (47)	27 (51)	28 (49)	29 (55)	31 (54)	29 (55)	4(7)	8 (15)
	MAP	15 (35)	26 (50)	14 (33)	19 (37)	14 (33)	23 (44)	14 (33)	23 (44)	14 (33)	23 (44)	:	8 (15)
Step therapy	PDP	3 (5)	7(13)	3 (5)	5(9)	:	:	3 (5)	:	3 (5)	9 (17)	2 (4)	5 (9)
	MAP	2 (5)	2 (4)	:	2 (4)	:	:	2 (5)	:	1 (2)	1 (2)	:	6 (12)
^a Data from the Centers for Medi ^b ^b DDDs $- 57$ in 2007 and 53 in 20	care and Me	edicaid Servi-	ces collected	in February 2	2007 and 200	8. ²⁴							
Daily dosages of each drug are	as follows:	aripiprazole,	20 mg; zipra:	sidone, 160 m	ng; risperidon	ie, 4 mg; quei	tiapine, 600 n	ıg; olanzapine	e, 20 mg; and	clozapine 60() mg.		
^d Clozapine is most likely to be c	ategorized i	into tier 1, bu	it it is general	ly not the firs	st treatment u	sed because o	of the need to	monitor patie	ents for agranu	locytosis.			
^o In 2007, coverage analysis excl Symbol: = no data.	uded 4 PDF	's and 4 MAF	s that used o	nly 2-tier sysi	tems.								

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