

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



MISSISSIPPI DIVISION OF
MEDICAID

**August 21, 2014 at 2:00pm
Woolfolk Building, Room 117
Jackson, MS**

Prepared by:
The University of Mississippi School of Pharmacy
Evidence-Based DUR Initiative, MS-DUR

MS | DUR

Drug Utilization Review Board

Allison Bell, Pharm.D.
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2500 North State St.
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Term Expires: June 30, 2015

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UMC Dept of Pharmacy
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Term Expires: June 30, 2017

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Term Expires: June 30, 2016

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Term Expires: June 30, 2016

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

Lee Greer, M.D.
IMA-Tupelo
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Tupelo, MS 38801
Term Expires: June 30, 2015

Sue H. Simmons, M.D.
Maben Medical Clinic
49 Turner St.
Maben, MS 39750
Term Expires: June 30, 2015

Antoinette M. Hubble, M.D.
McComb Children's Clinic
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Term Expires: June 30, 2017

Dennis Smith, R.Ph. **(Chair)**
Polk's Discount Pharmacy
1031 Star Rd
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Sarah Ishee, Pharm.D.
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Laurel, MS 39440
Term Expires: June 30, 2015

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

2014 DUR Board Meeting Dates

February 13, 2014
August 21, 2014

May 15, 2014
November 20, 2014

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.

Only Mississippi Medicaid beneficiaries with fee-for-service claims are included in the analyses, including dual enrollees with Medicare Part D. MississippiCAN data is not being reported unless otherwise specified. Further, reported dollar figures represent reimbursement to providers and are not representative of overall Medicaid costs. Any reported enrollment data are 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 official PDL list.

MISSISSIPPI DIVISION OF MEDICAID

OFFICE OF THE GOVERNOR

DRUG UTILIZATION REVIEW BOARD

AGENDA

August 21, 2014

Welcome Dennis Smith, R.Ph. (Chair)

Old Business Dennis Smith, R.Ph. (Chair)

Approval of May 2014 Meeting Minutes *page 6*

Resource Utilization Review Ben Banahan, Ph.D.

Enrollment Summary *page 9*

Pharmacy Utilization Summary *page 9*

Top 25 Drugs by Number of Claims *page 10*

Top 25 Drugs by Amount Paid *page 11*

Top 10 Drug Movement by Amount Paid *page 12*

Top 10 Drug Movement by Number of Claims *page 13*

Pharmacy Program Update Judy Clark, R.Ph.
Shannon Hardwick, R.Ph.

New Business

Special Analysis Projects (short titles)

Buprenorphine-Naloxone Utilization in FFS and MSCAN (Banahan) *page 15*

Uniform PDL Compliance Monitoring (Banahan) *page 18*

Zohydro ER Utilization Management Criteria (Banahan & Hardwick) *page 23*

Xartemis XR Utilization Management Criteria (Banahan & Hardwick) *page 27*

Updated Guidelines for Palivizumab Prophylaxis Use (Banahan & Hardwick) *page 31*

Exceptions Monitoring

Exceptions Monitoring Criteria Recommendations *page 34*

Appendix

American Academy of Pediatrics Updated Guidance *page 36*

Next Meeting Information Dennis Smith, R.Ph. (Chair)

DUR Board Meeting Minutes

**MISSISSIPPI DIVISION OF MEDICAID
DRUG UTILIZATION REVIEW (DUR) BOARD
MINUTES OF THE May 15, 2014 MEETING**

| DUR Board Members: | Present | Absent |
|-------------------------------|----------------|---------------|
| Allison Bell, Pharm.D. | ✓ | |
| James R. "Beau" Cox, Pharm.D. | | ✓ |
| Logan Davis, Pharm.D. | | ✓ |
| Lee Greer, M.D. | | ✓ |
| Antoinette M. Hubble, M.D. | ✓ | |
| Sarah Ishee, Pharm.D. | | ✓ |
| Cherise McIntosh, Pharm.D. | ✓ | |
| Jason Parham, M.D. | ✓ | |
| Bobby Pactor, M.D. | | ✓ |
| Sue Simmons, M.D. | ✓ | |
| Dennis Smith, R.Ph. (Chair) | ✓ | |
| Cynthia Undesser, M.D. | ✓ | |
| Total | 7 | 5 |

Also Present:

DOM Staff:

Judith Clark, R.Ph., DOM Pharmacy Bureau Director; Shannon Hardwick, R.Ph., DOM Clinical Pharmacist, DUR Coordinator; Terri Kirby, R.Ph., DOM Clinical Pharmacist, Stefanie Bryant, DOM Program Integrity

MS-DUR Staff:

Kyle Null, Pharm.D., Ph.D., Clinical Director; Ben Banahan, Ph.D., Project Direct

Xerox Staff:

Leslie Leon, Pharm.D.

Visitors:

Emily Draper, UM pharmacy student; Rachel Strait, UM pharmacy student; Dan Barbera, Lilly; Roger Grotzinger, BMS; Juan Trippe, Reckitt Benckiser; Ken Skidmore, Alexion; Michael Cuccia, Daiichi Sankyo; Tim Melancon, Baxter

Call to Order: Mr. Dennis Smith, Chairman of the Board, called the meeting to order at 1:59 pm. Mr. Smith asked for a motion to accept the minutes from the meeting of February 13, 2014. Dr. Hubble made a motion to accept the minutes with a second from Dr. Undesser. All voted in favor of the motion.

Resource Utilization Review:

Dr. Null reviewed the resource report and noted that there were no specific utilization changes that need attention. Seasonal allergy increasing as expected. Some new expensive products are in top mover due to fact they were not used in prior quarter. Synagis summary shows most patients have shifted to MSCAN. No unexpected findings. MS-DUR will continue to monitor.

Pharmacy Program Update:

Ms. Hardwick reviewed several changes effective July 1, 2014: (1) 340 B pharmacies and providers will have new billing forms; (2) pharmacy reimbursement methodology will change to national average drug acquisition cost (NADAC) and new dispensing fee of \$11.20; and (3) new PDL changes. Plan to roll out a uniform PDL for Medicaid FFS and the MSCAN programs on 10/1/2014. Ms. Clark provided details to Board on 340B and new reimbursement methodology.

Dr. Null noted some of the significant changes in the CMS DUR Annual Report, including pharmacy lock-in policies regarding narcotic use, morphine equivalent dose, buprenorphine guidelines, psychotropic drug use in children and foster children.

New Business:*Identifying Potentially Inappropriate Use of Emergency Overrides*

Dr. Null reviewed patterns of pharmacies using emergency overrides and outliers. Number of fills will probably be changed to rate per prescriptions filled. Ms. Clark explained policy and purpose of the emergency override. Intervention will be for DOM staff to contact the outlier pharmacies and discuss intent of policy and their potential overuse. Pharmacists pointed out the override switch might be retained when refilling. Dr. Hubble suggested sending letters to top 50 as educational. Dr. Hubble made motion for recommendations made by MS-DUR. Seconded by Dr. McIntosh and passed unanimously.

Quantity Limits on Inhaled and Intranasal Products

Dr. Null reviewed an analysis of daily doses prescribed for inhaled and intranasal products provided by DOM and XEROX. No specific recommendations were sought from the DUR Board.

Specialty Drugs – Definition and Management

Dr. Banahan reviewed specialty drug background and the new treatments for Hepatitis C, including a discussion of management techniques for drugs such as Solvaldi. Board suggestions were to possibly include a screening for qualification including past compliance on other medications, alcohol free for 6 months, possibly drug free for 6 months. Dr. Parham expressed a preference for option of hiring additional clinical personnel in DOM to do patient care management since this will grow in importance in the future. Dr. McIntosh made motion to accept recommendations. Seconded by Dr. Hubble. Approved unanimously.

Exceptions Monitoring

Dr. Null noted that all recommended exceptions are from FDA notices and all but first one are safety related issues. Dr. McIntosh made motion to accept recommendations. Seconded by Dr. Hubble. Approved unanimously.

Other Business

Ms. Clark announced that all Board members with expiring terms are willing to serve another term and have been recommended to the Governor. This was preferred since DOM is dealing with universal PDL and other issues that will need to be addressed before new members could become fully oriented.

Next Meeting Information:

Mr. Smith announced next meeting date is August 21, 2014 at 2:00p.m. and thanked everyone for making the effort to attend the DUR Board meeting in order to have a quorum. The meeting adjourned at 3:15 pm.

Submitted,
Evidence-Based DUR Initiative, MS-DUR

DRAFT

Resource Utilization Review

| ENROLLMENT STATISTICS FOR LAST 12 MONTHS | | | | | | | | | | | | |
|--|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| July 1, 2013 through June 30 - 2014 | | | | | | | | | | | | |
| | Jul-13 | Aug-13 | Sep-13 | Oct-13 | Nov-13 | Dec-13 | Jan-14 | 14-Feb | 14-Mar | 14-Apr | 14-May | 14-Jun |
| Total enrollment | 667,137 | 668,362 | 668,203 | 667,615 | 667,456 | 666,474 | 673,909 | 680,402 | 689,427 | 694,109 | 696,413 | 697,646 |
| Dual-eligibles | 151,124 | 151,349 | 151,624 | 151,776 | 151,944 | 149,962 | 152,347 | 152,727 | 153,042 | 152,945 | 152,701 | 152,631 |
| Pharmacy benefits | 569,342 | 570,024 | 569,746 | 569,439 | 568,750 | 568,691 | 574,567 | 579,864 | 588,257 | 592,849 | 595,148 | 596,209 |
| LTC | 17,653 | 17,690 | 17,636 | 17,723 | 17,636 | 17,505 | 17,731 | 17,668 | 17,667 | 17,675 | 17,555 | 17,263 |
| PLAN % | FFS | 75.2% | 75.3% | 75.3% | 75.2% | 75.1% | 74.9% | 74.9% | 75.1% | 75.3% | 75.3% | 75.1% |
| | MSCAN-Magnolia | 13.6% | 13.5% | 13.5% | 13.5% | 13.6% | 13.7% | 13.8% | 13.7% | 13.5% | 13.5% | 13.6% |
| | MSCAN-UHC | 11.2% | 11.3% | 11.3% | 11.3% | 11.3% | 11.4% | 11.3% | 11.2% | 11.2% | 11.3% | 11.5% |

| PHARMACY UTILIZATION STATISTICS FOR LAST 12 MONTHS | | | | | | | | | | | | | |
|--|-----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| July 1, 2013 through June 30 - 2014 | | | | | | | | | | | | | |
| | | Jul-13 | Aug-13 | Sep-13 | Oct-13 | Nov-13 | Dec-13 | Jan-14 | 14-Feb | 14-Mar | 14-Apr | 14-May | 14-Jun |
| # Rx Fills | FFS | 2,629,487 | 2,673,729 | 2,685,885 | 2,692,253 | 2,684,767 | 2,670,022 | 2,661,320 | 2,663,834 | 2,665,072 | 2,661,924 | 2,648,788 | 2,625,247 |
| | MSCAN-Mag | 1,341,344 | 1,350,483 | 1,370,324 | 1,382,988 | 1,392,412 | 1,398,143 | 1,391,835 | 1,382,797 | 1,373,054 | 1,361,500 | 1,349,691 | 1,344,119 |
| | MSCAN-UHC | 1,083,021 | 1,102,103 | 1,125,174 | 1,139,198 | 1,149,010 | 1,157,491 | 1,172,069 | 1,168,719 | 1,165,414 | 1,157,841 | 1,146,963 | 1,136,766 |
| # Rx Fills / Bene | FFS | 6.1 | 6.2 | 6.3 | 6.3 | 6.3 | 6.3 | 6.2 | 6.1 | 6.0 | 6.0 | 5.9 | 5.9 |
| | MSCAN-Mag | 17.3 | 17.5 | 17.8 | 18.0 | 18.0 | 17.9 | 17.6 | 17.4 | 17.3 | 17.0 | 16.7 | 16.2 |
| | MSCAN-UHC | 17.0 | 17.1 | 17.5 | 17.7 | 17.9 | 17.9 | 18.1 | 18.0 | 17.7 | 17.4 | 17.1 | 16.6 |
| \$ Paid Rx | FFS | \$17,770,961 | \$20,094,398 | \$15,869,780 | \$22,054,966 | \$20,549,376 | \$22,134,145 | \$21,387,475 | \$20,657,284 | \$21,809,417 | \$19,498,309 | \$21,225,795 | \$20,553,261 |
| | MSCAN-Mag | \$8,476,229 | \$5,821,287 | \$8,482,296 | \$9,167,546 | \$9,005,557 | \$9,466,041 | \$9,846,979 | \$9,516,863 | \$6,513,135 | \$4,682,520 | \$5,233,401 | \$10,177,118 |
| | MSCAN-UHC | \$6,479,111 | \$6,575,827 | \$6,427,181 | \$6,846,689 | \$7,164,445 | \$7,239,516 | \$7,788,748 | \$7,320,177 | \$6,746,631 | \$10,402,238 | \$7,897,289 | \$7,426,266 |
| \$ /Rx Fill | FFS | \$6.76 | \$7.52 | \$5.91 | \$8.19 | \$7.65 | \$8.29 | \$8.04 | \$7.75 | \$8.18 | \$7.32 | \$8.01 | \$7.83 |
| | MSCAN-Mag | \$6.32 | \$4.31 | \$6.19 | \$6.63 | \$6.47 | \$6.77 | \$7.07 | \$6.88 | \$4.74 | \$3.44 | \$3.88 | \$7.57 |
| | MSCAN-UHC | \$5.98 | \$5.97 | \$5.71 | \$6.01 | \$6.24 | \$6.25 | \$6.65 | \$6.26 | \$5.79 | \$8.98 | \$6.89 | \$6.53 |
| \$ /Bene | FFS | \$41.51 | \$46.82 | \$36.99 | \$51.50 | \$48.11 | \$51.96 | \$49.70 | \$47.44 | \$49.24 | \$43.68 | \$47.49 | \$46.21 |
| | MSCAN-Mag | \$109.47 | \$75.65 | \$110.28 | \$119.25 | \$116.43 | \$121.50 | \$124.19 | \$119.80 | \$82.01 | \$58.51 | \$64.66 | \$122.80 |
| | MSCAN-UHC | \$101.61 | \$102.09 | \$99.83 | \$106.40 | \$111.48 | \$111.67 | \$119.96 | \$112.71 | \$102.40 | \$156.66 | \$117.43 | \$108.31 |

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

**TOP 25 DRUGS IN MEDICIAD FFS BY NUMBER OF CLAIMS
(April - June 2014)**

| Generic Drug Name | Brand Name | Medicaid Fee-For-Service (FFS) | | | | Medicaid MSCAN | | | |
|--|---------------|--------------------------------|------------------|----------------|-----------------|----------------|------------------|--------------|-----------------|
| | | # Claims | Rank # Claims | \$ Paid | Rank \$ Paid | # Claims | Rank # Claims | \$ Paid | Rank \$ Paid |
| CETIRIZINE | ZYRTEC | 32,834 | 1 | \$572,295.28 | 20 | 8,129 | 8 | \$75,199.17 | 112 |
| AMOXICILLIN | AMOXIL | 24,062 | 2 | \$260,458.68 | 45 | 11,321 | 4 | \$89,137.21 | 97 |
| MONTELUKAST | SINGULAIR | 21,756 | 3 | \$4,053,513.83 | 1 | 3,785 | 39 | \$432,501.69 | 18 |
| ALBUTEROL | VENTOLIN | 21,366 | 4 | \$1,065,726.37 | 14 | 12,066 | 3 | \$549,528.26 | 11 |
| AZITHROMYCIN | ZITHROMAX | 16,988 | 5 | \$562,781.36 | 21 | 7,642 | 9 | \$194,499.41 | 56 |
| ACETAMINOPHEN-HYDROCODONE | ZAMICET | 13,860 | 6 | \$288,260.72 | 39 | 39,995 | 1 | \$976,288.60 | 5 |
| LISDEXAMFETAMINE | VYVANSE | 13,675 | 7 | \$2,863,111.77 | 3 | 1,796 | 89 | \$386,588.68 | 21 |
| BROMPHENIRAMINE/DEXTROMETHORPH /PHENYLEPHRINE | RYNEX | 12,901 | 8 | \$119,988.39 | 93 | 131 | 334 | \$962.84 | 687 |
| METHYLPHENIDATE | RITALIN | 12,004 | 9 | \$1,999,644.51 | 5 | 2,358 | 71 | \$361,459.31 | 25 |
| PREDNISOLONE | VERIPRED | 11,929 | 10 | \$192,500.31 | 63 | 2,487 | 66 | \$29,676.37 | 227 |
| AMOXICILLIN-CLAVULANATE | AUGMENTIN | 10,366 | 11 | \$641,561.84 | 16 | 4,545 | 30 | \$228,121.37 | 45 |
| SULFAMETHOXAZOLE-TRIMETHOPRIM | BACTRIM | 10,265 | 12 | \$130,969.34 | 84 | 5,464 | 22 | \$49,183.75 | 157 |
| IBUPROFEN | ADVIL | 10,072 | 13 | \$99,602.78 | 103 | 6,955 | 13 | \$41,708.70 | 180 |
| AMPHETAMINE-DEXTROAMPHETAMINE | ADDERAL | 9,636 | 14 | \$1,531,814.32 | 7 | 3,579 | 42 | \$465,030.64 | 15 |
| MOMETASONE | NASONEX | 9,272 | 15 | \$1,555,728.86 | 6 | 130 | 335 | \$21,979.50 | 265 |
| GUANFACINE | INTUNIV | 8,751 | 16 | \$1,397,637.40 | 10 | 1,941 | 83 | \$202,499.43 | 52 |
| MUPIROCIN | BACTROBAN | 8,199 | 17 | \$303,498.96 | 37 | 2,233 | 73 | \$72,528.08 | 116 |
| ETHINYL ESTRADIOL-NORGESTIMATE | TRINESSA | 7,733 | 18 | \$287,920.19 | 40 | 3,411 | 45 | \$87,874.68 | 99 |
| CLONIDINE | KAPVAY | 7,458 | 19 | \$369,490.74 | 32 | 3,236 | 51 | \$73,773.64 | 113 |
| TRIAMCINOLONE | TRIANEX | 7,435 | 20 | \$92,415.14 | 112 | 2,173 | 78 | \$21,775.91 | 266 |
| CEFDINIR | OMNICEF | 6,341 | 21 | \$520,301.79 | 25 | 1,168 | 121 | \$70,618.36 | 119 |
| MEDROXYPROGESTERONE | DEPRO-PROVERA | 5,919 | 22 | \$260,064.78 | 46 | 3,407 | 46 | \$137,149.79 | 69 |
| RISPERIDONE | RISPERADOL | 5,915 | 23 | \$576,755.47 | 19 | 4,713 | 26 | \$508,749.34 | 13 |
| ESOMEPRAZOLE | NEXIUM | 5,537 | 24 | \$1,421,648.20 | 9 | 146 | 319 | \$36,820.59 | 200 |
| ONDANSETRON | ZOFRAN | 5,535 | 25 | \$548,482.87 | 22 | 3,744 | 40 | \$344,511.96 | 28 |

IMPORTANT NOTES:

- Generic names and brand names for each drug entity are listed in the tables to help in identifying drugs products.
- The reported number of claims and amount paid are for the entire drug entity including all strengths and dosage forms.
- Information broken down by generic and brand drug can be provided, if needed. However the amount of brand and generic use in each program will vary for some drug entities due to differences in preferred drugs.
- Amounts paid reflect the total reimbursement amount (cost of product and dispensing fee) paid to pharmacies.
- The amount paid in each program for each prescription for a drug entity may vary due to differences in having the brand or generic version of the drug preferred for cost reasons.

**TOP 25 DRUGS IN MEDICIAD FFS BY AMOUNT PAID
(April - June 2014)**

| Generic Drug Name | Brand Name | Medicaid Fee-For-Service (FFS) | | | | Medicaid MSCAN | | | |
|----------------------------------|------------|--------------------------------|------------------|----------------|-----------------|----------------|------------------|----------------|-----------------|
| | | # Claims | Rank # Claims | \$ Paid | Rank \$ Paid | # Claims | Rank # Claims | \$ Paid | Rank \$ Paid |
| MONTELUKAST | SINGULAIR | 21,756 | 3 | \$4,053,513.83 | 1 | 3,785 | 39 | \$432,501.69 | 18 |
| ANTIHEMOPHILIC FACTOR | XYNTHA | 128 | 324 | \$3,001,113.12 | 2 | - | not used | \$0.00 | not used |
| LISDEXAMFETAMINE | VYVANSE | 13,675 | 7 | \$2,863,111.77 | 3 | 1,796 | 89 | \$386,588.68 | 21 |
| ARIPIRAZOLE | ABILIFY | 3,334 | 43 | \$2,129,594.45 | 4 | 1,902 | 85 | \$1,608,710.89 | 2 |
| METHYLPHENIDATE | RITALIN | 12,004 | 9 | \$1,999,644.51 | 5 | 2,358 | 71 | \$361,459.31 | 25 |
| MOMETASONE NASAL | NASONEX | 9,272 | 15 | \$1,555,728.86 | 6 | 130 | 335 | \$21,979.50 | 265 |
| AMPHETAMINE-DEXTROAMPHETAMINE | ADDERAL | 9,636 | 14 | \$1,531,814.32 | 7 | 3,579 | 42 | \$465,030.64 | 15 |
| BUDESONIDE | PULMICORT | 3,347 | 42 | \$1,507,491.82 | 8 | 850 | 150 | \$270,936.22 | 34 |
| ESOMEPRAZOLE | NEXIUM | 5,537 | 24 | \$1,421,648.20 | 9 | 146 | 319 | \$36,820.59 | 200 |
| GUANFACINE | INTUNIV | 8,751 | 16 | \$1,397,637.40 | 10 | 1,941 | 83 | \$202,499.43 | 52 |
| SOMATROPIN | SAIZEN | 327 | 224 | \$1,277,583.07 | 11 | 89 | 380 | \$359,184.96 | 26 |
| QUETIAPINE | SEROQUEL | 2,929 | 54 | \$1,277,500.71 | 12 | 3,316 | 48 | \$1,406,051.69 | 3 |
| DEXMETHYLPHENIDATE | FOCALIN | 5,512 | 26 | \$1,081,576.01 | 13 | 441 | 206 | \$83,882.01 | 101 |
| ALBUTEROL | VENTOLIN | 21,366 | 4 | \$1,065,726.37 | 14 | 12,066 | 3 | \$549,528.26 | 11 |
| ANTI-INHIBITOR COAGULANT COMPLEX | FEIBA NF | 6 | 702 | \$1,057,165.08 | 15 | - | not used | \$0.00 | not used |
| AMOXICILLIN-CLAVULANATE | AUGMENTIN | 10,366 | 11 | \$641,561.84 | 16 | 4,545 | 30 | \$228,121.37 | 45 |
| FLUTICASONE-SALMETEROL | ADVAIR | 2,209 | 71 | \$635,752.44 | 17 | 1,485 | 100 | \$475,668.26 | 14 |
| SOFOSBUVIR | SOVALDI | 20 | 569 | \$591,378.20 | 18 | 62 | 435 | \$1,833,275.42 | 1 |
| RISPERIDONE | RISPERADOL | 5,915 | 23 | \$576,755.47 | 19 | 4,713 | 26 | \$508,749.34 | 13 |
| CETIRIZINE | ZYRTEC | 32,834 | 1 | \$572,295.28 | 20 | 8,129 | 8 | \$75,199.17 | 112 |
| AZITHROMYCIN | ZITHROMAX | 16,988 | 5 | \$562,781.36 | 21 | 7,642 | 9 | \$194,499.41 | 56 |
| ONDANSETRON | ZOFRAN | 5,535 | 25 | \$548,482.87 | 22 | 3,744 | 40 | \$344,511.96 | 28 |
| INSULIN GLARGINE | LANTUS | 1,603 | 90 | \$534,993.20 | 23 | 2,899 | 57 | \$1,122,405.49 | 4 |
| OLANZAPINE | ZYPREXA | 1,050 | 122 | \$531,535.74 | 24 | 1,365 | 109 | \$847,752.42 | 8 |
| CEFDINIR | OMNICEF | 6,341 | 21 | \$520,301.79 | 25 | 1,168 | 121 | \$70,618.36 | 119 |

IMPORTANT NOTES:

- Generic names and brand names for each drug entity are listed in the tables to help in identifying drugs products.
- The reported number of claims and amount paid are for the entire drug entity including all strengths and dosage forms.
- Information broken down by generic and brand drug can be provided, if needed. However the amount of brand and generic use in each program will vary for some drug entities due to differences in preferred drugs.
- Amounts paid reflect the total reimbursement amount (cost of product and dispensing fee) paid to pharmacies.
- The amount paid in each program for each prescription for a drug entity may vary due to differences in having the brand or generic version of the drug preferred for cost reasons.

TOP 10 DRUGS BY CHANGE IN DOLLARS PAID March, 2014 TO May, 2014

| Generic Molecule | Apr 2014 \$ Paid | May 2014 \$ Paid | Jun 2014 \$ Paid | Apr 2014 # Claims | May 2014 # Claims | Jun 2014 # Claims | Apr 2014 # Benes | May 2014 # Benes | Jun 2014 # Benes |
|----------------------------------|-----------------------------|-----------------------------|-----------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Antihemophilic Factor | \$675,333 | \$857,748 | \$1,468,032 | 30 | 39 | 59 | 20 | 22 | 31 |
| Anti-Inhibitor Coagulant Complex | \$345,000 | \$196,967 | \$515,198 | 2 | 1 | 3 | 2 | 1 | 3 |
| Coagulation Factor Viia | \$33,585 | \$0 | \$195,530 | 1 | 0 | 3 | 1 | 0 | 2 |
| Somatropin | \$366,009 | \$451,658 | \$459,916 | 96 | 111 | 120 | 92 | 80 | 118 |
| Sofosbuvir | \$147,845 | \$206,982 | \$236,551 | 5 | 7 | 8 | 5 | 7 | 8 |
| Ciprofloxacin-Dexamethasone Otic | \$105,375 | \$150,224 | \$184,975 | 657 | 929 | 1,145 | 633 | 675 | 1,127 |
| Glycerol Phenylbutyrate | \$44,558 | \$66,834 | \$118,074 | 2 | 3 | 5 | 2 | 3 | 3 |
| Aripiprazole | \$656,725 | \$742,712 | \$730,157 | 1,037 | 1,154 | 1,143 | 937 | 863 | 1,060 |
| Quetiapine | \$385,037 | \$446,994 | \$445,469 | 862 | 1,022 | 1,045 | 703 | 700 | 847 |
| Leuprolide | \$30,701 | \$74,191 | \$81,892 | 13 | 24 | 26 | 13 | 21 | 25 |

Only drugs with > \$500 paid (amount reimbursed to pharmacy) in last month are included in detail listing

TOP 10 DRUGS BY CHANGE IN NUMBER OF CLAIMS March, 2014 TO May, 2014

| Generic Molecule | Apr 2014 \$ Paid | May 2014 \$ Paid | Jun 2014 \$ Paid | Apr 2014 # Claims | May 2014 # Claims | Jun 2014 # Claims | Apr 2014 # Benes | May 2014 # Benes | Jun 2014 # Benes | Incr. # Claims |
|--|-----------------------------|-----------------------------|-----------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------|
| Mupirocin Topical | \$79,839 | \$109,336 | \$114,324 | 1,899 | 2,804 | 3,496 | 1,871 | 2,190 | 3,429 | 1,597 |
| Sulfamethoxazole-Trimethoprim | \$37,553 | \$46,852 | \$46,564 | 2,892 | 3,656 | 3,717 | 2,839 | 2,834 | 3,651 | 825 |
| Triamcinolone Topical | \$25,478 | \$33,284 | \$33,653 | 2,052 | 2,593 | 2,790 | 2,002 | 2,029 | 2,713 | 738 |
| Hydrocortisone/Neomycin/ Polymyxin B Otic | \$9,068 | \$14,313 | \$20,615 | 390 | 619 | 887 | 389 | 445 | 876 | 497 |
| Acetaminophen-Hydrocodone | \$89,695 | \$99,810 | \$98,756 | 4,235 | 4,895 | 4,730 | 3,854 | 3,608 | 4,336 | 495 |
| Ciprofloxacin-Dexamethasone Otic | \$105,375 | \$150,224 | \$184,975 | 657 | 929 | 1,145 | 633 | 675 | 1,127 | 488 |
| Hydrocortisone Topical | \$12,279 | \$15,476 | \$16,574 | 1,200 | 1,568 | 1,673 | 1,174 | 1,235 | 1,634 | 473 |
| Clindamycin | \$48,404 | \$72,768 | \$87,379 | 824 | 1,047 | 1,257 | 799 | 820 | 1,227 | 433 |
| Hydroxyzine | \$17,106 | \$22,084 | \$23,532 | 1,233 | 1,528 | 1,636 | 1,198 | 1,163 | 1,585 | 403 |
| Ethinyl Estradiol-Norgestimate | \$83,430 | \$104,860 | \$99,631 | 2,319 | 2,762 | 2,652 | 2,183 | 2,004 | 2,520 | 333 |

Only drugs with > \$500 paid (amount reimbursed to pharmacy) in last month are included in detail listing

Special Reports

BUPRENORPHINE-NALOXONE UTILIZATION IN MEDICAID FEE-FOR-SERVICE (FFS) AND MSCAN PLANS SINCE ADOPTION OF FFS TREATMENT GUIDELINES

BACKGROUND

The Division of Medicaid (DOM) implemented a new Buprenorphine-Naloxone treatment guideline September 1, 2012. In addition to dose reduction and limited use of narcotics, the guidelines limited beneficiaries to a maximum of 24 total months of therapy and 1 restart of therapy after treatment failure or discontinuation for other reasons. It is approaching the two-year mark since implementation and DOM asked MS-DUR to examine how many beneficiaries might be exhausting coverage and what the implications of the uniform PDL might be on cumulative coverage.

SUMMARY OF CURRENT DOM BUPRENORPHINE-NALOXONE TREATMENT GUIDELINES

- Buprenorphine-Naloxone therapy will be approved only for the treatment of opioid dependence.
- Buprenorphine will only be approved for use during pregnancy.
- Beginning September 1, 2012, there will be a **cumulative 24 months** maximum coverage for each beneficiary.
- A refill gap of 60+ days will be considered to be a discontinuation and will require a restart in treatment. Beneficiaries are only allowed one restart of therapy.
- The following maximum daily doses are in effect for initial start of therapy:
 - Step 1 – maximum daily dose of 24 mg/day for 1 month
 - Step 2 – maximum daily dose of 16 mg/day for next 4 months
 - Step 3 – maximum daily dose of 8 mg/day for remainder of time on therapy up to a cumulative 24 months of coverage
- The following maximum daily doses are in effect for restart of therapy:
 - Step 1 – maximum daily dose of 16 mg/day for 2 months
 - Step 2 – maximum daily dose of 8 mg/day for remainder of time on therapy up to a cumulative 24 months of coverage
- Beneficiaries cannot have prescriptions for more than a 5 day supply of opiates while on therapy.
- Beneficiaries can have a cumulative total of 10 days of opiate therapy during the time on therapy.
- Buprenorphine-Naloxone refills will be rejected if the beneficiary has had an opiate prescription for more than 5 days supply within the last 30 days.
- Beneficiaries with more than a cumulative 10 days of opiate therapy while on Buprenorphine-Naloxone therapy will no longer be eligible for coverage.

Objectives were:

- To determine how many months of therapy beneficiaries have used and how many are approaching limits on the total number of days covered (730).
- To determine how many beneficiaries might be affected by the uniform PDL including the current treatment protocol with transparency in benefits when patients move across plans.

METHODS

A retrospective analysis was conducted using Mississippi Medicaid FFS pharmacy claims and MSCAN encounters for the period September 1, 2012 through June 30, 2014.

RESULTS

Table 1 shows the number of beneficiaries covered for buprenorphine-naloxone therapy since implementation of the DOM treatment guideline. Since implementation, 236 beneficiaries have received therapy through free-for-service (FFS) and 773 received therapy through an MSCAN plan. Only 21 beneficiaries received therapy through more than one plan, with 20 of these receiving care through FFS before transferring to an MSCAN plan. These results indicate that issues related to transitioning from one plan to another may be minimal since the majority of the shift expected would be from FFS to MSCAN with a small amount of shift between MSCAN plans.

| TABLE 1: Number of Beneficiaries Covered for Buprenorphine-Naloxone Therapy by Plan | |
|--|--------------------------------|
| Plan | Number of Beneficiaries |
| FFS | 216 |
| United Health Care | 412 |
| Magnolia | 340 |
| FFS / United Health Care | 9 |
| FFS / Magnolia | 11 |
| United Health Care / Magnolia | 1 |

The DOM FFS guidelines only allow 1 restart (total of 2 starts). As shown in Table 2, only 1 beneficiary has exceeded the DOM guideline even when transfers across plans have occurred. Adoption of the current DOM guidelines regarding restarts as part of the uniform PDL would not appear to cause any major problems with respect to restarts, even when patients transfer across plans.

| TABLE 2: Number of Buprenorphine-Naloxone Starts by Beneficiaries by Plan | | | | |
|--|------------|------------|-----------------|-----------------------------|
| Number of Starts* | FFS | UHC | Magnolia | Total All Plans Used |
| 1 | 212 | 401 | 316 | 908 |
| 2 | 4 | 11 | 23 | 38 |
| 3 | | | 1 | 1 |

* Refill gap of 60+ days considered to be a restart

The DOM FFS guidelines allow a cumulative maximum of 24 months of buprenorphine-naloxone therapy. The distribution of total number of days beneficiaries have remained on therapy in the FFS plan has remained similar to that presented to the DUR Board in February 2012 when the guidelines were recommended. The distributions for Magnolia shows slightly longer periods on therapy and the distribution for United Health Care shows much longer periods on therapy. Even though these distributions differ, no beneficiaries received more than 365 days of therapy at this time and inclusion of the maximum days of therapy criteria in the uniform PDL should not be a problem.

| TABLE 3: Total Days of Therapy Covered by Plan | | | | | | |
|---|------------|----------|------------|----------|-----------------|----------|
| Total Days | FFS | | UHC | | Magnolia | |
| | n | % | n | % | n | % |
| 1-30 | 106 | 49.1% | 50 | 12.1% | 68 | 20.0% |
| 31-60 | 57 | 26.4% | 38 | 9.2% | 66 | 19.4% |
| 61-90 | 30 | 13.9% | 40 | 9.7% | 54 | 15.9% |
| 91-120 | 10 | 4.6% | 41 | 10.0% | 45 | 13.2% |
| 121-150 | 0 | 0.0% | 20 | 4.9% | 35 | 10.3% |
| 151-180 | 3 | 1.4% | 21 | 5.1% | 26 | 7.7% |
| 181-210 | 2 | 0.9% | 33 | 8.0% | 22 | 6.5% |
| 211-240 | 1 | 0.5% | 39 | 9.5% | 13 | 3.8% |
| 241-270 | 3 | 1.4% | 58 | 14.1% | 6 | 1.8% |
| 271-300 | 3 | 1.4% | 44 | 10.7% | 4 | 1.2% |
| 301-330 | 1 | 0.5% | 27 | 6.6% | 1 | 0.3% |
| 331-360 | 0 | 0.0% | 1 | 0.2% | 0 | 0.0% |

CONCLUSIONS

DOM has a policy of aggressively managing potential drugs of abuse. While buprenorphine-naloxone therapy can be an important component of treatment for opioid dependency, there is abuse potential for the drug itself. Based on the results reported, it does not appear that the DOM guidelines are too rigid. Nor does it appear that implementation of the guidelines as part of the uniform PDL would create restrictions in therapy for beneficiaries moving from plan to plan. Therefore, MS-DUR makes the following recommends at this time:

Recommendation 1: The current DOM buprenorphine-naloxone treatment guidelines should be incorporated into the uniform PDL in order to maximize consistency across plans.

Recommendation 2: Implementation of the DOM buprenorphine-naloxone treatment guidelines in the uniform PDL should treat movement across plans as transparently as possible, with all previous use being taken into account by the new plan.

RESOURCE UTILIZATION ADDITION UNIFORM PDL COMPLIANCE MONITORING

BACKGROUND

DOM is working with the MSCAN plans to develop a Uniform Preferred Drug List (UPDL) for implementation this fall. The UPDL will help reduce confusion and frustration among Medicaid providers from having different preferred drugs for the three plans (fee-for-service, United Healthcare and Magnolia). The UPDL will be based on the preferred drugs identified by DOM and the clinical criteria developed by DOM.

MS-DUR is developing a new resource utilization report that will provide DOM and the DUR Board a way to monitor consistent application of the UPDL and to identify potential problems that arise from inappropriate or inconsistent implementation.

The two major components of the proposed new monitoring report are described below with sample tables to facilitate Board discussion and suggestions.

UPDL Compliance with Preferred Drugs

All prescription medications covered by DOM fall into 1 of 3 categories at the time they are dispensed:

- **Preferred** – Drugs in therapeutic categories that ARE reviewed by the DOM Pharmacy and Therapeutics (P&T) Committee and have been identified as preferred products for clinical and/or financial reasons. Preferred drugs can include an entire drug entity, the brand or generic version of a drug entity, or a specific formulation of a drug entity. Preferred drugs may have clinical criteria that have to be met, but otherwise these products are approved without a prior authorization (PA) being required.
- **Non-Preferred** – Drugs in therapeutic categories that ARE reviewed by the DOM P&T Committee and have been identified as non-preferred products for clinical and/or financial reasons. Non-preferred drugs can include an entire drug entity, the brand or generic version of a drug entity, or a specific formulation of a drug entity. PA criteria are specified for when non-preferred drugs will be approved for coverage.
- **Not Reviewed** – Drugs in therapeutic categories that are NOT reviewed by the DOM P&T Committee. These drugs are not listed in the UPDL but must be covered by DOM if they are reimbursed drugs. The only restriction on the use of these drugs is that when a generic is available, the generic must be used and the brand is considered non-preferred.

MS-DUR has proposed generating and reviewing monthly reports for DOM and quarterly reports for the DUR Board on UPDL compliance for each of the three pharmacy plans. The table below is a draft of how these reports would appear for each therapeutic category.

TABLE 1: UPDL COMPLIANCE BY PHARMCY PLAN

July 2013 - June 2014

(FOR EXAMPLE ONLY - SEE NOTES BELOW)

| Therapeutic Class / Plan | | MONTH | | | | | | | | | | | |
|------------------------------|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | | 2013-07 | 2013-08 | 2013-09 | 2013-10 | 2013-11 | 2013-12 | 2014-01 | 2014-02 | 2014-03 | 2014-04 | 2014-05 | 2014-06 |
| Miscellaneous SUBOXONE | FFS | | | | | | | | | | | | |
| | Total | 84 | 70 | 54 | 72 | 65 | 51 | 44 | 45 | 50 | 42 | 51 | 68 |
| | Preferred | 91.7% | 92.9% | 90.7% | 86.1% | 87.7% | 86.3% | 86.4% | 93.3% | 92.0% | 88.1% | 96.1% | 89.7% |
| | Not Preferred | 8.3% | 7.1% | 9.3% | 13.9% | 12.3% | 13.7% | 13.6% | 6.7% | 8.0% | 11.9% | 3.9% | 10.3% |
| | MSCAN | | | | | | | | | | | | |
| | Total | 517 | 419 | 500 | 529 | 478 | 476 | 500 | 467 | 399 | 570 | 450 | 469 |
| | Preferred | 90.5% | 90.5% | 90.6% | 87.9% | 87.5% | 87.4% | 87.8% | 89.3% | 88.7% | 87.7% | 87.8% | 88.1% |
| | Not Preferred | 9.5% | 9.6% | 9.4% | 12.1% | 12.6% | 12.6% | 12.2% | 10.7% | 11.3% | 12.3% | 12.2% | 11.9% |
| Miscellaneous HYDROXYZINE | FFS | | | | | | | | | | | | |
| | Total | 1966 | 1797 | 1357 | 1928 | 1670 | 1520 | 1630 | 1621 | 1791 | 1232 | 1528 | 1634 |
| | Not Reviewed | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 0.0% | 0.0% | 0.0% |
| | Preferred | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 98.9% | 99.2% | 98.7% |
| | Not Preferred | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 1.1% | 0.8% | 1.4% |
| | MSCAN | | | | | | | | | | | | |
| | Total | 1807 | 1412 | 1769 | 1895 | 1818 | 1743 | 1799 | 1734 | 1282 | 1498 | 1353 | 1792 |
| | Not Reviewed | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 0.0% | 0.0% | 0.0% |
| | Preferred | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 70.9% | 72.9% | 69.8% |
| | Not Preferred | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 29.1% | 27.1% | 30.3% |

NOTE: Table only shows example of information to be reported. UPDL was not in place during period reported. Higher non-preferred use in MSCAN is to be expected.

There are always medical exceptions that warrant the approval of non-preferred drugs; therefore, a small percentage of non-preferred product use is to be expected in each category. The goals of this report will be (1) to identify significant differences that exist between the plans with respect to non-preferred product use in each category and (2) to identify significant changes in non-preferred product use across all plans.

Differences that are detected between plans will be further examined to identify the specific products and conditions related to the increased use of non-preferred products and this information will be shared with the appropriate plan for further investigation by them as to any problems that may be occurring in how the UPDL is being implemented.

Significant changes, especially increases, in the overall use of non-preferred products will be examined to determine if recommendations for changes in the UPDL are warranted.

BOARD ACTION REQUESTED:

Recommendation: MS-DUR recommends that an analysis of the UPDL compliance and issues identified in this analysis be reported to the DUR Board at its quarterly meetings for review and suggestions regarding the UPDL.

Input: MS-DUR and DOM request any suggestions or input from the Board on what information and the level of detail that would make the UPDL Compliance with Preferred Drugs report most useful to the Board.

Evaluation of PA Procedures Related to Non-Preferred Drug Use in FFS Plan

MS-DUR will prepare monthly reports for DOM to identify potential problems that may exist in the PA process being used to approve non-preferred drug use. This new report will provide DOM an effective way to monitor the PA process when changes are made in the UPDL and to identify potential problems in the PA process for the FFS plan.

Use of non-preferred drugs required approval through the PA process. PA criteria are specified in the UPDL for when non-preferred drugs will be approved for coverage. When the therapeutic category is included in the electronic PA process (SmartPA) and the specified criteria can be determined from electronic records, a PA is assigned and approved by SmartPA during the on-line adjudication process. When the category is not included in the electronic PA process or the criteria cannot be confirmed through electronic records, the prescription request is denied during on-line adjudication and a PA must be manually submitted by the provider through Web Portal or by fax.

MS-DUR will conduct an analysis each month to determine how PAs were approved for non-preferred drugs in each UPDL category. The table below is a draft of how this information will be reported to DOM each month.

| TABLE 2: PA ANALYSIS FOR NON-PREFERRED DRUGS USED IN FFS PLAN | | | | | | | | | | | | | |
|--|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| July 2013 - June 2014 | | | | | | | | | | | | | |
| (FOR EXAMPLE ONLY - SEE NOTES BELOW) | | | | | | | | | | | | | |
| Therapeutic Class / Plan | | MONTH | | | | | | | | | | | |
| | | 2013-07 | 2013-08 | 2013-09 | 2013-10 | 2013-11 | 2013-12 | 2014-01 | 2014-02 | 2014-03 | 2014-04 | 2014-05 | 2014-06 |
| Miscellaneous SUBOXONE | FFS | | | | | | | | | | | | |
| | Total | 7 | 5 | 5 | 10 | 8 | 7 | 6 | 3 | 4 | 5 | 2 | 7 |
| | No PA | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| | SmartPA | 71.4% | 60.0% | 60.0% | 50.0% | 75.0% | 71.4% | 50.0% | 66.7% | 75.0% | 80.0% | 0.0% | 42.9% |
| | Manual PA | 28.6% | 40.0% | 40.0% | 50.0% | 25.0% | 28.6% | 50.0% | 33.3% | 25.0% | 20.0% | 100.0% | 57.1% |
| Miscellaneous HYDROXYZINE | FFS | | | | | | | | | | | | |
| | Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 12 | 22 |
| | No PA | - | - | - | - | - | - | - | - | - | 0.0% | 0.0% | 0.0% |
| | SmartPA | - | - | - | - | - | - | - | - | - | 0.0% | 0.0% | 0.0% |
| | Manual PA | - | - | - | - | - | - | - | - | - | 100.0% | 100.0% | 100.0% |

These internal reports to DOM for the FFS plan will help identify potential PA process problems in the following ways.

- Since all non-preferred products require a PA to be used, any use of non-preferred products without a PA will indicate system problems that need to be addressed.
- When an unusually high use of non-preferred products occurs in a reviewed class, the source of PAs can help determine the source of the problem. High rates of approval by the electronic PA may indicate coding problems; while high rates of approval by manual PA may indicate inappropriate application of criteria and the need for training.
- When a class is included in electronic PA and a high percentage of PA approvals are being done manually, this may indicate a need to change the PA criteria.

BOARD ACTION REQUESTED:

Input: Information about the PA Analysis is being presented to the Board for information only. MS-DUR and DOM request any suggestions or input from the Board on issues related to the PA process that MS-DUR should examine and report to DOM monthly.

CLINICAL GUIDELINES FOR ZOHYDRO™ ER

Description: Zohydro™ ER (hydrocodone bitartate) is an oral semisynthetic opiate agonist derived from the opioid alkaloid, thebaine and is similar to other phenanthrene derivatives such as codeine. Hydrocodone extended-release capsules (Zohydro™ ER) are used to manage pain severe enough to require daily, around-the-clock, long-term opioid treatment and for which alternative treatment options are inadequate. Zohydro™ ER is the first extended-release dosage form of hydrocodone and the first dosage form of hydrocodone that is not combined with an analgesic such as acetaminophen. Due to the risks of addiction, abuse, misuse and diversion with opioids, even at recommended doses, and because of the greater risks of overdose and death with extended-release opioid formulations, Zohydro™ ER should be reserved for use in patients for whom alternative treatment options are ineffective, not tolerated, or would be otherwise inadequate to provide sufficient management of pain. The product is not approved for as-needed pain relief. The recommended dose is every 12 hours. Hydrocodone extended-release capsules were FDA-approved in October 2013. Available strengths 10mg, 15mg, 20mg, 30mg, 40mg, and 50mg.

Indication: For the management of severe pain that requires daily, around-the-clock, long-term opioid treatment and for which alternative treatment options are inadequate. Zohydro™ ER has significant black-box warnings.

Zohydro™ ER (hydrocodone bitartrate) Extended-Release Capsules, CII
Initial U.S. Approval: 1943

WARNING: ADDICTION, ABUSE, AND MISUSE; LIFE-THREATENING RESPIRATORY DEPRESSION; ACCIDENTAL EXPOSURE; NEONATAL OPIOID WITHDRAWAL SYNDROME; and INTERACTION WITH ALCOHOL

See full prescribing information for complete boxed warning.

- Zohydro ER exposes users to risks of addiction, abuse, and misuse, which can lead to overdose and death. Assess each patient's risk before prescribing, and monitor regularly for development of these behaviors or conditions. (5.1)
- Serious, life-threatening, or fatal respiratory depression may occur. Monitor closely, especially upon initiation or following a dose increase. Instruct patients to swallow Zohydro ER whole to avoid exposure to a potentially fatal dose of hydrocodone. (5.2)
- Accidental consumption of Zohydro ER, especially in children, can result in fatal overdose of hydrocodone. (5.2)
- For patients who require opioid therapy while pregnant, be aware that infants may require treatment for neonatal opioid withdrawal syndrome. Prolonged use during pregnancy can result in life-threatening neonatal opioid withdrawal syndrome. (5.3)
- Instruct patients not to consume alcohol or any products containing alcohol while taking Zohydro ER because co-ingestion can result in fatal plasma hydrocodone levels. (5.4)

Black box warning from Official Prescribing Information

In December 2013, the Centers for Medicare and Medicaid Services (CMS) Program Integrity Group sent an alert letter to Medicare Part D plans notifying them about this product and encouraging them to consider employing utilization management strategies such as prior authorization (PA) and quantity limits to help ensure safe and appropriate utilization of Zohydro™ ER (copy attached).

Long-acting Narcotic Analgesics is a reviewed class and the DOM P&T Committee placed Zohydro™ ER on the non-preferred list when it was introduced to the market. As shown below, the current Preferred Drug List (PDL) lists specific product related and general class related step-edits and quantity limits for the non-preferred agents in this class.

| ANALGESICS, NARCOTIC - LONG ACTING SmartPA | | | |
|--|--|---|--|
| | fentanyl patches methadone morphine ER tablets OPANA ER (oxymorphone) | AVINZA (morphine) BUTRANS (buprenorphine) CONZIP ER (tramadol) DOLOPHINE (methadone) DURAGESIC (fentanyl) EMBEDA (morphine/naltrexone) EXALGO (hydromorphone) hydromorphone ER KADIAN (morphine) MS CONTIN (morphine) morphine ER capsules NUCYNTA ER (tapentadol) oxycodone ER OXYCONTIN (oxycodone) oxymorphone ER RYZOLT (tramadol) tramadol ER ULTRAM ER (tramadol) XARTEMIS XR (oxycodone/APAP) ^{NR} ZOHYDRO ER (hydrocodone bitartrate) | SmartPA Criteria: <ul style="list-style-type: none"> • Suboxone/ Subutex concurrent therapy <ul style="list-style-type: none"> ○ Opioids are limited to a 5 day supply while on Suboxone or Subutex therapy with a maximum cumulative total of 10 days. • Avinza <ul style="list-style-type: none"> ○ 30 days of therapy with Opana ER or morphine ER in the past 6 months OR ○ 90 days completed therapy with the same agent in the past 105 days AND ○ Quantity limit of 31 tablets in 31 days • OxyContin <ul style="list-style-type: none"> ○ Documented diagnosis of cancer found in the past 2 years medical claims OR ○ Antineoplastic therapy in the past 6 months AND ○ 30 days of therapy with Kadian, Opana ER, morphine ER, Avinza or Duragesic patch in the past 6 months AND |
| | | | <ul style="list-style-type: none"> ○ Quantity limit of 62 tablets in 31 days. • Non-Preferred Criteria <ul style="list-style-type: none"> ○ 30 days of therapy with 2 different preferred agents in the past 6 months OR ○ 90 days completed therapy with the same agent in the past 105 days AND ○ Applicable <u>quantity limit</u> in 31 rolling days. <ul style="list-style-type: none"> • 31 tablets in 31 days – Exalgo ER, Ultram ER, Ryzolt, Conzip ER, • 62 tablets in 31 days – Methadone, Kadian, Morphine ER, Embeda, oxycodone ER, Opana ER, • 10 patches in 31 days – Duragesic • 4 patches in 31 days - Butrans |

Recommendation:

MS-DUR recommends that DOM place additional product specific PA criteria for use of Zohydro™ ER and that the DUR Board provide input on possible additional criteria.

Possible Criteria If Recommendation Approved by Board:

The following potential criteria and areas for discussion have been identified by MS-DUR and DOM.

| | |
|----------------|---|
| Age edit | Minimum age of 18 years |
| Quantity limit | Maximum 2 units per day, 62 tablets in 31 days (<i>similar to Methadone, Kadian, Morphine ER, Embeda, oxycodone ER, Opana ER</i>) |
| Diagnosis | Documented diagnosis of HIV, cancer, or sickle cell disease – <i>should we limit to specific diagnoses?</i> |
| Step-therapy | Prior 30 days of therapy with 2 different preferred agents in the past 6 months OR Prior 30 days therapy with Kadian, Opana ER, morphine ER, Avinza or Duragesic patch in the past 6 months (<i>similar to OxyContin</i>) OR 90 days completed therapy with Zohydro™ ER in the past 105 days (<i>allows grandfathering for beneficiaries already on therapy when implemented</i>) |

Recommendation:

The DUR Board recommends that DOM adopt the product specific PA criteria for use of Zohydro™ ER identified during the discussion.

ATTACHMENT – CMS ADVISORY TO MEDICARE PART D PLANS

DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
7500 Security Boulevard
Baltimore, Maryland 21244-1850



Center for Program Integrity

Date: December 17, 2013

To: All Medicare Part D Plan Sponsors

From: Mark Majestic, Acting Director
Medicare Program Integrity Group

Re: Alert - Zohydro™ ER

On October 25, 2013 the Food and Drug Administration (FDA) approved Zohydro™ ER (hydrocodone bitartrate), an extended-release/long-acting (ER/LA) opioid analgesic. Zohydro™ ER is the first single entity hydrocodone product approved by the FDA. Zohydro™ ER is similar to OxyContin®, in that it is a potent oral opioid analgesic that is formulated without acetaminophen (APAP). ER/LA opioid formulations, in addition to the risk of abuse and addiction associated with all opioids, carry a greater risk of overdose and death because they are easier to prepare for injection or snorting due to the higher undiluted opioid dose. As such, Zohydro™ ER is part of the FDA required Risk Evaluation and Mitigation Strategy (REMS) for Extended-Release (ER) and Long-Acting (LA) Opioids. In 2010, OxyContin® was reformulated to make the tablet more difficult to crush, break or dissolve to deter abuse by injection or snorting. Contrary to FDA recommendations, Zohydro™ ER is not in an abuse-deterrent form¹. It may therefore be preferentially sought for abuse and diversion.

We are alerting you to this information so that you can take appropriate measures regarding this product in your Part D prescription drug benefit. Zohydro™ ER has a more narrow indication than hydrocodone/APAP products and the approved product labeling includes a boxed warning regarding the risks of addiction, abuse and misuse which can lead to overdose and death. As such, Part D sponsors may wish to employ utilization management strategies such as prior authorization and quantity limits to help ensure safe and appropriate utilization.

If you need additional information about this issue, please contact the NBI MEDIC at 1-877-7SAFERX (1-877-772-3379). Any questions on this subject should be emailed to CPIMedicarePartD_Data@cms.hhs.gov.

¹ http://www.accessdata.fda.gov/drugsatfda_docs/label/2013/202880Orig1s000SumR.pdf

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This information has not been publicly disclosed and may be privileged and confidential. It is for internal government use only and must not be disseminated, distributed, or copied to persons not authorized to receive the information. Unauthorized disclosure may result in prosecution to the full extent of the law.

CLINICAL GUIDELINES FOR XARTEMIS™ XR

Description: Xartemis™ XR (oxycodone hydrochloride and acetaminophen) Extended-Release Tablets combine two analgesics, oxycodone hydrochloride 7.5 mg and acetaminophen 325 mg for oral administration. The activity of oxycodone hydrochloride is primarily due to the parent drug oxycodone. Xartemis™ XR is an extended-release tablet for oral administration containing both immediate- and extended-release components. Xartemis™ XR is formulated to immediately release a portion of its oxycodone and acetaminophen doses.

Xartemis™ XR is designed to swell in gastric fluid and gradually release the remainder of oxycodone and acetaminophen to the upper gastrointestinal (GI) tract. Xartemis™ XR is an extended-release bilayer formulation of oxycodone and acetaminophen which **IS NOT interchangeable with other oxycodone/acetaminophen products because of differing pharmacokinetic profiles that affect the frequency of administration.**

Indication: For the treatment of acute pain severe enough to require opioid treatment and for which alternative treatment options (e.g., non-opioid analgesics) are inadequate.

Dosing: *Adults:* 2 tablets PO every 12 hours administered with or without food. A second dose of 2 tablets may be given as early as 8 hours after the initial dose if needed for analgesia at that time. Subsequent doses are to be administered every 12 hours. Individualize the dosage regimen, considering prior analgesic exposure and risk for abuse. Monitor patients closely for excessive sedation and respiratory depression, particularly in the first 24—72 hours of treatment. To discontinue, use a gradual downward titration of 50% every 2—4 days to prevent withdrawal in the physically dependent patient.

Xartemis™ XR has the following black-box warnings in the official Prescribing Information.

WARNING: ADDICTION, ABUSE, AND MISUSE; LIFE-THREATENING RESPIRATORY DEPRESSION; ACCIDENTAL EXPOSURE; NEONATAL OPIOID WITHDRAWAL SYNDROME; and HEPATOTOXICITY

Addiction, Abuse, and Misuse

XARTEMIS XR exposes patients and other users to the risks of opioid addiction, abuse, and misuse, which can lead to overdose and death. Assess each patient's risk prior to prescribing XARTEMIS XR, and monitor all patients regularly for the development of these behaviors or conditions.

Life-threatening Respiratory Depression

Serious, life-threatening, or fatal respiratory depression may occur with use of XARTEMIS XR. Monitor for respiratory depression, especially during initiation of XARTEMIS XR or following a dose increase. Instruct patients to swallow XARTEMIS XR tablets whole; crushing, chewing, or dissolving XARTEMIS XR can cause rapid release and absorption of a potentially fatal dose of oxycodone.

Accidental Exposure

Accidental ingestion of XARTEMIS XR, especially in children, can result in a fatal overdose of oxycodone.

Neonatal Opioid Withdrawal Syndrome

Prolonged use of XARTEMIS XR during pregnancy can result in neonatal opioid withdrawal syndrome, which may be life-threatening if not recognized and requires management according to protocols developed by neonatology experts. If opioid use is required for a prolonged period in a pregnant woman, advise the patient of the risk of neonatal opioid withdrawal syndrome and ensure that appropriate treatment will be available.

Hepatotoxicity

XARTEMIS XR contains acetaminophen. Acetaminophen has been associated with cases of acute liver failure, at times resulting in liver transplant and death. Most of the cases of liver injury are associated with the use of acetaminophen at doses that exceed the maximum daily limit, and often involve more than one acetaminophen-containing product.

Short- and Long-acting Narcotic Analgesics are reviewed classes and the DOM P&T Committee placed Xartemis™ XR on the non-preferred list when it was introduced to the market. As shown below, the current Preferred Drug List (PDL) lists specific product related and general class related step-edits and quantity limits for the non-preferred agents in these classes.

DOM Preferred Drug List – 08-01-2014

| ANALGESICS, NARCOTIC - SHORT ACTING <small>SmartPA</small> | | |
|---|---|--|
| acetaminophen/codeine codeine dihydrocodeine/ APAP/caffeine hydrocodone/APAP hydromorphone IBUDONE (hydrocodone/ibuprofen) meperidine morphine oxycodone oxycodone/APAP oxycodone/aspirin oxycodone/ibuprofen pentazocine/APAP tramadol tramadol/APAP | ABSTRAL (fentanyl) ACTIQ (fentanyl) butalbital/APAP/caffeine/codeine butalbital/ASA/caffeine/codeine butorphanol tartrate (nasal) DEMEROL (meperidine) DILAUDID (hydromorphone) fentanyl FENTORA (fentanyl) FIORICET W/ CODEINE (butalbital/APAP/caffeine/codeine) FIORINAL W/ CODEINE (butalbital/ASA/caffeine/codeine) hydrocodone/ibuprofen levorphanol LORCET (hydrocodone/APAP) LORTAB (hydrocodone/APAP) MAGNACET (oxycodone/APAP) NORCO (hydrocodone/APAP) NUCYNTA (tapentadol) ONSOLIS (fentanyl) OPANA (oxymorphone) OXECTA (oxycodone) pentazocine/naloxone PERCOCET (oxycodone/APAP) PERCODAN (oxycodone/ASA) REPRESAINE (hydrocodone/ibuprofen) ROXICET (oxycodone/acetaminophen) RYBIX (tramadol) SUBSYS (fentanyl) SYNALGOS-DC (dihydrocodeine/ aspirin/caffeine) | SmartPA Criteria: <ul style="list-style-type: none"> Suboxone/ Subutex concurrent therapy <ul style="list-style-type: none"> Opioids are limited to a 5 day supply while on Suboxone or Subutex therapy with a maximum cumulative total of 10 days. <p>Other Criteria at the Point of Sale: Applicable <u>quantity limit</u> in 31 rolling days.</p> <ul style="list-style-type: none"> 62 tablets in 31 days – codeine, oxycodone/ibuprofen, meperidine, hydromorphone, fentanyl, butalbital/codeine combinations, morphine, tapentadol, dihydrocodeine combinations, tramadol, pentazocine, 124 tablets in 31 days – butalbital/APAP 750 145 tablets in 31 days – butalbital/APAP 650 186 tablets in 31 days – butalbital/APAP 325, butalbital/ASA 325 5mL (2 x 2.5 bottles) in 31 days – butorphanol nasal <p>Applicable <u>CUMULATIVE quantity limit</u> in 31 rolling days</p> <ul style="list-style-type: none"> 62 tablets in 31 days – hydrocodone combinations, oxycodone combinations |
| | TYLENOL W/CODEINE (APAP/codeine) TYLOX (oxycodone/APAP) ULTRACET (tramadol/APAP) ULTRAM (tramadol) VICODIN (hydrocodone/APAP) VICOPROFEN (hydrocodone/ibuprofen) XODOL (hydrocodone/acetaminophen) ZAMICET (hydrocodone/APAP) ZOLVIT (hydrocodone/APAP) ZYDONE (hydrocodone/acetaminophen) | <ul style="list-style-type: none"> 180 ml – oxycodone liquids 480 mL – hydrocodone liquids |

| ANALGESICS, NARCOTIC - LONG ACTING SmartPA | | | |
|--|--|---|--|
| | fentanyl patches methadone morphine ER tablets OPANA ER (oxymorphone) | AVINZA (morphine) BUTRANS (buprenorphine) CONZIP ER (tramadol) DOLOPHINE (methadone) DURAGESIC (fentanyl) EMBEDA (morphine/naltrexone) EXALGO (hydromorphone) hydromorphone ER KADIAN (morphine) MS CONTIN (morphine) morphine ER capsules NUCYNTA ER (tapentadol) oxycodone ER OXYCONTIN (oxycodone) oxymorphone ER RYZOLT (tramadol) tramadol ER ULTRAM ER (tramadol) XARTEMIS XR (oxycodone/APAP) ^{NB} ZOHYDRO ER (hydrocodone bitartrate) | SmartPA Criteria: <ul style="list-style-type: none"> Suboxone/ Subutex concurrent therapy <ul style="list-style-type: none"> Opioids are limited to a 5 day supply while on Suboxone or Subutex therapy with a maximum cumulative total of 10 days. Avinza <ul style="list-style-type: none"> 30 days of therapy with Opana ER or morphine ER in the past 6 months OR 90 days completed therapy with the same agent in the past 105 days AND Quantity limit of 31 tablets in 31 days OxyContin <ul style="list-style-type: none"> Documented diagnosis of cancer found in the past 2 years medical claims OR Antineoplastic therapy in the past 6 months AND 30 days of therapy with Kadian, Opana ER, morphine ER, Avinza or Duragesic patch in the past 6 months AND |
| | | | <ul style="list-style-type: none"> Quantity limit of 62 tablets in 31 days. Non-Preferred Criteria <ul style="list-style-type: none"> 30 days of therapy with 2 different preferred agents in the past 6 months OR 90 days completed therapy with the same agent in the past 105 days AND Applicable <u>quantity limit</u> in 31 rolling days. <ul style="list-style-type: none"> 31 tablets in 31 days – Exalgo ER, Ultram ER, Ryzolt, Conzip ER, 62 tablets in 31 days – Methadone, Kadian, Morphine ER, Embeda, oxycodone ER, Opana ER, 10 patches in 31 days – Duragesic 4 patches in 31 days - Butrans |

Recommendation:

MS-DUR recommends that DOM place additional product specific PA criteria for use of Xartemis™ XR and that the DUR Board provide input on possible additional criteria.

Possible Criteria If Recommendation Approved by Board:

The following potential criteria and areas for discussion have been identified by MS-DUR and DOM.

| | |
|---------------------|--|
| Age edit | Minimum age of 18 years |
| Quantity limit | 124 tablets in 31 rolling days – <i>this would be normal quantity limit in this category.</i> - <i>Indicated for acute, severe pain – should we specify maximum of 4 tablets/day and duration of therapy limit?</i> |
| Diagnosis | <i>Indicated for acute, severe pain – should we limit to specific diagnoses?</i> |
| Step-therapy | 30 days of therapy with 2 different preferred agents in the past 6 months – <i>this would be normal step-therapy for non-preferred in this category.</i> - <i>Indicated for acute, severe pain. Need input on what would be appropriate failure with preferred agents</i> |
| Duration of therapy | Limited to 70 days of therapy per calendar year - <i>Indicated for acute, severe pain. Should there be a limit on days of therapy?</i> |

Recommendation:

The DUR Board recommends that DOM adopt the product specific PA criteria for use of Xartemis™ XR identified during the discussion.

UPDATED PALIVIZUMAB RSV PROPHYLAXIS GUIDELINES

BACKGROUND

Palivizumab was licensed in June 1998 by the Food and Drug Administration for the reduction of serious lower respiratory tract infection caused by respiratory syncytial virus (RSV) in children at increased risk of severe disease. The Mississippi Division of Medicaid (DOM) supports the administration of Synagis® for children meeting the American Academy of Pediatrics (AAP) criteria for RSV immunoprophylaxis.

On July 28, 2014, the AAP published their latest policy statement, “Updated Guidance for Palivizumab Prophylaxis Among Infants and Young Children at Increased Risk of Hospitalization for Respiratory Syncytial Virus Infection” on-line in *Pediatrics*¹.

Summary of current DOM criteria based on the 2012 AAP guidelines found in the 2012 Red Book

| Beneficiaries must meet criteria in one of the following five categories: | |
|--|---|
| Category 1: - Prematurity of ≤ 28 weeks 6 days gestation - Age ≤ 1 year at start of RSV season | Category 2: - Prematurity of 29 weeks 0 days – 31 weeks 6 days gestation - Age ≤ 6 months at start of RSV season |
| Category 3: - Age 0 – 24 months at start of RSV season - Documentation of one of following risk factor(s): - Chronic lung disease with Dx of BPD - Postmenstrual age or infant of more than 32 weeks gestation receiving oxygen > 28 days - Hemodynamically significant CHD | Category 4: - Prematurity of 32 weeks 0 days – 34 weeks 6 days gestation - Age < 3 months at start of RSV season or born during RSV season - Documentation of one of following risk factor(s): - Sibling who is permanent resident of the home < 5 years old - Day Care - No diagnosis of CLD required |
| Category 5: - Age 0 – 12 months at start of RSV season - Documentation of congenital abnormalities of the airway that compromise handling respiratory secretions or neuromuscular disease | |
| Coverage limitations: - Category 3 – authorization will end at age 24 months. Extensions beyond require documentation of extreme clinical necessity. - Authorization will be granted for administration between October 31 and March 31. - Coverage limited to five doses for all categories except 4. Category 4 coverage ends when beneficiary reaches age 3 months with a maximum of 3 doses. | |

¹ American Academy of Pediatric Committee on Infectious Diseases and Bronchiolitis Guidelines Committee. Updated Guidance for Palivizumab Prophylaxis Among Infants and Young Children at Increased Risk of Hospitalization for Respiratory Syncytial Virus Infection. *Pediatrics*. Available at <http://pediatrics.aappublications.org/content/early/2014/07/23/peds.2014-1665>.

NOTE: Due to the late breaking nature of this issue, MS-DUR and DOM was unable to draft specific recommendations for the new Synagis® guidelines in order to meet delivery deadlines for the board packet. However, DOM will be sharing proposed new guidelines at the meeting for board review.

The recommended new guidelines and board recommendations will be available at the meeting and as well as included in the official minutes of the meeting that are posted on the web. For the board members' easy reference, the *Pediatric* article containing the AAP position statement on recommended new guidelines has been included in the packet as background.

Exceptions Monitoring Criteria Recommendations

**MISSISSIPPI MEDICAID
RETROSPECTIVE DRUG UTILIZATION REVIEW
EXCEPTIONS MONITORING CRITERIA RECOMMENDATIONS**

Criteria Recommendations

1. Co-administration of Accupril (quinapril hydrochloride) with aliskiren in patients with diabetes.

Message: In May 2014, the FDA approved labeling changes for Accupril (quinapril hydrochloride) tablets to include a contraindication that Accupril should not be co-administered in combination with aliskiren in patients with diabetes.

Exception Type: DDC - Drug-disease contraindication

Field 1

Accupril

Field 2

aliskiren

Field 3

Diabetes

References:

FDA Drug Safety Labeling Changes. May 2014. Available at:
<http://www.fda.gov/Safety/MedWatch/SafetyInformation/ucm279812.htm>

2. Co-administration of Accuretic (quinapril HCl/hydrochlorothiazide) with aliskiren in patients with diabetes.

Message: In May 2014, the FDA approved labeling changes for Accuretic (quinapril HCl/hydrochlorothiazide) tablets to include a contraindication that Accupril should not be co-administered in combination with aliskiren in patients with diabetes.

Exception Type: DDC - Drug-disease contraindication

Field 1

Accuretic

Field 2

aliskiren

Field 3

Diabetes

References:

FDA Drug Safety Labeling Changes. May 2014. Available at:
<http://www.fda.gov/Safety/MedWatch/SafetyInformation/ucm279817.htm>

3. Co-administration of Edurant (rilpivirine) with rifampin and rifapentine

Message: In May 2014, the FDA approved labeling changes for Edurant (rilpivirine) tablets to include a contraindication the co-administration of Edurant with rifampin and rifapentine would lead to loss of virologic response and possible resistance.

Exception Type: DDI - Drug-drug interaction

Field 1

Edurant

Field 2

rifampin
rifapentine

References:

FDA Drug Safety Labeling Changes. May 2014. Available at:
<http://www.fda.gov/Safety/MedWatch/SafetyInformation/ucm318459.htm>

Appendix

PEDIATRICS®

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Updated Guidance for Palivizumab Prophylaxis Among Infants and Young Children at Increased Risk of Hospitalization for Respiratory Syncytial Virus Infection

COMMITTEE ON INFECTIOUS DISEASES AND BRONCHIOLITIS
GUIDELINES COMMITTEE

Pediatrics; originally published online July 28, 2014;
DOI: 10.1542/peds.2014-1665

The online version of this article, along with updated information and services, is located on the World Wide Web at:

<http://pediatrics.aappublications.org/content/early/2014/07/23/peds.2014-1665>

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American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™





POLICY STATEMENT

Updated Guidance for Palivizumab Prophylaxis Among Infants and Young Children at Increased Risk of Hospitalization for Respiratory Syncytial Virus Infection

COMMITTEE ON INFECTIOUS DISEASES AND BRONCHIOLITIS
GUIDELINES COMMITTEE**KEY WORDS**

RSV, respiratory syncytial virus, palivizumab, bronchiolitis, infants and young children, chronic lung disease, congenital heart disease

ABBREVIATIONSAAP—American Academy of Pediatrics
CHD—congenital heart disease
CLD—chronic lung disease
COID—Committee on Infectious Diseases
RSV—respiratory syncytial virus

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Policy statements from the American Academy of Pediatrics benefit from expertise and resources of liaisons and internal (AAP) and external reviewers. However, policy statements from the American Academy of Pediatrics may not reflect the views of the liaisons or the organizations or government agencies that they represent.

The guidance in this statement does not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

All policy statements from the American Academy of Pediatrics automatically expire 5 years after publication unless reaffirmed, revised, or retired at or before that time.

(Continued on last page)

abstract

FREE

Palivizumab was licensed in June 1998 by the Food and Drug Administration for the reduction of serious lower respiratory tract infection caused by respiratory syncytial virus (RSV) in children at increased risk of severe disease. Since that time, the American Academy of Pediatrics has updated its guidance for the use of palivizumab 4 times as additional data became available to provide a better understanding of infants and young children at greatest risk of hospitalization attributable to RSV infection. The updated recommendations in this policy statement reflect new information regarding the seasonality of RSV circulation, palivizumab pharmacokinetics, the changing incidence of bronchiolitis hospitalizations, the effect of gestational age and other risk factors on RSV hospitalization rates, the mortality of children hospitalized with RSV infection, the effect of prophylaxis on wheezing, and palivizumab-resistant RSV isolates. This policy statement updates and replaces the recommendations found in the 2012 *Red Book. Pediatrics* 2014;134:415–420

Policy statements from the American Academy of Pediatrics (AAP) are designed to provide updated guidance for child health care topics, with an emphasis on evidence-based recommendations whenever possible. Policy statements are reviewed at least every 3 years and updated when appropriate. In following this procedure, the AAP Committee on Infectious Diseases (COID) has undertaken a systematic review of all recent and older peer-reviewed literature relating to the burden of respiratory syncytial virus (RSV) disease in infants and children, focusing on publications that delineate children at greatest risk of serious RSV disease and studies that define pharmacokinetics, safety, and efficacy. Detailed input regarding this guidance has been solicited from 21 committees, councils, sections, and advisory groups within the AAP, as well as organizations outside the AAP. Outside groups include the American College of Chest Physicians, American College of Emergency Physicians, American Thoracic Society, Emergency Nurses Association, National Association of Neonatal Nurses, National Association of Neonatal Nurse Practitioners, and Society of Hospital

Medicine. In addition, this review includes all data presented to the COID by the manufacturer of palivizumab.

As part of this deliberative review of palivizumab use, the COID judged the quality of the available data, as well as the impact of palivizumab prophylaxis to reach a unanimous consensus on guidance for the use of palivizumab in the United States. Cost was considered during deliberations by the COID and Bronchiolitis Guideline Committee, but the final guidance as presented here is driven by the limited clinical benefit derived from palivizumab prophylaxis.^{1–3}

As detailed in the accompanying technical report,⁴ the benefit resulting from this drug is limited. Palivizumab prophylaxis has limited effect on RSV hospitalizations on a population basis, no measurable effect on mortality, and a minimal effect on subsequent wheezing.

This policy statement updates and replaces the most recent AAP recommendations for the use of palivizumab prophylaxis published in 2012 in the 29th edition of the *Red Book*.⁵ This policy statement offers specific guidance for the use of palivizumab on the basis of available evidence, as well as expert opinion. A detailed discussion of the foundation of the updated guidance for each category as well as the references for each section may be found in the accompanying technical report,⁴ and AAP guidelines for the diagnosis and management of bronchiolitis, which were published in 2006⁶ (for which a revision is forthcoming).

The palivizumab package insert states: “Synagis is indicated for the prevention of serious lower respiratory tract disease caused by RSV in children at high risk of RSV disease.”⁷ In the absence of a specific definition of “high risk” by the US Food and Drug Administration, the AAP has endeavored to provide pediatricians and other health care providers with more

precise guidance for determining who is at increased risk since palivizumab was first licensed.^{5,8–11}

The informed opinion of the COID and the Bronchiolitis Guidelines Committee, as well as others participating in the current statement, is that palivizumab use should be restricted to the populations detailed below.

PRETERM INFANTS WITHOUT CHRONIC LUNG DISEASE OF PREMATURITY OR CONGENITAL HEART DISEASE

Palivizumab prophylaxis may be administered to infants born before 29 weeks, 0 days’ gestation who are younger than 12 months at the start of the RSV season. For infants born during the RSV season, fewer than 5 monthly doses will be needed.

Available data for infants born at 29 weeks, 0 days’ gestation or later do not identify a clear gestational age cutoff for which the benefits of prophylaxis are clear. For this reason, infants born at 29 weeks, 0 days’ gestation or later are not universally recommended to receive palivizumab prophylaxis. Infants 29 weeks, 0 days’ gestation or later may qualify to receive prophylaxis on the basis of congenital heart disease (CHD), chronic lung disease (CLD), or another condition.

Palivizumab prophylaxis is not recommended in the second year of life on the basis of a history of prematurity alone.

Some experts believe that on the basis of the data quantifying a small increase in risk of hospitalization, even for infants born earlier than 29 weeks, 0 days’ gestation, palivizumab prophylaxis is not justified.

PRETERM INFANTS WITH CLD

Prophylaxis may be considered during the RSV season during the first year of life for preterm infants who develop

CLD of prematurity defined as gestational age <32 weeks, 0 days and a requirement for >21% oxygen for at least the first 28 days after birth.

During the second year of life, consideration of palivizumab prophylaxis is recommended only for infants who satisfy this definition of CLD of prematurity and continue to require medical support (chronic corticosteroid therapy, diuretic therapy, or supplemental oxygen) during the 6-month period before the start of the second RSV season. For infants with CLD who do not continue to require medical support in the second year of life prophylaxis is not recommended.

INFANTS WITH HEMODYNAMICALLY SIGNIFICANT CHD

Certain children who are 12 months or younger with hemodynamically significant CHD may benefit from palivizumab prophylaxis. Children with hemodynamically significant CHD who are most likely to benefit from immunoprophylaxis include infants with acyanotic heart disease who are receiving medication to control congestive heart failure and will require cardiac surgical procedures and infants with moderate to severe pulmonary hypertension.

Decisions regarding palivizumab prophylaxis for infants with cyanotic heart defects in the first year of life may be made in consultation with a pediatric cardiologist.

These recommendations apply to qualifying infants in the first year of life who are born within 12 months of onset of the RSV season.

The following groups of infants with CHD are not at increased risk of RSV infection and generally should not receive immunoprophylaxis:

- Infants and children with hemodynamically insignificant heart disease (eg, secundum atrial septal

defect, small ventricular septal defect, pulmonic stenosis, uncomplicated aortic stenosis, mild coarctation of the aorta, and patent ductus arteriosus)

- Infants with lesions adequately corrected by surgery, unless they continue to require medication for congestive heart failure
- Infants with mild cardiomyopathy who are not receiving medical therapy for the condition
- Children in the second year of life

Because a mean decrease in palivizumab serum concentration of 58% was observed after surgical procedures that involve cardiopulmonary bypass, for children who are receiving prophylaxis and who continue to require prophylaxis after a surgical procedure, a post-operative dose of palivizumab (15 mg/kg) should be considered after cardiac bypass or at the conclusion of extracorporeal membrane oxygenation for infants and children younger than 24 months.

Children younger than 2 years who undergo cardiac transplantation during the RSV season may be considered for palivizumab prophylaxis.

CHILDREN WITH ANATOMIC PULMONARY ABNORMALITIES OR NEUROMUSCULAR DISORDER

No prospective studies or population-based data are available to define the risk of RSV hospitalization in children with pulmonary abnormalities or neuromuscular disease. Infants with neuromuscular disease or congenital anomaly that impairs the ability to clear secretions from the upper airway because of ineffective cough are known to be at risk for a prolonged hospitalization related to lower respiratory tract infection and, therefore, may be considered for prophylaxis during the first year of life.

IMMUNOCOMPROMISED CHILDREN

No population based data are available on the incidence of RSV hospitalization in children who undergo solid organ or hematopoietic stem cell transplantation. Severe and even fatal disease attributable to RSV is recognized in children receiving chemotherapy or who are immunocompromised because of other conditions, but the efficacy of prophylaxis in this cohort is not known. Prophylaxis may be considered for children younger than 24 months of age who are profoundly immunocompromised during the RSV season.

CHILDREN WITH DOWN SYNDROME

Limited data suggest a slight increase in RSV hospitalization rates among children with Down syndrome. However, data are insufficient to justify a recommendation for routine use of prophylaxis in children with Down syndrome unless qualifying heart disease, CLD, airway clearance issues, or prematurity (<29 weeks, 0 days' gestation) is present.

CHILDREN WITH CYSTIC FIBROSIS

Routine use of palivizumab prophylaxis in patients with cystic fibrosis, including neonates diagnosed with cystic fibrosis by newborn screening, is not recommended unless other indications are present. An infant with cystic fibrosis with clinical evidence of CLD and/or nutritional compromise in the first year of life may be considered for prophylaxis. Continued use of palivizumab prophylaxis in the second year may be considered for infants with manifestations of severe lung disease (previous hospitalization for pulmonary exacerbation in the first year of life or abnormalities on chest radiography or chest computed tomography that persist when stable) or weight for length less than the 10th percentile.

RECOMMENDATIONS FOR TIMING OF PROPHYLAXIS FOR ALASKA NATIVE AND AMERICAN INDIAN INFANTS

On the basis of the epidemiology of RSV in Alaska, particularly in remote regions where the burden of RSV disease is significantly greater than the general US population, the selection of Alaska Native infants eligible for prophylaxis may differ from the remainder of the United States. Clinicians may wish to use RSV surveillance data generated by the state of Alaska to assist in determining onset and end of the RSV season for qualifying infants.

Limited information is available concerning the burden of RSV disease among American Indian populations. However, special consideration may be prudent for Navajo and White Mountain Apache infants in the first year of life.

DISCONTINUATION OF PALIVIZUMAB PROPHYLAXIS AMONG CHILDREN WHO EXPERIENCE BREAKTHROUGH RSV HOSPITALIZATION

If any infant or young child receiving monthly palivizumab prophylaxis experiences a breakthrough RSV hospitalization, monthly prophylaxis should be discontinued because of the extremely low likelihood of a second RSV hospitalization in the same season (<0.5%).

USE OF PALIVIZUMAB IN THE SECOND YEAR OF LIFE

Hospitalization rates attributable to RSV decrease during the second RSV season for all children. A second season of palivizumab prophylaxis is recommended only for preterm infants born at <32 weeks, 0 days' gestation who required at least 28 days of oxygen after birth and who continue to require

supplemental oxygen, chronic systemic corticosteroid therapy, or bronchodilator therapy within 6 months of the start of the second RSV season.

LACK OF THERAPEUTIC EFFICACY OF PALIVIZUMAB

Passive antibody administration is not effective in treatment of RSV disease and is not approved or recommended for this indication.

PREVENTION OF HEALTH CARE-ASSOCIATED RSV DISEASE

No rigorous data exist to support palivizumab use in controlling outbreaks of health care-associated disease, and palivizumab use is not recommended for this purpose. Infants in a neonatal unit who qualify for prophylaxis because of CLD, prematurity, or CHD may receive the first dose 48 to 72 hours before discharge to home or promptly after discharge.

Strict adherence to infection-control practices is the basis for reducing health care-associated RSV disease.

RSV SEASONALITY

Because 5 monthly doses of palivizumab at 15 mg/kg per dose will provide more than 6 months (>24 weeks) of serum palivizumab concentrations above the desired level for most children, administration of more than 5 monthly doses is not recommended within the continental United States. For qualifying infants who require 5 doses, a dose beginning in November and continuation for a total of 5 monthly doses will provide protection for most infants through April and is recommended for most areas of the United States. If prophylaxis is initiated in October, the fifth and final dose should be administered in February, which will provide protection for most infants through March. If

prophylaxis is initiated in December, the fifth and final dose should be administered in April, which will provide protection for most infants through May.

Variation in the onset and offset of the RSV season in different regions of Florida may affect the timing of palivizumab administration. Data from the Florida Department of Health may be used to determine the appropriate timing for administration of the first dose of palivizumab for qualifying infants. Despite varying onset and offset dates of the RSV season in different regions of Florida, a maximum of 5 monthly doses of palivizumab should be adequate for qualifying infants for most RSV seasons in Florida.

Sporadic RSV infections occur throughout the year in most geographic locations. During times of low RSV prevalence (regardless of proportion of positive results), prophylaxis with palivizumab provides the least benefit because of the large number of children who must receive prophylaxis to prevent 1 RSV hospitalization.

EFFECT OF PALIVIZUMAB PROPHYLAXIS ON SUBSEQUENT WHEEZING

Prophylaxis is not recommended for primary asthma prevention or to reduce subsequent episodes of wheezing.

SUMMARY OF GUIDANCE

- In the first year of life, palivizumab prophylaxis is recommended for infants born before 29 weeks, 0 days' gestation.
- Palivizumab prophylaxis is not recommended for otherwise healthy infants born at or after 29 weeks, 0 days' gestation.
- In the first year of life, palivizumab prophylaxis is recommended for preterm infants with CLD of prematurity, defined as birth at <32 weeks, 0 days'

gestation and a requirement for >21% oxygen for at least 28 days after birth.

- Clinicians may administer palivizumab prophylaxis in the first year of life to certain infants with hemodynamically significant heart disease.
- Clinicians may administer up to a maximum of 5 monthly doses of palivizumab (15 mg/kg per dose) during the RSV season to infants who qualify for prophylaxis in the first year of life. Qualifying infants born during the RSV season may require fewer doses. For example, infants born in January would receive their last dose in March.
- Palivizumab prophylaxis is not recommended in the second year of life except for children who required at least 28 days of supplemental oxygen after birth and who continue to require medical intervention (supplemental oxygen, chronic corticosteroid, or diuretic therapy).
- Monthly prophylaxis should be discontinued in any child who experiences a breakthrough RSV hospitalization.
- Children with pulmonary abnormality or neuromuscular disease that impairs the ability to clear secretions from the upper airways may be considered for prophylaxis in the first year of life.
- Children younger than 24 months who will be profoundly immunocompromised during the RSV season may be considered for prophylaxis.
- Insufficient data are available to recommend palivizumab prophylaxis for children with cystic fibrosis or Down syndrome.
- The burden of RSV disease and costs associated with transport from remote locations may result in a broader use of palivizumab for RSV prevention in Alaska Native

populations and possibly in selected other American Indian populations.

- Palivizumab prophylaxis is not recommended for prevention of health care-associated RSV disease.

COMMITTEE ON INFECTIOUS DISEASES, 2013–2014

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