TREND IN MULTIPLE ANTIPSYCHOTIC MEDICATION USE IN ADULTS AND CHILDREN

BACKGROUND

Although there is limited empirical evidence supporting the use of multiple concurrent antipsychotic medications, the use of more than one antipsychotic medication is becoming an increasingly frequent practice in the mental health treatment of youth. Risks of multiple concurrent antipsychotic medications in comparison to monotherapy have not been systematically investigated. Evidence links this practice with increased risk of serious drug interactions, delirium, serious behavioral changes, cardiac arrhythmias, and death.[1]

The Healthcare Effectiveness Data and Information Set (HEDIS) is a tool used by more than 90 percent of America's health plans to measure performance on important dimensions of care and service. The HEDIS quality measure, *Use of Multiple Concurrent Antipsychotics in Children and Adolescents* examines the percentage of beneficiaries age 0-17 taking two or more concurrent antipsychotic medications. Concurrent use was defined as 90 or more days of continuous concurrent use during the measurement year with no more than a 15-day gap in concurrent use. The Centers for Medicare and Medicaid Services added the HEDIS measure for use of multiple concurrent antipsychotics in children to the Medicaid Child Core Set for 2016.

During the February 2015 meeting, the Division of Medicaid (DOM) Drug Utilization Review Board made a recommendation that a manual prior authorization (PA) be required for children and adolescents less than age 18 years of age taking multiple antipsychotic medications concurrently. A manual PA form for multiple antipsychotic medications was developed and the modifications to the electronic prior authorization criteria for antipsychotic medications were completed and implemented in November 2016. Although the prior authorization criteria only impacted children, an educational intervention targeting prescribers treating beneficiaries of any age meeting the quality measure criteria for multiple antipsychotic medication use was initiated in September 2016 alerting them of the new edit.

MS-DUR examined the trend in concurrent use of multiple antipsychotic medications in order to evaluate how well DOM is performing on this Medicaid Child Core Set measure and to determine if additional actions may be needed to further reduce concurrent use of multiple antipsychotic medications in children and adolescents.

METHODS

A retrospective analysis was conducted using Mississippi Medicaid pharmacy claims data from April 2016 to June 2018. The sample included child, adolescent, and adult beneficiaries enrolled in

[1] Safer, D.J., J.M. Zito, and S. DosReis, Concomitant psychotropic medication for youths. Am J Psychiatry, 2003. 160(3): p. 438-49.

Medicaid fee-for-service (FFS) and coordinated care organizations (CCOs). In keeping with the criteria of the HEDIS measure, DOM's electronic prior authorization (EPa) edit considers a prescription to be concurrent use of multiple antipsychotic medications if there are 90 days of concomitant therapy in the prior 120 days. For those antipsychotic prescriptions that met or exceeded this timeframe, a manual PA for concurrent use of multiple antipsychotics was then required. For the trend analysis, concurrent use of antipsychotic medication was determined at the time of dispensing. Even though the quality measure only applies to children and adolescents, MS-DUR also examined the trend in multiple antipsychotic medication use among adults.

RESULTS

Concurrent Use of Multiple Antipsychotic Medications Among Adults

The multiple antipsychotic clinical edit implemented in 2016 only applied to children less than 18 years of age. Figure 1 and Table 1 show the trend in use of multiple antipsychotic medications in adults. Although the clinical edit did not apply to adults, a slight drop in the concurrent use of multiple antipsychotic medications has occurred in this population. This decrease primarily took place in the FFS program.

FIGURE 1: Monthly Trend in Number of ADULTS With Multiple Antipsychotic Use

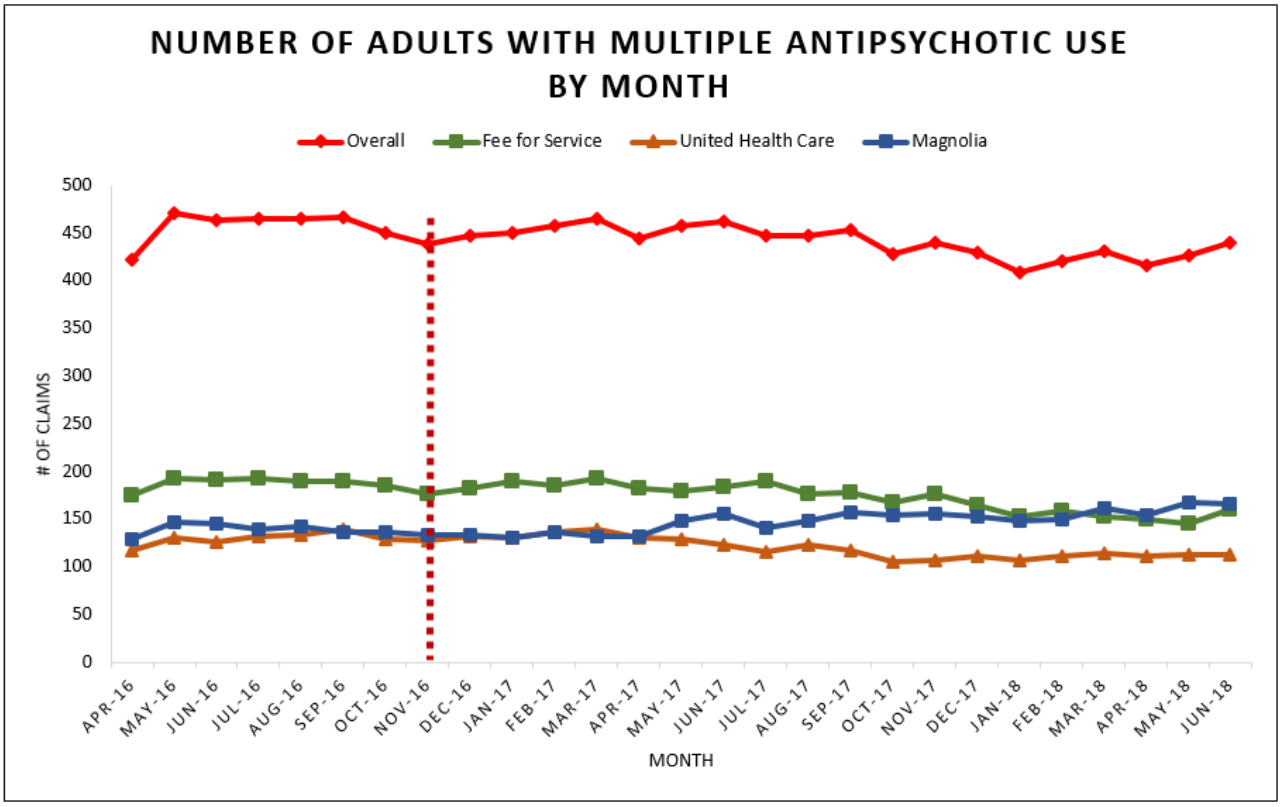

TABLE 1: MONTHLY NUMBER OF BENEFICIARIES FILLING PRECRIPTIONS WITH CONCURRENT THERAPY OF TWO OR MORE ANTIPSYCHOTICS ADULTS ONLY*

Month	Total Number Beneficiaries Filling Claims for Any Antipsychotic	Number of Beneficiaries With 90 Days of Concurrent Therapy				
		Overall		Fee for Service	United Health Care	Magnolia
Apr-16	6,385	422	6.6%	175	118	129
May-16	6,795	470	6.9%	192	131	147
Jun-16	6,863	463	6.7%	191	126	146
Jul-16	6,802	464	6.8%	192	132	140
Aug-16	7,002	464	6.6%	189	133	142
Sep-16	6,893	466	6.8%	189	140	137
Oct-16	6,820	450	6.6%	185	129	136
Nov-16	6,700	438	6.5%	177	128	133
Dec-16	6,718	447	6.7%	182	132	133
Jan-17	6,901	450	6.5%	190	130	130
Feb-17	6,524	458	7.0%	185	136	137
Mar-17	6,880	465	6.8%	193	140	132
Apr-17	6,573	444	6.8%	182	130	132
May-17	6,884	457	6.6%	179	129	149
Jun-17	6,895	462	6.7%	184	123	155
Jul-17	6,753	447	6.6%	190	116	141
Aug-17	6,996	447	6.4%	176	123	148
Sep-17	6,810	453	6.7%	178	118	157
Oct-17	6,895	428	6.2%	168	106	154
Nov-17	6,762	439	6.5%	176	107	156
Dec-17	6,664	429	6.4%	165	111	153
Jan-18	6,647	409	6.2%	153	107	149
Feb-18	6,614	420	6.4%	159	111	150
Mar-18	6,890	430	6.2%	153	115	162
Apr-18	6,767	416	6.1%	150	112	154
May-18	6,868	426	6.2%	145	113	168
Jun-18	6,692	439	6.6%	160	113	166

** Age 21 or more at time of prescription fill.*

Concurrent Use of Multiple Antipsychotic Medications Among Children

Figure 2 and Table 2 show the trend in use of multiple antipsychotic medications in children enrolled in DOM. Immediately following the educational letter and implementation of the clinical edit requiring manual prior authorization, a small decrease in concurrent use of antipsychotic medications was observed. This decrease primarily occurred in the FFS and Magnolia programs. After the initial drop in concurrent use of multiple antipsychotic medications, the overall rate returned to just under the level prior to the clinical edit being implemented.

FIGURE 2: Monthly Trend in Multiple Antipsychotic Use - Children

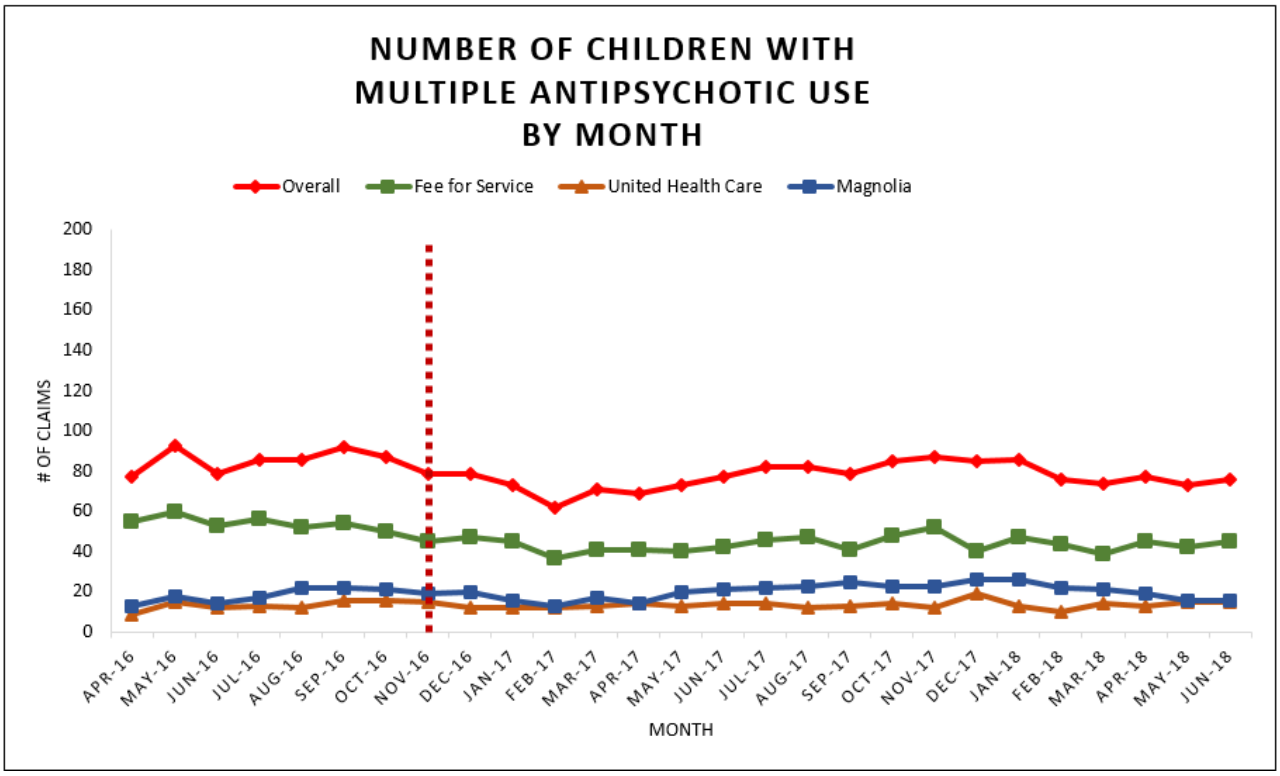

Table 2 illustrates that the rate for concurrent use of multiple antipsychotic medications is considerably higher in the FFS program than in either of the CCOs. The higher rate in the FFS program is partially explained by the fact that institutional based beneficiaries, including beneficiaries in state mental hospitals (category of eligibility 005) are in the FFS program.

A total of 35 state Medicaid programs voluntarily reported to CMS on this Child Core Set measure for 2017. The median rate for the states reporting was 2.7%. Mississippi only reported for the CCOs and the rate was well below the median. Although the percentages in Table 2 do not use the exact criteria specified in the Child Core Set measure, the overall rate of concurrent use of multiple antipsychotics among children was considerably lower than the 2.7% median for 2017.

TABLE 2: MONTHLY NUMBER OF BENEFICIARIES FILLING PRECRIPTIONS WITH CONCURRENT THERAPY OF TWO OR MORE ANTIPSYCHOTICS CHILDREN ONLY*

Month	Total Number of Beneficiaries Filling Claims for Any Antipsychotic	Number of Beneficiaries With 90 Days of Concurrent Therapy							
		Overall		Fee for Service		United Health Care		Magnolia	
Apr-16	4,337	77	1.8%	55	3.5%	9	0.7%	13	0.9%
May-16	4,528	93	2.1%	60	4.0%	15	1.0%	18	1.2%
Jun-16	4,355	79	1.8%	53	3.6%	12	0.8%	14	1.0%
Jul-16	4,246	86	2.0%	56	3.9%	13	0.9%	17	1.3%
Aug-16	4,792	86	1.8%	52	3.4%	12	0.7%	22	1.3%
Sep-16	4,769	92	1.9%	54	3.5%	16	1.0%	22	1.4%
Oct-16	4,697	87	1.9%	50	3.2%	16	1.0%	21	1.3%
Nov-16	4,686	79	1.7%	45	3.0%	15	0.9%	19	1.2%
Dec-16	4,541	79	1.7%	47	3.1%	12	0.8%	20	1.3%
Jan-17	4,905	73	1.5%	45	3.0%	12	0.7%	16	0.9%
Feb-17	4,489	62	1.4%	37	2.7%	12	0.8%	13	0.8%
Mar-17	4,940	71	1.4%	41	2.7%	13	0.8%	17	1.0%
Apr-17	4,681	69	1.5%	41	2.9%	14	0.9%	14	0.8%
May-17	4,846	73	1.5%	40	2.7%	13	0.8%	20	1.2%
Jun-17	4,547	77	1.7%	42	2.9%	14	0.9%	21	1.4%
Jul-17	4,414	82	1.9%	46	3.2%	14	1.0%	22	1.4%
Aug-17	4,907	82	1.7%	47	3.1%	12	0.7%	23	1.4%
Sep-17	4,738	79	1.7%	41	2.7%	13	0.8%	25	1.5%
Oct-17	4,914	85	1.7%	48	3.2%	14	0.9%	23	1.3%
Nov-17	4,834	87	1.8%	52	3.5%	12	0.8%	23	1.3%
Dec-17	4,614	85	1.8%	40	3.0%	19	1.2%	26	1.6%
Jan-18	4,733	86	1.8%	47	3.5%	13	0.8%	26	1.5%
Feb-18	4,646	76	1.6%	44	3.1%	10	0.6%	22	1.3%
Mar-18	4,929	74	1.5%	39	2.5%	14	0.9%	21	1.2%
Apr-18	4,914	77	1.6%	45	3.0%	13	0.8%	19	1.1%
May-18	4,859	73	1.5%	42	2.8%	15	0.9%	16	0.9%
Jun-18	4,575	76	1.7%	45	3.2%	15	1.0%	16	1.0%

** Age 20 or less at time of prescription fill.*

CONCLUSIONS

Overall DOM is performing very well on the Medicaid Child Core Set measure "*Use of Multiple Concurrent Antipsychotics in Children and Adolescents*" in comparison to other Medicaid states' data on this measure. Mississippi's rate was one of the lowest among state Medicaid programs when the data was reported in 2017. However, the higher rate in the FFS program may need to be further investigated with additional clinical edits or educational interventions considered if warranted.

RECOMMENDATIONS:

1. Examine prior authorization approvals in the previous 12 months to determine rationales cited for concurrent use of multiple antipsychotic medications.

2. Expand prior authorization form to also include the adult population.