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

MISSISSIPPI DIVISION OF
MEDICAID

April 14, 2016 at 2:00pm

Woolfolk Building, Room 117

Jackson, MS

Prepared by:

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

Drug Utilization Review Board

Allison Bell, Pharm.D.
University of MS School of Pharmacy
2500 North State St.
Jackson, MS 39216
Term Expires: June 30, 2018

James R. "Beau" Cox, Pharm.D. (**Co-Chair**)
Tara Pharmacy
110 Metroplex Blvd., Suite H
Pearl, MS 39208
Term Expires: June 30, 2016

Logan Davis, Pharm.D., MBA
Vital Care, Inc.
1170 NE Industrial Park Rd
Meridian, MS 39301
Term Expires: June 30, 2016

Antoinette M. Hubble, M.D.
McComb Children's Clinic
300 Rawls Dr. Ste 100
McComb, MS 39648
Term Expires: June 30, 2017

Cherise McIntosh, Pharm.D.
UMC Dept of Pharmacy
2500 North State St.
Jackson, MS 39216
Term Expires: June 30, 2017

Jason Parham, M.D.
UMMC Department of Medicine
2500 North State Street
Jackson, MS 39216
Term Expires: June 30, 2016

Bobby Proctor, M.D.
Laurel Family Clinic
1440 Jefferson St.
Laurel, MS 39440
Term Expires: June 30, 2016

Janet Ricks, D.O.
UMMC, Family Medicine
2500 North State Street
Jackson, MS 39216
Term Expires: June 30, 2018

Sue H. Simmons, M.D.
Maben Medical Clinic
49 Turner St.
Maben, MS 39750
Term Expires: June 30, 2018

Dennis Smith, R.Ph. (**Chair**)
Polk's Discount Pharmacy
1031 Star Rd
Brandon, MS 39042
Term Expires: June 30, 2017

Cynthia Undesser, M.D.
MS Children's Home Services
402 Wesley Ave
Jackson, MS 39202
Term Expires: June 30, 2017

Pearl Wales, Pharm.D.
Be Jay PE Pharmacy 1668
West Peace Street
Canton, MS 39047
Term Expires: June 30, 2018

2016 DUR Board Meeting Dates

January 21, 2016
April 14, 2016
July 21, 2016
September 29, 2016

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
April 14, 2016

DUR Board Meeting Minutes

MISSISSIPPI DIVISION OF MEDICAID
DRUG UTILIZATION REVIEW (DUR) BOARD
MINUTES OF THE January 21, 2016 MEETING

DUR Board Members:	May 2014	Aug 2014	Nov 2014	Feb 2015	May 2015	Aug 2015	Nov 2015	Jan 2016
Allison Bell, Pharm.D.	✓	✓		✓	✓	✓	✓	✓
James R. "Beau" Cox, Pharm.D.		✓		✓	✓	✓	✓	✓
Logan Davis, Pharm.D.		✓	✓	✓	✓	✓	✓	✓
Antoinette M. Hubble, M.D.	✓	✓	✓	✓	✓	✓	✓	✓
Cherise McIntosh, Pharm.D.	✓	✓	✓	✓	✓		✓	
Jason Parham, M.D.	✓	✓	✓	✓	✓	✓	✓	✓
Bobby Proctor, M.D.		✓	✓		✓	✓	✓	
Janet Ricks, D.O.							✓	✓
Sue Simmons, M.D.	✓	✓		✓	✓	✓		✓
Dennis Smith, R.Ph. (Chair)	✓	✓	✓	✓	✓	✓	✓	✓
Cynthia Undesser, M.D.	✓	✓		✓	✓	✓		✓
Pearl Wales, Pharm.D.							✓	✓
TOTAL PRESENT	**7**	**11**	**6**	**9**	**10**	**9**	**10**	**10**

Also Present:

DOM Staff:
Judith Clark, RPh, Pharmacy Bureau Director, DOM; Terri Kirby, RPh, Clinical Pharmacist, DOM; Cindy Noble, PharmD, MPH, DUR Coordinator, DOM; Roxanne Coulter, RN, Nurse Administrator, Coordinated Care, DOM; Sue Reno, RN, Nurse Administrator, Program Integrity, DOM; Tami Brooks, MD, Medical Director, DOM; Matt Westerfield, Associate Communication Officer, DOM; Dorthy K. Young, PhD, MHSA, Deputy Administrator for Health Services

MS-DUR Staff:
Ben Banahan, PhD, MS-DUR Project Director; Shannon Hardwick, RPh, MS-DUR Clinical Director

Xerox State Healthcare Staff:
Leslie Leon, PharmD, Clinical Pharmacist, Mississippi Medicaid Project

Coordinated Care Organization Staff:
Conor Smith, MS, RPh, Director of Pharmacy, Magnolia Health
Michael Todaro, PharmD, Vice President, Pharmacy Operations, Magnolia Health

Visitors:
Callista Goheen, Astrazeneca; Jeff Knappen, Allergan; Tim Hambacher, Otsuka; Greg Martin, Bristol Myers Squibb; Jordan Kelley, UMSOP student; Doug Wood, ViiV Healthcare; Phil Hecht, Abbvie; Juan Trippe, Indivior; Leigh Turner, Indivior; Miranda Tosti, Millennium; Tony Howard, Millennium; Spencer Sullivan, MD, Assistant Professor of Pediatrics and Medicine, Division of Pediatric Hematology and Oncology, UMMC.

Call to Order:
Mr. Dennis Smith, Chairman of the DUR Board, called the meeting to order at 2:10 pm.

Old Business:
Dr. Logan made a motion for approval of the minutes with a second by Dr. Hubble. Minutes were approved unanimously.

Presentation by Dr. Spencer Sullivan:
Due to scheduling needs, the agenda was amended to allow Dr. Sullivan's presentation as the first agenda item for the DUR Board meeting. Ms. Clark introduced Spencer Sullivan, MD, Director of the Hemophilia Treatment Center (HTC) at the University of Mississippi Medical Center's (UMMC.). Dr. Sullivan provided an overview of hemophilia treatment and the current standards of care, which are promoted by the UMMC Treatment Center. Dr. Spencer outlined services and treatment goals at the HTC. Quality of care was defined as hemophilia being treated as an outpatient disease and that for most bleeding events patients should not need emergency department visits or hospital admissions. The difficulties and challenges of chronic pain management, when patients referred to pain management programs were expelled from the program due to having positive drug tests was also reviewed.

Special Guests:
Dorothy Young, Deputy Director of Health Services for DOM greeted and thanked DUR Board members for their service. She stressed the important role they play in providing clinical input for decision making at DOM. Ms. Clark also recognized other DOM personnel attending the meeting including Tami Brooks, MD, Medical Director for DOM and Ms. Roxanne Coulter, RN- Nurse Administrator for the Coordinated Care, MS-CAN Bureau.

Resource Utilization Review:
Ms. Hardwick noted that eligibility data has stabilized following the transfer of children to the CCOs. Current enrollment has approximately 22% of beneficiaries with pharmacy benefits enrolled in FFS and approximately 39% in each of the CCOs. Data gaps from Magnolia had an impact on MS-DUR's analysis of changes for certain reports. No unexpected or unexplained variations in product use were identified during the report period. MS DUR will investigate Dr. Bell's question regarding price per prescription costs for Enoxaparin (p. 21). Dr. Davis inquired how use of Synagis for this year compared to past years. Ms. Clark stated Synagis use had decreased approximately 50%, reflective of current criteria. The utilization was on target with what was predicted. Dr. Young reported that DOM had met with the Mississippi Chapter of the American Academy of Pediatrics and the pediatricians had reported no problems with the new guidelines.

Pharmacy Program Update:
Ms. Clark discussed issues related to pharmacy permit renewals. CMS requires that all providers paid by Medicaid are in good standing with their regulatory organization, which would be the Board of Pharmacy for pharmacists. As of January 1, 2016 of DOM's approximate 900 pharmacy providers, almost 500 pharmacy permits had not yet been renewed. DOM granted a one month grace period. DOM's Pharmacy Bureau personnel were conducting phone calls to pharmacies where permits had not been renewed. As of February 1, claims will be rejected. (*this date was subsequently extended to February 5th, 2016)* Emergency overrides were recently granted for tornado and flood areas. Ms. Clark asked if anyone had knowledge of any problems with the implementation of the January 1, 2016 preferred drug list of having only one preferred generic labeler (authorized generic) for Concerta. No problems were reported by DUR Board members.

Feedback and Discussion from the Board
No items were introduced by the board.

New Business:

Utilization of Tramadol in Children Age ≤ 17 Years

Ms. Hardwick stated that MS-DUR had evaluated the use of tramadol in children age ≤17 years due to FDA's recent safety notice regarding use of tramadol in this population. Recommended ages for use of tramadol formulations vary somewhat among FDA and the official compendia as designated by the Centers for Medicare and Medicaid Services (CMS). During the July 2014 to November 2015 timeframe, utilization of tramadol immediate-release did occur in MS DOM's beneficiaries age ≤ 17 years. There was limited use (only 1 prescription) of the extended release formulation. MS-DUR made the following recommendations to the MS DUR board members:

- Add an age edit for tramadol to the SmartPA Short-acting Narcotics rule.
- Have MS-DUR conduct an educational mailing to providers prescribing tramadol to children age ≤ 17 years, highlighting FDA's safety notice.

Board members reported they had not observed increased use of tramadol since hydrocodone changed to schedule II and may actually have seen increased use of hydrocodone. During discussion Dr. Bell questioned whether restricting tramadol use would not push providers to use more hydrocodone. After discussion Dr. Undesser made the following motion:

- MS-DUR should conduct an educational intervention to inform providers that only one prescription can be written for up to 30 days each year for children in this age group.

The motion was seconded by Dr. Parham and passed unanimously.

Metabolic Monitoring for Children Taking Antipsychotics

Dr. Banahan shared results from the MS-DUR evaluation of the educational intervention recently completed targeting metabolic monitoring for children taking antipsychotics. Results showed that the intervention increased metabolic monitoring rates slightly among prescribers contacted but the rates were still lower than desired. Several board members reported that parents get very concerned about tests and are often refusing to have children tested. Roxanne Coulter, RN reported that the managed care quality committee develops quality focused initiatives in collaboration with the managed care companies and independently for Medicaid's Fee-For-Service beneficiaries. She is responsible for reporting to CMS adult and child core measure outcomes. With the transition of the majority of children to the CCOs, DOM will be responsible for the reporting of the identified CMS quality measures as this information is gathered by the CCOs. Metabolic monitoring of children prescribed antipsychotic medications in the CCO is a targeted initiative. Of note, an identified barrier is that mental health providers cannot bill for metabolic monitoring because the procedure code is not covered for them. DOM and the CCOs are identifying problems and working on solutions to barriers such as this. Ms. Clark reported that the pharmacy bureau has been exploring pharmacy reimbursement initiatives for conducting glucose and lipid testing. Ms. Coulter reported that incentives such as EBT card incentives correlated with EPSDT visits for enrolled CCO beneficiaries have been used. Ms. Coulter stated that DOM will explore with the CCOs the possibility of incentives tied to metabolic monitoring. Dr. Undesser reported that some states actually have peer review for prior authorization of antipsychotics for children and it appears to have been effective in those states. After reviewing the California educational materials on antipsychotics, board members recommended that educational mailings be short and focused, highlighting key points.

High Morphine Equivalent Daily Dosing (MEDD) and Doctor Shopping Educational Initiative

Dr. Banahan informed DUR Board members regarding CMS's recent adoption for the Adult Core Set measures, which essentially are the Pharmacy Quality Alliance's (PQA) quality measures for opiate use. These measures will now be used to evaluate quality of care in Medicaid programs. The three new

measures address (1) high doses of opioids, (2) doctor/pharmacy shopping, and (3) the combination of the two aforementioned criteria. To address the new Adult Core measures, MS-DUR proposed several recommendations for consideration by the DUR Board members. After discussion, Dr. Bell moved the following recommendations be approved by the DUR Board:

1. MS-DUR initiates an educational intervention based on the Opioid High Dosage measure. Each month beneficiaries filling an opioid prescription during the previous month will be identified if they exceed the criteria in the first measure during a six-month look back period. ALL prescribers and pharmacies involved in the prescriptions contributing to the exception will be notified.
2. MS-DUR initiates an education intervention based on the Multiple Prescriber and Multiple Pharmacy measure. Each month beneficiaries filling an opioid prescription during the previous month will be identified if they exceed the criteria in the second measure during a six-month look back period. ALL prescribers and pharmacies involved in the prescriptions contributing to the exception will be notified.
3. MS-DUR will conduct a quarterly analysis based on the combined Opioid High Dosage and Multiple Prescriber/Pharmacy measure. Beneficiaries will be identified who exceed the criteria in the third measure and a report will be provided to Medicaid Program Integrity for further investigation and evaluation for DOM consideration for lock-in.

This motion was seconded by Dr. Wells and approved unanimously.

CDC Proposed Guidelines for Prescribing Opioids for Chronic Pain and Planned Review of Opioid Use Related DUR Actions

Dr. Banahan provided an overview of the draft CDC proposed guidelines for prescribing opioids for chronic pain and the summary of the recommendations provided in Appendix D of the board packet. The website link to the full report of the draft CDC proposed guidelines was provided. Dr. Banahan asked that DUR Board members review the full report in preparation for a detailed review of DUR edits and policies regarding opiate prescribing which is targeted for the April 14, 2016 meeting.

Other Business

On behalf of the DUR Board members, Mr. Smith expressed appreciation for Judy Clark's work on behalf of the Medicaid beneficiaries for the state of Mississippi. Mr. Smith thanked Ms. Clark for her service to Mississippi Medicaid and wished her well with her retirement.

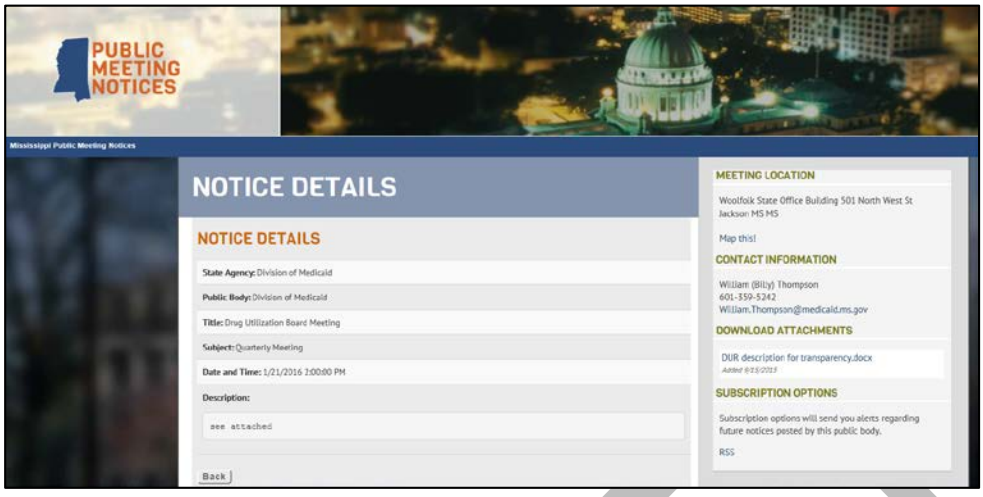
Next Meeting Information:

Mr. Smith announced that the next meeting date is scheduled for April 14, 2016 at 2:00 p.m. He thanked everyone for their attendance and participation at the January 21, 2016 DUR Board meeting. The meeting adjourned at 4:09 pm.

Submitted,

Shannon Hardwick, RPh
Evidence-Based DUR Initiative, MS-DUR

PUBLIC NOTICES ABOUT MEETING



MISSISSIPPI DIVISION OF
MEDICAID

Drug Utilization Review

Board Meeting

January 21, 2016

2:00 P.M.

Woolfolk Building - Room 117

Resource Utilizaton Review

ENROLLMENT STATISTICS FOR LAST 6 MONTHS September 1, 2015 through February 29, 2016							
		Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16
Total enrollment		755,487	751,829	748,996	746,540	747,948	744,507
Dual-eligibles		155,891	155,782	155,566	153,294	154,818	154,251
Pharmacy benefits		652,337	647,891	644,733	642,543	642,385	638,306
LTC		17,506	17,537	17,419	17,234	17,157	16,805
PLAN %	FFS	23.8%	23.6%	23.1%	22.2%	21.5%	20.8%
PLAN %	MSCAN-UHC	38.2%	38.3%	38.5%	38.9%	39.2%	39.5%
PLAN %	MSCAN-Magnolia	38.0%	38.1%	38.4%	38.9%	39.3%	39.7%

PHARMACY UTILIZATION STATISTICS FOR LAST 6 MONTHS September 1, 2015 through February 29, 2016							
		Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16
# Rx Fills	FFS	97,320	91,325	94,314	94,143	90,735	83,465
# Rx Fills	MSCAN-UHC	204,220	211,757	207,111	205,173	209,683	124,573
# Rx Fills	MSCAN-Mag	235,738	242,605	232,932	49,297	206	118
# Rx Fills / Bene	FFS	0.6	0.6	0.6	0.7	0.7	0.6
# Rx Fills / Bene	MSCAN-UHC	0.8	0.9	0.8	0.8	0.8	0.5
# Rx Fills / Bene	MSCAN-Mag	1.0	1.0	0.9	0.2	0.0	0.0
$ Paid Rx	FFS	$13,954,173	$13,100,159	$13,591,498	$13,855,052	$12,806,504	$12,649,024
$ Paid Rx	MSCAN-UHC	$18,294,606	$18,413,488	$18,050,022	$18,631,694	$19,403,157	$11,570,594
$ Paid Rx	MSCAN-Mag	$19,791,230	$20,261,504	$19,740,215	$4,234,985	$14,285	$8,888
$ /Rx Fill	FFS	$143.38	$143.45	$144.11	$147.17	$141.14	$151.55
$ /Rx Fill	MSCAN-UHC	$89.58	$86.96	$87.15	$90.81	$92.54	$92.88
$ /Rx Fill	MSCAN-Mag	$83.95	$83.52	$84.75	$85.91	$69.34	$75.32
$ /Bene	FFS	$89.88	$85.68	$91.26	$97.13	$92.72	$95.27
$ /Bene	MSCAN-UHC	$73.42	$74.21	$72.72	$74.54	$77.05	$45.89
$ /Bene	MSCAN-Mag	$79.84	$82.08	$79.73	$16.94	$0.06	$0.04

NOTES:

- *Paid amounts represent amount reported on claims as paid to the pharmacy. These amounts do not reflect final actual costs after rebates, etc.*
- *Prescription encounter data for Magnolia are incomplete for December - February due to reporting issues that are being resolved.*

Top 10 Drug Categories by Dollars Paid In Feb 2016 (FFS AND CCOs)

Category	Month Year	Rank Paid Amt	# RXs	$ Paid	# Benes
coagulation modifiers	Feb 2016	1	94	$2,694,369	65
	Jan 2016	4	108	$2,481,930	81
	Dec 2015	4	109	$2,680,189	77
antipsychotics	Feb 2016	2	5,515	$2,525,936	4,804
	Jan 2016	3	7,133	$3,216,213	6,256
	Dec 2015	3	8,025	$3,607,061	6,948
central nervous system agents	Feb 2016	3	9,782	$2,299,142	8,632
	Jan 2016	1	15,820	$3,632,586	13,753
	Dec 2015	2	17,317	$3,781,979	14,934
antiviral agents	Feb 2016	4	587	$2,250,378	224
	Jan 2016	2	887	$3,631,952	329
	Dec 2015	1	1,104	$4,426,557	403
antidiabetic agents	Feb 2016	5	2,186	$1,069,052	1,561
	Jan 2016	6	2,735	$1,343,923	1,918
	Dec 2015	6	3,102	$1,549,472	2,193
respiratory agents	Feb 2016	6	3,848	$820,269	3,811
	Jan 2016	5	6,356	$1,356,790	6,277
	Dec 2015	5	7,279	$1,553,637	7,168
analgesics	Feb 2016	7	18,866	$764,712	8,793
	Jan 2016	7	29,357	$1,171,789	13,224
	Dec 2015	7	35,414	$1,472,513	15,968
bronchodilators	Feb 2016	8	2,258	$647,219	1,060
	Jan 2016	8	3,090	$903,206	1,434
	Dec 2015	8	4,296	$1,223,359	1,984
gastrointestinal agents	Feb 2016	9	4,176	$542,386	4,042
	Jan 2016	9	5,580	$721,463	5,420
	Dec 2015	9	6,494	$823,126	6,247
anticonvulsants	Feb 2016	10	3,793	$476,587	3,568
	Jan 2016	14	4,688	$523,468	4,375
	Dec 2015	16	5,472	$576,290	5,074

NOTE: Pharmacy encounter data for Magnolia Health is incomplete for the period December 2015 - February 2016. This should not affect top 10 categories but does affect total number of prescriptions, beneficiaries and dollars paid.

Top 10 Drug Categories by Number of Claims In Feb 2016 (FFS AND CCOs)

Category	Month Year	Rank Volume	# RXs	$ Paid	# Benes
analgesics	Feb 2016	1	18,866	$764,712	8,793
	Jan 2016	1	29,357	$1,171,789	13,224
	Dec 2015	1	35,414	$1,472,513	15,968
central nervous system agents	Feb 2016	2	9,782	$2,299,142	8,632
	Jan 2016	2	15,820	$3,632,586	13,753
	Dec 2015	2	17,317	$3,781,979	14,934
sex hormones	Feb 2016	3	9,740	$472,053	5,688
	Jan 2016	3	13,482	$644,453	7,740
	Dec 2015	3	15,576	$767,033	8,952
penicillins	Feb 2016	4	6,536	$69,857	6,467
	Jan 2016	5	10,342	$107,862	10,149
	Dec 2015	4	12,394	$128,436	12,190
respiratory agents	Feb 2016	5	6,379	$145,040	6,175
	Jan 2016	4	10,383	$228,069	9,984
	Dec 2015	5	12,193	$260,681	11,653
bronchodilators	Feb 2016	6	6,152	$411,614	5,586
	Jan 2016	6	9,878	$644,538	8,812
	Dec 2015	6	11,806	$730,594	10,580
macrolide derivatives	Feb 2016	7	5,859	$206,145	5,757
	Jan 2016	7	9,227	$317,159	9,021
	Dec 2015	8	10,868	$372,609	10,662
antipsychotics	Feb 2016	8	5,515	$2,525,936	4,804
	Jan 2016	12	7,133	$3,216,213	6,256
	Dec 2015	12	8,025	$3,607,061	6,948
adrenal cortical steroids	Feb 2016	9	5,482	$371,264	5,217
	Jan 2016	9	8,601	$580,796	8,100
	Dec 2015	7	10,928	$706,663	10,337
analgesics	Feb 2016	10	5,455	$84,050	5,291
	Jan 2016	8	8,667	$132,960	8,350
	Dec 2015	10	9,835	$146,802	9,526

NOTE: Pharmacy encounter data for Magnolia Health is incomplete for the period December 2015 - February 2016. This should not affect top 10 categories but does affect total number of prescriptions, beneficiaries and dollars paid.

Top 15 Drug Molecule - Brand Products by Change in Amount Paid From Dec 2015 TO Feb 2016 (FFS and CCOs)

Drug Molecule	Dec 2015 $ Paid	Jan 2016 $ Paid	Feb 2016 $ Paid	Dec 2015 # Claims	Jan 2016 # Claims	Feb 2016 # Claims	Dec 2015 # Benes	Jan 2016 # Benes	Feb 2016 # Benes
Antihemophilic Factor-Von Willebrand Factor / Factor For Bleeding Disorders	$152,472	$348,227	$463,186	6	14	10	3	5	4
-------Alphanate	$152,472	$314,702	$461,158	6	10	8	3	3	3
-------Humate-P	$0	$33,525	$2,028	0	4	2	0	2	1
Coagulation Factor Viia / Factor For Bleeding Disorders	$104,795	$120,928	$376,855	2	4	4	2	2	2
-------Novoseven Rtwith Mixpro	$104,795	$120,928	$376,855	2	4	4	2	2	2
C1 Esterase Inhibitor, Human / Factor For Bleeding Disorders	$0	$88,426	$56,570	0	3	1	0	3	1
-------Cinryze	$0	$54,394	$56,570	0	1	1	0	1	1
Lenalidomide / Other Immunosuppressants	$245,269	$212,355	$298,358	22	20	28	9	9	12
-------Revlimid	$245,269	$212,355	$298,358	22	20	28	9	9	12
Plerixafor / Other Immunostimulants	$0	$0	$30,459	0	0	2	0	0	1
-------Mozobil	$0	$0	$30,459	0	0	2	0	0	1
Daptomycin / Infectives	$38,535	$48,598	$68,694	15	11	16	4	5	8
-------Cubicin	$38,535	$48,598	$68,694	15	11	16	4	5	8
Oseltamivir / Neuraminidase Inhibitors	$92,607	$74,027	$122,004	496	395	627	496	394	625
-------Tamiflu	$92,607	$74,027	$122,004	496	395	627	496	394	625
Eltrombopag / Platelet	$3,221	$29,736	$23,637	1	3	2	1	3	2
-------Promacta	$3,221	$29,736	$23,637	1	3	2	1	3	2

Detail on individual drug products only includes products with >= $500 paid in current month

Top 15 Drug Molecule - Brand Products by Change in Amount Paid From Dec 2015 TO Feb 2016 (FFS and CCOs)

Drug Molecule	Dec 2015 $ Paid	Jan 2016 $ Paid	Feb 2016 $ Paid	Dec 2015 # Claims	Jan 2016 # Claims	Feb 2016 # Claims	Dec 2015 # Benes	Jan 2016 # Benes	Feb 2016 # Benes
Abacavir/Dolutegravir/ Lamivudine / Antiviral Combinations	$79,983	$65,441	$91,563	33	27	36	11	9	11
-------Triumeq	$79,983	$65,441	$91,563	33	27	36	11	9	11
Pazopanib / Vegf/Vegfr Inhibitors	$18,533	$19,172	$29,718	2	2	3	2	2	3
-------Votrient	$18,533	$19,172	$29,718	2	2	3	2	2	3
Imatinib / antineoplastics	$0	$0	$10,325	0	0	1	0	0	1
------- Imatinib	$0	$0	$10,325	0	0	1	0	0	1
Ixazomib / Proteasome Inhibitors	$0	$0	$9,156	0	0	1	0	0	1
-------Ninlaro	$0	$0	$9,156	0	0	1	0	0	1
Lapatinib / Her2 Inhibitors	$0	$0	$8,795	0	0	2	0	0	1
-------Tykerb	$0	$0	$8,795	0	0	2	0	0	1
Multivitamin With Iron And Fluoride / Vitamin And Mineral Combinations	$3,645	$8,622	$12,258	138	174	84	23	29	14
-------Poly-Vi-Flor With Iron	$1,336	$5,869	$11,738	6	24	48	1	4	8
-------Multivitamin With Fluoride And Iron	$2,309	$2,273	$520	132	138	36	22	23	6
Buprenorphine / Narcotic Analgesics	$7,613	$16,124	$16,181	33	58	57	27	57	55
-------Butrans	$791	$10,846	$10,542	2	37	31	2	37	30
-------Buprenorphine Hydrochloride	$6,822	$5,278	$5,639	31	21	26	25	20	25

NOTE: Pharmacy encounter data for Magnolia Health is incomplete for the period December 2015 - February 2016. This should not affect top 15 molecule list but does affect total number of prescriptions, beneficiaries and dollars paid.

Detail on individual drug products only includes products with >= $500 paid in current month

Top 15 Drug Molecule - Brand Products by Change in Amount Paid From Dec 2015 TO Feb 2016 With Average paid/Rx < $2000 only (FFS and CCOs)

Drug Molecule	Dec 2015 $ Paid	Jan 2016 $ Paid	Feb 2016 $ Paid	Dec 2015 # Claims	Jan 2016 # Claims	Feb 2016 # Claims	Dec 2015 # Benes	Jan 2016 # Benes	Feb 2016 # Benes
Oseltamivir / Neuraminidase Inhibitors	$92,607	$74,027	$122,004	496	395	627	496	394	625
Multivitamin With Iron And Fluoride / Vitamin And Mineral Combinations	$3,645	$8,622	$12,258	138	174	84	23	29	14
Buprenorphine / Narcotic Analgesics	$7,613	$16,124	$16,181	33	58	57	27	57	55
Piperacillin-Tazobactam / Beta	$1,633	$1,445	$7,993	6	2	38	2	1	6
-------Tamiflu	$92,607	$74,027	$122,004	496	395	627	496	394	625
Vancomycin / Infectives	$11,550	$6,396	$16,396	31	28	58	19	15	23
Omeprazole-Sodium Bicarbonate / Proton Pump Inhibitors	$0	$5,455	$4,740	0	4	2	0	2	1
Solifenacin / Urinary Antispasmodics	$1,737	$9,416	$6,475	10	38	28	6	34	23
Morphine-Naltrexone / Narcotic Analgesic Combinations	$29,863	$39,417	$33,609	84	86	78	41	42	37
Betamethasone-Calcipotriene Topical / Topical Antipsoriatics	$0	$8,246	$3,518	0	6	2	0	3	1
Ezetimibe / Cholesterol Absorption Inhibitors	$4,271	$6,585	$7,715	17	25	28	16	25	28
Cobicistat-Darunavir / Antiviral Combinations	$0	$0	$3,279	0	0	2	0	0	1
-------Poly-Vi-Flor With Iron	$1,336	$5,869	$11,738	6	24	48	1	4	8
-------Multivitamin With Fluoride And Iron	$2,309	$2,273	$520	132	138	36	22	23	6

Detail on individual drug products only includes products with >= $500 paid in current month

Top 15 Drug Molecule - Brand Products by Change in Amount Paid From Dec 2015 TO Feb 2016 With Average paid/Rx < $2000 only (FFS and CCOs)

Drug Molecule	Dec 2015 $ Paid	Jan 2016 $ Paid	Feb 2016 $ Paid	Dec 2015 # Claims	Jan 2016 # Claims	Feb 2016 # Claims	Dec 2015 # Benes	Jan 2016 # Benes	Feb 2016 # Benes
Famotidine-Ibuprofen / Nonsteroidal Anti	$0	$3,138	$3,138	0	2	2	0	1	1
-------Butrans	$791	$10,846	$10,542	2	37	31	2	37	30
-------Buprenorphine Hydrochloride	$6,822	$5,278	$5,639	31	21	26	25	20	25
Dextromethorphan-Quinidine / Miscellaneous Central Nervous System Agents	$39,911	$45,741	$42,995	62	70	66	29	34	32
Brexpiprazole / Atypical Antipsychotics	$915	$3,660	$3,660	1	4	4	1	4	4
Colistimethate / Infectives	$0	$3,652	$2,532	0	3	4	0	3	4

NOTE: Pharmacy encounter data for Magnolia Health is incomplete for the period December 2015 - February 2016. This should not affect top 15 molecule list but does affect total number of prescriptions, beneficiaries and dollars paid.

Detail on individual drug products only includes products with >= $500 paid in current month

Top 15 Drug Products by Change in Amount Paid Per Prescription Dec 2015 To Feb 2016 (FFS and CCOs)

Drug Product Therapeutic Category	Dec 2015 $ Paid	Jan 2016 $ Paid	Feb 2016 $ Paid	Dec 2015 # Claims	Jan 2016 # Claims	Feb 2016 # Claims	Dec 2015 Paid Per Rx	Jan 2016 Paid Per Rx	Feb 2016 Paid Per Rx
Novoseven Rtwith Mixpro 5000 Mcg (5 Mg) Powder For Injection / Factor For Bleeding Disorders	$80,609	$0	$302,285	1	0	2	$80,609	.	$151,142
Alphanate - Powder For Injection / Factor For Bleeding Disorders	$152,472	$314,702	$461,158	6	10	8	$25,412	$31,470	$57,645
Feiba Nf - Powder For Injection / Factor For Bleeding Disorders	$1,192,964	$771,637	$710,014	8	9	4	$149,120	$85,737	$177,504
Rituxan 50 Ml / Immunosuppresant	$42,005	$45,750	$45,750	2	1	1	$21,002	$45,750	$45,750
Novoseven Rtwith Mixpro 2000 Mcg (2 Mg) Powder For Injection / Factor For Bleeding Disorders	$24,186	$120,928	$44,338	1	4	1	$24,186	$30,232	$44,338
Acthar Gel, H.P. 80 Units/Ml Solution / Corticotropin	$107,822	$359,407	$71,881	2	5	1	$53,911	$71,881	$71,881
Kuvan 100 Mg Tablet, Dispersible / Miscellaneous Metabolic Agents	$57,098	$30,968	$25,955	3	2	1	$19,033	$15,484	$25,955
Ravicti 1.1 G/Ml Liquid / Urea Cycle Disorder Agents	$69,119	$75,960	$39,979	2	2	1	$34,560	$37,980	$39,979
Xenazine 25 Mg Tablet / Miscellaneous Central Nervous System Agents	$26,360	$27,836	$18,031	2	2	1	$13,180	$13,918	$18,031
Amicar 500 Mg Tablet / Factor For Bleeding Disorders	$3,456	$0	$5,114	2	0	1	$1,728	.	$5,114
Tasigna 150 Mg Capsule / Bcr	$15,319	$21,130	$10,917	2	2	1	$7,660	$10,565	$10,917
Procysbi 75 Mg Delayed Release Capsule / Miscellaneous Uncategorized Agents	$72,235	$72,235	$77,284	2	2	2	$36,118	$36,118	$38,642

Detail on individual drug products only includes products with >= $500 paid in current month

Top 15 Drug Products by Change in Amount Paid Per Prescription Dec 2015 To Feb 2016 (FFS and CCOs)

Drug Product Therapeutic Category	Dec 2015 $ Paid	Jan 2016 $ Paid	Feb 2016 $ Paid	Dec 2015 # Claims	Jan 2016 # Claims	Feb 2016 # Claims	Dec 2015 Paid Per Rx	Jan 2016 Paid Per Rx	Feb 2016 Paid Per Rx
Jadenu 360 Mg Tablet / Chelating Agents	$232,985	$231,928	$193,483	28	25	18	$8,321	$9,277	$10,749
Sabril 500 Mg Powder For Reconstitution / Gamma	$72,568	$39,771	$80,236	8	4	7	$9,071	$9,943	$11,462
Xyrem 500 Mg/Ml Liquid / Miscellaneous Anxiolytics, Sedatives And Hypnotics	$37,608	$21,488	$35,291	4	2	3	$9,402	$10,744	$11,764

NOTE: Pharmacy encounter data for Magnolia Health is incomplete for the period December 2015 - February 2016. This should not affect top 15 drug product list but does affect total number of prescriptions, beneficiaries and total dollars paid.

Detail on individual drug products only includes products with >= $500 paid in current month

Top 15 Drug Products by Change in Amount Paid Per Prescription Dec 2015 To Feb 2016 With Average Paid/Rx < $2000 only (FFS and CCOs)

Drug Product Therapeutic Category	Dec 2015 $ Paid	Jan 2016 $ Paid	Feb 2016 $ Paid	Dec 2015 # Claims	Jan 2016 # Claims	Feb 2016 # Claims	Dec 2015 Paid Per Rx	Jan 2016 Paid Per Rx	Feb 2016 Paid Per Rx
Pertzye 16,000 Units-57,500 Units-60,500 Units Delayed Release Capsule / Digestive Enzymes	$11,378	$8,449	$13,973	9	3	6	$1,264	$2,816	$2,329
Lamotrigine 25 Mg Tablet, Disintegrating / Triazine Anticonvulsants	$3,263	$2,094	$2,094	3	1	1	$1,088	$2,094	$2,094
Felbatol 400 Mg Tablet / Carbamate Anticonvulsants	$1,278	$1,788	$2,144	1	1	1	$1,278	$1,788	$2,144
Auryxia 210 Mg Tablet / Phosphate Binders	$873	$1,600	$1,600	1	1	1	$873	$1,600	$1,600
Banzel 400 Mg Tablet / Dibenzazepine Anticonvulsants	$35,542	$33,607	$32,917	24	17	15	$1,481	$1,977	$2,194
Aptiom 600 Mg Tablet / Dibenzazepine Anticonvulsants	$2,925	$2,339	$4,816	3	2	3	$975	$1,170	$1,605
Jadenu 90 Mg Tablet / Chelating Agents	$11,297	$13,636	$15,627	7	7	7	$1,614	$1,948	$2,232
Fanapt 10 Mg Tablet / Atypical Antipsychotics	$877	$2,892	$2,892	1	2	2	$877	$1,446	$1,446
Zenpep 10,000 Units-34,000 Units-55,000 Units Delayed Release Capsule / Digestive Enzymes	$6,281	$11,135	$11,249	9	12	9	$698	$928	$1,250
Pancreaze 10,500 Units-43,750 Units-25,000 Units Delayed Release Capsule / Digestive Enzymes	$6,512	$660	$4,826	6	3	3	$1,085	$220	$1,609
Banzel 40 Mg/Ml Suspension / Dibenzazepine Anticonvulsants	$25,879	$29,437	$20,442	17	18	10	$1,522	$1,635	$2,044

Top 15 Drug Products by Change in Amount Paid Per Prescription Dec 2015 To Feb 2016 With Average Paid/Rx < $2000 only (FFS and CCOs)

Drug Product Therapeutic Category	Dec 2015 $ Paid	Jan 2016 $ Paid	Feb 2016 $ Paid	Dec 2015 # Claims	Jan 2016 # Claims	Feb 2016 # Claims	Dec 2015 Paid Per Rx	Jan 2016 Paid Per Rx	Feb 2016 Paid Per Rx
Lovenox 60 Mg/0.6 Ml Solution / Heparins	$5,952	$1,801	$9,458	8	4	8	$744	$450	$1,182
Lovenox 300 Mg/3 Ml Solution / Heparins	$4,822	$9,624	$5,522	10	10	6	$482	$962	$920
Tobramycin Sulfate 40 Mg/Ml Solution / Inhaled Anti	$2,469	$142	$1,468	8	2	2	$309	$71	$734
Lamisil 125 Mg Granule / Miscellaneous Antifungals	$187	$2,215	$607	1	5	1	$187	$443	$607

NOTE: Pharmacy encounter data for Magnolia Health is incomplete for the period December 2015 - February 2016. This should not affect top 15 drug product list but does affect total number of prescriptions, beneficiaries and total dollars paid.

New Business

Special Analysis Projects

UTILIZATION AND TREATMENT PATTERNS FOR PEDICULICIDES IN MISSISSIPPI MEDICAID

BACKGROUND

Recent literature has documented the spread of drug-resistant lice in the United States and other countries.[1, 2] OTC pediculicides such as permethrin 1% lotion, benzyl alcohol 5% lotion and pyrethrin lotion are the most commonly used pharmacological treatments for lice. Effective treatment and avoidance of reinfestation is difficult. Recommendations for effective treatment include children not sharing personal items such as combs, brushes, and hats; applying active contact tracing to identify other infested individuals in the household, play group, kindergarten, and school; using wet combing, because only this technique has a sufficiently high sensitivity to detect few head lice; using a non-toxic drug with an efficacy >90% against nymph, adults, and eggs; applying a second treatment 7-9 days after the first one; and synchronizing treatment, i.e. all infested individual have to be treated at the same time.[3] A summary of current lice treatments is included as an attachment at the end of this report.

In January 2016, the Mississippi Division of Medicaid (DOM) switched Ulesfia (benzyl alcohol) to non-preferred status and added a step edit for Natroba (spinosad) to the Mississippi Medicaid Universal Preferred Drug List (UPDL). The current UPDL for this class is shown below.

THERAPEUTIC DRUG CLASS	PREFERRED AGENTS	NON-PREFERRED AGENTS	PA CRITERIA
ANTIPARASITICS (Topical) SmartPA			
	PEDICULICIDES		
	permethrin 1% NATROBA (spinosad) Step Edit	lindane malathion OVIDE (malathion) SKLICE (ivermectin) ULESFIA (benzyl alcohol)	**Minimum Age/Weight Limit for Pediculicides** • **50 kg** - lindane shampoo • **2 months** – permethrin 1%(OTC) • **6 months** – Natroba, SKLICE, Ulesfia • **2 years** – piperonyl/pyrethrins (OTC) • **6 years** – Ovide **Natroba – Step Edit** • History of permethrin 1% topical lotion **OR** piperonyl/pyrethrin in the past 90 days **Non Preferred Criteria** • History of permethrin 1% topical lotion **OR** piperonyl/pyrethrin in the past 90 days **AND** • History of Natroba in the past 90 days **Ulesfia** Ulesfia is no longer covered due to no longer being rebated.

[1] McNair CM. Ectoparasites of medical and veterinary importance: drug resistance and the need for alternative control methods. *Journal of Pharmacy And Pharmacology* 2015: 67:351–63. doi: 10.1111/jphp.12368

[2] Van der Wouden JC, Klootwijk T, Le Cleach L, Do G, Vander Stichele R, Knuistingh Neven A, Eekhof JAH. Interventions for treating head lice. Cochrane Database of Systematic Reviews 2011, Issue 10. Art. No.: CD009321. DOI: 10.1002/14651858.CD009321.

[3] Feldmeier H. Treatment of Pediculosis Capitis: A Critical Appraisal of the Current Literature. Am J Clin Dermatol. 2014;15:401–12. DOI 10.1007/s40257-014-0094-4

Recently DOM has received feedback from providers about concerns regarding resistance to the most frequently used preferred products and the limited number of preferred agents. MS-DUR was asked to conduct an analysis to assess the utilization and treatment patterns for pediculicides in Mississippi Medicaid and to evaluate the potential need for changes in the UPDL.

METHODS

A retrospective analysis was conducted using Mississippi Medicaid fee-for-service (FFS) and coordinated care organizations [CCOS: United Healthcare (UHC) and Magnolia (Mag)] pharmacy claims for the period January 1, 2015 through December 31, 2015. All prescriptions for pediculicides in the UPDL were extracted for analysis. Prior authorization information was available for the FFS claims only.

For each beneficiary, treatment patterns (regimens) were identified using the following criteria:

- A prescription fill was considered to be a new start of treatment if it was the first prescription for a pediculicides in 90 days.
- All subsequent prescriptions for pediculicides filled without a 90-day gap were considered to be retreatments and were linked to identify the sequence of treatments.
- Prescription claims with greater than a 90 day gap were considered to be new treatment starts, thus beneficiaries could have multiple regimens reported.

RESULTS

The data shows that permethrin 1% lotion was the most commonly used pediculicide in Mississippi Medicaid in 2015. Table 1 shows the number of beneficiaries from each pharmacy plan and the number of times they filled a pediculicide prescription.

Table 1: Utilization of Anti-lice Agents (January - December 2015)

	FFS		UHC		Mag	
Drug	Number of Benes	Number of Fills	Number of Benes	Number of Fills	Number of Benes	Number of Fills
Permethrin 1% lotion	1296	1627	1048	1359	977	1247
Benzyl Alcohol 5% lotion (Ulesfia)	506	622	416	544	303	363
Piperonyl butoxide-Pyrethrins topical	47	53	26	29	0	0
Spinosad 0.9% suspension (Natroba)	19	20	21	21	14	14
Malathion 0.5% lotion	18	24	70	78	5	7
Ivermectin 0.5% lotion (SKLICE)	17	19	26	26	6	6

Note: Prescription encounter data for Magnolia is incomplete for November and December 2015.

Table 2 shows the number of pediculicide prescriptions filled by each beneficiary in 2015 by each pharmacy plan. Although the majority (71.5% overall) had a single prescription filled for a pediculicide, more than a fourth (28.5%) of beneficiaries had more than one treatment during 2015 indicating the failure of successful treatment and/or re-infestation. The high number of retreated patients could signify development of resistance or simply incomplete treatment of the home environment.

Table 2: Number of Anti-lice Agent Prescription Fills in 2015 (January - December 2015)

Number of Rx Fills	FFS		UHC		Magnolia		Total	
	#	%	#	%	#	%	#	%
1	1120	78.7%	1008	66.4%	869	69.5%	2997	71.5%
2	222	15.6%	336	22.1%	247	19.8%	805	19.2%
3	69	4.8%	107	7.0%	79	6.3%	255	6.1%
4	10	0.7%	36	2.4%	24	1.9%	70	1.7%
5	3	0.2%	18	1.2%	17	1.4%	38	0.9%
6	0	0.0%	5	0.3%	3	0.2%	8	0.2%
7	0	0.0%	3	0.2%	4	0.3%	7	0.2%
8	0	0.0%	3	0.2%	1	0.1%	4	0.1%
9	0	0.0%	2	0.1%	4	0.3%	6	0.1%
10	0	0.0%	0	0.0%	2	0.2%	2	0.0%
14	0	0.0%	1	0.1%	0	0.0%	1	0.0%
Total	1424		1519		1250		4193	

Note: Prescription encounter data for Magnolia is incomplete for November and December 2015.

A 90-day washout period for a pediculicide was used to identify the first complete drug regimen occurring in 2015 for each beneficiary. Table 3 shows the agents used in 2015 following the 90-day washout period. Compliance with the UPDL appears to be very good in all three plans but does vary by plan. Magnolia had the highest rate of compliance with only 0.7% of first drugs in regimens being non-preferred products compared to 2.4% for FFS and 5.4% for United Healthcare.

Table 3: Drugs Used for First Regimen in 2015 Following 90-day Washout Period (FFS and CCO January - December 2015)					
	FFS				
	Prior Authorization				
Drug	Manual	Smart	Total	UHC	Mag
Permethrin 1% lotion	5	419	424	854	777
Benzyl Alcohol 5% lotion (Ulesfia)	1	194	195	309	206
Piperonyl butoxide-Pyrethrins topical	0	12	12	20	0
Malathion 0.5% lotion	6	0	6	44	0
Ivermectin 0.5% lotion (SKLICE)	4	1	5	12	1
Spinosad 0.9% suspension (Natroba)	5	0	5	11	6
Total	21	626	647	1250	990

Note: Prescription encounter data for Magnolia is incomplete for November - December 2015. Should have little, if any impact on this table.

Table 4 shows the frequency of each treatment regimen identified after the initial 90-day washout period. As expected, one-time treatment with permethrin and Ulesfia lotion were the most common treatment options (54.8% and 20.2%, respectively). Overall, 78.7% of the regimens identified included a single treatment. Although the number of cases are not very high, it is concerning that beneficiaries are sometimes retreated with the same agent which could indicate inadequate treatment technique or could contribute significantly to the development of resistance in the household.

Table 4: Regimen Combinations Occurring After 90-day Washout Period (FFS and CCOs January - December 2015)								
	FFS		UHC		MAG		TOTAL	
Regimen	Number of Benes	%	Number of Benes	%	Number of Benes	%	Number of Benes	%
Permethrin	362	48.5%	711	53.1%	629	61.7%	1702	54.8%
Ulesfia	176	23.6%	270	20.2%	182	17.8%	628	20.2%
Permethrin; Permethrin	62	8.3%	142	10.6%	113	11.1%	317	10.2%
Ulesfia; Ulesfia	20	2.7%	46	3.4%	28	2.7%	94	3.0%
Permethrin; Permethrin; Permethrin	15	2.0%	19	1.4%	26	2.5%	60	1.9%
Malathion	5	0.7%	44	3.3%	0	0.0%	49	1.6%
Permethrin; Ulesfia	25	3.4%	12	0.9%	9	0.9%	46	1.5%
Pip butox/Pyr	10	1.3%	18	1.3%	0	0.0%	28	0.9%
Natroba	6	0.8%	9	0.7%	5	0.5%	20	0.6%
Ulesfia; Ulesfia; Ulesfia	9	1.2%	10	0.7%	1	0.1%	20	0.6%
SKLICE	4	0.5%	11	0.8%	1	0.1%	16	0.5%

Ulesfia; Permethrin	4	0.5%	7	0.5%	2	0.2%	13	0.4%
Permethrin; Permethrin; Permethrin; Permethrin	4	0.5%	4	0.3%	3	0.3%	11	0.4%
Permethrin; Permethrin; Ulesfia	5	0.7%	1	0.1%	5	0.5%	11	0.4%
Permethrin; Ulesfia; Ulesfia	2	0.3%	4	0.3%	3	0.3%	9	0.3%
Permethrin; Permethrin; Permethrin; Permethrin; Permethrin	4	0.5%	1	0.1%	1	0.1%	6	0.2%
Permethrin; Permethrin; Ulesfia; Ulesfia	2	0.3%	3	0.2%	0	0.0%	5	0.2%
Permethrin; SKLICE	0	0.0%	3	0.2%	2	0.2%	5	0.2%
Pip butox/Pyr; Pip butox/Pyr	2	0.3%	3	0.2%	0	0.0%	5	0.2%
Permethrin; Natroba	2	0.3%	1	0.1%	1	0.1%	4	0.1%
Malathion; Malathion	1	0.1%	2	0.1%	0	0.0%	3	0.1%
Permethrin; Ulesfia; Permethrin	1	0.1%	2	0.1%	0	0.0%	3	0.1%
Ulesfia; Malathion	0	0.0%	1	0.1%	2	0.2%	3	0.1%
Ulesfia; Permethrin; Permethrin	2	0.3%	1	0.1%	0	0.0%	3	0.1%
Natroba; Ulesfia	0	0.0%	1	0.1%	1	0.1%	2	0.1%
Permethrin; Malathion	0	0.0%	2	0.1%	0	0.0%	2	0.1%
Permethrin; Permethrin; Permethrin; Pip butox/Pyr	2	0.3%	0	0.0%	0	0.0%	2	0.1%
Ulesfia; Ulesfia; Ulesfia; SKLICE	2	0.3%	0	0.0%	0	0.0%	2	0.1%
Ulesfia; Ulesfia; Ulesfia; Ulesfia	1	0.1%	1	0.1%	0	0.0%	2	0.1%
Malathion; Malathion; Malathion	1	0.1%	0	0.0%	0	0.0%	1	0.0%
Natroba; Permethrin	0	0.0%	1	0.1%	0	0.0%	1	0.0%
Permethrin; Permethrin; Malathion	0	0.0%	1	0.1%	0	0.0%	1	0.0%
Permethrin; Permethrin; Malathion; Permethrin; Ulesfia	1	0.1%	0	0.0%	0	0.0%	1	0.0%
Permethrin; Permethrin; Permethrin; Permethrin; Malathion	1	0.1%	0	0.0%	0	0.0%	1	0.0%
Permethrin; Permethrin; Permethrin; Permethrin; Permethrin; Permethrin	1	0.1%	0	0.0%	0	0.0%	1	0.0%

Permethrin; Permethrin; Permethrin; Permethrin; Ulesfia	0	0.0%	0	0.0%	1	0.1%	1	0.0%
Permethrin; Permethrin; Permethrin; Ulesfia	0	0.0%	0	0.0%	1	0.1%	1	0.0%
Permethrin; Permethrin; Pip butox/Pyr	0	0.0%	1	0.1%	0	0.0%	1	0.0%
Permethrin; Permethrin; Ulesfia; Natroba	0	0.0%	0	0.0%	1	0.1%	1	0.0%
Permethrin; Permethrin; Ulesfia; Permethrin; SKLICE	0	0.0%	0	0.0%	1	0.1%	1	0.0%
Permethrin; Pip butox/Pyr	0	0.0%	1	0.1%	0	0.0%	1	0.0%
Permethrin; Pip butox/Pyr; Permethrin	1	0.1%	0	0.0%	0	0.0%	1	0.0%
Permethrin; SKLICE; Permethrin; Permethrin; Ulesfia	1	0.1%	0	0.0%	0	0.0%	1	0.0%
Permethrin; SKLICE; Permethrin; Permethrin; Ulesfia; Ulesfia	1	0.1%	0	0.0%	0	0.0%	1	0.0%
Permethrin; SKLICE; Permethrin; Ulesfia	0	0.0%	1	0.1%	0	0.0%	1	0.0%
Permethrin; Ulesfia; Malathion	1	0.1%	0	0.0%	0	0.0%	1	0.0%
Permethrin; Ulesfia; Ulesfia; Ulesfia	0	0.0%	1	0.1%	0	0.0%	1	0.0%
Pip butox/Pyr; Permethrin	1	0.1%	0	0.0%	0	0.0%	1	0.0%
Pip butox/Pyr; Ulesfia	1	0.1%	0	0.0%	0	0.0%	1	0.0%
SKLICE; Permethrin	1	0.1%	0	0.0%	0	0.0%	1	0.0%
SKLICE; SKLICE	1	0.1%	0	0.0%	0	0.0%	1	0.0%
SKLICE; Ulesfia	0	0.0%	1	0.1%	0	0.0%	1	0.0%
Ulesfia; Malathion; Malathion	0	0.0%	0	0.0%	1	0.1%	1	0.0%
Ulesfia; Natroba	0	0.0%	1	0.1%	0	0.0%	1	0.0%
Ulesfia; Permethrin; Malathion; Malathion	1	0.1%	0	0.0%	0	0.0%	1	0.0%
Ulesfia; Permethrin; Natroba	1	0.1%	0	0.0%	0	0.0%	1	0.0%
Ulesfia; Permethrin; Ulesfia	1	0.1%	0	0.0%	0	0.0%	1	0.0%
Ulesfia; Permethrin; Ulesfia; SKLICE	0	0.0%	1	0.1%	0	0.0%	1	0.0%
Ulesfia; Ulesfia; Permethrin; Permethrin; Natroba	0	0.0%	0	0.0%	1	0.1%	1	0.0%

Ulesfia; Ulesfia; Permethrin; Ulesfia; Ulesfia	1	0.1%	0	0.0%	0	0.0%	1	0.0%
Ulesfia; Ulesfia; SKLICE	0	0.0%	1	0.1%	0	0.0%	1	0.0%
Ulesfia; Ulesfia; Ulesfia; Permethrin	1	0.1%	0	0.0%	0	0.0%	1	0.0%
Ulesfia; Ulesfia; Ulesfia; Ulesfia; Ulesfia; Permethrin	1	0.1%	0	0.0%	0	0.0%	1	0.0%
Total	746		1339		1020		3105	

Note: Prescription encounter data for Magnolia is incomplete for November and December 2015.

CONCLUSIONS

Treatment patterns for pediculicides seem to follow expected patterns with respect to utilization of preferred products. However, some beneficiaries appear to be undergoing extended therapies using the same or similar products several times, which could suggest inappropriate treatment or an increase in drug-resistant lice.

DUR BOARD ACTION REQUESTED

a. Feedback regarding the increased prevalence of lice and the possibility of drug-resistance.

SUMMARY OF LICE TREATMENTS

Brand/Generic Name	Route	Cidal Activity	MOA	FDA-approved ages	Summary of Application
Nix • permethrin 1% • OTC	Topical cream rinse 	Pediculicidal – kills live lice	• Synthetic pyrethroid that delay repolariziation of neuron by affecting voltage-gated Na^+ channels→ leads to nervous system hyperstimulation which results in paralysis	Individuals ≥ 2 moa	• Apply to damp hair • Leave on hair for 10 minutes then rinse with warm water • Towel dry hair and comb out tangles • **Retreat** 7 days after initial treatment (9 days per CDC) • 1 bottle: 2 oz (59 mL)
Rid, A-200, Pronto, R&C, Triple X, Licide • pyrethrins + piperonyl butoxide • OTC • Contranindicated if chrysanthemum/ ragweed allergy	Topical shampoo or mouse formulation 	Pediculicidal – kills live lice	• **Naturally** occurring pyrethroid extract from **chrysanthemum** • Delay repolariziation of neuron by affecting voltage-gated Na^+ channels→ leads to nervous system hyperstimulation which results in paralysis	Individuals ≥ 2 yoa	• Apply to dry hair • Leave on hair for 10 minutes then rinse with warm water • Comb out damp hair with regular wide-tooth comb • **Retreat** 9-10 days after initial treatment • 1 bottle: 2 oz (59 mL)
Sklice • ivermectin 0.5% • Prescription	Topical lotion 	**Not** ovicidal - does not kills unhatched eggs) but prevents nymphs (newly hatched lice) from surviving	• Increases the Cl^- permeability of muscle cells, resulting in hyperpolarization, paralysis, and death	Individuals ≥ 6moa	• Apply to dry hair and dry scalp • Leave on hair for 10 minutes and rinse with water • **Do NOT retreat** • 1 bottle: 4 oz (120 mL)

Ulesfia • benzyl alcohol 5% • Prescription	Topical lotion 	Pediculicidal– kills live lice	• Kills by asphyxiation; inhibits lice from closing their respiratory spiracles, allows the vehicle to obstruct the spiracles and causes the lice to asphyxiate	Individuals ≥ 6 moa and ≤ 60 yoa	• Apply to **dry** scalp and **dry** hair • Leave on hair for 10 minutes and rinse with water • **Retreat** 7 days after initial treatment (PI) although 9 days may be more effective (CDC) • 1 bottle: 8 oz (240 mL)
Ovide • malathion 0.5% • Prescription	Topical lotion 	Pediculicidal– kills live lice and ovicidal - kills unhatched eggs	• Organophosphate that inhibits cholinesterase acitivity, resulting in increased acetylcholine concentrations→ excess cholinergic activity causes nervous system hyperstimulation and prevents feeding	Individuals ≥ 6yoa	• Apply to dry hair and dry scalp • Allow hair to **air dry** (malathion is *flammable*) • Shampoo hair after 8-12 hours • Rinse and use fine-toothed (nit) comb to remove dead lice and eggs • **Retreat** if live lice are seen 7-9 days • 1 bottle: 2 oz (59 mL)
Natroba • spinosad 0.9% • Prescription	Topical suspension 	Pediculicidal– kills live lice and ovicidal- kills unhatched eggs	• Causes hyperexcitabiity of nervous system that results in paralysis and death	Individuals ≥ 4yoa	• Apply first to dry scalp, then to dry hair in amount sufficient to cover entirely • Apply up to 120 mL (depends on hair length)- only the amount needed to cover the scalp and hair is used • Leave on for 10 minutes and rinse with warm water • **Retreat** if live lice are seen after 7 days • **Does NOT require nit combing** • 1 bottle: 4 oz (120 mL)

PROPOSED DUR CRITERIA FOR MANAGING OPIOID USE AND MINIMIZING RISK OF OVERDOSE

BACKGROUND

In March, 2016, the CDC released the final version of their Guidelines for Prescribing Opioids for Chronic Pain.[1] Some important facts about opiate use that were summarized in the guidelines include:

- Opioids are commonly prescribed for pain; with an estimated 20% of patients presenting to physician offices with non-cancer pain symptoms or pain-related diagnoses (including acute and chronic pain) receiving an opioid prescription[2].
- In 2012, health care providers wrote 259 million prescriptions for opioid pain medication, enough for every adult in the United States to have a bottle of pills.[3]
- Opioid prescriptions per capita increased 7.3% from 2007 to 2012, with opioid prescribing rates increasing more for family practice, general practice, and internal medicine compared with other specialties.[4]
- From 1999 to 2014, more than 165,000 persons died from an overdose related to opioid pain medication in the United States.[5]
- In the past decade, while the death rates for the top leading causes of death such as heart disease and cancer have decreased substantially, the death rate associated with opioid pain medication has increased markedly.[6]

Opioid abuse and related overdoses deaths have become a major health problem in the United States. In 2015, the Department of Health and Human Services (HHS) published a report on the actions they were taking to address this problem.[7] The Food and Drug Administration (FDA) recently announced an Action Plan to increase actions related to the "growing epidemic of opioid abuse, dependence, and overdose in the United States."[8] In March of 2016, the FDA announced required label changes to add new warnings about the risk of addiction, abuse, overdose, and death for all immediate release (short acting) opioid pain medications.[9]

[1] CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016. http://www.cdc.gov/media/modules/dpk/2016/dpk-pod/rr6501e1er-ebook.pdf.

[2] Daubresse M, Chang HY, Yu Y, et al. Ambulatory diagnosis and treatment of nonmalignant pain in the United States, 2000–2010. Med Care 2013;51:870–8. http://dx.doi.org/10.1097/MLR.0b013e3182a95d86

[3] Paulozzi LJ, Mack KA, Hockenberry JM. Vital signs: variation among states in prescribing of opioid pain relievers and benzodiazepines—United States, 2012. MMWR Morb Mortal Wkly Rep 2014;63:563–8.

[4] Levy B, Paulozzi L, Mack KA, Jones CM. Trends in opioid analgesic- prescribing rates by specialty, U.S., 2007–2012. Am J Prev Med 2015;49:409–13. http://dx.doi.org/10.1016/j.amepre.2015.02.020

[5] CDC. Multiple cause of death data on CDC WONDER. Atlanta, GA: US Department of Health and Human Services, CDC; 2016. http:// wonder.cdc.gov/mcd.html

[6] CDC, National Center for Health Statistics. Health, United States, 2014: with special feature on adults aged 55–64. Hyattsville, MD: US Department of Health and Human Services, CDC, National Center for Health Statistics; 2015.

[7] ASPE Issue Brief: Opioid Abuse in the U.S. and HHS Actions to Address Opioid-Drug Related Overdoses and Deaths. https://aspe.hhs.gov/pdf-report/opioid-abuse-us-and-hhs-actions-address-opioid-drug-related-overdoses-and-deaths

[8] Food and Drug Administration. Fact Sheet – FDA Opioids Action Plan. http://www.fda.gov/NewsEvents/Newsroom/FactSheets/ucm484714.htm

[9] Food and Drug Administration. New Safety Measures Announced for Immediate Release (IR) Opioids. http://www.fda.gov/Drugs/DrugSafety/InformationbyDrugClass/ucm491437.htm

The Office of Inspector General of the Department of Health and Human Services (OIG) has strongly recommended that steps must be taken to address opioid misuse and diversion. **The OIG 2016 Work Plan will focus on state actions taken through drug utilization review (DUR) programs to address opioid misuse and abuse in state Medicaid.**[10] Efforts are directed to protect "an expanding Medicaid program from fraud, waste, and abuse."

> ➢ **REVISED** States' actions based on Medicaid drug utilization reviews
>
> We will review the education and enforcement actions that States have taken on the basis of information generated by their drug utilization review (DUR) programs related to inappropriate dispensing and potential abuse of prescription drugs, including opiates. We also will review State oversight of and coordination with MCOs' DUR programs and any resulting actions related to inappropriate dispensing of opiates.

With the increasing importance being placed on managing opioid utilization, the MS-DUR reviewed the recommendations in the recently approved CDC guidelines for Prescribing Opioids for Chronic Pain. Identified are those areas where DUR activities could appropriately help minimize risk of abuse and overdose and assure appropriate utilization of opioids in the Mississippi Medicaid program. CDC recommendations that could be addressed through DUR activities are provided along with related excerpts from the CDC backgrounder sections.

Wherever possible, analyses were conducted to provide background data that will help assess the magnitude of the current status of the issues for Mississippi Division of Medicaid (DOM) and the number of cases that would be affected by additional clinical edits. All analyses utilized prescription and medical administrative claims for fee-for-service (FFS) and the two coordinated care organizations (CCOs- UnitedHealthcare and Magnolia) for the period January 1, 2015 – December 31, 2015. The CDC guidelines exclude care for cancer patients, therefore all patient with documentation of cancer diagnoses in the medical claims for 2015 were excluded from the analyses. It is important to note that a few cancer patients may be included since cancer diagnoses may not be present in medical claims but documentation was provided during manual prior authorization.

CURRENT UTILIZATION OF NARCOTICS

Statistics for utilization of opioids during 2015 for Mississippi Medicaid are shown in Table 1. It should be noted that in the DOM Universal Preferred Drug List (UPDL) opioids are listed as short acting (SA) and long acting (LA) narcotic analgesics. These products will be referred to as opioids in this report. The nine most frequently used SA opioids are preferred products and account for 99.8% of all SA narcotic prescriptions. During this period, the UPDL only included four LA opioids as preferred drugs. These drugs accounted for about 88% of prescriptions. The DUR Board reviewed methadone use during the August 2015 meeting and recommended to the P&T Committee that methadone be changed to non-preferred status. The P&T Committee approved this recommendation and this change was made in the UPDL as of October 1, 2015.

[10] OIG Work Plan 2016, p 31. http://oig.hhs.gov/reports-and-publications/archives/workplan/2016/oig-work-plan-2016.pdf

TABLE 1: Utilization of Short Acting and Long Acting Opioids (2015 - Excludes benericiaries with cancer diagnoses)												
	TOTAL			FFS			UHC			MAG		
Drug Product	Number Rx Fills	Number Unique Benes	Number Unique Prescribers	Number Rx Fills	Number Unique Benes	Number Unique Prescribers	Number Rx Fills	Number Unique Benes	Number Unique Prescribers	Number Rx Fills	Number Unique Benes	Number Unique Prescribers
SHORT ACTING (SA)	**339,887**			**60,097**			**140,050**			**139,421**		
Hydrocodone-Acetaminophen	214,524	78,097	6,980	34,928	19,824	4,030	90,326	30,531	5,015	89,071	32,153	5,229
Acetaminophen-Codeine	38,199	30,243	3,330	11,640	10,229	1,955	13,069	10,355	2,079	13,424	10,437	2,201
Tramadol	37,580	19,129	3,672	5,668	3,693	1,751	14,616	7,458	2,493	17,277	8,603	2,621
Oxycodone w/ Acetaminophen	35,550	19,434	3,417	5,744	3,265	1,540	14,330	8,257	2,099	15,449	8,343	2,256
Oxycodone	8,218	1,715	768	1,011	353	297	5,177	949	416	2,029	502	341
Tramadol-Acetaminophen	2,432	1,655	502	440	319	172	788	590	266	1,202	759	320
Hydromorphone	1,251	476	287	239	103	96	684	242	132	328	143	118
Meperidine	963	772	215	267	231	66	372	293	118	319	250	106
Morphine Sulfate	570	202	134	86	47	49	331	94	54	153	62	52
Hydrocodone-Ibuprofen	188	133	98	33	12	14	132	104	77	23	17	17
Butalbital-Acetaminophen-Caff w/ COD	138	68	61	0	0	0	93	54	47	45	14	15
Oxycodone-Aspirin	85	79	13	9	9	2	49	48	9	27	22	6
Butalbital-Aspirin-Caff w/ Codeine	42	23	26	0	0	0	19	16	15	23	7	11
Oxymorphone	36	14	13	1	1	1	25	10	10	10	4	5
Nucynta	33	9	11	2	2	2	13	4	4	18	4	7
Butorphanol Tartrate Nasal	27	8	8	17	4	4	1	1	1	9	4	4
Codeine	13	8	9	1	1	1	4	4	4	8	3	4
Fentanyl	13	2	3	0	0	0	13	2	3	0	0	0
Acetaminophen-Caffeine-Dihydrocodeine	8	8	6	2	2	2	5	5	5	1	1	1
Opium Tincture	6	3	3	5	2	2	1	1	1	0	0	0
Pentazocine w/ Naloxone	6	3	3	0	0	0	1	1	1	5	2	2
Belladonna Alkaloids & Opium Suppos	5	5	4	4	4	4	1	1	1	0	0	0
LONG ACTING (LA)	**12,735**			**2,675**			**5,603**			**4,456**		
Morphine Sulfate CR	4,845	903	469	767	204	183	2,035	371	223	2,043	378	253
Fentanyl TD Patch	3,932	737	437	1,435	266	250	1,344	259	166	1,152	248	177
Methadone	1,344	260	135	220	69	62	603	105	66	521	110	61
Oxymorphone ER	1,100	271	92	101	33	23	710	166	73	289	83	48
Buprenorphine TD Patch	727	220	99	34	25	16	481	154	76	212	64	49
Oxycodone ER	576	115	123	81	14	23	334	83	91	161	22	32
Embeda	130	90	37	31	20	17	52	34	19	47	36	20
Nucynta ER	43	9	10	2	1	1	25	4	5	16	4	5
Tramadol SR	20	9	9	0	0	0	10	7	7	10	2	2
Hydromorphone ER	10	4	4	4	1	1	6	3	3	0	0	0
Zohydro ER	8	6	6	0	0	0	3	3	3	5	3	3

NOTE: Encounter data for Magnolia are not complete for November and December.

RECOMMENDATIONS FROM THE CDC OPIOID PRESCRIBING GUIDELINES

1. **CDC recommendation:** ***When starting opioid therapy for chronic pain, clinicians should prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids.***

   CDC background on recommendation:

   ER/LA opioids include methadone, transdermal fentanyl, and extended-release versions of opioids such as oxycodone, oxymorphone, hydrocodone, and morphine. The clinical evidence review found a fair-quality study showing a higher risk for overdose among patients initiating treatment with ER/LA opioids than among those initiating treatment with immediate-release opioids.[11] The clinical evidence review did not find evidence that continuous, time-scheduled use of ER/LA opioids is more effective or safer than intermittent use of immediate-release opioids or that time-scheduled use of ER/LA opioids reduces risks for opioid misuse or addiction.

   Experts agreed that for patients not already receiving opioids, clinicians should not initiate opioid treatment with ER/LA opioids and should not prescribe ER/LA opioids for intermittent use. ER/LA opioids should be reserved for severe, continuous pain and should be considered only for patients who have received immediate-release opioids daily for at least 1 week.

   Mississippi Medicaid data:

   New starts in therapy are typically identified by using a "wash out" period during which a beneficiary did not fill a prescription for the targeted therapy. MS-DUR identified new starts for narcotic therapy using a 60-day and 90-day wash out period. As shown in Table 2, most of the new starts were for SA opioids. Using a 60-day period to define a new start, only 711 (0.70%) of beneficiaries had a new narcotic start that was not for a SA narcotic. This number drops to 396 (0.46%) when using a 90-day period to define a new start. Although the number of new starts for LA opioids is small, this does occur and may need to be addressed.

[11] Miller M, Barber CW, Leatherman S, et al. Prescription opioid duration of action and the risk of unintentional overdose among patients receiving opioid therapy. JAMA Intern Med 2015;175:608–15. http:// dx.doi.org/10.1001/jamainternmed.2014.8071

TABLE 2: Distribution of Non-Cancer Beneficiaries By Number of New Opioid Starts and Number of New Starts for Short Acting (SA) Opioids
(2015 - Excludes benericiaries with cancer diagnoses)

	Number of New Starts	Number of New Starts for SA Narcotics					
		0	1	2	3	4	5
TOTAL							
First Opioid fill in 60 days (n = 96,931)	**1**	391	80,343	-	-	-	-
	2	39	90	14,102	-	-	-
	3	4	5	14	1845	-	-
	4	1	0	0	0	95	-
	5	0	0	0	0	0	2
First opioid fill in 90 days (n = 83,315)	**1**	264	75,734	-	-	-	-
	2	7	34	6,163	-	-	-
	3	0	0	0	113	-	-
FFS							
First opioid fill in 60 days (n = 18,468)	**1**	83	17,116	-	-	-	-
	2	3	12	1,071	-	-	-
	3	1	1	6	162	-	-
	4	0	0	0	0	13	-
	5	0	0	0	0	0	-
First opioid fill in 90 days (n = 14,251)	**1**	71	13,724	-	-	-	-
	2	1	6	438	-	-	-
	3	0	0	0	11	-	-
UNITEDHEALTH CARE							
First opioid fill in 60 days (n = 38,453)	**1**	156	31,173	-	-	-	-
	2	18	45	6,159	-	-	-
	3	2	2	6	853	-	-
	4	1	0	0	0	37	-
	5	0	0	0	0	0	1
First opioid fill in 90 days (n = 33,771)	**1**	103	30,755	-	-	-	-
	2	5	20	2,833	-	-	-
	3	0	0	0	55	-	-
MAGNOLIA							
First opioid fill in 60 days (n = 39,827)	**1**	152	31,882	-	-	-	-
	2	18	33	6,863	-	-	-
	3	1	2	2	828	-	-
	4	0	0	0	0	45	-
	5	0	0	0	0	0	1
First opioid fill in 90 days (n = 34,130)	**1**	90	31,099	-	-	-	-
	2	1	8	2,885	-	-	-
	3	0	0	0	47	-	-

NOTE: Encounter data for Magnolia are not complete for November - December 2015.

Shaded cells indicate beneficiaries having new starts that were not for SA opioids.

The intermittent use of LA opioids is examined in Table 3. The percentage of patients taking LA opioids that had new starts for LA opioids indicates two potential problems with respect to the CDC guidelines. First, beneficiaries filling only 1 or 2 prescriptions for LA opioids but having the LA narcotic prescription classified as a new start, indicates that SA opioids are not always being used before patients are transitioned to LA opioids. Secondly, beneficiaries with a large

number of LA narcotic fills and having new starts for LA opioids, indicates that some patients are using LA opioids intermittently.

TABLE 3: Distribution of Beneficiaries Taking Long Acting Opioids By Having New Starts for LA Opioids
(2015 - Excludes benericiaries with cancer diagnoses)

		TOTAL			FFS			UnitedHealth Care			Magnolia		
			Percent With New Start for LA Opioid			Percent With New Start for LA Opioid			Percent With New Start for LA Opioid			Percent With New Start for LA Opioid	
		Number of Benes	60-day Criteria	90-day Criteria	Number of Benes	60-day Criteria	90-day Criteria	Number of Benes	60-day Criteria	90-day Criteria	Number of Benes	60-day Criteria	90-day Criteria
Number of Long Acting Opioid Fills	1	581	22.3%	17.9%	113	38.9%	35.4%	251	22.7%	15.9%	216	18.5%	11.1%
	2	310	27.7%	19.7%	62	33.9%	25.8%	135	23.0%	17.0%	113	30.1%	19.5%
	3	187	23.0%	13.9%	31	38.7%	22.6%	91	24.2%	16.5%	65	13.9%	6.2%
	4	167	28.7%	18.0%	30	10.0%	10.0%	64	35.9%	18.8%	73	30.1%	20.6%
	5+	1,086	20.8%	7.7%	177	14.7%	6.8%	485	20.0%	7.8%	424	24.3%	8.0%

NOTE: Encounter data for Magnolia are not complete for November - December 2015.

Potential DUR recommendations for consideration by Board:

a. New narcotic prescriptions (first narcotic fill within 90 days) must be for a SA narcotic.

This edit would support the CDC recommendations that use of SA opioids for initial treatment before moving to LA opioids and that LA opioids not be used intermittently.

2. **CDC recommendation:** ***When opioids are started, clinicians should prescribe the lowest effective dosage. Clinicians should use caution when prescribing opioids at any dosage, should carefully reassess evidence of individual benefits and risks when increasing dosage to ≥50 morphine milligram equivalents (MME)/day, and should avoid increasing dosage to ≥90 MME/day or carefully justify a decision to titrate dosage to ≥90 MME/day.***

CDC background on recommendation:

Benefits of high-dose opioids for chronic pain are not established. The clinical evidence review found only one study[12] addressing effectiveness of dose titration for outcomes related to pain control, function, and quality of life. This randomized trial found no difference in pain or function between a more liberal opioid dose escalation strategy and maintenance of current dosage. At the same time, risks for serious harms related to opioid therapy increase at higher opioid dosage.

The contextual evidence review found that although there is not a single dosage threshold below which overdose risk is eliminated, holding dosages <50 MME/day would likely reduce risk among a large proportion of patients who would experience fatal overdose at higher prescribed dosages. Experts agreed that lower dosages of opioids reduce the risk for overdose,

[12] Naliboff BD, WuSM, Schieffer B, et al. A randomized trial of 2 prescription strategies for opioid treatment of chronic nonmalignant pain. J Pain 2011;12:288–96. http://dx.doi.org/10.1016/j. jpain.2010.09.003

but that a single dosage threshold for safe opioid use could not be identified. Experts noted that daily opioid dosages close to or greater than 100 MME/day are associated with significant risks, that dosages <50 MME/day are safer than dosages of 50–100 MME/day, and that dosages <20 MME/day are safer than dosages of 20–50 MME/day. One expert thought that a specific dosage at which the benefit/risk ratio of opioid therapy decreases could not be identified. Most experts agreed that, in general, increasing dosages to 50 or more MME/day increases overdose risk without necessarily adding benefits for pain control or function and that clinicians should carefully reassess evidence of individual benefits and risks when considering increasing opioid dosages to ≥50 MME/day. Most experts also agreed that opioid dosages should not be increased to ≥90 MME/day without careful justification based on diagnosis and on individualized assessment of benefits and risks.

Mississippi Medicaid data:

Table 4 shows the distributions of beneficiaries taking opioids based on the highest MEDD for an individual prescription filled and for the highest MEDD for all opioids being used concomitantly. A description of how MEDD is computed and examples from actual prescriptions filled in 2015 are included in the attachment. Concomitant use was assumed to occur when beneficiaries filled narcotic prescriptions with overlapping days of supply. Overall, 23% of beneficiaries taking opioids had individual prescriptions written for ≥50 MEDD and 4.6% had individual prescriptions written for ≥90 MEDD. These percentages increase slightly (27.4% and 6.2%, respectively) when potential concomitant use of opioids is considered. Based on the evidence in the CDC guidelines, these beneficiaries are at increased risk of opioid overdose and death.

TABLE 4: Distribution of Beneficiaries Taking Opioids by Maximum Morphine Equivalent Daily Dose (MEDD) for Individual Opioid Prescriptions and For All Concomitant Opioid Prescriptions
(2015 - Excludes benericiaries with cancer diagnoses)

		TOTAL (n = 120,158)		FFS (n = 26,014)		UnitedHealth Care (n = 46,135)		Magnolia (n = 48,009)	
Maximum MEDD for Individual Rx*	<50	92,573	77.0%	22,284	85.7%	34,181	74.1%	36,108	75.2%
	50 - 89	22,059	18.4%	3,097	11.9%	9,562	20.7%	9,400	19.6%
	90 - 119	3,609	3.0%	379	1.5%	1,541	3.3%	1,689	3.5%
	120 +	1,917	1.6%	254	1.0%	851	1.8%	812	1.7%
Maximum MEDD for ALL Concomitant Rxs*	<50	87,204	72.6%	21,789	83.8%	31,222	67.7%	34,193	71.2%
	50 - 89	25,515	21.2%	3,381	13.0%	11,444	24.8%	10,690	22.3%
	90 - 119	4,458	3.7%	460	1.8%	2,002	4.3%	1,996	4.2%
	120 +	2,981	2.5%	384	1.5%	1,467	3.2%	1,130	2.4%

** Distributions are significantly different among plans (p < 0.001).*
NOTE: Encounter data for Magnolia are not complete for November - December 2015.

Potential DUR recommendations for consideration by Board:

b. Individual prescriptions for opioids with an MEDD of ≥ 90 must require a manual PA with documentation that the benefits outweigh the risks and that the patient has been counseled about the risks of overdose and death.

3. **CDC recommendation**: ***Before starting and periodically during continuation of opioid therapy, clinicians should evaluate risk factors for opioid-related harms. Clinicians should incorporate into the management plan strategies to mitigate risk, including considering offering naloxone when factors that increase risk for opioid overdose, such as history of overdose, history of substance use disorder, higher opioid dosages (≥50 MME/day), or concurrent benzodiazepine use, are present.***

CDC background on recommendation:

Based on the contextual evidence review and expert opinion, certain risk factors are likely to increase susceptibility to opioid-associated harms and warrant incorporation of additional strategies into the management plan to mitigate risk. Clinicians should assess these risk factors periodically, with frequency varying by risk factor and patient characteristics. For example, factors that vary more frequently over time, such as alcohol use, require more frequent follow up. In addition, clinicians should consider offering naloxone, re-evaluating patients more frequently, and referring to pain and/or behavioral health specialists when factors that increase risk for harm, such as history of overdose, history of substance use disorder, higher dosages of opioids (≥50 MME/day), and concurrent use of benzodiazepines with opioids, are present.

Naloxone is an opioid antagonist that can reverse severe respiratory depression; its administration by lay persons, such as friends and family of persons who experience opioid overdose, can save lives. Naloxone precipitates acute withdrawal among patients physically dependent on opioids. Serious adverse effects, such as pulmonary edema, cardiovascular instability, and seizures, have been reported but are rare at doses consistent with labeled use for opioid overdose.[13] The contextual evidence review did not find any studies on effectiveness of prescribing naloxone for overdose prevention among patients prescribed opioids for chronic pain. However, there is evidence for effectiveness of naloxone provision in preventing opioid-related overdose death at the community level through community-based distribution (e.g., through overdose education and naloxone distribution programs in community service agencies) to persons at risk for overdose (mostly due to illicit opiate use), and it is plausible that effectiveness would be observed when naloxone is provided in the clinical setting as well. Experts agreed that it is preferable not to initiate opioid treatment when factors that increase risk for opioid-related harms are present. Opinions diverged about the likelihood of naloxone being useful to patients and the circumstances under which it

[13] Enteen L, Bauer J, McLean R, et al. Overdose prevention and naloxone prescription for opioid users in San Francisco. J Urban Health 2010;87:931–41. http://dx.doi.org/10.1007/s11524-010-9495-8

should be offered. However, most experts agreed that clinicians should consider offering naloxone when prescribing opioids to patients at increased risk for overdose, including patients with a history of overdose, patients with a history of substance use disorder, patients taking benzodiazepines with opioids, patients at risk for returning to a high dose to which they are no longer tolerant (e.g., patients recently released from prison), and patients taking higher dosages of opioids (≥50 MME/day). Practices should provide education on overdose prevention and naloxone use to patients receiving naloxone prescriptions and to members of their households.

Potential DUR recommendations for consideration by Board:

c. DOM requests feedback from the DUR Board on how and when naloxone should be made available to beneficiaries.

4. **CDC recommendation:** ***Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, clinicians should prescribe the lowest effective dose of immediate-release opioids and should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids. Three days or less will often be sufficient; more than seven days will rarely be needed.***

CDC background on recommendation:

Experts agreed that when opioids are needed for acute pain, clinicians should prescribe opioids at the lowest effective dose and for no longer than the expected duration of pain severe enough to require opioids to minimize unintentional initiation of long-term opioid use. The lowest effective dose can be determined using product labeling as a starting point with calibration as needed based on the severity of pain and on other clinical factors such as renal or hepatic insufficiency.

Several guidelines on opioid prescribing for acute pain from emergency departments[14, 15, 16] and other settings[17, 18] have recommended prescribing ≤3 days of opioids in most cases, whereas others have recommended ≤7 days (197) or <14 days.[19] Because physical

[14] Chu J, Farmer B, Ginsburg B, Hernandez S, Kenny J, Majlesi N. New York City emergency department discharge opioid prescribing guidelines. New York, NY: New York City Department of Health and Mental Hygiene; 2013. http://www.nyc.gov/html/doh/html/hcp/drug- opioid-guidelines.shtml

[15] Cheng D, Majlesi N. Clinical practice statement: emergency department opioid prescribing guidelines for the treatment of non- cancer related pain. Milwaukee, WI: American Academy of Emergency Medicine; 2013.

[16] American College of Emergency Physicians. Maryland emergency department and acute care facility guidelines for prescribing opioids. Baltimore, MD: Maryland Chapter, American College of Emergency Physicians; 2014. http://www.mdacep.org/MD%20ACEP%20 Pamphlet%20FINAL_April%202014.pdf

[17] Paone D, Dowell D, Heller D. Preventing misuse of prescription opioid drugs. City Health Information 2011;30:23–30.

[18] horson D, Biewen P, Bonte B, et al. Acute pain assessment and opioid prescribing protocol. Bloomington, MN: Institute for Clinical Systems Improvement; 2014. https://www.icsi.org/_asset/dyp5wm/Opioids.pdf

[19] Washington State Agency Medical Directors' Group. AMDG 2015 interagency guideline on prescribing opioids for pain. Olympia, WA: Washington State Agency Medical Directors' Group; 2015. http:// www.agencymeddirectors.wa.gov/guidelines.asp

dependence on opioids is an expected physiologic response in patients exposed to opioids for more than a few days (contextual evidence review), limiting days of opioids prescribed also should minimize the need to taper opioids to prevent distressing or unpleasant withdrawal symptoms. Experts noted that more than a few days of exposure to opioids significantly increases hazards, that each day of unnecessary opioid use increases likelihood of physical dependence without adding benefit, and that prescriptions with fewer days' supply will minimize the number of pills available for unintentional or intentional diversion. Experts thought, based on clinical experience regarding anticipated duration of pain severe enough to require an opioid, that in most cases of acute pain not related to surgery or trauma, a ≤3 days' supply of opioids will be sufficient.

Mississippi Medicaid data:

Overall, 72% of new starts for SA narcotic prescriptions were written for 7 days or less and 88% were written for 15 days or less.

TABLE 5: Distribution of Beneficiaries Having New Start for Short Acting Opioids by Number of Days Supply With Prescription
(2015 - Beneficiaries with cancer diagnoses are excluded)

	Days Supply	TOTAL		FFS		UnitedHealth Care		Magnolia	
First opioid fill in 60 days	1 - 3	40,402	35.3%	8,693	34.8%	16,595	37.9%	15,114	33.1%
	4 - 7	41,768	36.5%	9,147	36.6%	16,756	38.3%	15,865	34.8%
	8 - 15	18,196	15.9%	4,007	16.0%	5,809	13.3%	8,380	18.4%
	16 - 31	13,997	12.2%	3,128	12.5%	4,629	10.6%	6,240	13.7%
	32 - 89	33	0.0%	0	0.0%	0	0.0%	33	0.1%
	90 +	3	0.0%	0	0.0%	0	0.0%	3	0.0%
First opioid fill in 90 days	1 - 3	32,967	37.4%	6,618	35.9%	13,910	40.0%	12,439	35.5%
	4 - 7	34,096	38.6%	6,820	37.0%	14,118	40.6%	13,158	37.5%
	8 - 15	13,608	15.4%	2,907	15.8%	4,474	12.9%	6,227	17.8%
	16 - 31	7,569	8.6%	2,094	11.4%	2,242	6.5%	3,233	9.2%
	32 - 89	20	0.0%	0	0.0%	0	0.0%	20	0.1%
	90 +	3	0.0%	0	0.0%	0	0.0%	3	0.0%

** Distributions are significantly different among plans (p < 0.001).*
NOTE: Encounter data for Magnolia are not complete for November - December 2015.

Potential DUR recommendations for consideration by Board:

d. New fills (first prescription fill in 90 days) for a SA opioid can be approved through an electronic PA for a maximum of a 15 day supply / 7 day supply / or 2 7-day supplies. Use of SA opioids for longer periods will required a manual PA.

5. **CDC recommendation:** ***Providers should avoid prescribing opioid pain medication for patients receiving benzodiazepines whenever possible.***

CDC background on recommendation:

Benzodiazepines and opioids both cause central nervous system depression and can decrease respiratory drive. Concurrent use is likely to put patients at greater risk for potentially fatal overdose. The clinical evidence review did not address risks of benzodiazepine co-prescription among patients prescribed opioids. However, the contextual evidence review found evidence in epidemiologic series of concurrent benzodiazepine use in large proportions of opioid-related overdose deaths, and a case-cohort study found concurrent benzodiazepine prescription with opioid prescription to be associated with a near quadrupling of risk for overdose death compared with opioid prescription alone.[20]

Experts agreed that although there are circumstances when it might be appropriate to prescribe opioids to a patient receiving benzodiazepines (e.g., severe acute pain in a patient taking long-term, stable low-dose benzodiazepine therapy), clinicians should avoid prescribing opioids and benzodiazepines concurrently whenever possible.

Mississippi Medicaid data:

The distribution of beneficiaries taking opioids by number of days concurrent with taking benzodiazepines is shown in Table 6. Overall, 5.3% of beneficiaries taking opioids were concurrently taking benzodiazepines. Although this is a small percentage, but represents 6,376 beneficiaries that might be at increased risk of overdose death.

TABLE 6: Distribution of Beneficiaries Taking Opioids by Number of Days Concurrent Use of Opioid and Benzodiazepine (2015 - Beneficiaries with cancer diagnoses are excluded)

Number of Days Concurrently Taking Opioid and Benzodiazepine	TOTAL (n = 120,158)		FFS (n = 26,014)		UnitedHealth Care (n = 46,135)		Magnolia (n = 48,009)	
0	113,782	94.7%	25,130	96.6%	43,497	94.3%	45,155	94.1%
1 - 10	2,287	1.9%	382	1.5%	896	1.9%	1,009	2.1%
11 - 31	1,710	1.4%	271	1.0%	677	1.5%	762	1.6%
32 - 62	1,024	0.9%	92	0.4%	447	1.0%	485	1.0%
63 +	1,355	1.1%	139	0.5%	618	1.3%	598	1.2%

** Distributions are significantly different among plans (p < 0.001).*
NOTE: Encounter data for Magnolia are not complete for November - December 2015.

[20] Park TW, Saitz R, Ganoczy D, Ilgen MA, Bohnert AS. Benzodiazepine prescribing patterns and deaths from drug overdose among US veterans receiving opioid analgesics: case-cohort study. BMJ 2015;350:h2698. http://dx.doi.org/10.1136/bmj.h2698

Potential DUR recommendations for consideration by Board:

e. Concomitant use of opioids and benzodiazepines should require a manual PA.

f. MS-DUR should do an educational mailing to providers prescribing concurrent use of benzodiazepines and opioids.

ATTACHMENT
MORPHINE EQUIVALENT DAILY DOSE (MEDD)

Daily morphine milligram equivalents are used to assess comparative potency, but not to convert a particular opioid dosage from one product to another. The calculation to determine morphine milligram equivalents includes drug strength, quantity, days' supply and a defined conversion factor unique to each drug. The formula for computing MEDD for a prescription is:

$$\frac{\text{(Drug Strength)} \times \text{(Drug Quantity)} \times \text{(MME Conversion Factor)}}{\text{(Days Supply)}}$$

The terminology for daily morphine equivalency may vary depending on the resource used, and may be described as MEDD, morphine equivalent dose (MED), or morphine milligram equivalents (MME). By converting the dose of an opioid to a morphine equivalent dose, a clinician can determine whether a cumulative daily dose of opioids approaches an amount associated with increased risk.

EXAMPLE MEDD CALCULATIONS FROM ACTUAL PRESCRIPTIONS					
Generic Drug Name	**Drug Strength**	**Quantity**	**Conversion Ratio**	**Days Supply**	**MEDD**
Acetaminophen-Codeine 300 mg-30 mg	30	42	0.15	2	94.5
Acetaminophen-Codeine 300 mg-60 mg	60	20	0.15	3	60.0
Embeda 50-2 Mg	50	60	1	30	100.0
Fentanyl TD Patch 72HR 25 MCG/HR	25	10	7.2	19	94.7
Fentanyl TD Patch 72HR 50 MCG/HR	50	5	7.2	17	105.9
Hydrocodone-Acetaminophen 10 mg-325 mg	10	60	1	10	60.0
Hydrocodone-Acetaminophen 10 mg-325 mg	10	22	1	2	110.0
Hydromorphone HCl Tab 2 MG	2	60	4	5	96.0
Methadone HCl Tab 10 MG	10	50	3	30	50.0
Methadone HCl Tab 10 MG	10	50	3	15	100.0
Morphine Sulfate CR 15 mg	15	180	1	30	90.0
Oxycodone HCl Tab 10 MG	10	60	1.5	10	90.0
Oxycodone HCl Tab 15 MG	15	62	1.5	15	93.0

Online calculators are available to estimate MEDD. It should be noted again that these calculators are not intended for dosage conversion from one product to another, but only to assess the comparative potency of opioids. Furthermore, calculated morphine equivalency may vary between tools for certain drugs, depending on the algorithm used. One commonly used websites that offers an MEDD calculator is:

Prescription Drug Monitoring Program Training and Technical Assistance Center (PDMP TTAC)