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

MISSISSIPPI DIVISION OF
MEDICAID

**March 7, 2019 at 1:00pm**

**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

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**
**March 7, 2019**

**Welcome** — James Taylor, PharmD (Chair)

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

**Resource Utilization Review**



**Update on Action Items from Previous Board Meeting(s)**

*COPD Initiatives and Outcomes in CCOs*
- *Magnolia*
- *Molina*
- *UnitedHealthcare*

*Multiple Antipsychotic Prior Authorization Rationale*

**Feedback and Discussion from the Board**

**New Business**

Update on MS-DUR Educational Interventions — page 21

Special Analysis Projects



FDA Drug Safety Updates — page 37

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

**Next Meeting Information** — James Taylor, PharmD

# DUR Board Meeting Minutes

**MISSISSIPPI DIVISION OF MEDICAID**
**DRUG UTILIZATION REVIEW (DUR) BOARD**
**MINUTES OF THE DECEMBER 6, 2018 MEETING**

| DUR Board Members: | Mar 2018 | May 2018 | Sep 2018 | Dec 2018 |
|---|---|---|---|---|
| Lauren Bloodworth, PharmD | NA | NA | ✓ | ✓ |
| Beverly Bryant, MD | NA | NA | ✓ | ✓ |
| Rhonda Dunaway, RPh | ✓ | ✓ | ✓ | ✓ |
| Tanya Fitts, MD | 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 | | ✓ |
| **TOTAL PRESENT** | **9*** | **8**** | **9** | **11** |

** 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:**
Terri Kirby, RPh, CPM, Pharmacy Director; Cindy Noble, PharmD, MPH, DUR Coordinator; Gail McCorkle, RPh, Clinical Pharmacist; Chris Yount, MA, PMP, Staff Officer – Pharmacy; Carlos Latorre, MD, 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:**
Lew Anne Snow, RN, BSN, Pharmacy Services Sr. Analyst, Mississippi Medicaid Project

**Change Healthcare Staff:**
Shannon Hardwick, RPh, CPC Pharmacist; Paige Clayton, PharmD, On-Site Clinical Pharmacist; Cheryl Rogers, PharmD, Mississippi PA 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; Joseph Vazhappilly, PharmD, MBA, Associate Vice President, Pharmacy Services, Molina Healthcare

**Visitors:**
Phil Hecht, Abbvie; Dustin Prisock, Kite; Tim Hambacher, Otsuka; Brian Berhow, Sunovion; Kim Clark, Viiv; Jason Swartz, Otsuka; Eric Marchant, Amgen; Evelyn Johnson, Capital Resources

**Call to Order:**
Dr. Taylor, Chair, called the meeting to order at 2:03pm and welcomed everyone. Dr. Taylor officially welcomed new Board member Dr. Vedanarayanan.

**Old Business:**
Mr. Smith moved to approve the minutes from the September 2019 DUR Board Meeting, seconded by Dr. Montalvo and unanimously approved by the DUR Board.

**Resource Utilization Review:**
Dr. Pittman informed the Board that encounter data for one of the CCOs was incomplete for the reporting period. Antipsychotics have moved up in rank in amount paid due their inclusion in the Clinician Administered Drugs and Implantable Drug System Devices (CADD) list allowing injectable antipsychotics to be billed through point of sale (POS). This increase does not reflect an increase in utilization rather a change in area of reimbursement. No other major items noted in the reports.

**Pharmacy Program Update:**
Ms. Kirby informed the board about Medicaid's EASE Initiative, a bundle of programmatic changes aimed at bolstering Medicaid beneficiaries' access to needed services in the most appropriate setting. As part of the first phase, DOM will increase the physician visit limit for beneficiaries from 12 to 16 visits per year. She also informed the board Dr. Carlos Latorre was recently hired as the new Medical Director at DOM. He will be the first full-time Medical Director. Due to his full-time position, Dr. Noble asked that the Board consider amending the DUR Board Bylaws to include the Medical Director as a non-voting member.

*Dr. Montalvo made a motion to revise the bylaws to include the Medical Director as a non-voting member, seconded by Dr. Bryant, and unanimously approved by the DUR Board.*

Dr. Latorre was officially welcomed to the DUR Board.

**Update on Action Items from Previous Board Meetings**
Dr. Pittman reviewed educational mailing statistics for mailings conducted since the last board meeting.

**Stimulant Edit Implementation**
Dr. Taylor asked for feedback from the Board on the diagnosis edit requirement for stimulants. DOM reported some difficulties experienced during implementation, while Board members also expressed some of their experiences.

**NEW BUSINESS**

***Influenza Vaccination and Treatment Overview***
Dr. Pittman provided an overview and reviewed trends related to the 2017-2018 flu season. Even though Mississippi's rate of flu cases in the 2017-2018 flu season was higher than the national and regional averages, Mississippi's vaccination rate was higher nationally and regionally. Dr. Pittman also

reviewed prophylactic and treatment options for the flu virus. Prescribing patterns in Mississippi Medicaid during the 2017-2018 flu season were detailed. Noting the severity of the 2017-2018 flu season, Board members asked MS-DUR to conduct further analysis examining concomitant antibiotic use with antiviral therapy, age-specific analyses, and trends in high-risk populations. Additionally Board members requested MS-DUR assess days supply of antiviral therapy to determine what percentages were prescribed for prophylaxis and treatment of flu. The Board also requested MS-DUR annually present an overview of the prior year's flu season at the fall Board meeting each year.

***COPD Treatment Patterns and GOLD Guidelines***

Dr. Pittman reviewed information on COPD and the Global Initiative for Chronic Obstructive Lung Disease (GOLD) guidelines. MS-DUR identified Medicaid beneficiaries with a diagnosis of COPD who experienced an exacerbation event resulting in an emergency department visit or hospital admission. Prescribing patterns after each exacerbation were assessed to determine alignment with the GOLD guidelines. A robust Board discussion was held regarding the data presented focusing on barriers and opportunities for improving adherence to the GOLD guidelines. MS-DUR recommendations included the following:

1. DOM and MS-DUR should undertake a provider educational initiative to promote greater adherence to the GOLD guidelines. As part of the educational initiatives, the Board advocated for the inclusion of provider recommendations for immunization and smoking cessation in COPD patients.
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.

*Mr. Smith made a motion to approve the MS-DUR recommendations, seconded by Dr. Bryant, and unanimously approved by the DUR Board.*

***Multiple Antipsychotic Medication Prescribing Trends in Children and Adults***

Dr. Banahan provided an overview of trends in the prescribing of multiple antipsychotic medications in children and adults. Background pertaining to previous DUR recommendations and educational initiatives relating to the use of multiple antipsychotic medications in children was also presented. Following a robust discussion, the following MS-DUR recommendations were presented:

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.

*Dr. Montalvo made a motion to approve the MS-DUR recommendations, seconded by Ms. Dunaway, and unanimously approved by the DUR Board.*

**FDA Drug Safety Updates**

Dr. Pittman presented FDA drug safety communications from August 2018 – November 2018

**Next Meeting Information:**

Dr. Taylor asked for feedback on proposed dates for next year. The proposed 2019 dates, March 7, May 23, September 19 and December 5, were accepted by the Board. Dr. Taylor announced that the next

meeting of the DUR Board will take place on March 7, 2019 and made note that start time will change to 1:00 pm in order to better accommodate those who drive long distances for meetings.

The meeting adjourned at 4:03 pm.

Submitted,

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

**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
## July 1, 2018 through December 31, 2018

| | | | Jul-18 | Aug-18 | Sep-18 | Oct-18 | Nov-18 | Dec-18 |
|---|---|---|---|---|---|---|---|---|
| **Total enrollment** | | | 710,217 | 707,292 | 702,072 | 698,430 | 692,334 | 686,824 |
| **Dual-eligibles** | | | 156,749 | 156,582 | 156,491 | 156,261 | 155,728 | 153,867 |
| **Pharmacy benefits** | | | 601,864 | 598,756 | 593,339 | 589,494 | 583,393 | 578,512 |
| | **LTC** | | 17,127 | 17,248 | 17,132 | 17,115 | 16,970 | 16,689 |
| | **PLAN %** | **FFS** | 26.7% | 27.3% | 27.4% | 27.0% | 26.0% | 24.6% |
| | | **MSCAN-UHC** | 34.7% | 34.3% | 34.2% | 33.4% | 33.1% | 33.0% |
| | | **MSCAN-Magnolia** | 38.6% | 38.4% | 38.4% | 38.1% | 37.9% | 37.9% |
| | | **MSCAN-Molina** | 0.0% | 0.0% | 0.0% | 1.5% | 3.0% | 4.5% |

## TABLE 04B: PHARMACY UTILIZATION STATISTICS FOR LAST 6 MONTHS
## July 1, 2018 through December 31, 2018

| | | Jul-18 | Aug-18 | Sep-18 | Oct-18 | Nov-18 | Dec-18 |
|---|---|---|---|---|---|---|---|
| **# Rx Fills** | **FFS** | 99,459 | 116,459 | 105,628 | 115,056 | 107,228 | 100,141 |
| | **MSCAN-UHC** | 154,049 | 182,028 | 166,036 | 180,085 | 172,293 | 161,822 |
| | **MSCAN-Mag** | 196,781 | 232,673 | 210,902 | 233,794 | 222,287 | 213,302 |
| | **MSCAN-Mol** | - | - | - | 6,223 | 10,689 | 14,454 |
| **# Rx Fills / Bene** | **FFS** | 0.6 | 0.7 | 0.6 | 0.7 | 0.7 | 0.7 |
| | **MSCAN-UHC** | 0.7 | 0.9 | 0.8 | 0.9 | 0.9 | 0.8 |
| | **MSCAN-Mag** | 0.8 | 1.0 | 0.9 | 1.0 | 1.0 | 1.0 |
| | **MSCAN-Mol** | #DIV/0! | #DIV/0! | #DIV/0! | 0.7 | 0.6 | 0.6 |
| **$ Paid Rx** | **FFS** | $12,041,235 | $13,417,980 | $11,811,183 | $13,270,004 | $12,340,775 | $11,483,584 |
| | **MSCAN-UHC** | $13,926,083 | $15,353,636 | $14,101,519 | $15,171,792 | $14,536,347 | $13,759,363 |
| | **MSCAN-Mag** | $17,304,445 | $19,721,768 | $17,592,451 | $20,232,724 | $18,923,015 | $18,951,472 |
| | **MSCAN-Mol** | $0 | $0 | $0 | $394,465 | $704,657 | $1,106,369 |
| **$ /Rx Fill** | **FFS** | $121.07 | $115.22 | $111.82 | $115.34 | $115.09 | $114.67 |
| | **MSCAN-UHC** | $90.40 | $84.35 | $84.93 | $84.25 | $84.37 | $85.03 |
| | **MSCAN-Mag** | $87.94 | $84.76 | $83.42 | $86.54 | $85.13 | $88.85 |
| | **MSCAN-Mol** | #DIV/0! | #DIV/0! | #DIV/0! | $63.39 | $65.92 | $76.54 |
| **$ /Bene** | **FFS** | $74.93 | $82.09 | $72.65 | $83.37 | $81.36 | $80.69 |
| | **MSCAN-UHC** | $66.68 | $74.76 | $69.49 | $77.06 | $75.28 | $72.07 |
| | **MSCAN-Mag** | $74.49 | $85.78 | $77.21 | $90.08 | $85.58 | $86.44 |
| | **MSCAN-Mol** | #DIV/0! | #DIV/0! | #DIV/0! | $44.61 | $40.26 | $42.50 |

*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 DEC 2018 (FFS AND CCOs)

| Category | Month Year | Rank Volume | # RXs | $ Paid | # Unique Benes |
|---|---|---|---|---|---|
| CNS stimulants | Dec 2018 | 1 | 23,779 | $4,933,740 | 20,708 |
| | Nov 2018 | 1 | 26,239 | $5,512,842 | 22,653 |
| | Oct 2018 | 1 | 27,997 | $5,967,241 | 23,970 |
| aminopenicillins | Dec 2018 | 2 | 18,644 | $241,953 | 18,304 |
| | Nov 2018 | 2 | 19,887 | $257,393 | 19,510 |
| | Oct 2018 | 2 | 18,507 | $240,724 | 18,122 |
| adrenergic bronchodilators | Dec 2018 | 3 | 16,925 | $928,513 | 14,956 |
| | Nov 2018 | 3 | 17,548 | $996,560 | 15,343 |
| | Oct 2018 | 5 | 17,228 | $1,042,255 | 14,949 |
| narcotic analgesic combinations | Dec 2018 | 4 | 15,265 | $634,184 | 13,912 |
| | Nov 2018 | 4 | 16,177 | $639,798 | 14,592 |
| | Oct 2018 | 4 | 17,337 | $661,033 | 15,682 |
| nonsteroidal anti-inflammatory agents | Dec 2018 | 5 | 14,708 | $196,391 | 14,047 |
| | Nov 2018 | 6 | 15,365 | $209,900 | 14,640 |
| | Oct 2018 | 6 | 16,957 | $244,297 | 16,122 |
| antihistamines | Dec 2018 | 6 | 14,674 | $216,077 | 14,180 |
| | Nov 2018 | 5 | 15,848 | $235,136 | 15,316 |
| | Oct 2018 | 3 | 17,579 | $268,693 | 16,920 |
| glucocorticoids | Dec 2018 | 7 | 13,936 | $260,744 | 13,422 |
| | Nov 2018 | 8 | 14,047 | $231,728 | 13,535 |
| | Oct 2018 | 7 | 13,236 | $243,877 | 12,727 |
| macrolides | Dec 2018 | 8 | 13,930 | $329,632 | 13,590 |
| | Nov 2018 | 7 | 14,361 | $348,401 | 13,996 |
| | Oct 2018 | 10 | 12,840 | $312,278 | 12,462 |
| atypical antipsychotics | Dec 2018 | 9 | 12,608 | $2,906,530 | 10,954 |
| | Nov 2018 | 9 | 12,897 | $2,699,961 | 11,145 |
| | Oct 2018 | 8 | 13,176 | $2,792,099 | 11,301 |
| SSRI antidepressants | Dec 2018 | 10 | 11,127 | $129,277 | 10,381 |
| | Nov 2018 | 10 | 11,691 | $137,217 | 10,889 |
| | Oct 2018 | 11 | 12,067 | $143,893 | 11,244 |

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

| Category | Month Year | Rank Paid Amt | # RXs | $ Paid | # Unique Benes |
|---|---|---|---|---|---|
| CNS stimulants | Dec 2018 | 1 | 23,779 | $4,933,740 | 20,708 |
| | Nov 2018 | 1 | 26,239 | $5,512,842 | 22,653 |
| | Oct 2018 | 1 | 27,997 | $5,967,241 | 23,970 |
| atypical antipsychotics | Dec 2018 | 2 | 12,608 | $2,906,530 | 10,954 |
| | Nov 2018 | 3 | 12,897 | $2,699,961 | 11,145 |
| | Oct 2018 | 3 | 13,176 | $2,792,099 | 11,301 |
| antiviral combinations | Dec 2018 | 3 | 811 | $2,890,811 | 762 |
| | Nov 2018 | 2 | 845 | $3,015,889 | 780 |
| | Oct 2018 | 2 | 860 | $3,118,619 | 801 |
| insulin | Dec 2018 | 4 | 4,794 | $2,611,151 | 3,563 |
| | Nov 2018 | 4 | 4,889 | $2,644,943 | 3,637 |
| | Oct 2018 | 4 | 5,047 | $2,761,371 | 3,737 |
| TNF alpha inhibitors | Dec 2018 | 5 | 312 | $1,686,644 | 287 |
| | Nov 2018 | 5 | 316 | $1,712,171 | 293 |
| | Oct 2018 | 5 | 325 | $1,724,012 | 302 |
| factor for bleeding disorders | Dec 2018 | 6 | 83 | $1,405,116 | 65 |
| | Nov 2018 | 6 | 87 | $1,387,193 | 59 |
| | Oct 2018 | 6 | 97 | $1,630,003 | 70 |
| gamma-aminobutyric acid analogs | Dec 2018 | 7 | 8,872 | $1,227,998 | 8,238 |
| | Nov 2018 | 7 | 9,072 | $1,219,196 | 8,408 |
| | Oct 2018 | 7 | 9,376 | $1,330,768 | 8,700 |
| bronchodilator combinations | Dec 2018 | 8 | 3,579 | $1,100,672 | 3,283 |
| | Nov 2018 | 8 | 3,681 | $1,123,675 | 3,377 |
| | Oct 2018 | 8 | 3,815 | $1,175,003 | 3,520 |
| adrenergic bronchodilators | Dec 2018 | 9 | 16,925 | $928,513 | 14,956 |
| | Nov 2018 | 9 | 17,548 | $996,560 | 15,343 |
| | Oct 2018 | 9 | 17,228 | $1,042,255 | 14,949 |
| selective immunosuppressants | Dec 2018 | 10 | 267 | $745,229 | 242 |
| | Nov 2018 | 10 | 281 | $812,375 | 253 |
| | Oct 2018 | 10 | 294 | $813,777 | 270 |

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

| Drug Molecule<br>Therapeutic Category | Nov 2018 # Claims | Dec 2018 # Claims | Dec 2018 $ Paid | Dec 2018 # Unique Benes |
|---|---|---|---|---|
| amoxicillin / aminopenicillins | 19,851 | 18,616 | $241,456 | 18,276 |
| albuterol / adrenergic bronchodilators | 17,041 | 16,495 | $799,273 | 14,632 |
| azithromycin / macrolides | 13,626 | 13,269 | $254,176 | 12,985 |
| montelukast / leukotriene modifiers | 11,651 | 10,617 | $181,505 | 10,351 |
| acetaminophen-hydrocodone / narcotic analgesic combinations | 10,836 | 10,109 | $142,674 | 9,447 |
| cetirizine / antihistamines | 10,701 | 9,645 | $123,236 | 9,464 |
| prednisolone / glucocorticoids | 8,022 | 8,056 | $122,578 | 7,769 |
| lisdexamfetamine / CNS stimulants | 8,740 | 7,789 | $2,263,622 | 7,624 |
| ibuprofen / nonsteroidal anti-inflammatory agents | 7,726 | 7,398 | $89,031 | 7,237 |
| gabapentin / gamma-aminobutyric acid analogs | 7,518 | 7,380 | $113,784 | 6,916 |
| amoxicillin-clavulanate / penicillins/beta-lactamase inhibitors | 6,844 | 6,828 | $162,221 | 6,724 |
| ondansetron / 5HT3 receptor antagonists | 6,354 | 6,706 | $110,191 | 6,517 |
| cefdinir / third generation cephalosporins | 7,112 | 6,679 | $156,031 | 6,559 |
| fluticasone nasal / nasal steroids | 7,114 | 6,499 | $99,225 | 6,414 |
| amlodipine / calcium channel blocking agents | 6,488 | 6,143 | $51,869 | 5,888 |
| clonidine / antiadrenergic agents, centrally acting | 6,074 | 5,887 | $116,191 | 5,581 |
| amphetamine-dextroamphetamine / CNS stimulants | 6,081 | 5,631 | $280,586 | 4,866 |
| methylphenidate / CNS stimulants | 6,130 | 5,607 | $1,220,146 | 5,052 |
| omeprazole / proton pump inhibitors | 5,630 | 5,402 | $54,441 | 5,232 |
| guanfacine / antiadrenergic agents, centrally acting | 4,396 | 4,150 | $82,837 | 3,960 |
| ranitidine / H2 antagonists | 4,167 | 3,995 | $50,759 | 3,852 |
| ethinyl estradiol-norgestimate / contraceptives | 3,801 | 3,791 | $65,867 | 3,528 |
| sertraline / SSRI antidepressants | 3,985 | 3,759 | $43,428 | 3,517 |
| atorvastatin / HMG-CoA reductase inhibitors (statins) | 3,891 | 3,704 | $40,903 | 3,526 |
| metformin / biguanides | 3,758 | 3,687 | $38,078 | 3,508 |

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

| Drug Molecule<br>Therapeutic Category | Nov 2018<br>$ Paid | Dec 2018<br>$ Paid | Dec<br>2018<br># Claims | Dec<br>2018<br>#<br>Unique<br>Benes |
|---|---|---|---|---|
| lisdexamfetamine / CNS stimulants | $2,532,480 | $2,263,622 | 7,789 | 7,624 |
| methylphenidate / CNS stimulants | $1,335,874 | $1,220,146 | 5,607 | 5,052 |
| adalimumab / TNF alpha inhibitors | $1,224,447 | $1,208,941 | 205 | 186 |
| paliperidone / atypical antipsychotics | $917,985 | $1,070,258 | 535 | 473 |
| sofosbuvir-velpatasvir / antiviral combinations | $1,022,829 | $997,703 | 41 | 36 |
| insulin aspart / insulin | $870,973 | $822,944 | 1,334 | 1,266 |
| albuterol / adrenergic bronchodilators | $844,262 | $799,273 | 16,495 | 14,632 |
| dexmethylphenidate / CNS stimulants | $911,233 | $794,366 | 3,072 | 2,553 |
| insulin glargine / insulin | $773,347 | $755,435 | 1,720 | 1,650 |
| pregabalin / gamma-aminobutyric acid analogs | $740,387 | $709,682 | 1,456 | 1,393 |
| anti-inhibitor coagulant complex / factor for bleeding disorders | $467,179 | $662,517 | 5 | 3 |
| aripiprazole / atypical antipsychotics | $527,236 | $609,382 | 3,027 | 2,845 |
| deferasirox / chelating agents | $797,833 | $582,646 | 53 | 46 |
| palivizumab / immune globulins | $487,043 | $572,181 | 242 | 183 |
| cobicistat/elvitegravir/emtricitabine/tenofov / antiviral combinations | $579,869 | $539,377 | 191 | 187 |
| lurasidone / atypical antipsychotics | $555,576 | $520,468 | 390 | 378 |
| corticotropin / corticotropin | $77,842 | $505,896 | 5 | 5 |
| fluticasone-salmeterol / bronchodilator combinations | $513,694 | $503,396 | 1,292 | 1,253 |
| somatropin / growth hormones | $539,448 | $503,058 | 114 | 106 |
| hydroxyprogesterone / progestins | $467,533 | $454,870 | 148 | 138 |
| insulin detemir / insulin | $424,620 | $431,212 | 807 | 767 |
| etanercept / TNF alpha inhibitors | $462,730 | $424,120 | 95 | 91 |
| vigabatrin / gamma-aminobutyric acid analogs | $363,583 | $404,532 | 36 | 34 |
| ivacaftor-lumacaftor / CFTR combinations | $525,374 | $399,709 | 22 | 22 |
| antihemophilic factor / factor for bleeding disorders | $553,712 | $389,715 | 22 | 16 |

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

| Drug Molecule | Oct 2018 # Claims | Nov 2018 # Claims | Dec 2018 # Claims | Dec 2018 $ Paid | Dec 2018 # Unique Benes |
|---|---|---|---|---|---|
| oseltamivir / neuraminidase inhibitors | 1,156 | 1,450 | 3,015 | $348,600 | 2,994 |
| azithromycin / macrolides | 12,219 | 13,626 | 13,269 | $254,176 | 12,985 |
| prednisolone / glucocorticoids | 7,286 | 8,022 | 8,056 | $122,578 | 7,769 |
| amoxicillin-clavulanate / penicillins/beta-lactamase inhibitors | 6,369 | 6,844 | 6,828 | $162,221 | 6,724 |
| cefdinir / third generation cephalosporins | 6,262 | 7,112 | 6,679 | $156,031 | 6,559 |
| dextromethorphan-promethazine / upper respiratory combinations | 825 | 1,136 | 1,191 | $12,292 | 1,154 |
| benzonatate / antitussives | 998 | 1,277 | 1,291 | $16,852 | 1,264 |
| brompheniramine/dextromethorphan/pse / upper respiratory combinations | 751 | 910 | 919 | $18,234 | 904 |
| amoxicillin / aminopenicillins | 18,476 | 19,851 | 18,616 | $241,456 | 18,276 |
| codeine-guaifenesin / upper respiratory combinations | 324 | 451 | 445 | $5,614 | 434 |
| levofloxacin / quinolones | 543 | 646 | 663 | $7,253 | 640 |
| prednisone / glucocorticoids | 3,401 | 3,533 | 3,507 | $37,366 | 3,410 |
| chlorpheniramine/dextromethorp/phenylephrine / upper respiratory combinations | 192 | 319 | 296 | $5,010 | 292 |
| cefprozil / second generation cephalosporins | 899 | 951 | 975 | $35,390 | 952 |
| palivizumab / immune globulins | 167 | 207 | 242 | $572,181 | 183 |
| ondansetron / 5HT3 receptor antagonists | 6,645 | 6,354 | 6,706 | $110,191 | 6,517 |
| paliperidone / atypical antipsychotics | 489 | 471 | 535 | $1,070,258 | 473 |
| clarithromycin / macrolides | 553 | 668 | 589 | $41,704 | 582 |
| sacubitril-valsartan / angiotensin receptor blockers and neprilysin inhibitors | 201 | 220 | 236 | $104,278 | 225 |
| bictegravir/emtricitabine/tenofovir / antiviral combinations | 102 | 116 | 133 | $367,784 | 126 |
| polymyxin b-trimethoprim ophthalmic / ophthalmic anti-infectives | 814 | 815 | 845 | $13,486 | 843 |
| warfarin / coumarins and indanediones | 622 | 632 | 648 | $7,826 | 522 |
| buprenorphine-naloxone / narcotic analgesic combinations | 979 | 978 | 1,003 | $365,460 | 837 |
| hydroxychloroquine / antirheumatics | 389 | 362 | 412 | $11,550 | 400 |
| cariprazine / atypical antipsychotics | 93 | 102 | 113 | $134,512 | 108 |

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

| Drug Molecule | Oct 2018 $ Paid | Nov 2018 $ Paid | Dec 2018 $ Paid | Dec 2018 # Claims | Dec 2018 # Unique Benes |
|---|---|---|---|---|---|
| corticotropin / corticotropin | $194,634 | $77,842 | $505,896 | 5 | 5 |
| oseltamivir / neuraminidase inhibitors | $146,709 | $183,328 | $348,600 | 3,015 | 2,994 |
| palivizumab / immune globulins | $410,715 | $487,043 | $572,181 | 242 | 183 |
| paliperidone / atypical antipsychotics | $953,393 | $917,985 | $1,070,258 | 535 | 473 |
| icatibant / miscellaneous cardiovascular agents | $0 | $0 | $97,580 | 3 | 2 |
| emicizumab / factor for bleeding disorders | $23,870 | $107,322 | $119,349 | 5 | 4 |
| bictegravir/emtricitabine/tenofovir / antiviral combinations | $276,966 | $313,243 | $367,784 | 133 | 126 |
| aripiprazole / atypical antipsychotics | $540,673 | $527,236 | $609,382 | 3,027 | 2,845 |
| ibrutinib / multikinase inhibitors | $50,526 | $107,532 | $107,532 | 6 | 6 |
| asfotase alfa / miscellaneous metabolic agents | $0 | $48,109 | $48,109 | 1 | 1 |
| lomitapide / miscellaneous antihyperlipidemic agents | $0 | $0 | $39,692 | 1 | 1 |
| valbenazine / VMAT2 inhibitors | $74,839 | $124,629 | $110,484 | 19 | 17 |
| abemaciclib / CDK 4/6 inhibitors | $22,679 | $19,495 | $50,302 | 5 | 4 |
| tipiracil-trifluridine / antineoplastic combinations | $13,683 | $30,438 | $40,931 | 4 | 3 |
| sofosbuvir/velpatasvir/voxilaprevir / antiviral combinations | $0 | $0 | $24,928 | 1 | 1 |
| selexipag / agents for pulmonary hypertension | $16,504 | $41,237 | $41,237 | 2 | 2 |
| cariprazine / atypical antipsychotics | $109,860 | $120,904 | $134,512 | 113 | 108 |
| regorafenib / multikinase inhibitors | $17,844 | $34,762 | $40,934 | 3 | 3 |
| azithromycin / macrolides | $233,512 | $262,445 | $254,176 | 13,269 | 12,985 |
| deutetrabenazine / VMAT2 inhibitors | $43,093 | $46,227 | $63,033 | 13 | 11 |
| niraparib / PARP inhibitors | $0 | $0 | $19,810 | 1 | 1 |
| pegfilgrastim / colony stimulating factors | $0 | $12,106 | $18,160 | 3 | 2 |
| cabozantinib / multikinase inhibitors | $0 | $17,549 | $17,549 | 1 | 1 |
| aztreonam / miscellaneous antibiotics | $17,210 | $43,015 | $34,416 | 4 | 4 |
| sunitinib / VEGF/VEGFR inhibitors | $39,161 | $70,995 | $56,322 | 4 | 4 |

## 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 OCT 2018 TO DEC 2018 (FFS and CCOs)

| Drug Product<br>Therapeutic Category | Dec 2018 # Claims | Dec 2018 $ Paid | Dec 2018 Avr. Paid Per Rx | Dec 2018 Avr. Units Per Rx | Oct 2018 Paid Per Unit | Nov 2018 Paid Per Unit | Dec 2018 Paid Per Unit | Percent Change |
|---|---|---|---|---|---|---|---|---|
| Biktarvy (bictegravir/emtricitabine/tenofovir) 50 mg-200 mg-25 mg tablet / antiviral combinations (P) | 133 | $367,784 | $2,765.29 | 30 | $88.28 | $89.64 | $91.80 | 4.0% |
| cefprozil 500 mg tablet / second generation cephalosporins (P) | 127 | $4,468 | $35.18 | 19 | $1.22 | $1.01 | $1.24 | 1.8% |
| Zetia (ezetimibe) 10 mg tablet / cholesterol absorption inhibitors (P) | 137 | $46,362 | $338.41 | 30 | $10.91 | $10.96 | $10.96 | 0.5% |
| Lyrica (pregabalin) 75 mg capsule / gamma-aminobutyric acid analogs (P) | 358 | $165,437 | $462.12 | 64 | $7.04 | $7.08 | $7.07 | 0.4% |
| Vyvanse (lisdexamfetamine) 20 mg tablet, chewable / CNS stimulants (P) | 190 | $55,112 | $290.06 | 30 | $9.37 | $9.34 | $9.40 | 0.4% |
| Lyrica (pregabalin) 50 mg capsule / gamma-aminobutyric acid analogs (P) | 156 | $76,032 | $487.38 | 67 | $7.03 | $7.05 | $7.05 | 0.3% |
| Vimpat (lacosamide) 200 mg tablet / miscellaneous anticonvulsants (P) | 162 | $132,050 | $815.12 | 60 | $13.46 | $13.26 | $13.48 | 0.2% |
| Renagel (sevelamer) 800 mg tablet / phosphate binders (P) | 104 | $158,074 | $1,519.94 | 219 | $6.69 | $6.73 | $6.70 | 0.1% |
| Focalin XR (dexmethylphenidate) 5 mg capsule, extended release / CNS stimulants (P) | 128 | $45,235 | $353.40 | 30 | $11.47 | $11.48 | $11.48 | 0.1% |
| Lyrica (pregabalin) 200 mg capsule / gamma-aminobutyric acid analogs (P) | 129 | $68,057 | $527.58 | 73 | $7.09 | $7.09 | $7.09 | 0.0% |
| Focalin XR (dexmethylphenidate) 15 mg capsule, extended release / CNS stimulants (P) | 364 | $134,472 | $369.43 | 30 | $11.96 | $12.00 | $11.96 | ( 0.0%) |
| Focalin XR (dexmethylphenidate) 30 mg capsule, extended release / CNS stimulants (P) | 264 | $91,696 | $347.33 | 30 | $11.48 | $11.50 | $11.47 | ( 0.0%) |
| Trintellix (vortioxetine) 20 mg tablet / miscellaneous antidepressants (P) | 171 | $64,469 | $377.01 | 30 | $11.93 | $11.92 | $11.93 | ( 0.1%) |

**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 OCT 2018 TO DEC 2018 (FFS and CCOs)

| Drug Product Therapeutic Category | Dec 2018 # Claims | Dec 2018 $ Paid | Dec 2018 Avr. Paid Per Rx | Dec 2018 Avr. Units Per Rx | Oct 2018 Paid Per Unit | Nov 2018 Paid Per Unit | Dec 2018 Paid Per Unit | Percent Change |
|---|---|---|---|---|---|---|---|---|
| Xulane (ethinyl estradiol-norelgestromin) 35 mcg-150 mcg/24 hr film, extended release / contraceptives (P) | 955 | $129,403 | $135.50 | 4 | $38.31 | $38.35 | $38.28 | ( 0.1%) |
| Focalin XR (dexmethylphenidate) 10 mg capsule, extended release / CNS stimulants (P) | 397 | $141,760 | $357.08 | 30 | $11.60 | $11.57 | $11.58 | ( 0.2%) |

**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**

**DECEMBER 2018 – JANUARY 2019**

**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-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 |
| 18-Dec | - | - | 150 | 338 | *21 | *17 | 38 |
| 19-Jan | 37 | 48 | 150 | 276 | 28 | 22 | 50 |

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

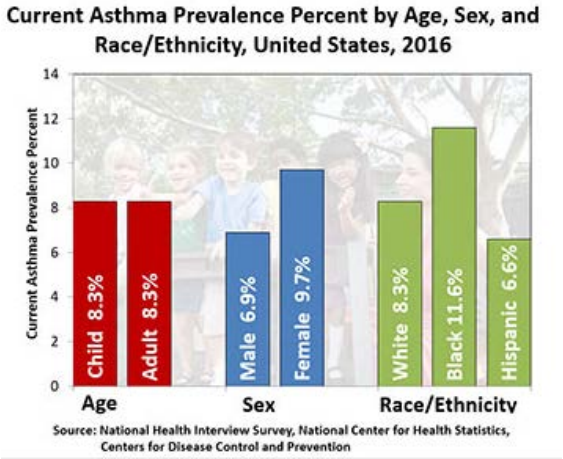
** Began excluding sickle cell diagnosis in Oct 2018

# ASTHMA OVERVIEW AND MISSISSIPPI MEDICAID PERFORMANCE ON RELATED QUALTIY MEASURES

## BACKGROUND

Asthma, a heterogeneous disease typically characterized by chronic airway inflammation, is defined by repeated episodes of respiratory symptoms such as wheezing, shortness of breath, chest tightness, and cough together with variable expiratory airflow limitations.[1] According to the Centers for Disease Control and Prevention (CDC) data, over 25 million Americans (8.3%) are impacted by asthma. In Mississippi it is estimated that over 175,000 (7.8%) of individuals have asthma.[2] The World Health Organization (WHO) reports that asthma is the most common chronic disease among children.[3] Figure 1 displays asthma prevalence statistics in the United States as reported by the CDC in 2016. [4] It is estimated the economic burden of asthma associated with medical expenses, missed days of work and school, and deaths is more than $80 billion annually in the U.S.[5]

**FIGURE 1:**




Asthma severity is broadly classified as either intermittent or persistent. Within the persistent asthma classification there are three subtypes: mild, moderate and severe. Multiple factors determine severity classification such as symptom frequency, nighttime awakenings, use of short-acting beta agonist, interference with normal activities, lung function and use of oral corticosteroids. (Figure 2) [6]

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[1] Global Initiative for Asthma. Global Strategy for Asthma Management and Prevention, 2018. https://ginasthma.org/gina-reports/

[2] Centers for Disease Control and Prevention: Asthma Surveillance Data. https://www.cdc.gov/asthma/most_recent_data.htm

[3] World Health Organization: Chronic Respiratory Diseases – Asthma. https://www.who.int/respiratory/asthma/en/

[4] Centers for Disease Control and Prevention: Asthma Data. https://www.cdc.gov/asthma/asthmadata.htm

[5] Nurmagambetov T, Kuwahara R, Garbe P. The economic burden of asthma in the United States, 2008-2013. Ann Am Thorac Soc. 2018;15(3):348–56.

[6] Asthma Care Quick Reference: Guidelines from the National Asthma Education and Prevention Program. National Heart, Lung, and Blood Institute. June 2002. Revised September 2012 https://www.nhlbi.nih.gov/files/docs/guidelines/asthma_qrg.pdf

## Figure 2: Asthma Severity Classification

### INITIAL VISIT: CLASSIFYING ASTHMA SEVERITY AND INITIATING THERAPY

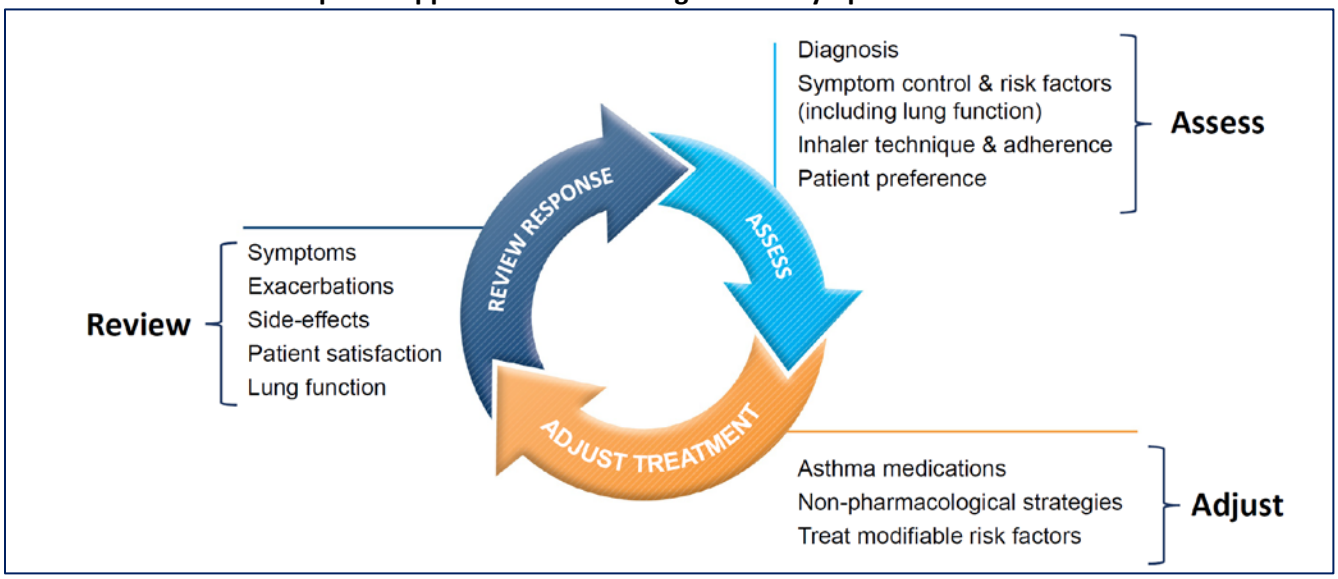
*(in patients who are not currently taking long-term control medications)*

Level of severity (Columns 2–5) is determined by events listed in Column 1 for both impairment (frequency and intensity of symptoms and functional limitations) and risk (of exacerbations). Assess impairment by patient's or caregiver's recall of events during the previous 2–4 weeks; assess risk over the last year. Recommendations for initiating therapy based on level of severity are presented in the last row.

| Components of Severity | | Intermittent | | | Persistent | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Mild | | | Moderate | | | Severe | | |
| | | Ages 0–4 years | Ages 5–11 years | Ages ≥12 years | Ages 0–4 years | Ages 5–11 years | Ages ≥12 years | Ages 0–4 years | Ages 5–11 years | Ages ≥12 years | Ages 0–4 years | Ages 5–11 years | Ages ≥12 years |
| Impairment | Symptoms | ≤2 days/week | | | >2 days/week but not daily | | | Daily | | | Throughout the day | | |
| | Nighttime awakenings | 0 | ≤2x/month | | 1–2x/month | 3–4x/month | | 3–4x/month | >1x/week but not nightly | | >1x/week | Often 7x/week | |
| | SABA* use for symptom control (not to prevent EIB*) | ≤2 days/week | | | >2 days/week but not daily | >2 days/week but not daily and not more than once on any day | | Daily | | | Several times per day | | |
| | Interference with normal activity | None | | | Minor limitation | | | Some limitation | | | Extremely limited | | |
| | Lung function | | Normal $FEV_1$ between exacerbations | Normal $FEV_1$ between exacerbations | | | | | | | | | |
| | → $FEV_1$* (% predicted) | Not applicable | >80% | >80% | Not applicable | >80% | >80% | Not applicable | 60–80% | 60–80% | Not applicable | <60% | <60% |
| | → $FEV_1/FVC$* | | >85% | Normal† | | >80% | Normal† | | 75–80% | Reduced 5%† | | <75% | Reduced >5%† |
| Risk | Asthma exacerbations requiring oral systemic corticosteroids‡ | 0–1/year | | | ≥2 exacerb. in 6 months, or wheezing ≥4x per year lasting >1 day AND risk factors for persistent asthma | ≥2/year | | | | | | | |
| | | *Generally, more frequent and intense events indicate greater severity.* | | | | | | | | | | | |
| | | *Generally, more frequent and intense events indicate greater severity.* | | | | | | | | | | | |
| | | *Consider severity and interval since last asthma exacerbation. Frequency and severity may fluctuate over time for patients in any severity category. Relative annual risk of exacerbations may be related to $FEV_1$.** | | | | | | | | | | | |

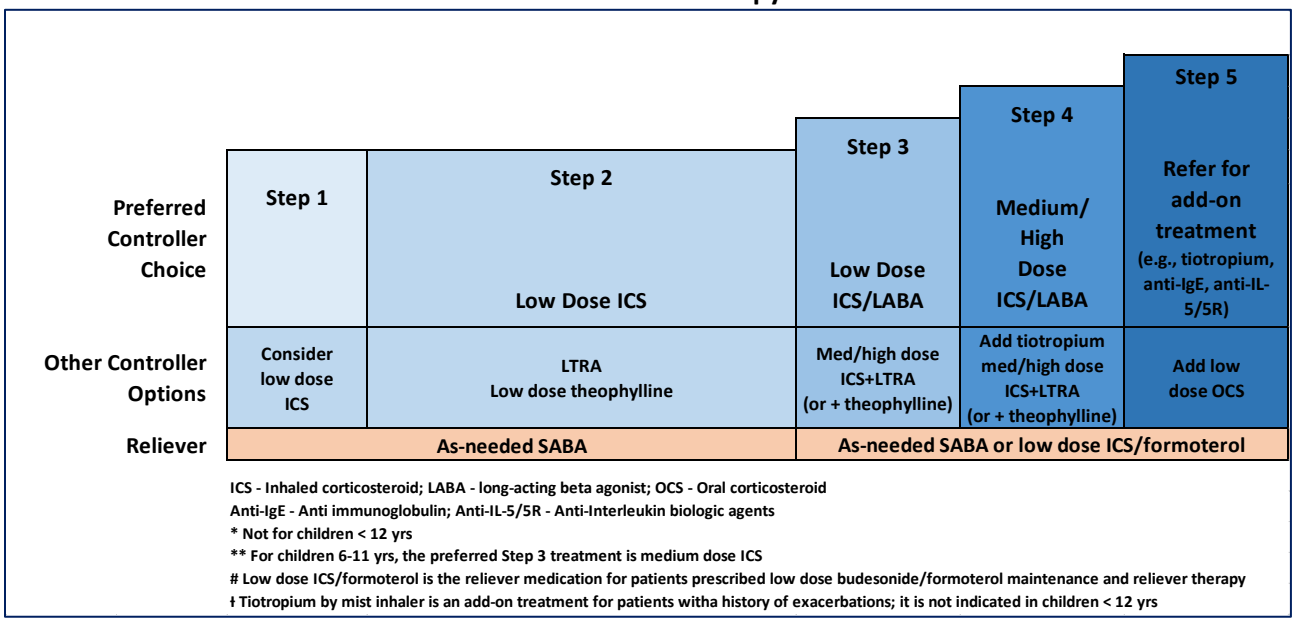
Although asthma cannot be cured, asthma is a treatable condition. A stepwise approach for managing asthma based on severity classification is recommended. This approach is a continuous cycle of assessing symptoms, adjusting therapy, and reviewing outcomes. As the understanding of the pathologic mechanisms of asthma continues to evolve, new therapies are being introduced. Due to this fast pace in innovation, treatment guidelines need continuous updating. One constant is the recommendation for controller medication for any patient classified as persistent, therefore, managing patients classified as having persistent asthma is vital. Below is a summary of treatment recommendations from the Global Initiative for Asthma (GINA) 2018 report (Figures 3 and 4).[7]

**FIGURE 3: 2018-GINA Stepwise Approach to Controlling Asthma Symptoms**




[7] Global Initiative for Asthma. Global Strategy for Asthma Management and Prevention, 2018. https://ginasthma.org/gina-reports/

**FIGURE 4: 2018 GINA-Recommended Asthma Pharmacotherapy**




When appropriately managed, asthma treatment can result in billions of dollars of savings in U.S. healthcare costs. Conversely the under-treatment of asthma creates substantial quality of life burdens on individuals and families. The CDC's National Asthma Control Program reports uncontrolled asthma among persons with current asthma. From 2006-2010, the report found that an average of 38.4% of children and 50.0% of adults with asthma in the U.S. were uncontrolled. Specifically, Mississippi ranked either at or near the bottom in uncontrolled asthma in both children (53.1%) and adults (58.4%). [8]

The need for improved management of asthma is evident, and healthcare quality measures have been developed to help address this need. The Centers for Medicare and Medicaid's Core Set Measures were developed to support states' efforts to measure and improve the quality of health care for children and adults enrolled in Medicaid. The Asthma Medication Ratio (AMR) measure is part of CMS' Medicaid Adult and Child Core Sets for FFY-2018 reporting.

In order to assess how well asthma is being managed in the Mississippi Medicaid population, MS-DUR examined performance on the CMS Core Set Measure AMR and on the Pharmacy Quality Alliance (PQA) measures for Medication Therapy for Person with Asthma. MS-DUR recently assisted DOM in reporting the AMR core measures for Federal fiscal year (FFY) 2018. Additionally, MS-DUR added the PQA measures to this data set in order to provide a more thorough examination of asthma management.

[8] Centers for Disease Control and Prevention: Uncontrolled Asthma among Persons with Current Asthma. https://www.cdc.gov/asthma/asthma_stats/uncontrolled_asthma.htm

## METHODS

The "Asthma Medication Ratio" is included in both the Medicaid Adult and Child Core Sets for FYY-2018 reporting (AMR-AD, AMR-CH). The AMR assesses the appropriate use of controller medications for beneficiaries with persistent asthma. The AMR measure is defined as the percentage of beneficiaries having persistent asthma and a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year. This measure was developed by the National Collaborative for Innovation in Quality Measurement, and is included in HEDIS® 2018. The measurement specifications are summarized in Table 1[9].
**A higher rate indicates better performance on AMR measures.*

| TABLE 1: AMR-AD and AMR-CH Measurement Specifications | |
|---|---|
| **Measurement Year** | January 1, 2017 - December 31, 2017 |
| **Denominator** | Medicaid enrollees 5 - 18 for children and 19 - 64 for adults identified as having persistent asthma. Beneficiaries are identified as having persistent asthma if they meet at least one of the following criteria during both the measurement year and the year prior to the measurement year.<br>- At least one emergency department (ED) visit with a principal diagnosis of asthma.<br>- At least one acute inpatient encounter with a principal diagnosis of asthma.<br>- At least four outpatient visits or observation visits on different dates of service with any diagnosis of asthma and at least two asthma medication dispensing events.<br>- At least four asthma medication dispensing events. If all medication dispensing events are for leukotriene modifiers or antibody inhibitors, must also have at least one diagnosis of asthma, in any setting, during the same year as the medication dispensing events. |
| **Numerator** | Beneficiaries with a ratio of controller medications units to total asthma medication units of 0.50 or greater. |
| **Continuous Enrollment** | Beneficiary must be enrolled for entire measurement year and the prior year. No more than one gap in continuous enrollment of up to 45 days is allowed during each year. |
| **Exclusions** | Beneficiaires are excluded from the denominator if they had no asthma medications dispensed during the measure year of if they had any diagnosis, in any setting, during the observation year or prior year for emphysema, COPD, obstructive chronic bronchitis, chronic respiratory conditions due to fumes/vapors, cystic fibrosis, or acute respiratory failure. |
| **Anchor Date** | The anchor date for determining age is December 31 of the measurement year. |

[9] Centers for Medicare and Medicaid Services, Core Set of Adult Health Care Quality Measures for Medicaid: Technical Specifications and Resource Manual for Federal Fiscal Year 2018 Reporting. https://www.medicaid.gov/medicaid/quality-of-care/downloads/medicaid-adult-core-set-manual.pdf

The PQA Medication Therapy for Persons with Asthma (MTPA) measure was developed for use by programs where only pharmacy data are available. The MTPA measures the percentage of individuals who received prescriptions for medications used to treat asthma with >3 canisters of a short-acting beta2 agonist inhaler over a 90-day period and who did not receive controller therapy during the same 90-day period. The denominator for the measure includes beneficiaries meeting the following criteria:

- Continuously enrolled
- ≥ 2 prescription claims for medications used to treat asthma with different dates of service and within 120 days of one another.
- No prescription claims for medications used to treat COPD.

Two rates are reported:

- Rate 1: Suboptimal Asthma Control: The percentage of individuals with prescription claims for medication used to treat asthma with >3 canisters of a short-acting beta2 agonist inhaler over a 90-day period.
- Rate 2: Absence of Controller Therapy: The percentage of individuals with prescription claims for >3 canisters of short acting beta2 agonist inhalers over a 90-day period and who did not receive controller therapy during the same 90-day period.

**A lower rate indicates better performance for both PQA MTPA measure rates*.

**RESULTS**

Table 2 shows the AMR-CH quality measure rates for CY 2017 for all Mississippi Medicaid beneficiaries meeting the inclusion criteria for the denominator.

- The overall rate within Mississippi Medicaid was 61.8%.
- The rate for FFS was significantly higher than the rate for the two CCOs.
- Rates varied considerably for different racial groups.

**TABLE 2: Mississippi Medicaid Performance on CMS/HEDIS Asthma Medication Ratio (AMR-CH)**
*** Children Only ***
***(January 1, 2017 - December 31, 2017 Reporting Period)***
***Includes Medicaid ONLY - No CHIP***

| Beneficiary Characteristics | | Denominator | Numerator (AMR ≥0.50) | Rate* |
|---|---|---|---|---|
| **TOTAL** | | 8,924 | 5,516 | 61.8% |
| Age | 5 - 11 | 5,190 | 3,458 | 66.6% |
| | 12 - 18 | 3,734 | 2,058 | 55.1% |
| Gender | Female | 3,673 | 2,280 | 62.1% |
| | Male | 5,251 | 3,236 | 61.6% |
| Race | Caucasian | 2,785 | 2,098 | 75.3% |
| | Afr. Amer. | 5,762 | 3,148 | 54.6% |
| | Amer. Indian | 21 | 19 | 90.5% |
| | Hispanic | 152 | 93 | 61.2% |
| | Other | 204 | 158 | 77.5% |
| Pharmacy Program | FFS | 879 | 780 | 88.7% |
| | UHC | 3,837 | 2,263 | 59.0% |
| | MAG | 4,208 | 2,473 | 58.8% |

** Rate is percentage of beneficiaries with ratio of controller medication units to total asthma medication units of 0.50 or greater.*

Table 3 shows the AMR-AD quality measure rates for CY 2017 for all Mississippi Medicaid beneficiaries meeting the inclusion criteria for the denominator.

- The overall rate within Mississippi Medicaid was 43.6% and was considerably lower than for that for children.
- The rate for FFS was significantly higher than the rate for the two CCOs.
- Rates varied for different racial groups but there was less variability across race than there was for children.

**TABLE 3: Mississippi Medicaid Performance on CMS/HEDIS Asthma Medication Ratio (AMR-AD)**
*** Adults Only ***
***(January 1, 2017 - December 31, 2017 Reporting Period)***
***Includes Medicaid ONLY - No CHIP***

| Beneficiary Characteristics | | Denominator | Numerator (AMR ≥0.50) | Rate |
|---|---|---|---|---|
| **TOTAL** | | 1,896 | 827 | 43.6% |
| Age | 19 - 50 | 1,337 | 575 | 43.0% |
| | 51 - 64 | 559 | 252 | 45.1% |
| Gender | Female | 1,416 | 594 | 41.9% |
| | Male | 480 | 233 | 48.5% |
| Race | Caucasian | 535 | 257 | 48.0% |
| | Afr. Amer. | 1,182 | 478 | 40.4% |
| | Hispanic | 4 | 2 | 50.0% |
| | Other | 175 | 90 | 51.4% |
| Pharmacy Program | FFS | 155 | 122 | 78.7% |
| | UHC | 664 | 262 | 39.5% |
| | MAG | 1,077 | 443 | 41.1% |

** Rate is percentage of beneficiaries with ratio of conroller medication units to total asthma medciation units of 0.50 or greater.*

**** A higher rate indicates better performance on AMR measures.***

Table 4 shows the MTPA rates for Mississippi Medicaid in 2017.

- Overall, 9.1% of the beneficiaries taking asthma medications were classified as having suboptimal asthma control (prescription fills for 3 or more rescue inhaler canisters within a 90-day period).
- Among the beneficiaries with sub-optimal asthma control, 43% did not have a prescription for a controller medication during the same 90-day period.
- This rate varied only slightly among the three pharmacy programs.

***A lower rate indicates better performance for both PQA MTPA measure rates*.**

**TABLE 4: Mississippi Medicaid Performance on PQA Medication Therapy for Persons With Asthma (MTPA)**
***(January 1, 2017 - December 31, 2017 Reporting Period)***
***Includes Medicaid ONLY - No CHIP***

| | | Denominator | | Numerator | Rate |
|---|---|---|---|---|---|
| **PQA Suboptimal Asthma Control*** | | 34,775 | | > 3 canisters of SA inhaler over 90-day period | 9.1% |
| | | | | 3,154 | |
| **PQA Absence of Controller Therapy** | **Total** | 3,154 | | Suboptimal control and no controller therapy during same 90-day period | 43.0% |
| | | | | 1,356 | |
| | **Pharmacy Program** | FFS | 336 | 138 | 41.1% |
| | | UHC | 1,239 | 545 | 44.0% |
| | | MAG | 1,579 | 673 | 42.6% |

** PQA overall denominator includes all beneficiaries continuously enrolled, having ≥ 2 asthma medications prescription fills in 120 days and not taking medications indicated for COPD.*

Table 5 shows the relationship between performance on the CMS/HEDIS AMR measure and the PQA Absence of Controller measure and asthma related visits to the emergency department (ED).

- For both measures, poor performance on the measure was significantly related to having asthma related ED visits during the year.
- Beneficiaries with asthma and having < 0.5 on the AMR were twice as likely to have asthma related ED visits (21.6% vs. 10.5%).
- Beneficiaries having 3 or more rescue inhalers in a 90-day period without a controller medication were almost twice as likely to have asthma related ED visits as were those taking controller medications (15.5% vs. 8.4%).

**TABLE 5: Relationship Between Performance on AMR and PQA Measures and Asthma Related Emergency Department Visits**

| Measure | | Asthma Related ED Visits During Year | | | |
|---|---|---|---|---|---|
| | | No | | Yes | |
| **CMS/HEDIS AMR Measure*** | AMR < 0.5 | 2097 | 78.4% | 577 | 21.6% |
| | AMR ≥ 0.5 | 7465 | 89.5% | 879 | 10.5% |
| **PQA Absence of Controller Measure*** | No controller | 1,520 | 84.5% | 278 | 15.5% |
| | Controller | 1242 | 91.6% | 114 | 8.4% |

** Significant relationship (p<0.001)*

**CONCLUSIONS AND RECOMMENDATIONS**

Both of these measures indicate there is room for improvement with respect to the management of asthma in Mississippi Medicaid. Only 62% of children and 44% of adults included in the CMS/HEDIS AMR measure had an acceptable ratio of controller units to rescue units. On the PQA measure, 9% of beneficiaries taking asthma medications had prescription fills for 3 or more rescue inhalers in a 90-day period of time, and of these, 43% did not receive a controller medication during the 90-day period. Both quality measures provide criteria that can easily be used to identify beneficiaries for inclusion in quality improvement efforts.

**Recommendations:**

1. MS-DUR should design and implement an educational intervention program to educate providers about performance on asthma medication management and to identify beneficiaries who are not meeting quality measure criteria.
2. DOM and the CCOs should identify beneficiaries failing to meet the quality measures' criteria enrolling these identified beneficiaries in management programs designed to educate patients on the importance of proper treatment for asthma and encourage greater utilization of controller medications.

# TRANSIENT OPIOID USE AND SHORT-TERM ACUTE COPD EXACERBATIONS IN MS MEDICAID

## BACKGROUND

Chronic obstructive pulmonary disease (COPD) impacts over 15 million Americans annually and is among the leading causes of death in the United States.[1] COPD patients are prone to repeated exacerbations resulting in acute worsening of respiratory symptoms leading to increased mortality, reduced quality of life and increased healthcare utilization costs.[2,3,4,5,6] Many factors such as smoking, infection, poor medication adherence and other environmental factors are known to increase the risk of COPD exacerbations.[7,8,9] The use of narcotic analgesics or opioids is also a factor associated with increased risk of COPD exacerbation.[10] Previous research into the association between opioid use and COPD exacerbations has been limited to periods of historical use ranging from 30 to 180 days. There is little research examining the risk of COPD exacerbation and short-term opioid exposure duration. The objective of this study is to examine the association of transient opioid use and acute respiratory exacerbations among adults with COPD enrolled in the Mississippi Division of Medicaid (DOM).

## METHODS

MS-DUR recently completed a special study to examine the impact of opioid use among beneficiaries with COPD. This study utilized a case-crossover design to examine the association between transient opioid use and acute COPD exacerbations with the DOM's claims data from 2013 to 2017. The use of a case-crossover design helps evaluate the impact of transient risk factors on abrupt outcomes with each subject serving as their own control. This means that each

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[1] National Center for Chronic Disease Prevention and Health Promotion. Chronic Obstructive Pulmonary Disease. June 5, 2018. https://www.cdc.gov/copd/maps/index.htm. Accessed February 1, 2019.

[2] Wedzicha JA, Seemungal TA. COPD exacerbations: defining their cause and prevention. *The Lancet.* 2007; 370(9589):786-796.

[3] National Heart, Lung, And Blood Institute. Morbidity and Mortality: 2012 Chart Book on Cardiovascular, Lung, and Blood Diseases. 2012. Available: http://www. nhlbi. nih. gov/files/docs/research/2012_ChartBook_508. pdf, 2013.

[4] Burt L, Corbridge S. COPD exacerbations. *The American Journal of Nursing*, 2013; 113(2): p. 34-43.

[5] Shah T, Press VG, Huisingh-Scheetz M, White SR. COPD Readmissions: Addressing COPD in the Era of Value-based Health Care. *Chest*, 2016; 150(4): p. 916-926.

[6] Seemungal TA, Donaldson GC, Paul EA, et al. Effect of exacerbation on quality of life in patients with chronic obstructive pulmonary disease. *American Journal of Respiratory and Critical Care Medicine.* 1998; 157(5):1418-1422

[7] Pavord ID, Jones PW, Burgel PR, Rabe KF. Exacerbations of COPD. *International Journal of Chronic Obstructive Pulmonary Disease.* 2016;11(Spec Iss):21.

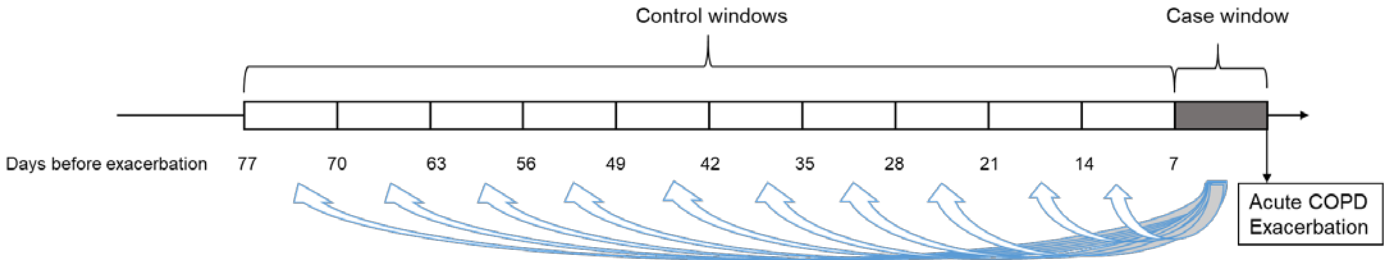
[8] Seemungal TA, Hurst JR, Wedzicha JA. Exacerbation rate, health status and mortality in COPD–a review of potential interventions. *International Journal of Chronic Obstructive Pulmonary Disease*. 2009; *4*: 203.

[9] Halpin DM, Miravitlles M, Metzdorf N, Celli B. Impact and prevention of severe exacerbations of COPD: a review of the evidence. *International Journal of Chronic Obstructive Pulmonary Disease.* 2017; 12:2891.

[10] Samp JC, Joo MJ, Schumock GT, et al. Predicting Acute Exacerbations in Chronic Obstructive Pulmonary Disease. *Journal of Managed Care & Specialty Pharmacy.* 2018; 24(3): 265-279.

subject's short-term exposure just before an event of interest is compared with their exposure within the one or more control periods which are more remote from the case event. [11,12] In this study opioid use within a 7-day case window immediately before each COPD exacerbation was compared to the same individual's opioid use in ten 7-day control windows. These successive 70 days before the case window are shown in Figure 1. A statistically significant result would represent transient exposure of opioid in 7 days increases the risk of acute COPD exacerbation.

**Figure 1 Conceptual Framework of the Study Design**




Both 2018 medical and pharmacy claims were used to determine the number of currently enrolled beneficiaries with COPD and any associated use of opioids during that year. This analysis provides data on the number of Medicaid beneficiaries diagnosed with COPD and potential opioid use impact on this disease in 2018.

[11] Maclure M, Mittleman AM. Should we use a case-crossover design? *Annual review of public health*. 2000;21(1):193-221.

[12] Maclure M. The case-crossover design: a method for studying transient effects on the risk of acute events. *American journal of epidemiology.* 1991; 133(2): 144-153.

**RESULTS**

A total of 1,354 Medicaid beneficiaries and 1,972 COPD exacerbation events met the study inclusion criteria.

- 62.3% of the COPD exacerbations had an opioid prescription claim during the seven-day period preceding the occurrence.
- Transient opioid exposure was found to be associated with an 80.8% increase in the odds of an acute respiratory exacerbation (Table 1).
- When opioid exposure was measured as a continuous variable, each 25mg increase in MEDD was found to be associated with an 11.2% increase in the odds of an acute respiratory exacerbation.
- Other medications, such as benzodiazepines and β-blockers were also significantly associated with an increased risk of a COPD exacerbation.

**TABLE 1: Conditional Logistic Regression of Opioid and Other Medication Use and Respiratory Exacerbation of COPD**
***(FFS and CCOs, 2013-2017)***

| | Use wthin 7-days of respiratory exacerbation | | | |
|---|---|---|---|---|
| | Odds Ratio | 95% Confidence Interval | | *P* -value |
| Use of Opioid | 1.81 | 1.60 | 2.05 | < 0.001* |
| Use of Benzodiazepines[a] | 2.22 | 1.72 | 2.86 | < 0.001* |
| Use of β-blockers[a] | 2.18 | 1.56 | 3.05 | < 0.001* |

[a] *Use was defined as prescence of a prescription claim resulting in possession of the medication during the case or the control windows preceeding each exacerbation event.*

As of December, 2018, there were a total of 14,596 beneficiaries enrolled in Mississippi Medicaid who had diagnoses of COPD (Table 2).

- Beneficiaries with COPD were almost twice as likely to be female.
- Beneficiaries with COPD were more likely to be ≥ 45 years of age.
- Although COPD was more prevalent in the FFS program, there were also a large number of COPD patients in the Coordinated Care Organizations (CCOs).

| TABLE 2: CHARACTERISTICS OF BENFICIARIES WITH COPD DIAGNOSES ENROLLED IN DECEMBER 2018 *(Excludes Nursing Home Residents and Dual-Eligibles)* | | | | | |
|---|---|---|---|---|---|
| | | Pharmacy Program | | | |
| | | FFS | UHC | MAG | MOL |
| **TOTAL** | | 5,951 | 3,752 | 4,717 | 176 |
| **Race** | Caucasian | 3,127 52.5% | 1,820 48.5% | 2,255 47.8% | 90 51.1% |
| | African American | 2,288 38.4% | 1,285 34.2% | 1,695 35.9% | 64 36.4% |
| | Other | 536 9.0% | 647 17.2% | 767 16.3% | 22 12.5% |
| **Gender** | Female | 3,876 65.1% | 2,343 62.4% | 2,983 63.2% | 108 61.4% |
| | Male | 2,075 34.9% | 1,409 37.6% | 1,734 36.8% | 68 38.6% |
| **Age** | Less than 18 | 90 1.5% | 183 4.9% | 232 4.9% | 13 7.4% |
| | 18 - 44 | 317 5.3% | 615 16.4% | 675 14.3% | 54 30.7% |
| | 45 - 64 | 2,807 47.2% | 2,943 78.4% | 3,791 80.4% | 109 61.9% |
| | 65+ | 2,737 46.0% | 11 0.3% | 19 0.4% | 0 0.0% |

Table 3 provides information on opioid use among beneficiaries with COPD who were enrolled in Medicaid as of December 2018 for that calendar year.

- Overall, 58% of beneficiaries with COPD had one or more opioid prescriptions during 2018. The percentage of beneficiaries with COPD having opioid prescriptions was much higher in the CCOs than in FFS.
- Of this 58%, about three-fourths of beneficiaries with opioid prescriptions had a maximum morphine equivalent daily dose (MEDD) < 50.
- Although few patients received high opioid doses, analyses in the study conducted by MS-DUR indicated that any dose of opioid significantly increases the likelihood of an exacerbation event.

| TABLE 3: OPIOID PRESCRIPTION USE AMONG BENFICIARIES WITH COPD DIAGNOSES ENROLLED IN DECEMBER 2018 *(Excludes Nursing Home Residents and Dual-Eligibles)* | | | | | |
|---|---|---|---|---|---|
| | | Pharmacy Program | | | |
| | | FFS | UHC | MAG | MOL |
| **TOTAL** | | 5,951 | 3,752 | 4,717 | 176 |
| **Number of Opioid Prescription Fills** | 0 | 4,742 79.7% | 1,480 39.4% | 2,071 43.9% | 100 56.8% |
| | 1 | 331 5.6% | 470 12.5% | 615 13.0% | 29 16.5% |
| | 2 | 171 2.9% | 273 7.3% | 381 8.1% | 14 8.0% |
| | 3 | 135 2.3% | 183 4.9% | 197 4.2% | 9 5.1% |
| | 4+ | 572 9.6% | 1,346 35.9% | 1,453 30.8% | 24 13.6% |
| **Maximum MEDD** | < 50 MEDD | 965 79.8% | 1,672 73.6% | 1,993 75.3% | 56 73.7% |
| | 50 - 89 MEDD | 156 12.9% | 419 18.4% | 467 17.6% | 15 19.7% |
| | 90 - 119 MEDD | 33 2.7% | 83 3.7% | 95 3.6% | 2 2.6% |
| | 120 + MEDD | 55 4.5% | 98 4.3% | 91 3.4% | 3 3.9% |

**CONCLUSIONS AND RECOMMENDATIONS**

Opioid use is fairly common among beneficiaries with a diagnosis of COPD. Even at lower doses, opioid use increases the likelihood of an exacerbation event. The DOM is implementing an opioid edit to require a manual prior authorization (PA) when the cumulative MEDD exceeds 90. As noted in the yellow highlighted area in table 3, this edit requiring a subsequent manual PA will have minimal impact on the quantity of manual PAs required for opioid prescriptions written for beneficiaries with COPD. The results of these analyses highlight a need to educate providers on the increased risk of exacerbation events in COPD patients associated with short-term opioid use.

**Recommendations:**

1. MS-DUR should implement a provider education initiative to address the risk associated with short-term opioid use among beneficiaries with COPD.

**FDA DRUG SAFETY COMMUNICATIONS**

**December 2018 – February 2019**

- FDA warns about increased risk of ruptures or tears in the aorta blood vessel with fluoroquinolone antibiotics in certain patients
  12/20/2018

# APPENDIX

# MS-DUR BOARD
# COMMON ABBREVIATIONS

| | |
|---|---|
| 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 |