Division of Medicaid
Office of the Governor
State of Mississippi
Drug Utilization Review (DUR) Board Meeting

MISSISSIPPI DIVISION OF
MEDICAID

December 6, 2018 at 2:00pm

Woolfolk Building, Room 145

Jackson, MS

Prepared by:

MS | DUR Evidence-Based DUR Initiative
The University of Mississippi School of Pharmacy

Drug Utilization Review Board

Lauren Bloodworth, PharmD
University of MS School of Pharmacy
201D Faser Hall
University, MS 38677
Term Expires: June 30, 2021

Beverly Bryant, MD
UMMC, School of Medicine
2500 North State Street
Jackson, MS 39216
Term Expires: June 30, 2021

Rhonda Dunaway, RPh
Coastal Family Health Center
9113 Hwy 49 Suite 200
Gulfport, MS 39503
Term Expires: June 30, 2020

Tanya Fitts, MD
Lafayette Pediatric Clinic
1300 Access Road, Suite 400
Oxford, MS 38655
Term Expires: June 30, 2021

Juanice Glaze, RPh
New Pointe Pharmacy
345 General Robert E Blount Dr.
Bassfield, MS 39421
Term Expires: June 30, 2019

Alice F. Messer, FNP-BC
Newsouth Neurospine
2470 Flowood Drive
Flowood, MS 39232
Term Expires: June 30, 2019

Ray Montalvo, MD
KDMC Specialty Clinic
940 Brookway Boulevard
Brookhaven, MS 39601
Term Expires: June 30, 2020

Holly R. Moore, PharmD
Anderson Regional Medical Center
2124 14th Street
Meridian, MS 39301
Term Expires: June 30, 2020

Janet Ricks, DO
UMMC, Family Medicine
2500 North State Street
Jackson, MS 39216
Term Expires: June 30, 2021

Dennis Smith, RPh
Polk's Discount Drugs
1031 Star Rd
Brandon, MS 39042
Term Expires: June 30, 2020

James Taylor, PharmD **(Chair)**
North MS Medical Center
830 S. Gloster Street
Tupelo, MS 38801
Term Expires: June 30, 2019

Veda Vedanarayanan, MD
Mississippi Center for Advanced Medicine
7731 Old Canton Road, Suite B
Madison, MS 39110
Term Expires: June 30, 2021

2019 DUR Board Meeting Dates

March 7, 2019
May 23, 2019
September 19, 2019
December 5, 2019

As with any analysis, great efforts are made to ensure that the information reported in this document is accurate. The most recent administrative claims data available are being used at the time the reports are generated, which includes the most recent adjudication history. As a result, values may vary between reporting periods and between DUR Board meetings, reflecting updated reversals and claims adjustments.

Unless otherwise indicated, all MS-DUR analyses are conducted for the entire Mississippi Medicaid program including beneficiaries receiving services through the Medicaid fee-for-service (FFS) and the two Mississippi Medicaid Coordinated Care Organizations (CCOs). When dollar figures are reported, the reported dollar figures represent reimbursement amounts paid to providers and are not representative of final Medicaid costs after rebates. Any reported enrollment data presented are unofficial and are only for general information purposes for the DUR Board.

Please refer to the Mississippi Division of Medicaid website for the current official Universal Preferred Drug List (PDL).

http://www.medicaid.ms.gov/providers/pharmacy/preferred-drug-list/

MISSISSIPPI DIVISION OF MEDICAID
OFFICE OF THE GOVERNOR
DRUG UTILIZATION REVIEW BOARD
AGENDA
December 6, 2018

Welcome — James Taylor, PharmD (Chair)

Old Business — James Taylor, PharmD
- Approval of September 2018 Meeting Minutes — page 5

Resource Utilization Review

Pharmacy Program Update — Terri Kirby, RPh; Sara (Cindy) Noble, PharmD, MPH

Update on Action Items from Previous Board Meeting(s)

Feedback and Discussion from the Board

New Business

2019 Meeting Dates

Next Meeting Information — James Taylor, PharmD

DUR Board Meeting Minutes

MISSISSIPPI DIVISION OF MEDICAID
DRUG UTILIZATION REVIEW (DUR) BOARD
MINUTES OF THE SEPTEMBER 20, 2018 MEETING

DUR Board Members:	Nov 2017	Mar 2018	May 2018	Sep 2018
Lauren Bloodworth, PharmD	NA	NA	NA	✓
Beverly Bryant, MD	NA	NA	NA	✓
Rhonda Dunaway, RPh	✓	✓	✓	✓
Tanya Fitts, MD	NA	NA	NA	✓
Juanice Glaze, RPh	✓	✓	✓	✓
Alice Messer, DNP, FNP-BC	✓	✓	✓	
Ray Montalvo, MD	✓	✓	✓	
Holly Moore, PharmD		✓		✓
Janet Ricks, DO	✓	✓		✓
Dennis Smith, RPh		✓	✓	✓
James Taylor, PharmD (Chair)	✓	✓	✓	✓
Veda Vedanarayanan, MD	NA	NA	NA	
TOTAL PRESENT	**9**	**9***	**8****	**9**

** Only 11 members were active due to resignation resulting from move and replacements not yet approved by Governor.*
***Only 10 members were active due to resignations resulting from move and replacements not yet approved by Governor.*

Also Present:

Division of Medicaid (DOM) Staff:
Terry Kirby, RPh, CPM, Pharmacy Director; Cindy Noble, PharmD, MPH, DUR Coordinator; Gail McCorkle, RPh, Clinical Pharmacist; Chris Yount, MA, PMP, Staff Officer – Pharmacy; Jason Dees, DO, Interim Medical Director; Sue Reno, RN, Program Integrity

University of Mississippi School of Pharmacy - MS-DUR Staff:
Ben Banahan, PhD, MS-DUR Project Director; Eric Pittman, PharmD, MS-DUR Clinical Director

Conduent Staff:
Leslie Leon, PharmD, Clinical Pharmacist, Mississippi Medicaid Project;

Change Healthcare Staff:
Shannon Hardwick, RPh, CPC Pharmacist; Paige Clayton, PharmD, On-Site Clinical Pharmacist

Coordinated Care Organization Staff:
Heather Odem, PharmD, United Healthcare Community & State, Director of Pharmacy- Mississippi; Jenni Grantham, PharmD, Director of Pharmacy, Magnolia Health; Mike Todaro, PharmD, Vice President, Pharmacy Operations, Magnolia Health; Trina Stewart, PharmD, Pharmacy Manager, Molina Healthcare; Cedric Torry, PharmD, Clinical Pharmacist, Molina Healthcare

Visitors:
Phil Hecht, Abbvie; Gene Wingo, Biogen; Jason Swartz, Otsuka; John Kirby, Indivior; Dan Doyle, Trividia Health; Brad Clay, Amgen; Spencer Sullivan, MCAM; Kayla Douglas, MCAM; Sharon Pennington, MCAM; Tammuella Singleton, Tulane; Douglas Welch, Merck; Judy Clark, Consultant; Vanisha Patel, UM-SOP student; John Kenney, UM-SOP student; Anna Crider, UM-SOP student;

Call to Order:
Dr. Taylor, Chair, called the meeting to order at 2:03pm and welcomed everyone. Ms. Kirby recognized the new DUR Board members.

Old Business:
Mr. Smith moved to approve the minutes from the May 2019 DUR Board Meeting, seconded by Ms. Dunaway and unanimously approved by the DUR Board.

Resource Utilization Review:
Dr. Pittman informed the board that encounter data for both CCOs was complete for the period covered by this report. No major items noted in the reports. Dr. Noble pointed out the rank of CNS stimulants in number of claims submitted and dollars paid by Medicaid and the importance of recent recommendations by the DUR Board regarding stimulant medications.

Pharmacy Program Update:
Ms. Kirby introduced other DOM staff and DOM vendor representatives present. Ms. Kirby updated the Board on the new managed care contracts beginning October 1, 2018 that will include Molina Healthcare. Pharmacists should have received updated information to be utilized when submitting claims for the managed care organizations. On November 1, 2018 mandatory billing of 340B claims for those Medicaid providers who chose to opt in will begin.

Also beginning October 1, the new stimulant edit will go into effect. Dr. Bryant inquired about the use of stimulants in pediatric patients who do not have one of the FDA approved or compendia supported diagnoses. The Board specifically discussed the potential use of stimulants in children with autism spectrum disorder. Dr. Noble and Ms. Kirby pointed out that the electronic PA will not be able to handle this exception, but manual PA criteria will be able to address need in this situation.

Dr. Bryant made a motion that a provider education regarding the potential use of stimulants in autism spectrum disorder be developed and distributed. The motion was seconded by Ms. Glaze and unanimously approved. Dr. Bryant offered to work with DOM and MS-DUR to develop this material.

DUR Board Role/Responsibilities
Dr. Banahan provided an overview of the DUR Board and the responsibilities of DUR Board members.

Update on Action Items from Previous Board Meetings
Dr. Pittman reviewed the educational mailing statistics for ongoing and one-time mailings conducted since the last board meeting.

Sickle Cell Disease
At the May 2018 DUR Board meeting members requested to have a specialist present to the Board on sickle cell disease treatment. Drs. Spencer Sullivan, Sharon Pennington, and Tammuella Singleton provided the DUR Board an overview of current treatment standards for sickle cell disease focusing on the use of hydroxyurea, Endari, and opioids. They also addressed issues encountered by providers when treating Medicaid beneficiaries with sickle cell disease. Dr. Sullivan and his colleagues related instances where the prescribing of opioids in sickle cell patients may exceed the opioid recommendations made by the DUR Board. After a lengthy discussion, Dr. Fitts made a motion, seconded by Mr. Smith, that sickle cell be added to cancer exclusion for the opioid electronic PA edits. The motion was unanimously approved.

NEW BUSINESS

Opioid Prescribing Trends
Dr. Pittman reviewed trends related to the opioid recommendations approved by the DUR Board. Ms. Kirby updated the Board on the implementation status of edits related to DUR approved opioid recommendations. It was noted that although implementation of the opioid edits has not occurred, educational mailings pertaining to these recommendations have been ongoing. Improvement in opioid prescribing trends was noted indicating the educational mailings appear to have a positive impact.

Codeine/Tramadol Prescribing Trends in Children and Adolescents
Dr. Pittman reviewed the update on the use of codeine and tramadol products in children.

Migraines and the Introduction of Calcitonin Gene Related Peptide (CGRP) Inhibitors
Dr. Pittman provided an overview of the MS-DUR analysis of current migraine treatment in Mississippi Medicaid. Potential utilization criteria for CGRP inhibitors were presented to the Board and feedback was requested. A robust Board discussion was held focusing on issues referenced by the Institute for Clinical and Economic Review (ICER) regarding consultation for prescribing, prior medication use, presence of comorbid conditions and potential safety concerns, and initial coverage limits. After much discussion, Mr. Smith made a motion to recommend CGRP inhibitor access through a manual PA process with initial approval limited to 3 months without a requirement of prescribing or consultation by a neurologist. The motion was seconded by Dr. Bryant. The motion was approved in a 5-2 vote with Mr. Smith, Dr. Taylor, Dr. Moore, Dr. Bryant and Ms. Dunaway voting in favor of the motion. Dr. Ricks and Ms. Glaze cast dissenting votes because they supported prescribing or consultation by a neurologist. Dr. Fitts abstained from voting and Dr. Bloodworth had to leave the meeting prior to voting. The Board did recommend revisiting the matter at the first meeting in 2019.

FDA Drug Safety Updates
FDA drug safety communications from May 2018 – August 2018 were presented.

Next Meeting Information:
Proposed dates for next year were announced. Board members will be polled by email for availability for 2019 meetings.

Dr. Pittman presented Board members with the option of changing meeting times for 2019. Dr. Moore made a motion to change the times for 2019 Board meetings to 1 pm. The motion was seconded by Dr. Fitts and unanimously approved.

Dr. Taylor announced that the next meeting of the DUR Board will take place on December 6, 2018 at 2:00 p.m. He thanked everyone for their attendance and participation at the September 2018 DUR Board meeting.

The meeting adjourned at 4:30pm.

Submitted,

Eric Pittman, PharmD
Evidence-Based DUR Initiative, MS-DUR

PUBLIC MEETING NOTICES

Meeting Location: Woolfolk Building, 501 North West Street, Conference Room 145 Jackson, MS 39201

Contact Information: Pharmacy Bureau:
Chris Yount, 601-359-5253: Christopher.yount@medicaid.ms.gov, or
Jessica Tyson, 601-359-5253; Jessica.Tyson@medicaid.ms.gov

Notice details:

State Agency: MS Division of Medicaid

Public Body: Drug Utilization Board (DUR) Meeting

Subject: Quarterly Meeting

Date and Time: May 31, 2018 at 2PM; Sept. 20, 2018 at 2PM; Dec. 6, 2018 at 2PM.

Description: The Mississippi Division of Medicaid's Drug Utilization Review (DUR) Board is a quality assurance body which seeks to assure appropriate drug therapy to include optimal beneficiary outcomes and appropriate education for physicians, pharmacists, and the beneficiary. The Drug Utilization Review (DUR) Board is composed of twelve participating physicians and pharmacists who are active MS Medicaid providers and in good standing with their representative organizations.

The Board reviews utilization of drug therapy and evaluates the long-term success of the treatments.

The Drug Utilization Review (DUR) Board meets quarterly.

Resource Utilizaton Review

TABLE 04A: ENROLLMENT STATISTICS FOR LAST 6 MONTHS April 1, 2018 through September 30, 2018							
		Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18
Total enrollment		718,507	715,631	712,258	708,672	704,370	696,566
Dual-eligibles		156,664	156,434	156,262	156,010	155,711	155,403
Pharmacy benefits		609,433	607,059	603,787	600,283	595,813	587,833
LTC		17,119	17,203	17,125	17,109	17,176	16,965
PLAN %	**FFS**	25.7%	25.6%	25.9%	26.5%	27.0%	26.8%
	MSCAN-UHC	35.3%	35.3%	35.2%	34.8%	34.4%	34.5%
	MSCAN-Magnolia	39.0%	39.1%	38.9%	38.7%	38.6%	38.7%

TABLE 04B: PHARMACY UTILIZATION STATISTICS FOR LAST 6 MONTHS April 1, 2018 through September 30, 2018							
		Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18
# Rx Fills	**FFS**	112,285	108,142	98,562	99,133	116,068	104,989
	MSCAN-UHC	181,359	173,269	152,738	154,081	182,085	167,630
	MSCAN-Mag	228,094	220,236	196,372	196,877	232,565	97,790
# Rx Fills / Bene	**FFS**	0.7	0.7	0.6	0.6	0.7	0.7
	MSCAN-UHC	0.8	0.8	0.7	0.7	0.9	0.8
	MSCAN-Mag	1.0	0.9	0.8	0.8	1.0	0.4
$ Paid Rx	**FFS**	$12,799,823	$12,375,535	$11,309,249	$12,015,410	$13,390,153	$11,762,982
	MSCAN-UHC	$15,031,302	$14,832,660	$12,698,338	$13,928,401	$15,349,025	$14,211,578
	MSCAN-Mag	$18,328,469	$18,084,686	$16,754,862	$17,316,301	$19,719,837	$7,900,542
$ /Rx Fill	**FFS**	$113.99	$114.44	$114.74	$121.20	$115.36	$112.04
	MSCAN-UHC	$82.88	$85.60	$83.14	$90.40	$84.30	$84.78
	MSCAN-Mag	$80.35	$82.12	$85.32	$87.95	$84.79	$80.79
$ /Bene	**FFS**	$81.72	$79.63	$72.32	$75.53	$83.24	$74.67
	MSCAN-UHC	$69.87	$69.22	$59.75	$66.68	$74.89	$70.08
	MSCAN-Mag	$77.11	$76.19	$71.34	$74.54	$85.74	$34.73

NOTE: Paid amounts represent amount reported on claims as paid to the pharmacy. These amounts do not reflect final actual costs after rebates, etc.

TABLE C: TOP 10 DRUG CATEGORIES BY NUMBER OF CLAIMS IN SEP 2018 (FFS AND CCOs)

Category	Month Year	Rank Volume	# RXs	$ Paid	# Unique Benes
CNS stimulants	Sep 2018	1	20,404	$4,351,529	17,971
	Aug 2018	1	27,760	$5,927,907	23,597
	Jul 2018	1	21,793	$4,591,102	18,767
narcotic analgesic combinations	Sep 2018	2	12,608	$452,925	11,719
	Aug 2018	2	18,550	$687,672	16,526
	Jul 2018	2	17,964	$663,125	16,390
aminopenicillins	Sep 2018	3	11,770	$150,537	11,608
	Aug 2018	4	16,737	$215,738	16,452
	Jul 2018	11	10,077	$124,886	9,878
adrenergic bronchodilators	Sep 2018	4	11,168	$727,809	9,943
	Aug 2018	3	17,585	$1,256,105	15,063
	Jul 2018	4	12,381	$925,195	10,670
nonsteroidal anti-inflammatory agents	Sep 2018	5	11,161	$170,397	10,762
	Aug 2018	6	15,955	$236,425	15,213
	Jul 2018	3	13,578	$196,988	12,945
antihistamines	Sep 2018	6	10,707	$164,100	10,483
	Aug 2018	5	15,985	$249,864	15,429
	Jul 2018	6	12,064	$195,421	11,587
atypical antipsychotics	Sep 2018	7	9,518	$1,744,412	8,428
	Aug 2018	8	13,001	$2,170,530	11,199
	Jul 2018	5	12,184	$1,932,915	10,687
leukotriene modifiers	Sep 2018	8	9,098	$160,260	9,002
	Aug 2018	7	13,077	$227,300	12,757
	Jul 2018	8	10,455	$179,479	10,202
glucocorticoids	Sep 2018	9	8,749	$169,635	8,486
	Aug 2018	10	11,949	$218,747	11,571
	Jul 2018	17	7,753	$151,073	7,479
SSRI antidepressants	Sep 2018	10	8,480	$103,156	8,010
	Aug 2018	9	11,983	$144,833	11,088
	Jul 2018	7	11,290	$135,059	10,559

NOTE: Pharmacy encounter data for MAG is incomplete for the month of September. This should not affect ranks but may affect total amounts for paid, number of claims, and number of beneficiaries in September.

TABLE D: TOP 10 DRUG CATEGORIES BY DOLLARS PAID IN SEP 2018 (FFS AND CCOs)

Category	Month Year	Rank Paid Amt	# RXs	$ Paid	# Unique Benes
CNS stimulants	Sep 2018	1	20,404	$4,351,529	17,971
	Aug 2018	1	27,760	$5,927,907	23,597
	Jul 2018	1	21,793	$4,591,102	18,767
antiviral combinations	Sep 2018	2	581	$1,968,001	563
	Aug 2018	2	885	$2,890,601	817
	Jul 2018	3	844	$2,662,953	788
insulin	Sep 2018	3	3,476	$1,870,810	2,644
	Aug 2018	3	5,229	$2,817,657	3,870
	Jul 2018	2	5,068	$2,721,618	3,784
atypical antipsychotics	Sep 2018	4	9,518	$1,744,412	8,428
	Aug 2018	4	13,001	$2,170,530	11,199
	Jul 2018	4	12,184	$1,932,915	10,687
factor for bleeding disorders	Sep 2018	5	72	$1,360,737	57
	Aug 2018	6	98	$1,480,411	70
	Jul 2018	6	81	$1,519,755	64
antirheumatics	Sep 2018	6	730	$1,215,243	655
	Aug 2018	5	1,007	$1,893,683	878
	Jul 2018	5	1,066	$1,816,517	929
bronchodilator combinations	Sep 2018	7	2,558	$789,024	2,420
	Aug 2018	8	3,810	$1,174,079	3,526
	Jul 2018	7	3,536	$1,094,735	3,264
adrenergic bronchodilators	Sep 2018	8	11,168	$727,809	9,943
	Aug 2018	7	17,585	$1,256,105	15,063
	Jul 2018	9	12,381	$925,195	10,670
gamma-aminobutyric acid analogs	Sep 2018	9	6,397	$697,705	6,052
	Aug 2018	9	9,410	$1,125,199	8,715
	Jul 2018	8	9,180	$1,086,929	8,554
chelating agents	Sep 2018	10	49	$532,023	46
	Aug 2018	10	75	$823,145	68
	Jul 2018	10	71	$737,104	66

NOTE: Pharmacy encounter data for MAG is incomplete for the month of September. This should not affect ranks but may affect total amounts for paid, number of claims, and number of beneficiaries in September.

TABLE E: TOP 25 DRUG MOLECULES
BY NUMBER OF CLAIMS IN SEP 2018 (FFS and CCOs)

Drug Molecule Therapeutic Category	Aug 2018 # Claims	Sep 2018 # Claims	Sep 2018 $ Paid	Sep 2018 # Unique Benes
amoxicillin / aminopenicillins	16,691	11,730	$149,705	11,570
albuterol / adrenergic bronchodilators	16,599	10,662	$568,510	9,536
montelukast / leukotriene modifiers	13,075	9,097	$160,024	9,001
acetaminophen-hydrocodone / narcotic analgesic combinations	12,683	8,614	$119,710	8,159
azithromycin / macrolides	10,765	7,644	$146,118	7,514
cetirizine / antihistamines	10,499	7,014	$91,027	6,976
lisdexamfetamine / CNS stimulants	9,299	6,865	$1,978,462	6,724
gabapentin / gamma-aminobutyric acid analogs	7,754	5,308	$80,126	5,058
fluticasone nasal / nasal steroids	7,839	5,144	$72,427	5,132
ibuprofen / nonsteroidal anti-inflammatory agents	7,360	5,118	$66,392	5,036
methylphenidate / CNS stimulants	6,523	4,894	$1,094,379	4,466
amlodipine / calcium channel blocking agents	7,022	4,796	$42,864	4,631
clonidine / antiadrenergic agents, centrally acting	6,518	4,742	$103,842	4,597
amphetamine-dextroamphetamine / CNS stimulants	6,408	4,658	$240,650	4,058
ondansetron / 5HT3 receptor antagonists	5,289	4,440	$71,934	4,339
prednisolone / glucocorticoids	5,767	4,402	$67,905	4,292
amoxicillin-clavulanate / penicillins/beta-lactamase inhibitors	5,620	4,148	$103,412	4,099
omeprazole / proton pump inhibitors	6,077	3,968	$42,209	3,899
cefdinir / third generation cephalosporins	5,081	3,940	$95,082	3,901
sulfamethoxazole-trimethoprim / sulfonamides	5,459	3,894	$88,133	3,834
mupirocin topical / topical antibiotics	5,482	3,788	$59,633	3,721
guanfacine / antiadrenergic agents, centrally acting	4,654	3,458	$67,416	3,332
ranitidine / H2 antagonists	4,562	3,244	$41,527	3,176
ethinyl estradiol-norgestimate / contraceptives	4,227	3,235	$58,565	3,105
triamcinolone topical / topical steroids	4,984	3,223	$55,200	3,159

NOTE: Pharmacy encounter data for MAG is incomplete for the month of September. This should not affect ranks but may affect total amounts for paid, number of claims, and number of beneficiaries in September.

TABLE F: TOP 25 DRUG MOLECULES
BY DOLLARS PAID IN SEP 2018 (FFS and CCOs)

Drug Molecule Therapeutic Category	Aug 2018 $ Paid	Sep 2018 $ Paid	Sep 2018 # Claims	Sep 2018 # Unique Benes
lisdexamfetamine / CNS stimulants	$2,697,967	$1,978,462	6,865	6,724
methylphenidate / CNS stimulants	$1,475,103	$1,094,379	4,894	4,466
adalimumab / antirheumatics	$1,217,740	$776,673	141	137
dexmethylphenidate / CNS stimulants	$988,392	$736,558	2,659	2,245
antihemophilic factor / factor for bleeding disorders	$750,285	$640,667	28	23
insulin aspart / insulin	$907,737	$623,637	1,001	970
albuterol / adrenergic bronchodilators	$920,645	$568,510	10,662	9,536
paliperidone / atypical antipsychotics	$624,530	$536,774	298	282
sofosbuvir-velpatasvir / antiviral combinations	$657,538	$535,773	22	22
deferasirox / chelating agents	$823,145	$532,023	49	46
somatropin / growth hormones	$642,020	$528,067	117	113
insulin glargine / insulin	$856,176	$516,548	1,194	1,162
pregabalin / gamma-aminobutyric acid analogs	$792,867	$514,098	1,080	1,052
anti-inhibitor coagulant complex / factor for bleeding disorders	$386,553	$488,777	5	3
cobicistat/elvitegravir/emtricitabine/tenofov / antiviral combinations	$671,441	$428,756	150	148
fluticasone-salmeterol / bronchodilator combinations	$558,646	$365,551	955	937
clobazam / benzodiazepine anticonvulsants	$437,475	$364,767	202	191
lurasidone / atypical antipsychotics	$573,887	$347,549	266	257
aripiprazole / atypical antipsychotics	$320,454	$345,752	2,245	2,154
insulin detemir / insulin	$454,590	$316,728	619	598
hydroxyprogesterone / progestins	$479,992	$307,455	94	90
lacosamide / miscellaneous anticonvulsants	$384,170	$304,981	383	357
glecaprevir-pibrentasvir / antiviral combinations	$460,475	$292,917	23	23
ivacaftor-lumacaftor / CFTR combinations	$378,957	$273,937	16	16
etanercept / antirheumatics	$442,147	$272,261	64	62

NOTE: Pharmacy encounter data for MAG is incomplete for the month of September. This should not affect ranks but may affect total amounts for paid, number of claims, and number of beneficiaries in September.

TABLE G: TOP 25 DRUG MOLECULES
BY CHANGE IN NUMBER OF CLAIMS FROM JUL 2018 TO SEP 2018 (FFS and CCOs)

Drug Molecule	Jul 2018 # Claims	Aug 2018 # Claims	Sep 2018 # Claims	Sep 2018 $ Paid	Sep 2018 # Unique Benes
azithromycin / macrolides	5,116	10,765	7,644	$146,118	7,514
amoxicillin / aminopenicillins	10,011	16,691	11,730	$149,705	11,570
prednisolone / glucocorticoids	3,121	5,767	4,402	$67,905	4,292
cefdinir / third generation cephalosporins	2,971	5,081	3,940	$95,082	3,901
ondansetron / 5HT3 receptor antagonists	3,813	5,289	4,440	$71,934	4,339
amoxicillin-clavulanate / penicillins/beta-lactamase inhibitors	3,565	5,620	4,148	$103,412	4,099
oseltamivir / neuraminidase inhibitors	59	221	417	$53,921	414
influenza virus vaccine, inactivated / viral vaccines	0	36	246	$6,270	246
benzonatate / antitussives	501	871	697	$9,268	678
cefprozil / second generation cephalosporins	410	806	582	$23,757	578
brompheniramine/dextromethorphan/pse / upper respiratory combinations	221	617	338	$6,963	337
clarithromycin / macrolides	292	494	396	$28,036	394
codeine-guaifenesin / upper respiratory combinations	160	205	233	$3,022	219
dextromethorphan-promethazine / upper respiratory combinations	303	646	349	$3,598	343
carbinoxamine / antihistamines	131	303	175	$6,802	175
prednisone / glucocorticoids	2,487	3,500	2,522	$27,980	2,455
dexamethasone-tobramycin ophthalmic / ophthalmic steroids with anti-infectives	85	95	113	$19,124	112
irbesartan / angiotensin II inhibitors	60	87	84	$1,119	83
loperamide / antidiarrheals	47	75	70	$1,231	68
chlorpheniramine/dextromethorp/phenylephrine / upper respiratory combinations	52	169	74	$1,258	73
ipratropium nasal / nasal antihistamines and decongestants	115	204	133	$4,673	132
bictegravir/emtricitabine/tenofovir / antiviral combinations	31	44	46	$117,021	46
pneumococcal 23-polyvalent vaccine / bacterial vaccines	2	8	17	$1,841	17
pneumococcal 13-valent conjugate vaccine / bacterial vaccines	1	2	15	$2,831	15
hydrochlorothiazide-irbesartan / angiotensin II inhibitors with thiazides	46	84	58	$890	58

NOTE: Pharmacy encounter data for MAG is incomplete for the month of September. This should not affect ranks but may affect total amounts for paid, number of claims, and number of beneficiaries in September.

TABLE H: TOP 25 DRUG MOLECULES
BY CHANGE IN AMOUNT PAID FROM JUL 2018 TO SEP 2018 (FFS and CCOs)

Drug Molecule	Jul 2018 $ Paid	Aug 2018 $ Paid	Sep 2018 $ Paid	Sep 2018 # Claims	Sep 2018 # Unique Benes
immune globulin intravenous and subcutaneous / immune globulins	$96,409	$192,288	$216,767	19	13
ivacaftor-tezacaftor / CFTR combinations	$67,325	$246,902	$134,702	6	6
aripiprazole / atypical antipsychotics	$283,396	$320,454	$345,752	2,245	2,154
azithromycin / macrolides	$93,300	$203,079	$146,118	7,644	7,514
oseltamivir / neuraminidase inhibitors	$6,859	$27,122	$53,921	417	414
antihemophilic factor / factor for bleeding disorders	$596,948	$750,285	$640,667	28	23
paliperidone / atypical antipsychotics	$496,023	$624,530	$536,774	298	282
antihemophilic factor-von willebrand factor / factor for bleeding disorders	$52,065	$152,476	$91,904	9	7
lomitapide / miscellaneous antihyperlipidemic agents	$0	$39,692	$39,692	1	1
bictegravir/emtricitabine/tenofovir / antiviral combinations	$85,510	$118,703	$117,021	46	46
fentanyl / narcotic analgesics	$41,449	$69,802	$70,635	196	181
c1 esterase inhibitor, human / factor for bleeding disorders	$0	$0	$28,256	2	2
daptomycin / miscellaneous antibiotics	$38,139	$37,225	$65,507	9	5
amoxicillin / aminopenicillins	$123,545	$214,869	$149,705	11,730	11,570
sofosbuvir-velpatasvir / antiviral combinations	$511,420	$657,538	$535,773	22	22
sunitinib / multikinase inhibitors	$28,236	$56,217	$48,728	3	3
cefdinir / third generation cephalosporins	$74,847	$127,072	$95,082	3,940	3,901
cabozantinib / multikinase inhibitors	$34,312	$17,156	$51,861	3	2
eteplirsen / miscellaneous uncategorized agents	$33,906	$67,506	$51,445	4	1
deutetrabenazine / VMAT2 inhibitors	$35,274	$31,333	$52,726	10	9
aztreonam / miscellaneous antibiotics	$8,605	$27,800	$25,808	3	3
glutamine / nutraceutical products	$11,336	$14,735	$28,191	10	10
amoxicillin-clavulanate / penicillins/beta-lactamase inhibitors	$86,707	$135,529	$103,412	4,148	4,099
triptorelin / antineoplastic hormones	$0	$0	$16,461	1	1
alpha 1-proteinase inhibitor / miscellaneous respiratory agents	$10,302	$46,539	$26,632	2	2

NOTE: Pharmacy encounter data for MAG is incomplete for the month of September. This should not affect ranks but may affect total amounts for paid, number of claims, and number of beneficiaries in September.

TABLE I: TOP 15 DRUG SOLID DOSAGE FORM HIGH VOLUME (100+ RX FILLS LAST MONTH) PRODUCTS WITH UNIT COST > $1
BY PERCENT CHANGE IN AMOUNT PAID PER UNIT JUL 2018 TO SEP 2018 (FFS and CCOs)

Drug Product Therapeutic Category	Sep 2018 # Claims	Sep 2018 $ Paid	Sep 2018 Avr. Paid Per Rx	Sep 2018 Avr. Units Per Rx	Jul 2018 Paid Per Unit	Aug 2018 Paid Per Unit	Sep 2018 Paid Per Unit	Percent Change
atomoxetine 60 mg capsule / CNS stimulants (P)	108	$11,913	$110.31	30	$3.11	$3.26	$3.32	6.8%
methylphenidate 27 mg/24 hr tablet, extended release / CNS stimulants (P)	482	$104,844	$217.52	30	$6.61	$6.93	$6.99	5.6%
Genvoya (cobicistat/elvitegravir/emtricitabine/tenofov) 150 mg-150 mg-200 mg-10 mg tablet / antiviral combinations (P)	147	$419,731	$2,855.32	30	$92.30	$92.79	$93.49	1.3%
Saphris Black Cherry (asenapine) 10 mg tablet / atypical antipsychotics (P)	119	$102,968	$865.28	45	$18.87	$18.90	$19.11	1.3%
atomoxetine 40 mg capsule / CNS stimulants (P)	185	$18,952	$102.45	30	$3.07	$3.09	$3.10	0.9%
Jardiance (empagliflozin) 25 mg tablet / SGLT-2 inhibitors (P)	172	$77,208	$448.88	29	$14.68	$14.77	$14.81	0.9%
amphetamine-dextroamphetamine 15 mg capsule, extended release / CNS stimulants (P)	421	$29,314	$69.63	30	$1.97	$1.95	$1.98	0.6%
Xarelto (rivaroxaban) 20 mg tablet / factor Xa inhibitors (P)	244	$96,879	$397.05	29	$13.23	$13.16	$13.31	0.6%
QuilliChew ER (methylphenidate) 40 mg/24 hr tablet, chewable, extended release / CNS stimulants (P)	162	$51,425	$317.44	30	$10.18	$10.06	$10.24	0.5%
Eliquis (apixaban) 5 mg tablet / factor Xa inhibitors (P)	320	$123,290	$385.28	56	$6.61	$6.62	$6.64	0.5%
QuilliChew ER (methylphenidate) 30 mg/24 hr tablet, chewable, extended release / CNS stimulants (P)	351	$119,302	$339.89	32	$10.22	$10.23	$10.26	0.4%
Focalin XR (dexmethylphenidate) 40 mg capsule, extended release / CNS stimulants (P)	125	$50,070	$400.56	30	$13.09	$13.19	$13.13	0.3%
Vyvanse (lisdexamfetamine) 30 mg capsule / CNS stimulants (P)	1,672	$484,240	$289.62	30	$9.35	$9.36	$9.37	0.2%

NOTE: Pharmacy encounter data for MAG is incomplete for the month of September. This should not affect ranks but may affect total amounts for paid, number of claims, and number of beneficiaries in September.
Products are only included if 100 or more fills in last month and average cost per unit in reference month was >= $1.

TABLE I: TOP 15 DRUG SOLID DOSAGE FORM HIGH VOLUME (100+ RX FILLS LAST MONTH) PRODUCTS WITH UNIT COST > $1
BY PERCENT CHANGE IN AMOUNT PAID PER UNIT JUL 2018 TO SEP 2018 (FFS and CCOs)

Drug Product Therapeutic Category	Sep 2018 # Claims	Sep 2018 $ Paid	Sep 2018 Avr. Paid Per Rx	Sep 2018 Avr. Units Per Rx	Jul 2018 Paid Per Unit	Aug 2018 Paid Per Unit	Sep 2018 Paid Per Unit	Percent Change
methylphenidate 18 mg/24 hr tablet, extended release / CNS stimulants (P)	404	$83,423	$206.49	30	$6.52	$6.46	$6.53	0.2%
Focalin XR (dexmethylphenidate) 30 mg capsule, extended release / CNS stimulants (P)	252	$89,443	$354.93	30	$11.41	$11.44	$11.43	0.2%

NOTE: Pharmacy encounter data for MAG is incomplete for the month of September. This should not affect ranks but may affect total amounts for paid, number of claims, and number of beneficiaries in September.
Products are only included if 100 or more fills in last month and average cost per unit in reference month was >= $1.

New Business

Special Analysis Projects

MISSISSIPPI DIVISION OF MEDICAID

MS-DUR INTERVENTION / EDUCATIONAL MAILING UPDATE

SEPTEMBER 2018 – NOVEMBER 2018

Ongoing Mailings:

	HIGH MEDD (≥90 MEDD) MAILING Initiated Sept 2016		CONCOMITANT BENZODIAZEPINE / OPIOID USE Initiated Feb 2017		PROVIDER SHOPPING FOR OPIOIDS (≥4 Prescribers AND ≥4 Pharmacies) Initiated Nov 2017		
Month	Prescribers Mailed	Benes Addressed	Prescribers Mailed	Benes Addressed	Prescribers Mailed	Pharms Mailed	Benes Addressed
17-Nov	51	61	150	532	64	49	121
17-Dec	-	-	150	485	56	44	105
18-Jan	46	50	150	380	54	32	95
18-Feb	54	71	150	485	54	42	107
18-Mar	46	49	150	368	51	39	100
18-Apr	53	68	150	412	54	44	105
18-May	*20	*21	150	*187	48	34	85
18-Jun	*31	*40	150	*283	*31	*18	*53
18-Jul	48	56	150	323	*33	*26	*65
18-Aug	35	53	150	405	48	34	83
18-Sep	41	50	150	292	36	31	67
18-Oct	33	45	150	321	39	30	74
18-Nov	*19	*25	150	*232	43	31	77

* Data for CCOs was incomplete at the time the mailing was run

** Began excluding sickle cell diagnosis in Oct 2018

INFLUENZA VACCINATION AND TREATMENT OVERVIEW

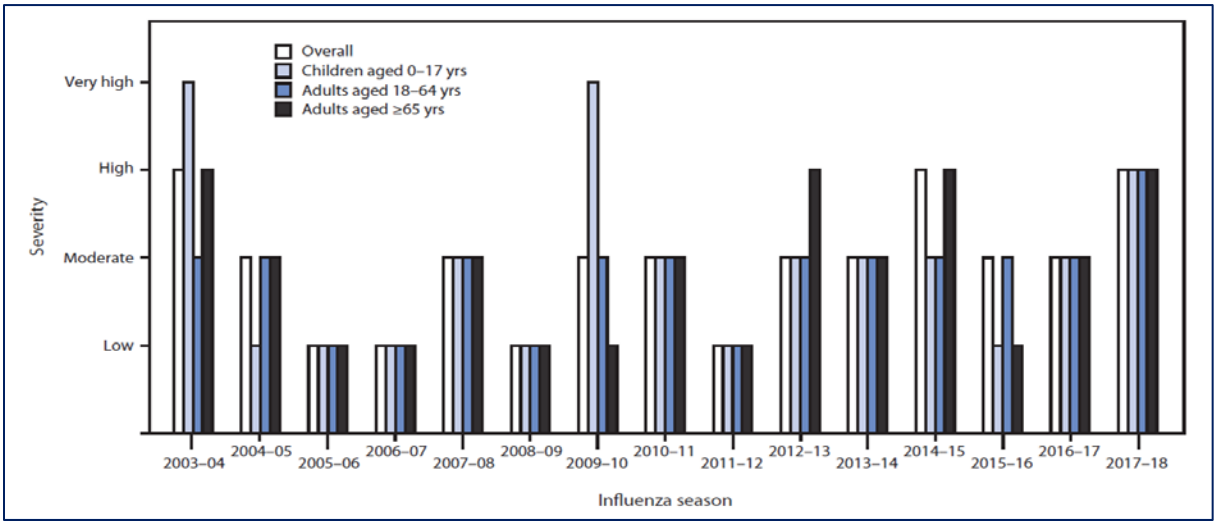
BACKGROUND

Influenza (Flu) is a contagious respiratory illness that can cause mild to severe illness, and can even lead to death. While infection from the influenza virus can occur at any time, influenza viruses typically circulate in the United States between late fall through early spring. Although anyone is susceptible to the flu, certain individuals considered high risk of developing serious flu-related complications include individuals 65 years and older, those with certain chronic medical conditions, pregnant women, and children younger than 5 years.[1]

The 2017-2018 flu season was a high severity season, with peak activity during January and February 2018. Unusually high levels of outpatient influenza-like-illnesses (ILI), hospitalization rates, and influenza-associated deaths occurred.

- Influenza-like-illness peaked at 7.5%, which was the highest percentage since 2009 pandemic.
- An estimated 48.8 million illnesses, 959,000 hospitalizations and 79,400 deaths from the flu during the 2017-2018 season occurred.[2]
- It was the first all-age high severity season since surveillance started in 2003-2004 season. (Figure 1)

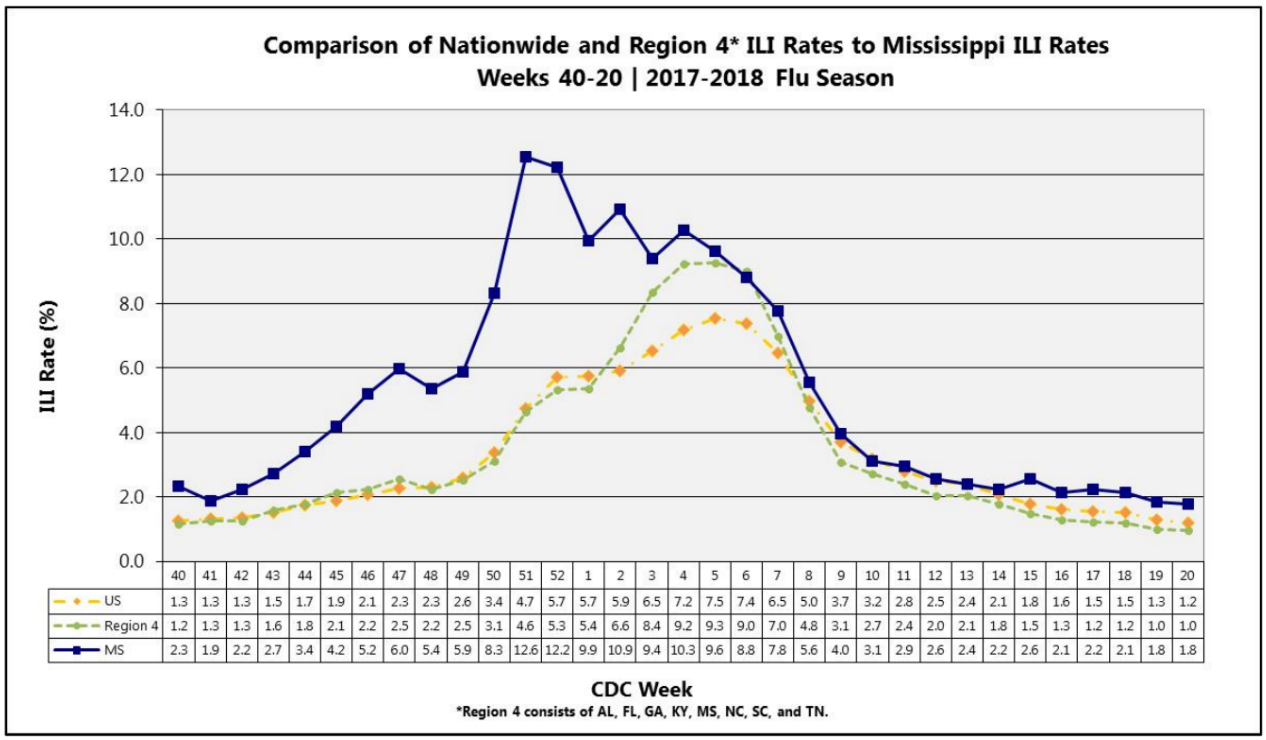
Figure 1: Influenza season severity classification, by age group and season [3]



[1]Centers for Disease Control and Prevention: Key Facts About Influenza. https://www.cdc.gov/flu/keyfacts.htm
[2]Centers for Disease Control and Prevention: Estimated Influenza Illnesses, Medical visits, Hospitalizations, and Deaths in the United States — 2017–2018 influenza season. https://www.cdc.gov/flu/about/burden/estimates.htm
[3] Garten R, Blanton L, Elal AI, et al. Update: Influenza Activity in the United States During the 2017–18 Season and Composition of the 2018–19 Influenza Vaccine. MMWR Morb Mortal Wkly Rep 2018;67:634–642. DOI: http://dx.doi.org/10.15585/mmwr.mm6722a4

Comparing the rates of ILI in Mississippi for the 2017-2018 flu season to nationwide and regional rates, Mississippi consistently had higher rates. (Figure 2)

Figure 2: Mississippi Department of Health Comparison of ILI Rates[4]



	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
US	1.3	1.3	1.3	1.5	1.7	1.9	2.1	2.3	2.3	2.6	3.4	4.7	5.7	5.7	5.9	6.5	7.2	7.5	7.4	6.5	5.0	3.7	3.2	2.8	2.5	2.4	2.1	1.8	1.6	1.5	1.5	1.3	1.2
Region 4	1.2	1.3	1.3	1.6	1.8	2.1	2.2	2.5	2.2	2.5	3.1	4.6	5.3	5.4	6.6	8.4	9.2	9.3	9.0	7.0	4.8	3.1	2.7	2.4	2.0	2.1	1.8	1.5	1.3	1.2	1.2	1.0	1.0
MS	2.3	1.9	2.2	2.7	3.4	4.2	5.2	6.0	5.4	5.9	8.3	12.6	12.2	9.9	10.9	9.4	10.3	9.6	8.8	7.8	5.6	4.0	3.1	2.9	2.6	2.4	2.2	2.6	2.1	2.2	2.1	1.8	1.8

US and Region 4 ILI rates from the Centers for Disease Control and Prevention: http://www.cdc.gov/flu/weekly/.

Preventing infection is vital with flu vaccination serving as the primary source of flu prevention. Vaccination has been shown to reduce the morbidity and mortality associated with influenza. Annual vaccination is recommended by the Centers for Disease Control and Prevention's (CDC) Advisory Committee on Immunization Practices (ACIP) for all persons aged 6 months and older who do not have contraindications.[5] The flu vaccine causes antibodies to develop in the body approximately 2 weeks after vaccination. Protection from the flu vaccine is thought to persist for approximately 6 months and declines over time due to waning antibodies and changes in the circulating influenza virus from year to year. ACIP does not recommend more than one dose of

[4] Mississippi Department of Health: 2017-2018 Influenza Surveillance Report Week 20; May 13-19, 2018; http://www.msdh.state.ms.us/msdhsite/_static/resources/7801.pdf

[5] Grohskopf LA, Sokolow LZ, Broder KR, Walter EB, Fry AM, Jernigan DB. Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices—United States, 2018–19 Influenza Season. MMWR Morb Mortal Wkly Rep 2018;67(No. RR-3):1–20. DOI: http://dx.doi.org/10.15585/mmwr.rr6703a1

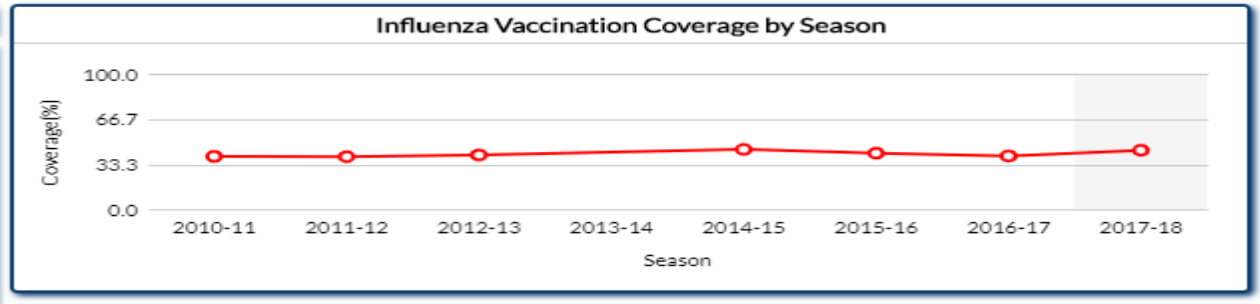
influenza vaccine each season, except for certain children age 6 months through 8 years for whom two doses are recommended.[6,7]

According to the CDC, vaccination coverage for the general population in the US aged 6 months or older in the 2017-2018 season was 41.7%. Mississippi was above the national average and higher than any surrounding states for flu vaccination coverage as shown below:

- Mississippi 44.3%
- Louisiana with 35.3%,
- Tennessee with 36.4%,
- Arkansas with 41.7%,
- Alabama 42.4%

The 2017-2018 vaccination coverage rates for MS was the second highest reported coverage rate for MS since the 2010-2011 season, with only the 2014-2015 season vaccination coverage rate being higher at 44.9%.[8] (Figure 2)

Figure 2: CDC influenza vaccination coverage by season for Mississippi



When patients with the flu are treated within 48 hours of becoming sick, antiviral drugs can reduce symptoms and duration of the illness. Antivirals have been shown to lessen symptoms and shorten illness duration by 1 to 2 days and can prevent serious flu complications such as pneumonia. Antiviral medications can be grouped into 2 classes, neuraminidase inhibitors which have activity against both influenza A and B viruses and adamantanes which are active against influenza A viruses only. In addition to only being active against influenza A viruses, high levels of resistance to adamantanes have been noted in past flu seasons and thus are not recommended for antiviral treatment or chemoprophylaxis of currently circulating influenza viruses.[9]

[6] Immunization Action Coalition. http://www.immunize.org/askexperts/experts_inf.asp
[7] Centers for Disease Control and Prevention: Children & Influenza. https://www.cdc.gov/flu/protect/children.htm
[8] Centers for Disease Control and Prevention: 2010-11 through 2017-18 Influenza Seasons Vaccination Coverage Trend Report. https://www.cdc.gov/flu/fluvaxview/reportshtml/trends/index.html
[9] Centers for Disease Control and Prevention: Influenza Antiviral Medications: Summary for Clinicians. https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm

At this time antiviral resistance to neuraminidase inhibitors is currently low. These agents were recommended for use in the United States during the 2017-2018 influenza season. The oral antiviral oseltamivir (Tamiflu®) is FDA indicated for the treatment of acute, uncomplicated influenza in patients 2 weeks of age and older who have been symptomatic for no more than 2 days.[10] Although it is also FDA indicated for prophylaxis of influenza in patients 1 year and older, the CDC and American Academy of Pediatrics (AAP) recommend prophylactic therapy in children as young as 3 months of age.[11] Treatment dosing is typically twice daily for 5 days, while prophylactic dosing is typically once daily for 10 days. Treatment efficacy was established in 2 placebo-controlled double-blind clinical trials containing 1355 subjects, 849 of which were determined to be influenza-infected. In both studies, there was a 1.3 day reduction in the median time to improvement in influenza-infected subjects receiving Tamiflu® compared to subjects receiving placebo. Currently in Mississippi Medicaid, beneficiaries may receive up to 2 prescriptions for oseltamivir each year.

On October 24, 2018 the FDA approved the first new antiviral for flu in nearly 20 years. Xofluza® (baloxavir marboxil) is indicated for the treatment of acute, uncomplicated influenza in patients 12 years and older who have been symptomatic for no more than 48 hours. Xofluza's mechanism of action is slightly different from previously approved anti-flu agents by working earlier in the viral replication process. Xofluza, taken as a single oral dose, should be administered within 48 hours of symptom onset and may be taken with or without food. The safety and efficacy of Xofluza was demonstrated in two randomized controlled clinical trials of 1,832 patients where participants were assigned to receive either Xofluza, a placebo, or another antiviral flu treatment within 48 hours of experiencing flu symptoms. In both trials, patients treated with Xofluza had a shorter time to alleviation of symptoms compared with patients who took the placebo. In the second trial, there was no difference in the time to alleviation of symptoms between subjects who received Xofluza and those who received the other flu treatment. [12]

According to published pricing information available November 2018, wholesale acquisition cost is approximately $150 for a dose of Xofluza®.[13] There is currently no published information on how often Xofluza® may be taken during any given flu season.

The Division of Medicaid (DOM) requested MS-DUR conduct an analysis of oseltamivir claims during the 2017-2018 flu season. As DOM's electronic edit currently limits beneficiaries to two oseltamivir prescriptions per year, MS-DUR analyzed claims to determine if beneficiaries were

[10] Tamiflu®{package insert}. California: Genentech, Inc. 2012; https://www.accessdata.fda.gov/drugsatfda_docs/label/2012/021087s062lbl.pdf (Accessed November 2018).
[11] American Academy of Pediatrics Committee on Infectious Diseases. Recommendations for prevention and control of influenza in children, 2011-2012. Pediatrics 2011; 128:813-25; PMID:21890834; http://dx.doi.org.umiss.idm.oclc.org/10.1542/peds.2011-2295
[12]Xofluza®{package insert}. California: Genentech, Inc. 2018; https://www.accessdata.fda.gov/drugsatfda_docs/label/2018/210854s000lbl.pdf (Accessed November 2018).
[13] Forbes. https://www.forbes.com/sites/joshuacohen/2018/11/01/the-new-anti-flu-drug-xofluzas-value-proposition/#7305d2c5e999

obtaining more than two prescriptions during a flu season. Additionally MS-DUR evaluated the concomitant utilization of antibiotics and oseltamivir during the 2017-2018 flu season.

METHODS

Pharmacy claims for oseltamivir were extracted for the period January 1, 2017 to June 30, 2018. The analysis included prescriptions from DOM's three pharmacy programs, both Coordinated Care Organizations and Fee-For-Service. The number of beneficiaries taking oseltamivir and the number of prescriptions filled were determined for calendar year 2017 (January – December 2017) and for the state fiscal year 2018 (July 2017 – June 2018).

RESULTS

Table 1 shows the number of beneficiaries taking oseltamivir and the number of prescriptions filled during each time period. During CY 2017 a small percentage of children in all three programs received more than two prescriptions for oseltamivir. This is not unusual in that the early, periodic, screening, diagnostic and treatment (EPSDT) guidelines allow children to exceed most prescription limits. When using the SFY 2018, the number of children obtaining more than two prescriptions for oseltamivir actually decreased slightly in all three programs.

Utilization of oseltamivir among adults indicates that a small number of beneficiaries are receiving more than two prescriptions per flu season due to the current edit.

TABLE 1: Number of Claims for Tamiflu (Oseltamivir) Per Year by Calendar Year and State Fiscal Year						
	Plan	Number of Tamiflu Claims	Number of Beneficiaries CY 2017 (January - December 2017)		Number of Beneficiaries FY 2018 (July 2017 - June 2018)	
Children (< 21 years old)	FFS	1	10,005	93.9%	14,637	95.2%
		2	612	5.7%	697	4.5%
		3 or more	40	0.4%	35	0.2%
	UHC	1	24,225	92.5%	25,727	93.2%
		2	1,860	7.1%	1,790	6.5%
		3 or more	100	0.4%	76	0.3%
	MAG	1	24,722	94.1%	26,797	97.5%
		2	1,524	5.8%	679	2.5%
		3 or more	34	0.1%	17	0.1%
Adults (≥ 21 years old)	FFS	1	965	92.9%	2,369	95.6%
		2	73	7.0%	97	3.9%
		3 or more	1	0.1%	12	0.5%
	UHC	1	2,579	96.9%	2,556	97.3%
		2	81	3.0%	69	2.6%
		3 or more	1	0.0%	3	0.1%
	MAG	1	3,050	97.7%	3,279	99.6%
		2	70	2.2%	12	0.4%
		3 or more	1	0.0%	0	0.0%

Table 2 illustrates the number of prescriptions filled for oseltamivir and the amount paid to pharmacies during SFY 2018 (July 1, 2017 – June 30, 2018). During the 2017-2018 flu season, there were a total of 82,491 prescriptions filled for oseltamivir with DOM paying almost $12 million dollars for treatment.

TABLE 2: Number of Tamiflu (Oseltamivir) Prescriptions Filled and Amount Paid *July 1, 2017 - June 30, 2018*		
Plan	Number of Prescriptions Filled	Amount Paid
FFS	18,740	$2,590,453
UHC	32,242	$4,798,877
MAG	31,509	$4,572,832
TOTAL	82,491	$11,962,162

NOTE: Paid amounts represent amount reported on claims as paid to the pharmacy. These amounts do not reflect final actual costs after rebates, etc.

Tables 3 and 4 display concomitant use of oseltamivir and antibiotics during the 2017-2018 flu season. Antibiotic claims were considered to be concomitant if there were any days of overlap with oseltamivir and the days supply for the antibiotic was < 30 days. Overall concomitant antibiotic use (predominately azithromycin and amoxicillin) occurred with approximately 28.3% of oseltamivir claims with any overlap. When the antibiotic claim was within 2 days of the oseltamivir claim, concomitant use was approximately 22%.

Table 3: Number of Tamiflu (Oseltamivir) Prescription Claims and Concomitant Claims for Antibiotics

July 1, 2017 - June 30, 2018

Plan	Age Group	Number of Oseltamivir Caims	Oseltamivir Claims With Overlapping Antibiotic Claims			
			Any Overlap days supply < 30 days		Dispensed within 2 days of Oseltamivir Claim	
FFS	Children	15,369	3404	22.1%	2653	17.3%
	Adult	2,478	373	15.1%	230	9.3%
UHC	Children	27,593	8090	29.3%	6361	23.1%
	Adult	2,628	1045	39.8%	749	28.5%
MAG	Children	27,493	8188	29.8%	6437	23.4%
	Adult	3,291	1223	37.2%	919	27.9%

** Children are Medicaid beneficiaries below the age of 21 at fill*

Table 4: Antibiotics Prescribed Concomitantly With Tamiflu (Oseltamivir) *July 1, 2017 - June 30, 2018*					
Antibiotic	**Number of Concomitant Claims**	**% of All Concomitant Claims**	**Antibiotic**	**Number of Concomitant Claims**	**% of All Concomitant Claims**
Azithromycin	9232	41.36%	Ertapenem	5	0.02%
Amoxicillin	8526	38.19%	Methenamine	5	0.02%
Amoxicillin-Clavulanate	2452	10.98%	Atovaquone	3	0.01%
Sulfamethoxazole-Trimethoprim	547	2.45%	Ivermectin	3	0.01%
Clarithromycin	249	1.12%	Tobramycin	3	0.01%
Clindamycin	249	1.12%	Demeclocycline	2	0.01%
Doxycycline	215	0.96%	Linezolid	2	0.01%
Penicillin V Potassium	211	0.95%	Moxifloxacin	2	0.01%
Nitrofurantoin	157	0.70%	Tinidazole	2	0.01%
Levofloxacin	140	0.63%	Trimethoprim	2	0.01%
Ciprofloxacin	117	0.52%	Aztreonam	1	0.00%
Metronidazole	114	0.51%	Colistimethate	1	0.00%
Minocycline	48	0.22%	Dapsone	1	0.00%
Erythromycin	10	0.04%	Gentamicin	1	0.00%
Pyrantel	8	0.04%	Neomycin	1	0.00%
Ampicillin	6	0.03%	Piperacillin-Tazobactam	1	0.00%
Rifaximin	6	0.03%	Vancomycin	1	0.00%

CONCLUSIONS AND RECOMMENDATIONS

During the 2017-2018 flu season, there were a total of 82,491 prescriptions filled for oseltamivir with DOM paying almost $12 million dollars for treatment. Only a small number of adult beneficiaries are receiving more than two oseltamivir prescriptions during a single flu season due to the current edits. There did appear to be significant concomitant use of antibiotics along with oseltamivir during the 2017-2018 flu season. Concomitant antibiotic use with antiviral drugs used to treat influenza may be an area to consider for further analysis and a potential DUR educational initiative for providers.

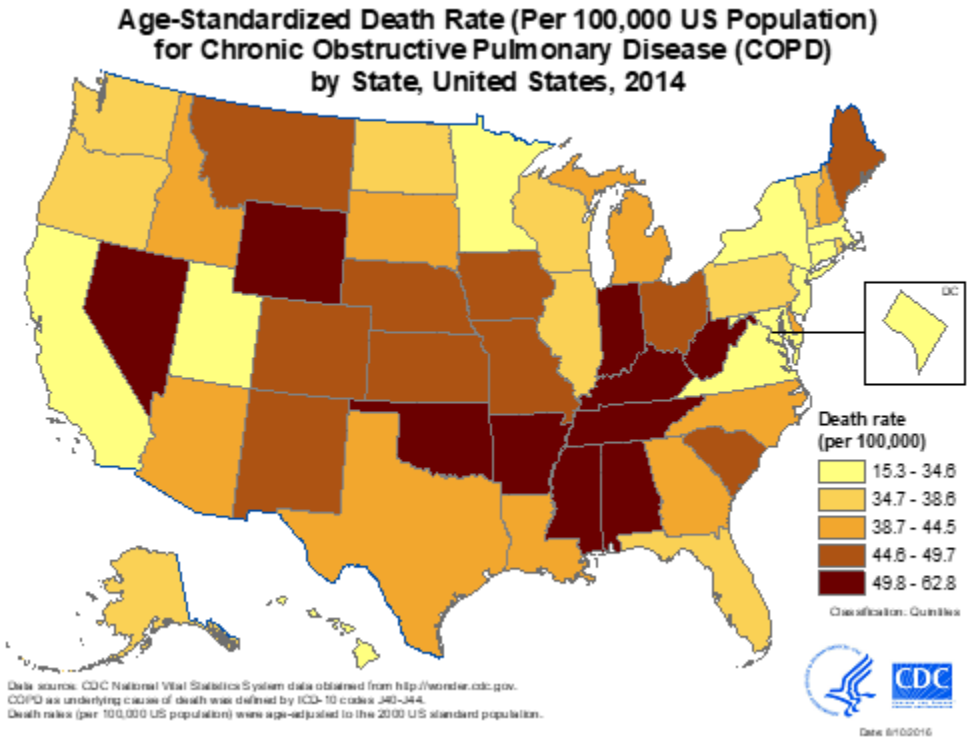
This report was prepared to provide an update to the DUR Board on the 2017-2018 flu season and current treatment options. Feedback from the Board is appreciated as no specific recommendations are currently proposed.

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) TREATMENT PATTERNS AND GOLD GUIDELINES

BACKGROUND

Chronic obstructive pulmonary disease (COPD) is a major contributor to morbidity and mortality in the United States and around the world. According to the Centers for Disease Control and Prevention (CDC) National Center for Health Statistics, chronic lower respiratory disease, primarily COPD, was the 3rd leading cause of death in the United States in 2016.[1] An estimated 15.7 million adults (6.4%) in the US reported that they have been diagnosed by a health professional as having COPD.[2] In 2014, Mississippi was in the top 10 states having the highest age-adjusted death rate for COPD. (Figure 1)

FIGURE 1: Age-standardized Death Rate for COPD United States 2014[3]



[1] National Center for Health Statistics. *Health, United States 2017 with Special Feature on Mortality.* Hyattsville, MD: US Dept Health and Human Services; 2018

[2] Wheaton AG, Cunningham TJ, Ford ES, Croft JB. Employment and activity limitations among adults with chronic obstructive pulmonary disease — United States, 2013. *MMWR Morb Mortal Wkly Rep.* 2015:64 (11):290–295.

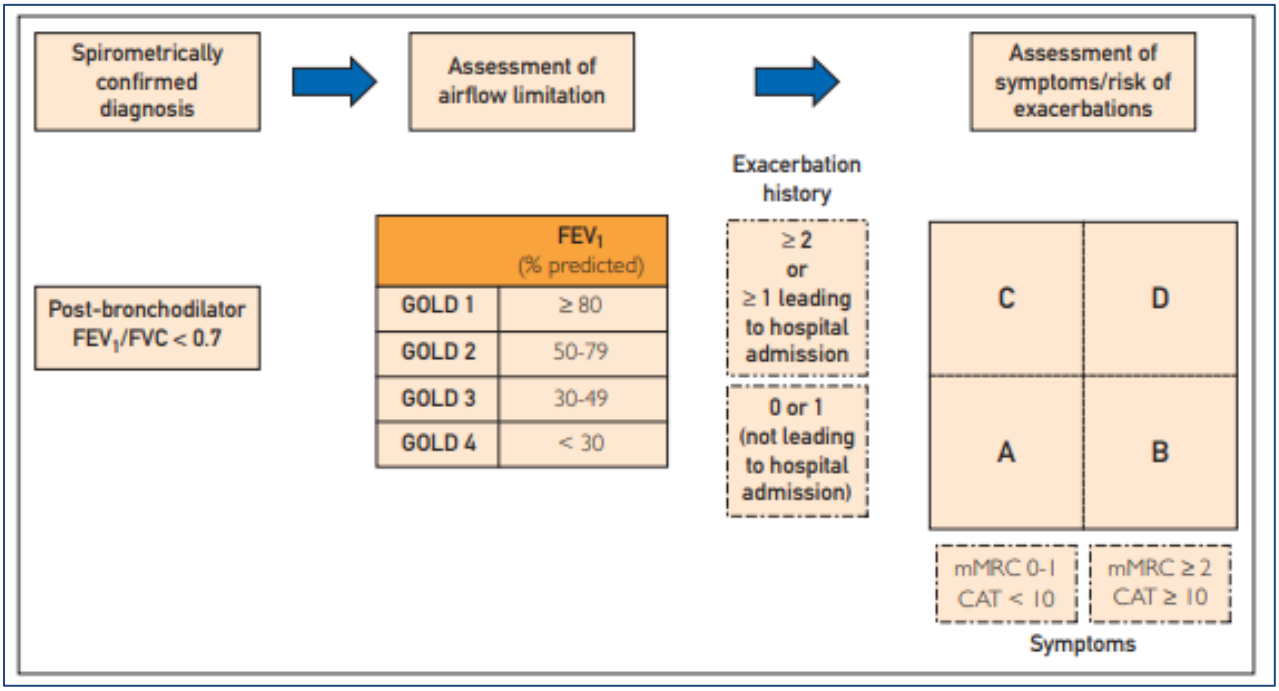
[3] Centers for Disease Control and Prevention: COPD Death Rates in the United States. https://www.cdc.gov/copd/data.htm
COPD as underlying cause of death was defined by ICD-10 codes J40-J44. Death rates (per 100,000 US population) were age-adjusted to the 2000 US standard population

The Global Initiative for Chronic Obstructive Lung Disease (GOLD) was established with the purpose of focusing attention on the management and prevention of COPD. A diverse expert panel initially reviewed established guidelines and current evidence and presented the first consensus report in 2001. GOLD has since published major revisions to the original document in 2006, 2011, and 2017. Minor updates are published nearly annually.[4,5]

GOLD's treatment recommendations are based upon symptom burden and exacerbations. Patients are categorized into groups A to D correlating to exacerbation frequency and symptom severity. (Figure 2)

- Patients in groups A and C have lower symptom burden compared to groups B and D patients;
- Groups A and B include patients with ≤ 1 outpatient exacerbation annually;
- Groups C and D represent patients with ≥ 2 outpatient exacerbations annually or ≥ 1 exacerbation leading to hospitalization.

FIGURE 2: Refined ABCD Assessment Tool Recommended by GOLD 2017/2018



CAT = COPD Assessment Test; GOLD = Global Initiative for Chronic Obstructive Lung Disease; mMRC = modified Medical Research Council.

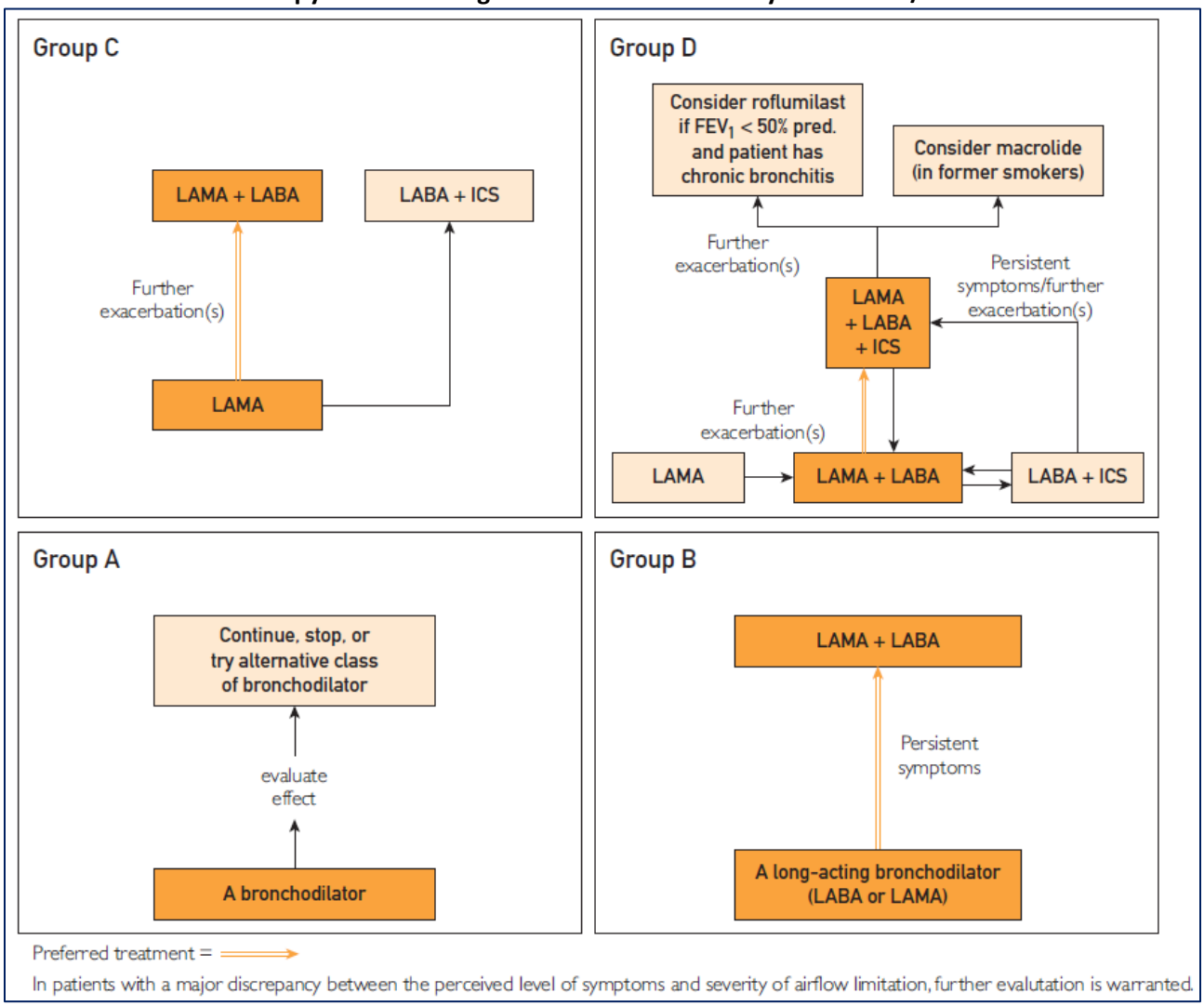
Source: Mirza S, Clay RD, Koslow MA, Scanlon PD. COPD Guidelines: A Review of the 2018 GOLD Report. Mayo Clin Proc. October 2018;93(10):1488-1502. https://doi.org/10.1016/j.mayocp.2018.05.026

[4] GOLD. Global Strategy for the Diagnosis, Management and Prevention of COPD, Global Initiative for Chronic Obstructive Lung Disease (GOLD) 2018. 2018. https://goldcoped.org/. Accessed November 2018.

[5] *Mirza S, Clay RD, Koslow MA, Scanlon PD. COPD Guidelines: A Review of the 2018 GOLD Report. Mayo Clin Proc. October 2018;93(10):1488-1502. https://doi.org/10.1016/j.mayocp.2018.05.026*

Pharmacotherapy treatment recommendations for patients are based upon symptom burden and exacerbations as defined by group assignment. (Figure 3)

FIGURE 3: Pharmacotherapy Treatment Algorithm Recommended by GOLD 2017/ 2018



ICS = inhaled corticosteroid; LABA = long-acting beta agonist; LAMA = long-acting muscarinic antagonist

Source: Mirza S, Clay RD, Koslow MA, Scanlon PD. COPD Guidelines: A Review of the 2018 GOLD Report. Mayo Clin Proc. October 2018;93(10):1488-1502. https://doi.org/10.1016/j.mayocp.2018.05.026

A summary of key recommendations for each group based on the current model are as follows:

Group A:

- Trial of short-acting bronchodilator for intermittent symptoms
    - Short-acting beta agonist (SABA), short-acting muscarinic antagonist (SAMA), or combination SABA/SAMA
- Long-acting bronchodilator for low-grade persistent symptoms

Group B:

- Long-acting bronchodilator monotherapy
    - Long-acting beta agonist (LABA) or long-acting muscarinic antagonist (LAMA)
- Escalation to dual therapy with persistent symptoms (LABA/LAMA)

Group C:

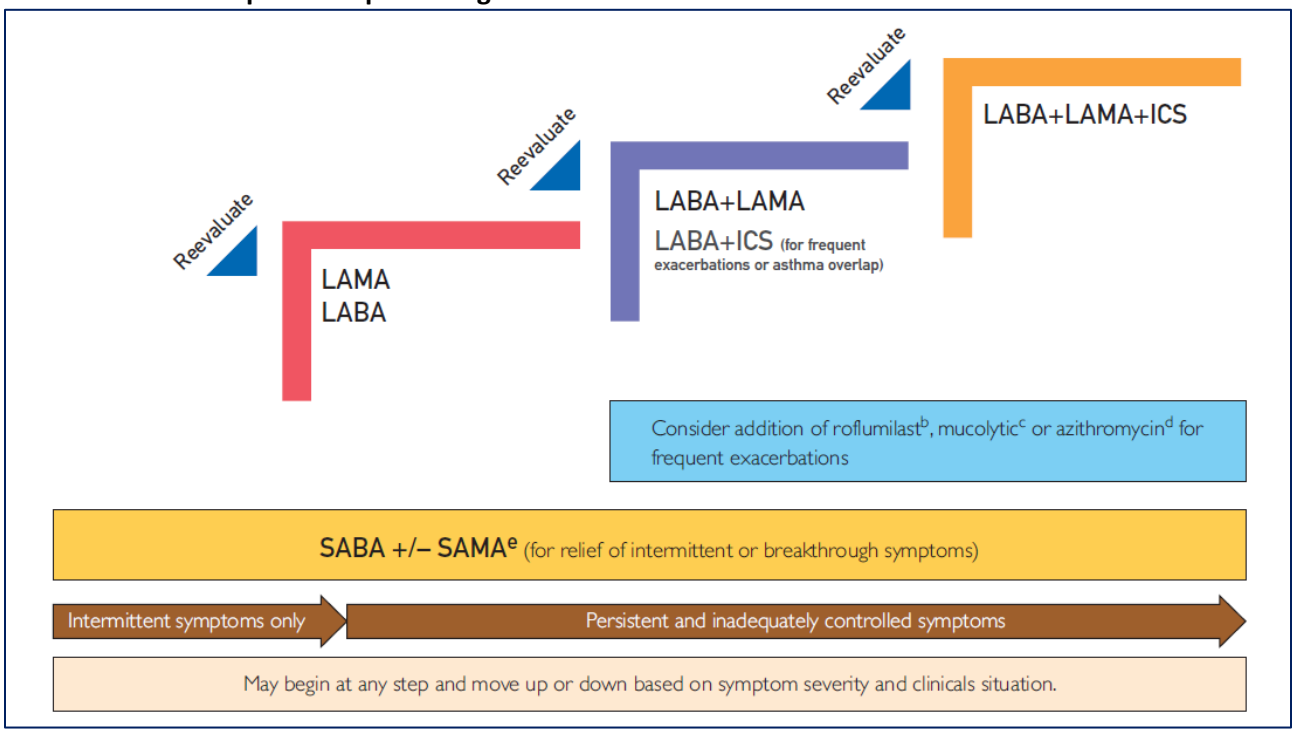
- LAMA monotherapy may be utilized for frequent exacerbations with low symptom burden
- For further exacerbations, LABA/LAMA combination or LABA/ inhaled corticosteroid (ICS) combination

Group D:

- Baseline therapy may include a LAMA, LABA/LAMA, or LABA/ICS
- Escalate to triple therapy with LABA/LAMA/ICS or phosphodiesterase 4 (PDE4) inhibitor or macrolide based on indications

A step-wise algorithm based on guideline recommendations is displayed below. (Figure 4)

FIGURE 4: GOLD Proposed Step-wise Algorithm Based on Usual Clinical Practice



[a] ICS = inhaled corticosteroid; LABA = long-acting beta agonist; LAMA = long-acting muscarinic antagonist; SABA = short-acting beta agonist; SAMA = short-acting muscarinic antagonist.

[b] Roflumilast (Daliresp) may be considered for patients with severe-very severe obstruction with chronic bronchitis and frequent exacerbations.

[c] Mucolytics may be considered in patients with chronic bronchitis and frequent exacerbations.

[d] Azithromycin may be considered for reduction of exacerbations in former smokers over age 65 and mild airflow obstruction.

[e] Avoid routine concomitant SAMA use when on LAMA.

Source: Mirza S, Clay RD, Koslow MA, Scanlon PD. COPD Guidelines: A Review of the 2018 GOLD Report. Mayo Clin Proc. October 2018;93(10):1488-1502. https://doi.org/10.1016/j.mayocp.2018.05.026

METHODS

A retrospective analysis was conducted using Mississippi Medicaid pharmacy and medical claims data from January 1, 2017 to June 30, 2018. The sample included beneficiaries enrolled in Medicaid fee-for-service (FFS) and coordinated care organizations (CCOs). Beneficiaries were classified as having COPD if they had a medical claim for a physician visit, emergency department (ED) visit, or hospitalization containing a COPD diagnoses code (J41, J43.9, J44) during the study period. Treatment patterns were evaluated for compliance with the GOLD guidelines following exacerbation events occurring for "stable" COPD patients.

- Patients were considered to be stable on therapy if they had gone at least six months without an exacerbation event.
    - Exacerbation events included any ED visit or hospitalization with a primary diagnosis of COPD.

Post-exacerbation treatment was examined for agreement with the GOLD guidelines. Pre-exacerbation treatment included all prescriptions filled within 45 days of the exacerbation event and post-exacerbation treatment included all prescriptions filled within 45 days after discharge for the exacerbation event. Three criteria were evaluated with respect to agreement with GOLD guidelines for treatment post-exacerbation.

1. Regardless of the COPD maintenance medication used by stable patients prior to an exacerbation event, post-event regimens should include a long-acting bronchodilator to prevent further exacerbations. Any regimen containing a long-acting bronchodilator was considered as appropriate treatment (LABA, LAMA, LABA/LAMA, LABA/ICS, LABA/LAMA/ICS).
2. If a patient had been on a single long-acting bronchodilator prior to an exacerbation event, the GOLD guidelines recommend a combination inhaler should be provided after further exacerbations occur (e.g. prior regimen was LABA or LAMA change to LABA/LAMA or LABA/ICS).
3. When further exacerbations occur for patients already on a combination inhaler regimen, the GOLD guidelines recommend triple therapy be provided (e.g. prior regimen was LABA/LAMA or LABA/ICS change to LABA/LAMA/ICS).

RESULTS

Table 1 summarizes the COPD population in Mississippi Medicaid. A total of 23,365 beneficiaries were identified as having COPD during the observation period. Of these, 22,171 (95%) were stable (exacerbation free) on therapy for 6 months or more. Of the patients who had a stable period of therapy, 2,915 (13%) had one or more exacerbation during the observation year. Patients who did not remain stable for the entire observation year had an average of 1.8 exacerbation events during the observation year. A total of 5,269 exacerbation events were identified among the patients classified as stable for at least 6 months. The vast majority (86%) of these events were ED visits. Only 21% of the COPD exacerbations were preceded by a doctor's visit within 6 months for managing COPD.

TABLE 1: Summary of Medicaid COPD Population
(FFS and CCOs, January 1, 2017 to June 30, 2018)

Total number of beneficiaries with COPD	**23,365**
Beneficiaries with stable COPD during observation period	22,171 (94.9%)
Beneficiaries having 1 or more exacerbations	2,915 (12.5%)
Total number of exacerbation events	5,269
ED visits	4,518
Hospitalizations	751
Average number of exacerbation events for beneficiaries experiencing exacerbations	1.8
Exacerbation events where patient had COPD related physician visit within 6 months	1,101 (20.9%)
Mean time to last physician visit when one occurred before an exacerbation event	69.8 days

Table 2 shows the pre-exacerbation regimen and post-exacerbation regimen for patients who were classified as stable before having a COPD exacerbation event. The pre-event regimen was determined by prescription fills 45 days prior to the event and the post-event regimen was determined by prescription fills 45 days following the event.

Of particular concern is the finding that following exacerbation events:

- 1,735 (48%) patients did not fill a prescription for any COPD treatment within 45 days, and
- 1,104 (31%) filled prescriptions for short acting bronchodilators products only.

Although these patients may have still been taking other COPD products, not having filled a controller medication within 45 days of an exacerbation could indicate poor medication adherence/ lack of persistency when prescribed COPD medication(s).

TABLE 2: COPD Regimen Pre- and Post-Exacerbation for Beneficiaries Stable for Six or More Months
(FFS and CCOs, January 1, 2017 to June 30, 2018)

Regimen Pre-exacerbation[a]	Regimen Post-exacerbation[b]													
	NONE	SA	LABA	LABA / ICS	LABA / ICS / SA	LABA / LAMA / SA	LABA /SA	LAMA	LAMA / ICS	LAMA / ICS / SA	LAMA / SA	TRIPLE	TRIPLE / SA	Total number on pre-exacerbation regimen
NONE	1,026	242	1	27	17	0	0	14	2	0	5	0	4	1,338
SA	482	657	1	60	74	1	4	11	1	0	29	2	20	1,342
LABA	1	1	0	0	0	0	0	0	0	0	0	0	0	2
LABA / ICS	94	89	0	83	43	0	0	4	2	0	4	2	2	323
LABA / ICS / SA	54	68	0	44	110	0	0	4	0	0	10	4	1	295
LABA / LAMA / SA	0	1	0	0	1	1	0	0	0	0	0	0	0	3
LABA /SA	2	7	0	0	1	0	0	0	0	0	0	0	0	10
LAMA	33	12	0	6	1	0	0	28	1	0	7	5	0	93
LAMA / ICS	5	0	0	0	0	0	0	0	0	0	0	0	0	5
LAMA / ICS / SA	0	0	0	0	0	0	0	0	0	2	0	0	0	2
LAMA / SA	16	16	0	1	3	3	0	3	1	0	22	2	1	68
TRIPLE	11	5	1	3	1	0	0	6	0	0	4	19	8	58
TRIPLE/ SA	11	6	0	1	7	0	0	9	0	0	8	13	23	78
Total number on post-excerbation regimen	1,735	1,104	3	225	258	5	4	79	7	2	89	47	59	3,617

ICS = inhaled corticosteroid; LABA = long-acting beta agonist; LAMA = long-acting muscarinic antagonist; SA = short-acting beta agonist, short-acting muscarinic antagonist and combinations of these; TRIPLE = Trelegy Ellipta, a combination LABA/LAMA/ICS.

[a] *Pre-exacerbation regimen included all prescriptions filled within 45 days of the exacerbation event.*

[b] *Post-exacerbation regimen included all prescriptions filled within 45 days of discharge from exacerbation event.*

Coding key: post regimen not consistent with GOLD recommendations

The following is an example of how to interpret table 2:

- See row 2 (SA): 1,342 beneficiaries were only taking SA products prior to having an exacerbation event. Of these, after the exacerbation 657 were only taking SA products, a total of 180 were taking regimens including LABA or LAMA, and 23 were taking regimens including both LABA and LAMA.

CONCLUSIONS AND RECOMMENDATIONS

During this measurement period, there is room for improvement in compliance with the GOLD guidelines for COPD in the treatment of Medicaid beneficiaries. Although minor changes in treatment recommendations were made in the 2018 guidelines, the vast majority of treatment recommendations evaluated in this study were included in the 2017 guidelines. Increasing compliance with the GOLD guidelines should help to maintain control of COPD and thus decrease the number of exacerbations resulting in ED visits and hospitalizations, as well as, a decrease in productivity, quality of life, and even death.

Recommendations

1. DOM and MS-DUR should undertake a provider educational initiative to promote greater adherence to the GOLD guidelines.
2. If possible, DOM and the CCOs should implement patient management programs to improve medication adherence and help assure appropriate treatment regimens among COPD patients following an exacerbation event.
3. CCOs are invited to present at the next DUR meeting their initiatives and related outcomes on improving treatment regimens for COPD beneficiaries.

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

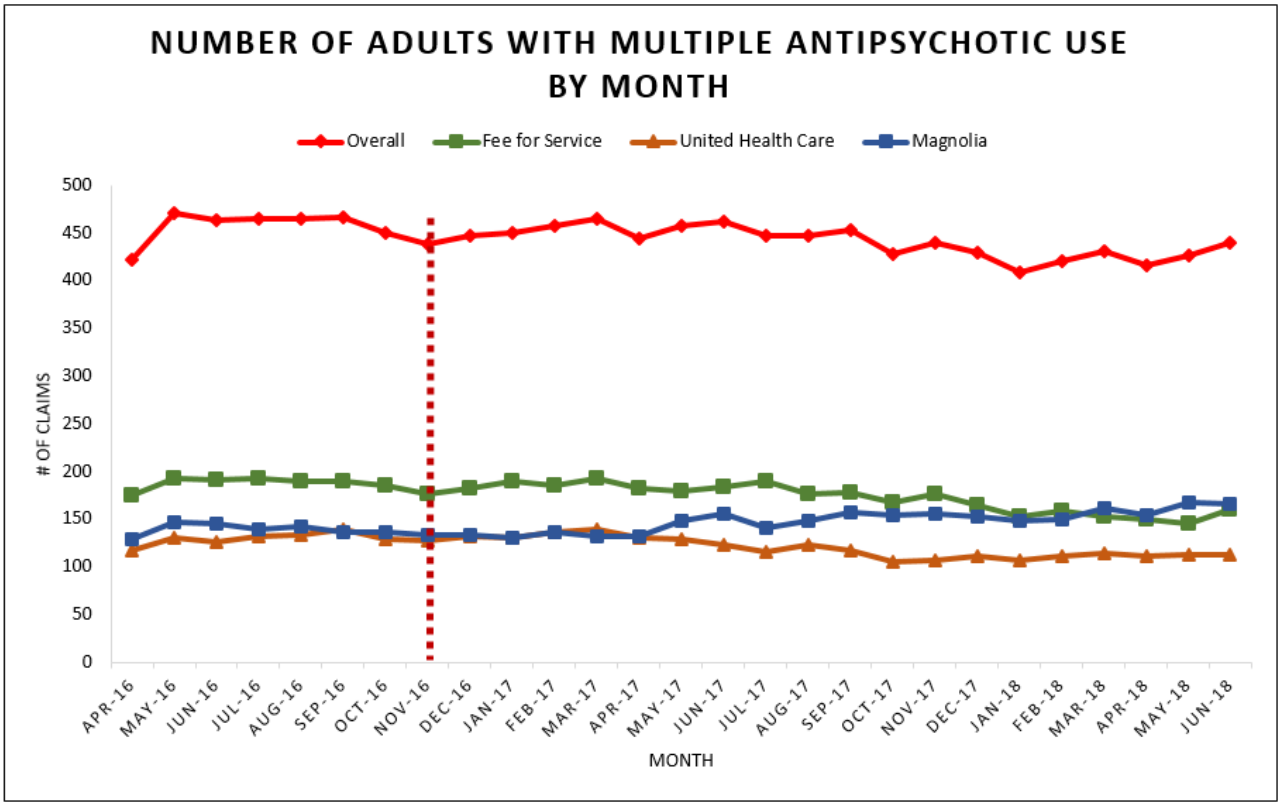


TABLE 1: MONTHLY NUMBER OF BENEFICIARIES FILLING PRECRIPTIONS WITH CONCURRENT THERAPY OF TWO OR MORE ANTIPSYCHOTICS ADULTS ONLY*						
		Number of Beneficiaries With 90 Days of Concurrent Therapy				
Month	Total Number Beneficiaries Filling Claims for Any Antipsychotic	Overall		Fee for Service	United 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

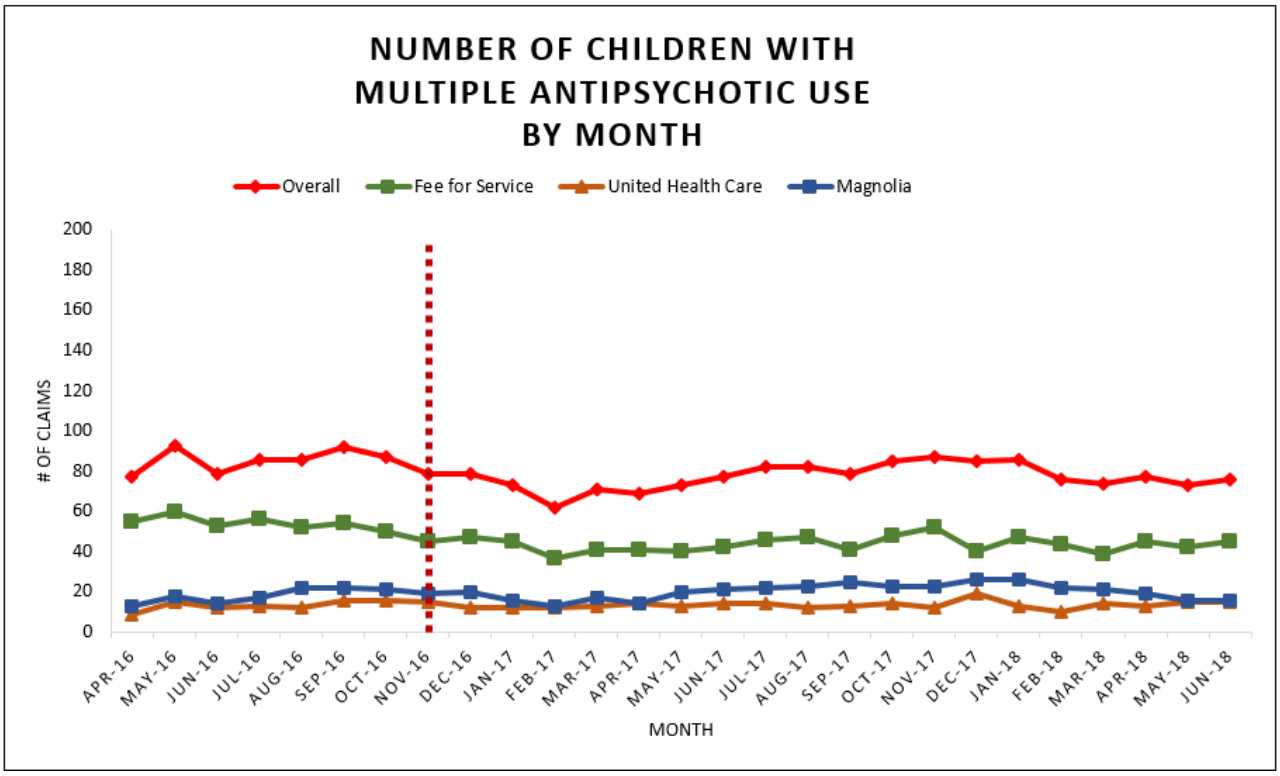


Table 2 illustrates that the rate for concurrent use of multiple antipsychotic medications is considerably higher in the FFS program than in either of the CCOs. The higher rate in the FFS program is partially explained by the fact that institutional based beneficiaries, including beneficiaries in state 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*													
		Number of Beneficiaries With 90 Days of Concurrent Therapy											
Month	Total Number of Beneficiaries Filling Claims for Any Antipsychotic	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.

FDA DRUG SAFETY COMMUNICATIONS

August 2018 – November 2018

- FDA warns that symptoms of a serious condition affecting the blood cells are not being recognized with the leukemia medicine Idhifa (enasidenib)
  11/29/2018

- FDA warns about rare but serious risks of stroke and blood vessel wall tears with multiple sclerosis drug Lemtrada (alemtuzumab)
  11/29/2018

- FDA warns about severe worsening of multiple sclerosis after stopping the medicine Gilenya (fingolimod)
  11/20/2018

- FDA warns about rare occurrences of a serious infection of the genital area with SGLT2 inhibitors for diabetes
  8/29/2018

APPENDIX

AWP	Any Willing Provider, Average Wholesale Price
BENE	Beneficiary
CAH	Critical Access Hospital
CCO	Coordinated Care Organization
CDC	Centers for Disease Control
CHIP	Children's Health Insurance Program
CMS	Center for Medicare and Medicaid Services
COB	Coordination of Benefits
CPC	Complex Pharmaceutical Care
DME	Durable Medical Equipment
DOC	Department of Corrections
DOM	Division of Medicaid
DUR	Drug Utilization Review
EOB	Explanation of Benefits
EPSDT	Early and Periodic Screening, Diagnosis and Treatment
FA	Fiscal Agent
FFS	Fee For Service
FPW	Family Planning Waiver
FQHC	Federally Qualified Health Clinic
FY	Fiscal Year
HB	House Bill
HCPCS/ HEIDIS	Health Plan Employer Data and Information Set
HHS	Department of Health and Human Services
HIPAA	Health Insurance Portability and Accountability
IDD	Intellectual and Developmental Disabilities
LTC	Long Term Care
MAG	Magnolia Health
MEDD	Morphine Equivalent Daily Dose
MSCAN	Mississippi Coordinated Access Network
MSDH	Mississippi State Department of Health
NADAC	National Average Drug Acquisition Cost
NDC	National Drug Code
P&T	Pharmacy and Therapeutics
PA	Prior Authorization
PBM	Pharmacy Benefit Manager
PDL	Preferred Drug List
PI	Program Integrity
PIP	Performance Improvement Program
POS	Point of Sale, Place of Service, Point of Service
Pro-DUR	Prospective Drug Use Review
OTC	Over the Counter
QI	Quality Indicator
QIO	Quality Improvement Organization
QM	Quality Management
RA	Remittance Advise
REOMB	Recipient's Explanation of Medicaid Benefits
Retro-DUR	Retrospective Drug Utilization Review
RFI	Request for Information
RFP	Request for Proposal
RHC	Rural Health Clinic
SB	Senate Bill
SCHIP	State Child Health Insurance Program
SMART PA	Conduent's Pharmacy Application (SmartPA) is a proprietary electronic prior authorization system used for Medicaid fee for service claims
SPA	State Plan Amendment
UHC	United Healthcare
UM/QIO	Utilization Management and Quality Improvement Organization
UPDL	Universal Preferred Drug List
UR	Utilization Review
VFC	Vaccines for Children
WAC	Wholesale Acquisition Cost
WIC	Women, Infants, Children
340B	Federal Drug Discount Program