Oklahoma Health Care Authority

Drug Utilization Review Board

Wednesday,
August 10, 2016

Oklahoma Health Care Authority
4345 N. Lincoln Blvd.
Oklahoma City, OK 73105

The University of Oklahoma
Health Sciences Center
COLLEGE OF PHARMACY
PHARMACY MANAGEMENT CONSULTANTS

MEMORANDUM

TO: Drug Utilization Review (DUR) Board Members

FROM: Bethany Holderread, Pharm.D.

SUBJECT: Packet Contents for DUR Board Packet – August 10, 2016

DATE: July 29, 2016

Enclosed are the following items related to the August meeting.
Material is arranged in order of the agenda.

DUR Board Meeting Minutes – Appendix A

Update on Medication Coverage Authorization Unit/FDA Safety Alerts – Appendix B

Annual Review of Ocular Antibiotic Products and 30-Day Notice to Prior Authorize AK-Tracin® (Bacitracin) and Bleph-10® (Sulfacetamide Sodium) Ophthalmic Ointment – Appendix C

Annual Review of Glaucoma Medications and 30-Day Notice to Prior Authorize Betimol® (Timolol Ophthalmic Solution), Betoptic® (Betaxolol Ophthalmic Solution), and Timoptic-XE® (Timolol Maleate Ophthalmic Gel-Forming Solution) – Appendix D

Annual Review of Nonsteroidal Anti-Inflammatory Drugs (NSAIDs) and 30-Day Notice to Prior Authorize Vivlodex™ (Meloxicam Capsules) – Appendix E

Annual Review of Alzheimer's Medications – Appendix F

Annual Review of Daraprim® (Pyrimethamine) – Appendix G

Annual Review of Oral Antifungal Medications – Appendix H

Annual Review of Nasal Allergy Medications and 30-Day Notice to Prior Authorize Nasarel® (Flunisolide) – Appendix I

FDA and DEA Updates – Appendix J

Future Business

Oklahoma Health Care Authority

Drug Utilization Review Board
(DUR Board)
August 10, 2016

Oklahoma Health Care Authority
4345 N. Lincoln Blvd.
Oklahoma City, Oklahoma 73105

AGENDA

Discussion and Action on the Following Items:

Items to be presented by Dr. Muchmore, Chairman:

1. DUR Board Meeting Minutes – See Appendix A
A. July 13, 2016 DUR Meeting Minutes
B. July 13, 2016 DUR Recommendations Memorandum

Items to be presented by Dr. Holderread, Dr. Moore, Dr. Muchmore, Chairman:

2. Update on Medication Coverage Authorization Unit/FDA Safety Alerts – See Appendix B
A. Medication Coverage Activity for July 2016
B. Pharmacy Help Desk Activity for July 2016
C. Overview of FDA Safety Alerts

Items to be presented by Dr. Nawaz, Dr. Muchmore, Chairman:

3. Annual Review of Ocular Antibiotic Products and 30-Day Notice to Prior Authorize AK-Tracin® (Bacitracin) and Bleph-10® (Sulfacetamide Sodium) Ophthalmic Ointment – See Appendix C
A. Current Prior Authorization Criteria
B. Utilization of Ocular Antibiotic Products
C. Prior Authorization of Ocular Antibiotic Products
D. Market News and Updates
E. Cost Increases
F. AK-Tracin® (Bacitracin) Product Summary
G. Bleph-10® (Sulfacetamide Sodium) Product Summary
H. College of Pharmacy Recommendations
I. Utilization Details of Ocular Antibiotic Products

Items to be presented by Dr. Adams, Dr. Muchmore, Chairman:

4. Annual Review of Glaucoma Medications and 30-Day Notice to Prior Authorize Betimol® (Timolol Ophthalmic Solution), Betoptic® (Betaxolol Ophthalmic Solution), and Timoptic-XE® (Timolol Maleate Ophthalmic Gel-Forming Solution) – See Appendix D
A. Current Prior Authorization Criteria
B. Utilization of Glaucoma Medications
C. Prior Authorization of Glaucoma Medications
D. Market News and Updates
E. College of Pharmacy Recommendations
F. Utilization Details of Glaucoma Medications

Items to be presented by Dr. Holderread, Dr. Muchmore, Chairman:

5. Annual Review of Nonsteroidal Anti-Inflammatory Drugs (NSAIDs) and 30-Day Notice to Prior Authorize Vivlodex™ (Meloxicam Capsules) – See Appendix E
A. Current Prior Authorization Criteria
B. Utilization of NSAIDs
C. Prior Authorization of NSAIDs
D. Market News and Updates

E. Vivlodex™ (Meloxicam Capsules) Product Summary
F. College of Pharmacy Recommendations
G. Utilization Details of NSAIDs

Items to be presented by Dr. Nawaz, Dr. Muchmore, Chairman:

6. Annual Review of Alzheimer's Medications – See Appendix F

A. Current Prior Authorization Criteria
B. Utilization of Alzheimer's Medications
C. Prior Authorization of Alzheimer's Medications
D. Market News and Updates
E. College of Pharmacy Recommendations
F. Utilization Details of Alzheimer's Medications

Items to be presented by Dr. Adams, Dr. Muchmore, Chairman:

7. Annual Review of Daraprim® (Pyrimethamine) – See Appendix G

A. Introduction
B. Current Prior Authorization Criteria
C. Utilization of Daraprim® (Pyrimethamine)
D. Prior Authorization of Daraprim® (Pyrimethamine)
E. College of Pharmacy Recommendations

Items to be presented by Dr. Chandler, Dr. Muchmore, Chairman:

8. Annual Review of Oral Antifungal Medications – See Appendix H

A. Current Prior Authorization Criteria
B. Utilization of Oral Antifungal Medications
C. Prior Authorization of Oral Antifungal Medications
D. Market News and Updates
E. College of Pharmacy Recommendations
F. Utilization Details of Oral Antifungal Medications

Items to be presented by Dr. Chandler, Dr. Muchmore, Chairman:

9. Annual Review of Nasal Allergy Medications and 30-Day Notice to Prior Authorize Nasarel® (Flunisolide) – See Appendix I

A. Introduction
B. Current Prior Authorization Criteria
C. Utilization of Nasal Allergy Medications
D. Prior Authorization of Nasal Allergy Medications
E. Market News and Updates
F. College of Pharmacy Recommendations
G. Utilization Details of Nasal Allergy Medications

Items to be presented by Dr. Cothran, Dr. Muchmore, Chairman:

10. FDA and DEA Updates – See Appendix J

Items to be presented by Dr. Holderread, Dr. Muchmore, Chairman:

11. Future Business* (Upcoming Product and Class Reviews)

A. Anticoagulants and Platelet Aggregation Inhibitors
B. Synagis® (Palivizumab)
C. Butalbital Products
D. Statin Medications, Fish Oil Medications, and PCSK9 Inhibitors
E. Dry Eye Products
F. Prednisolone Special Formulations
G. Breast Cancer Medications

*Future business subject to change.

Appendix A

OKLAHOMA HEALTH CARE AUTHORITY
DRUG UTILIZATION REVIEW BOARD MEETING
MINUTES OF MEETING OF JULY 13, 2016

BOARD MEMBERS:	PRESENT	ABSENT
Theresa Garton, M.D.	x	
Carla Hardzog-Britt, M.D.		x
Anetta Harrell, Pharm.D.	x	
Ashley Huddleston, Pharm.D., BCOP	x	
John Muchmore, M.D., Ph.D.; Chairman	x	
James Osborne, Pharm.D.		x
Paul Louis Preslar, D.O., MBA; Vice Chairman	x	
James Rhymer, D.Ph.	x	
Bruna Varalli-Claypool, MHS, PA-C	x	
Eric Winegardner, D.Ph.	x	

COLLEGE OF PHARMACY STAFF:	PRESENT	ABSENT
Terry Cothran, D.Ph.; Pharmacy Director	x	
Melissa Abbott, Pharm.D.; Clinical Pharmacist		x
Michyla Adams, Pharm.D.; Clinical Pharmacist	x	
Wendi Chandler, Pharm.D.; Clinical Pharmacist	x	
Karen Egesdal, D.Ph.; SMAC-ProDUR Coordinator/OHCA Liaison	x	
Erin Ford, Pharm.D.; Clinical Pharmacist		x
Bethany Holderread, Pharm.D.; Clinical Coordinator	x	
Shellie Keast, Ph.D.; Assistant Professor		x
Tammy Lambert, Ph.D.; Postdoctoral Research Fellow		x
Carol Moore, Pharm.D.; Clinical Pharmacist		x
Brandy Nawaz, Pharm.D.; Clinical Pharmacist	x	
Leslie Robinson, D.Ph.; PA Coordinator		x
Ashley Teel, Pharm.D.; Clinical Pharmacist		x
Jacquelyn Travers, Pharm.D.; Practice Facilitating Pharmacist	x	
Graduate Students: Christina Bulkley, Pharm.D.	x	
David George, Pharm.D.		x
Timothy Pham, Pharm.D.	x	
Visiting Pharmacy Student(s): Not applicable		

OKLAHOMA HEALTH CARE AUTHORITY STAFF:	PRESENT	ABSENT
Marlene Asmussen, R.N.; Population Care Management Director	x	
Burl Beasley, D.Ph.; M.P.H.; M.S. Pharm	x	
Kelli Brodersen, Marketing Coordinator	x	
Nico Gomez, Chief Executive Officer		x
Ed Long, Chief Communications Officer		x
Nancy Nesser, Pharm.D.; J.D.; Pharmacy Director	x	
Rebecca Pasternik-Ikard, J.D.; M.S.; R.N.; State Medicaid Director		x
Jill Ratterman, D.Ph.; Clinical Pharmacist		x
Garth Splinter, M.D.; M.B.A.; Deputy Chief Executive Officer		x
Joseph Young, Deputy General Counsel IV	x	
Kerri Wade, Pharmacy Operations Manager	x	

OTHERS PRESENT:		
Edie Dodson, Genzyme	Gay Thomas, BMS	Corinne Copeland, Eisai Inc.
Bob Gustafson, Lundbeck	Jimmy Martin, Allergan	Erica Brumleve, GSK
Jon Maguire, GSK	Sean Seago, Merck	Elizabeth Ariano, Indivior
Marc Parker, Sunovion	Dan Doyle, Trividia	James McAdams, Insulet
Rose Mullen, Alkermes	Hope Berry, Upsher	Mark Boyd, Astellas
Tyler, Craddock, MDCO	Toby Thompson, Pfizer	Gwendolyn Caldwell, PhRMA
Kristin Pareja, Otsuka	Brian Maves, Pfizer	Richard Ponder, J & J
Terry McCurren, Otsuka		

PRESENT FOR PUBLIC COMMENT:	
Nick Casale	Indivior

AGENDA ITEM NO. 1: **CALL TO ORDER**

1A: ROLL CALL

Dr. Muchmore called the meeting to order. Roll call by Dr. Cothran established the presence of a quorum.

ACTION: NONE REQUIRED

AGENDA ITEM NO. 2: **PUBLIC COMMENT FORUM**

2A: AGENDA NO. 14

ACTION: NONE REQUIRED

AGENDA ITEM NO. 3: **APPROVAL OF DUR BOARD MINUTES**

3A: JUNE 8, 2016 DUR MINUTES – VOTE

3B: JUNE 8, 2016 DUR RECOMMENDATIONS MEMORANDUM

Materials included in agenda packet; presented by Dr. Muchmore

Dr. Preslar moved to approve; seconded by Dr. Rhymer

ACTION: MOTION CARRIED

AGENDA ITEM NO. 4: **UPDATE ON MEDICATION COVERAGE AUTHORIZATION UNIT/OPIOID PRESCRIPTIONS IN PREGNANT WOMEN**

4A: MEDICATION COVERAGE ACTIVITY FOR JUNE 2016

4B: PHARMACY HELP DESK ACTIVITY FOR JUNE 2016

4C: OPIOID PRESCRIPTIONS IN PREGNANT WOMEN – VOTE

Materials included in agenda packet; presented by Dr. Holderread

Dr. Preslar moved to approve; seconded by Dr. Rhymer

ACTION: MOTION CARRIED

AGENDA ITEM NO. 5: **VOTE TO PRIOR AUTHORIZE ZYTIGA® (ABIRATERONE), JEVTANA® (CABAZITAXEL), XTANDI® (ENZALUTAMIDE), XOFIGO® (RADIUM-223 DICHLORIDE), AND PROVENGE® (SIPULEUCEL-T)**

5A: INTRODUCTION

5B: RECOMMENDATIONS

Materials included in agenda packet; presented by Dr. Schmidt, Dr. Borders, Dr. Medina

Ms. Varalli-Claypool moved to approve; seconded by Dr. Huddleston

ACTION: MOTION CARRIED

AGENDA ITEM NO. 6: **VOTE TO PRIOR AUTHORIZE DYANAVEL™ XR (AMPHETAMINE EXTENDED-RELEASE), QUILLICHEW ER™ (METHYLPHENIDATE EXTENDED-RELEASE), AND ADZENYS XR-ODT™ (AMPHETAMINE EXTENDED-RELEASE)**

6A: INTRODUCTION

6B: COLLEGE OF PHARMACY RECOMMENDATIONS

Materials included in agenda packet; presented Dr. Adams

Dr. Harrell moved to approve; seconded by Ms. Varalli-Claypool

ACTION: MOTION CARRIED

AGENDA ITEM NO. 7: VOTE TO PRIOR AUTHORIZE REXULTI® (BREXPIPRAZOLE), VRAYLAR™ (CARIPRAZINE), AND ARISTADA™ (ARIPIPRAZOLE LAUROXIL)

7A: INDICATION(S)

7B: COLLEGE OF PHARMACY RECOMMENDATIONS

Materials included in agenda packet; presented by Dr. Nawaz
Dr. Harrell moved to approve; seconded by Ms. Varalli-Claypool
ACTION: MOTION CARRIED

AGENDA ITEM NO. 8: VOTE TO PRIOR AUTHORIZE ALBENZA® (ALBENDAZOLE) AND EMVERM™ (MEBENDAZOLE)

8A: INTRODUCTION

8B: REGIMEN COMPARISON

8C: COLLEGE OF PHARMACY RECOMMENDATIONS

Materials included in agenda packet; presented by Dr. Nawaz
Ms. Varalli-Claypool moved to approve; seconded by Dr. Harrell
ACTION: MOTION CARRIED

AGENDA ITEM NO. 9: VOTE TO PRIOR AUTHORIZE OSMOPREP® (SODIUM PHOSPHATE MONOBASIC/SODIUM PHOSPHATE DIBASIC), PREPOPIK® (SODIUM PICOSULFATE/MAGNESIUM OXIDE/CITRIC ACID), SUCLEAR® (SODIUM SULFATE/POTASSIUM SULFATE/MAGNESIUM SULFATE/PEG-3350/SODIUM CHLORIDE/SODIUM BICARBONATE/POTASSIUM CHLORIDE), AND SUPREP® (SODIUM SULFATE/POTASSIUM SULFATE/MAGNESIUM SULFATE)

9A: COST SAVINGS

9B: BOWEL PREPARATION MEDICATIONS SUMMARY

9C: COLLEGE OF PHARMACY RECOMMENDATIONS

Materials included in agenda packet; presented by Dr. Holderread
Dr. Harrell moved to approve; seconded by Dr. Huddleston
ACTION: MOTION CARRIED

AGENDA ITEM NO. 10: VOTE TO PRIOR AUTHORIZE NUVESSA™ (METRONIDAZOLE VAGINAL GEL 1.3%), ZYCLARA® (IMIQUIMOD CREAM), AND KRISTALOSE® (LACTULOSE PACKETS)

10A: INTRODUCTION

10B: COLLEGE OF PHARMACY RECOMMENDATIONS

Materials included in agenda packet; presented by Dr. Holderread
Ms. Varalli-Claypool moved to approve; seconded by Dr. Harrell
ACTION: MOTION CARRIED

AGENDA ITEM NO. 11: VOTE TO PRIOR AUTHORIZE H.P. ACTHAR® GEL (CORTICOTROPIN INJECTION)

11A: INTRODUCTION

11B: COLLEGE OF PHARMACY RECOMMENDATIONS

Materials included in agenda packet; presented by Dr. Holderread
Dr. Rhymer moved to approve; seconded by Dr. Garton
ACTION: MOTION CARRIED

AGENDA ITEM NO. 12: VOTE TO PRIOR AUTHORIZE ECONAZOLE NITRATE 1% CREAM AND CLOTRIMAZOLE 1% SOLUTION

12A: INTRODUCTION

12B: COLLEGE OF PHARMACY RECOMMENDATIONS

Materials included in agenda packet; presented by Dr. Chandler
Dr. Garton moved to approve; seconded by Dr. Huddleston
ACTION: MOTION CARRIED

AGENDA ITEM NO. 13: **30-DAY NOTICE TO PRIOR AUTHORIZE OCALIVA™ (OBETICHOLIC ACID)**

13A: PRIMARY BILIARY CHOLANGITIS (PBC) BACKGROUND INFORMATION
13B: OCALIVA™ (OBETICHOLIC ACID) PRODUCT SUMMARY
13C: COLLEGE OF PHARMACY RECOMMENDATIONS

Materials included in agenda packet; presented by Dr. Chandler

ACTION: NONE REQUIRED

AGENDA ITEM NO. 14: **ANNUAL REVIEW OF OPIOID ANALGESICS AND BUPRENORPHINE PRODUCTS & 30-DAY NOTICE TO PRIOR AUTHORIZE BELBUCA™ (BUPRENORPHINE BUCCAL FILM), DOLOPHINE® (METHADONE), MORPHABOND™ (MORPHINE EXTENDED-RELEASE), XTAMPZA™ ER (OXYCODONE EXTENDED-RELEASE), & PROBUPHINE® (BUPRENORPHINE IMPLANT)**

14A: CURRENT PRIOR AUTHORIZATION CRITERIA
14B: UTILIZATION OF OPIOID ANALGESICS AND BUPRENORPHINE PRODUCTS
14C: PRIOR AUTHORIZATION OF OPIOID ANALGESICS & BUPRENORPHINE PRODUCTS
14D: OPIOID ANALGESIC UTILIZATION TRENDS
14E: MARKET NEWS AND UPDATES
14F: BELBUCA™ (BUPRENORPHINE BUCCAL FILM) PRODUCT SUMMARY
14G: MORPHABOND™ (MORPHINE EXTENDED-RELEASE) PRODUCT SUMMARY
14H: XTAMPZA™ ER (OXYCODONE EXTENDED-RELEASE) PRODUCT SUMMARY
14I: PROBUPHINE® (BUPRENORPHINE IMPLANT) PRODUCT SUMMARY
14J: COLLEGE OF PHARMACY RECOMMENDATIONS
14K: UTILIZATION DETAILS OF OPIOID ANALGESICS
14L: UTILIZATION DETAILS OF BUPRENORPHINE PRODUCTS

Materials included in agenda packet; presented by Dr. Holderread

ACTION: NONE REQUIRED

AGENDA ITEM NO. 15: **ANNUAL REVIEW OF ANTI-ULCER MEDICATIONS AND 30-DAY NOTICE TO PRIOR AUTHORIZE DEXILANT™ SOLUTAB (DEXLANSOPRAZOLE DELAYED-RELEASE ORALLY DISINTEGRATING TABLETS)**

15A: CURRENT PRIOR AUTHORIZATION CRITERIA
15B: UTILIZATION OF ANTI-ULCER MEDICATIONS
15C: PRIOR AUTHORIZATION OF ANTI-ULCER MEDICATIONS
15D: MARKET NEWS AND UPDATES
15E: DEXILANT™ SOLUTAB (DEXLANSOPRAZOLE) PRODUCT SUMMARY
15F: COLLEGE OF PHARMACY RECOMMENDATIONS
15G: UTILIZATION DETAILS OF ANTI-ULCER MEDICATIONS

Materials included in agenda packet; presented by Dr. Nawaz

ACTION: NONE REQUIRED

AGENDA ITEM NO. 16: **ANNUAL REVIEW OF ANTIDEPRESSANTS**

16A: CURRENT PRIOR AUTHORIZATION CRITERIA
16B: UTILIZATION OF ANTIDEPRESSANTS
16C: PRIOR AUTHORIZATION OF ANTIDEPRESSANTS
16D: MARKET NEWS AND UPDATES
16E: COLLEGE OF PHARMACY RECOMMENDATIONS
16F: UTILIZATION DETAILS OF ANTIDEPRESSANTS

Materials included in agenda packet; presented by Dr. Adams

ACTION: NONE REQUIRED

AGENDA ITEM NO. 17: **ANNUAL REVIEW OF MYALEPT® (METRELEPTIN)**

17A: INTRODUCTION
17B: CURRENT PRIOR AUTHORIZATION CRITERIA
17C: UTILIZATION OF MYALEPT® (METRELEPTIN)
17D: PRIOR AUTHORIZATION OF MYALEPT® (METRELEPTIN)

17E: COLLEGE OF PHARMACY RECOMMENDATIONS
Materials included in agenda packet; presented by Dr. Adams (Non-presentation; questions only)
ACTION: NONE REQUIRED

AGENDA ITEM NO. 18: FDA AND DEA UPDATES
Materials included in agenda packet; presented by Dr. Cothran
ACTION: NONE REQUIRED

AGENDA ITEM NO. 19: FUTURE BUSINESS* (UPCOMING PRODUCT AND CLASS REVIEWS)
August 2016 not scheduled as a live meeting (packet only)
19A: OCULAR ANTI-INFECTIVES
19B: GLAUCOMA MEDICATIONS
19C: PREDNISOLONE SPECIAL FORMULATIONS
19D: ALZHEIMER'S MEDICATIONS
19E: NASAL ALLERGY MEDICATIONS
19F: NONSTEROIDAL ANTI-INFLAMMATORY MEDICATIONS
FUTURE BUSINESS SUBJECT TO CHANGE.
Materials included in agenda packet; presented by Dr. Holderread
ACTION: NONE REQUIRED

AGENDA ITEM NO. 20: ADJOURNMENT
The meeting was adjourned at 4:57 pm

The University of Oklahoma
Health Sciences Center
COLLEGE OF PHARMACY
PHARMACY MANAGEMENT CONSULTANTS

Memorandum

Date: July 14, 2016

To: Nancy Nesser, Pharm.D.; J.D.
Pharmacy Director
Oklahoma Health Care Authority

From: Bethany Holderread, Pharm.D.
Clinical Coordinator
Pharmacy Management Consultants

Subject: DUR Board Recommendations From Meeting of July 13, 2016

Recommendation 1: Opioid Prescriptions in Pregnant Women

MOTION CARRIED by unanimous approval.

In light of the recent studies suggesting the teratogenic potential of opioid medications, and the known risks of neonatal withdrawal after in utero exposure, opioid use in pregnant women is a significant public health concern. Delays and inaccuracies in the SoonerCare claims database in obtaining pregnancy data limit options for implementation of edits that would stop payment for opioid claims in pregnant women alone. Additionally women who experience miscarriage or pre-term delivery may still be classified as pregnant in the claims database and hard-stop edits could limit appropriate treatment with opioid medications. Alternative methodologies for reducing rates of opioid use in pregnant women recommended by the College of Pharmacy in collaboration with the Oklahoma Health Care Authority include the following:

- Provider education targeted to obstetricians and gynecologists regarding the risk of opioid use during pregnancy and the SoonerCare rates of opioid use in pregnant women.
- A clinical edit at the pharmacy level for members with a pregnancy indicator in the SoonerCare claims database. The edit would recommend members be switched to buprenorphine when running a claim for an opioid medication but could be overridden without prior authorization submission if deemed appropriate.

- Removal of prior authorization for buprenorphine/naloxone for all female beneficiaries. Preferred products, quantity limits, and claim denials for concomitant opioid medications would still apply.

Recommendation 2: Vote to Prior Authorize Zytiga® (Abiraterone), Jevtana® (Cabazitaxel), Xtandi® (Enzalutamide), Xofigo® (Radium-223 Dichloride), and Provenge® (Sipuleucel-T)

MOTION CARRIED by unanimous approval.

Zytiga® (Abiraterone) Approval Criteria:

1. A diagnosis of metastatic, castration-resistant prostate cancer; and
2. Abiraterone must be used in combination with a corticosteroid; and
3. Approvals will be for the duration of three months at which time additional authorization may be granted if the prescriber documents that the member has not shown evidence of progressive disease while on abiraterone therapy.

Jevtana® (Cabazitaxel) Approval Criteria:

1. A diagnosis of metastatic, castration-resistant prostate cancer; and
2. Member must have been previously treated with a docetaxel-containing regimen; and
3. Cabazitaxel should be used in combination with prednisone; and
4. Approvals will be for the duration of three months at which time additional authorization may be granted if the prescriber documents that the member has not shown evidence of progressive disease while on cabazitaxel therapy.

Xtandi® (Enzalutamide) Approval Criteria:

1. A diagnosis of metastatic, castration-resistant prostate cancer; and
2. Approvals will be for the duration of three months at which time additional authorization may be granted if the prescriber documents that the member has not shown evidence of progressive disease while on enzalutamide therapy.

Xofigo® (Radium-223 Dichloride) Approval Criteria:

1. A diagnosis of metastatic, castration-resistant prostate cancer; and
2. Member must have symptomatic bone metastases; and
3. Member must not have known visceral metastatic disease; and
4. Prescriber must verify radium-223 dichloride is not to be used in combination with chemotherapy; and
5. Member must have an absolute neutrophil count ≥ 1.5 x 10^9/L, platelet count ≥ 100 x 10^9/L, and hemoglobin ≥10 g/dL; and
6. Approvals will be for the duration of three months at which time additional authorization may be granted if the prescriber documents the following:
    a. The member has not shown evidence of progressive disease while on radium-223 dichloride therapy; and
    b. Member must have an absolute neutrophil count ≥ 1 x 10^9/L, platelet count ≥ 100 x 10^9/L (radium-223 dichloride should be delayed 6 to 8 weeks otherwise).

Recommendation 3: Vote to Prior Authorize Dyanavel™ XR (Amphetamine Extended-Release), QuilliChew ER™ (Methylphenidate Extended-Release), and Adzenys XR-ODT™ (Amphetamine Extended-Release)

MOTION CARRIED by unanimous approval.

The College of Pharmacy recommends the following changes to the ADHD & Narcolepsy Medications Product Based Prior Authorization (PBPA) category:

1. Place Dyanavel™ XR (amphetamine ER) into the Special Prior Authorization (PA) category based on estimated acquisition cost (EAC).
    a. The existing criteria for special formulation products in the Special PA category will apply.
    b. A quantity limit of 240mL per 30 days will apply, based on the maximum dose of 20mg (or 8mL) per day.
    c. An age restriction of ten years and younger will apply. Members older than ten years of age will require a patient-specific, clinically significant reason why a special formulation product is needed.
2. Place QuilliChew ER™ (methylphenidate ER) into the Special PA category based on EAC.
    a. The existing criteria for special formulation products in the Special PA category will apply.
    b. A quantity limit of 30 chewable tablets per 30 days will apply on all strengths except for the 30mg strength, and a quantity limit of 60 chewable tablets per 30 days will apply on the 30mg strength, based on the maximum dose of 60mg per day.
        i. Members needing to titrate the dose of QuilliChew ER™ up or down should be instructed to break in half the functionally scored chewable tablets to achieve the required dose, and the appropriate quantity of chewable tablets will be approved for dose titration purposes.
    c. An age restriction of ten years and younger will apply. Members older than ten years of age will require a patient-specific, clinically significant reason why a special formulation product is needed.
3. Place Adzenys XR-ODT™ (amphetamine ER) into the Special PA category based on EAC.
    a. The existing criteria for special formulation products in the Special PA category will apply.
    b. A quantity limit of 30 orally disintegrating tablets (ODTs) per 30 days will apply.
    c. An age restriction of ten years and younger will apply. Members older than ten years of age will require a patient-specific, clinically significant reason why a special formulation product is needed.
4. Update the wording of the Tier-2, Tier-3, Kapvay®, and Xyrem® Approval Criteria to emphasize the requirement of previously failed trial(s) that resulted in an inadequate response, as requested by the Drug Utilization Review (DUR) Board at the previous DUR meeting in June 2016.

ADHD & Narcolepsy Medications Tier-2 Approval Criteria:

1. A covered diagnosis; and

2. A previously failed trial with at least one long-acting Tier-1 stimulant that resulted in an inadequate response:
    a. Trials should have been within the last 180 days; and
    b. Trials should have been dosed up to maximum recommended dose or documented adverse effects at higher doses should be included; and
    c. If trials are not in member's claim history, the pharmacy profile should be submitted or detailed information regarding dates and doses should be included along with the signature from the physician.

ADHD & Narcolepsy Medications Tier-3 Approval Criteria:

1. A covered diagnosis; and
2. A previously failed trial with at least one long-acting Tier-1 stimulant that resulted in an inadequate response; and
3. A previously failed trial with at least one long-acting Tier-2 stimulant that resulted in an inadequate response:
    a. Trials should have been within the last 365 days; and
    b. Trials should have been dosed up to maximum recommended dose or documented adverse effects at higher doses should be included; and
    c. If trials are not in member's claim history, the pharmacy profile should be submitted or detailed information regarding dates and doses should be included along with the signature from the physician.
4. A clinical exception may apply for special formulation products when there is a patient-specific, clinically significant reason why the member cannot use the available long-acting capsule formulation.
5. Use of Kapvay® (clonidine extended-release tablets) requires:
    a. An FDA approved diagnosis; and
    b. Previously failed trials (within the last 180 days) with a long-acting Tier-1 stimulant, a long-acting Tier-2 stimulant, Intuniv®, and Strattera®, unless contraindicated, that did not yield adequate results; and
    c. A patient-specific, clinically significant reason why the member cannot use clonidine immediate-release tablets.

ADHD & Narcolepsy Medications Special Prior Authorization Approval Criteria:

1. Desoxyn®, Dexedrine®, Dexedrine Spansules®, Evekeo™, ProCentra® Solution, and Zenzedi® Criteria:
    a. A covered diagnosis; and
    b. A patient-specific, clinically significant reason why the member cannot use all other available stimulant medications.
2. Adzenys XR-ODT™, Daytrana®, Dyanavel™ XR, QuilliChew ER™, Quillivant XR®, and Methylin® Chewable Tablets and Solution Criteria:
    a. An FDA approved diagnosis; and
    b. A patient-specific, clinically significant reason why the member cannot use all other available formulations of long-acting stimulant medications that can be used for members who cannot swallow capsules or tablets; and

c. An age restriction of ten years and younger will apply. Members older than ten years of age will require a patient-specific, clinically significant reason why a special formulation product is needed.

3. Provigil®, Nuvigil®, and Xyrem® Criteria:
    a. An FDA approved diagnosis; and
    b. Use of Provigil® or Nuvigil® requires a patient-specific, clinically significant reason why the member cannot use stimulant medications to improve wakefulness during the daytime.
    c. Use of Xyrem® requires previously failed trials (within the last 180 days) with Tier-1 and Tier-2 stimulants from different chemical categories, Provigil®, and Nuvigil®, unless contraindicated, that did not yield adequate results.
    d. The diagnosis of obstructive sleep apnea requires concurrent treatment for the obstructive sleep apnea.
    e. The diagnosis of shift work sleep disorder requires the member's work schedule to be included with the prior authorization request.

ADHD & Narcolepsy Medications Additional Criteria:

1. Doses exceeding 1.5 times the FDA maximum are not covered.
2. Prior Authorization is required for all tiers for members greater than 20 years of age and for members 0 to 4 years of age. All prior authorization requests for members younger than the age of 5 years must be reviewed by an OHCA-contracted psychiatrist.
3. Vyvanse® (Lisdexamfetamine) Approval Criteria: Binge Eating Disorder (BED)
    a. An FDA approved diagnosis of moderate-to-severe binge eating disorder; and
    b. Member must be 18 years or older; and
    c. Vyvanse® for the diagnosis of BED must be prescribed by a psychiatrist; and
    d. Authorizations will not be granted for the purpose of weight loss without the diagnosis of BED or for the diagnosis of obesity alone. The safety and effectiveness of Vyvanse® for the treatment of obesity have not been established; and
    e. A quantity limit of 30 capsules per 30 days will apply; and
    f. Initial approvals will be for the duration of three months. Continued authorization will require prescriber documentation of improved response/effectiveness of Vyvanse®.

ADHD & Narcolepsy Medications			
Tier-1*	**Tier-2***	**Tier-3***	**Special PA**
Amphetamine			**Adzenys XR-ODT™ (amphetamine ER ODT)** Daytrana™ (methylphenidate ER) Desoxyn® (methamphetamine) Dexedrine® (dextroamphetamine) Dexedrine Spansules® (dextroamphetamine ER) **Dyanavel™ XR (amphetamine ER susp)** Evekeo™ (amphetamine) Methylin® (methylphenidate soln & chew tabs) Nuvigil® (armodafinil) Provigil® (modafinil) **QuilliChew ER™ (methylphenidate ER chew tabs)** Quillivant XR® (methylphenidate ER) Xyrem® (sodium oxybate) Zenzedi® (dextroamphetamine)
Short-Acting			
Adderall® (amphetamine/ dextroamphetamine)		ProCentra™ (dextroamphetamine)	
Long-Acting			
Vyvanse® (lisdexamfetamine)+	Adderall XR® brand name only (amphetamine/ dextroamphetamine ER)	amphetamine/ dextroamphetamine ER (generic Adderall XR®)	
Methylphenidate			
Short-Acting			
Focalin® (dexmethylphenidate) Methylin® (methylphenidate) Ritalin® (methylphenidate)			
Long-Acting			
Metadate CD® brand name only (methylphenidate ER) Metadate ER® (methylphenidate ER) Methylin ER® (methylphenidate ER) Ritalin SR® (methylphenidate ER)	Focalin XR® (dexmethylphenidate ER) Ritalin LA® brand name only (methylphenidate ER)	Aptensio XR™ (methylphenidate ER) Concerta® (methylphenidate ER) methylphenidate ER (generic Metadate CD®) methylphenidate ER (generic Ritalin LA®)	
Non-Stimulants			
Intuniv® (guanfacine ER) Strattera® (atomoxetine)		Kapvay® (clonidine ER)	

*Tier structure based on State Maximum Allowable Cost (SMAC) and/or supplemental rebate participation.
+Unique criteria applies for the diagnosis of binge eating disorder (BED).
ER = Extended-Release, SR = Sustained-Release, ODT = Orally Disintegrating Tablet, Chew Tabs = Chewable Tablets, Soln = Solution, Susp = Suspension

Recommendation 4: Vote to Prior Authorize Rexulti® (Brexpiprazole), Vraylar™ (Cariprazine), and Aristada™ (Aripiprazole Lauroxil)

MOTION CARRIED by unanimous approval.

The College of Pharmacy recommends the following:

1. The addition of Rexulti® (brexpiprazole) to the current approval criteria for atypical antipsychotics as adjunctive treatment for major depressive disorder.
2. The placement of Rexulti® (brexpiprazole), Vraylar™ (cariprazine), and Aristada® (aripiprazole lauroxil) into Tier-3 of the Atypical Antipsychotic Product Based Prior Authorization (PBPA) category. Current Tier-3 criteria for this category will apply.
    a. Aristada® (aripiprazole lauroxil) is currently rebated to Tier-2 but will be placed in Tier-3 if the manufacturer chooses not to participate in supplemental rebates.

Atypical Antipsychotics*		
Tier-1	**Tier-2**	**Tier-3**
clozapine (Clozaril®)¥	aripiprazole (Abilify®)	**brexpiprazole (Rexulti®)**
olanzapine (Zyprexa®)	aripiprazole (Abilify Maintena®)	**cariprazine (Vraylar™)**
quetiapine (Seroquel®)	**aripiprazole lauroxil (Aristada®)**	clozapine (Fazaclo®)
risperidone (Risperdal®)	asenapine (Saphris®)	clozapine oral suspension (Versacoz™)
risperidone (Risperdal Consta®)	lurasidone (Latuda®)	iloperidone (Fanapt™)
ziprasidone (Geodon®)	paliperidone (Invega® Sustenna®)	olanzapine/fluoxetine (Symbyax®)
	paliperidone (Invega® Trinza™)∞	paliperidone (Invega®)
	quetiapine ER (Seroquel XR®)	

ER = extended-release

*Tier structure based on supplemental rebate participation and/or state maximum allowable cost (SMAC). Mandatory generic plan applies.

¥ Does not count towards a Tier-1 trial

∞ In addition to tier trials, use of Invega Trinza™ requires adequate treatment with the 1-month paliperidone extended-release injection (Invega® Sustenna®) for at least four months.

Tier-1 products are available without prior authorization for members age five years and older. Prior authorization requests for members younger than five years of age are reviewed by an OHCA-contracted child psychiatrist.

Atypical Antipsychotic Tier-2 Approval Criteria:

1. Trials of two Tier-1 medications at least 14 days in duration each, titrated to recommended dose, that did not yield adequate response or resulted in intolerable adverse effects.
    a. *Pending aripiprazole move to Tier-1:* One of the Tier-1 trials must include a trial with aripiprazole unless the member has a patient-specific, clinically significant reason why aripiprazole is not appropriate or an FDA approved diagnosis not covered by aripiprazole.
    b. Clozapine does not count towards a Tier-1 trial.

Atypical Antipsychotic Tier-3 Approval Criteria:

1. Trials of two Tier-1 medications at least 14 days in duration each, titrated to recommended dose, that did not yield adequate response or resulted in intolerable adverse effects; and
    a. *Pending aripiprazole move to Tier-1:* One of the Tier-1 trials must include a trial with aripiprazole unless the member has a patient-specific, clinically significant reason why aripiprazole is not appropriate or an FDA approved diagnosis not covered by aripiprazole.
    b. Clozapine does not count towards a Tier-1 trial.
2. Trials of two Tier-2 medications, at least 14 days in duration each, titrated to recommended dose, that did not yield adequate response or resulted in intolerable adverse effects.
3. A manual prior authorization may be submitted for consideration of a Tier-3 medication when the member has had at least four trials of Tier-1 and Tier-2 medications (two trials must be from Tier-1) that did not yield an adequate response or resulted in intolerable adverse effects.
4. Use of Versacloz™ (clozapine oral suspension) and Fazaclo® (clozapine orally disintegrating tablet) requires a patient-specific, clinically significant reason why the member cannot use the oral tablet formulation.

Approval Criteria for Atypical Antipsychotics as Adjunctive Treatment for Major Depressive Disorder:

1. Authorization of Abilify® (aripiprazole), Seroquel XR® (quetiapine extended-release), Symbyax® (olanzapine/fluoxetine), or **Rexulti® (brexpiprazole)** for a diagnosis of major depressive disorder requires current use of an antidepressant, and previous trials with at least two other antidepressants from both categories (an SSRI and duloxetine) and a trial of aripiprazole tablets (*pending aripiprazole move to Tier-1*) that did not yield adequate response. Tier structure applies.

Recommendation 5: Vote to Prior Authorize Albenza® (Albendazole) and Emverm™ (Mebendazole)

MOTION CARRIED by unanimous approval.

The College of Pharmacy recommends the prior authorization of Albenza® (albendazole) and Emverm™ (mebendazole) with the following criteria:

Albenza® (Albendazole) Approval Criteria:

1. A quantity of six tablets per 180 days will process without prior authorization. For infections requiring additional doses, a prior authorization will need to be submitted and the following criteria will apply:
    a. An FDA approved diagnosis of one of the following:
        i. Treatment of parenchymal neurocysticercosis due to active lesions caused by larval forms of the pork tapeworm, *Taenia solium*.
        ii. Treatment of cystic hydatid disease of the liver, lung, and peritoneum, caused by the larval form of the dog tapeworm, *Echinococcus granulosus*.

Emverm™ (Mebendazole) Approval Criteria:

1. An FDA approved diagnosis of any of the following:
    a. Treatment of *Enterobius vermicularis* (pinworm); or
    b. Treatment of *Trichuris trichiura* (whipworm); or
    c. Treatment of *Ascaris lumbricoides* (common roundworm); or
    d. Treatment of *Ancylostoma duodenale* (common hookworm); or
    e. Treatment of *Necator americanus* (American hookworm); and
2. For the treatment of *Enterobius vermicularis* (pinworms), *Ascaris lumbricoides* (common roundworm), *Ancylostoma duodenale* (common hookworm), or *Necator americanus* (American hookworm), a patient-specific, clinically significant reason why a more cost-effective anthelmintic therapy, such as albendazole or pyrantel pamoate, cannot be used must be provided.
3. The following quantity limits will apply:
    a. *Enterobius vermicularis (*pinworms): 2 tablets per 30 days
    b. *Trichuris trichiura* (whipworm): 6 tablets per 30 days
    c. *Ascaris lumbricoides* (common roundworm): 6 tablets per 30 days
    d. *Ancylostoma duodenale* (common hookworm): 6 tablets per 30 days
    e. *Necator americanus* (American hookworm): 6 tablets per 30 days

Recommendation 6: Vote to Prior Authorize OsmoPrep® (Sodium Phosphate Monobasic/Sodium Phosphate Dibasic), Prepopik® (Sodium Picosulfate/ Magnesium Oxide/Citric Acid), Suclear® (Sodium Sulfate/Potassium Sulfate/ Magnesium Sulfate/PEG-3350/Sodium Chloride/Sodium Bicarbonate/Potassium Chloride), and SUPREP® (Sodium Sulfate/Potassium Sulfate/Magnesium Sulfate)

MOTION CARRIED by unanimous approval.

The College of Pharmacy recommends the prior authorization of OsmoPrep®, Prepopik®, Suclear®, and SUPREP® with the following criteria:

OsmoPrep®, Prepopik®, Suclear®, and SUPREP® Approval Criteria:

1. An FDA approved indication for use in cleansing of the colon as a preparation for colonoscopy; and
2. A patient-specific, clinically significant reason other than convenience the member cannot use other bowel preparation medications available without prior authorization.
3. If the member requires a low volume polyethylene glycol electrolyte lavage solution, Moviprep® is available without prior authorization. Other medications currently available without a prior authorization include: Colyte®, Gavilyte®, Golytely®, and Trilyte®.

Based on the low net cost of MoviPrep® the College of Pharmacy does not recommend the prior authorization of MoviPrep® at this time.

Recommendation 7: Vote to Prior Authorize Nuvessa™ (Metronidazole Vaginal Gel 1.3%), Zyclara® (Imiquimod Cream), & Kristalose® (Lactulose Packets)

MOTION CARRIED by unanimous approval.

The College of Pharmacy recommends the prior authorization of Nuvessa™ (metronidazole vaginal gel 1.3%), Zyclara® (imiquimod), and Kristalose® (lactulose packets for oral solution) with the following criteria:

1. **Nuvessa™ (Metronidazole Vaginal Gel 1.3%) Approval Criteria:**
   a. An FDA approved diagnosis of bacterial vaginosis in non-pregnant women; and
   b. A patient-specific, clinically significant reason why the member cannot use MetroGel-Vaginal® 0.75% (metronidazole vaginal gel 0.75%) or the generic metronidazole oral tablet.
2. **Zyclara® (Imiquimod) 2.5% and 3.75% Cream Approval Criteria:**
   a. An FDA approved diagnosis of actinic keratosis (AK) of the full face or balding scalp in immunocompetent adults or topical treatment of external genital and perianal warts/condyloma acuminata (EGW) in patients 12 years and older; and
   b. Member must be 12 years or older; and
   c. Requests for a diagnosis of molluscum contagiosum in children 2 to 12 years of age will generally not be approved; and
   d. A patient-specific, clinically significant reason why the member cannot use generic imiquimod 5% cream in place of Zyclara® (imiquimod) 2.5% and 3.75%.
3. **Kristalose® (Lactulose Packets for Oral Solution) Approval Criteria:**
   a. A patient-specific, clinically significant reason why the member cannot use the liquid lactulose formulation.

Recommendation 8: Vote to Prior Authorize H.P. Acthar® Gel (Corticotropin Injection)

MOTION CARRIED by unanimous approval.

H.P. Acthar® Gel (Corticotropin Injection) Approval Criteria:

1. An FDA approved diagnosis of infantile spasms; and
   a. Member must be two years of age or younger; and
   b. Must be prescribed by, or in consultation with, a neurologist or an advanced care practitioner with a supervising prescriber that is a neurologist; or
2. An FDA approved diagnosis of multiple sclerosis (MS); and
   a. Member is experiencing an acute exacerbation; and
   b. Must be prescribed by, or in consultation with, a neurologist or an advanced care practitioner with a supervising prescriber that is a neurologist or a physician that specializes in MS; and
   c. A patient-specific, clinically significant reason why the member cannot use alternative corticosteroid therapy (e.g. IV methylprednisolone).
   d. Therapy will be limited to five weeks per approval (three weeks of treatment, followed by taper). Additional approval, beyond the initial five weeks, will require

prescriber documentation of response to initial treatment and need for continued treatment; or

3. An FDA approved diagnosis of nephrotic syndrome without uremia of the idiopathic type or that is due to lupus erythematosus to induce a diuresis or a remission; and
    a. Must be prescribed by, or in consultation with, a nephrologist or an advanced care practitioner with a supervising prescriber that is a nephrologist; and
    b. A patient-specific, clinically significant reason why the member cannot use alternative corticosteroid therapy (e.g., prednisone); or
4. An FDA approved diagnosis of the following disorders and diseases: rheumatic; collagen; dermatologic; allergic states; ophthalmic; respiratory; and edematous states; and
    a. A patient-specific, clinically significant reason why the member cannot use alternative corticosteroid therapy.

Recommendation 9: Vote to Prior Authorize Econazole Nitrate 1% Cream and Clotrimazole 1% Solution

MOTION CARRIED by unanimous approval.

The College of Pharmacy recommends the following changes to the Topical Antifungal Product Based Prior Authoriation (PBPA) category:

1. Move econazole nitrate 1% cream and clotrimazole 1% solution from Tier-1 to Tier-2 based on increases in SMAC. The existing criteria for this category will apply.
2. Move ciclopirox suspension and clotrimazole/betamethasone cream from Tier-2 to Tier-1 based on decreases in SMAC.
3. Initiate pharmacy/prescriber education regarding these tier changes, which includes the option of using clotrimazole 1% cream as an alternative for econazole nitrate 1% cream and clotrimazole 1% cream or ketoconazole cream as an alternative for clotrimazole 1% solution.

Topical Antifungal Tier-2 Approval Criteria:

1. Documented, recent trials with at least two Tier-1 topical antifungal products for at least 90 days each; and
2. When the same medication is available in Tier-1, a patient-specific, clinically significant reason must be provided for using a special dosage formulation of that medication in Tier-2 (foams, shampoos, sprays, kits, etc.).
3. Authorization of combination products nystatin/triamcinolone cream, nystatin/triamcinolone ointment, ~~or clotrimazole/betamethasone~~ or clotrimazole/betamethasone lotion requires a patient-specific, clinically significant reason why the member cannot use the individual components separately, or in the case of clotrimazole/betamethasone lotion why Tier-1 cream cannot be used.
4. For treatment of onychomycosis, a trial of oral antifungals (6 weeks for fingernails and 12 weeks for toenails) will be required for consideration of approval of Penlac® (ciclopirox solution).

Topical Antifungal Medications		
Tier-1	**Tier-2**	**Special PA**
ciclopirox cream, **suspension**	butenafine (Mentax®)	efinaconazole (Jublia®)
clotrimazole (Rx) cream	ciclopirox solution, shampoo, gel (Penlac® and Loprox®)	tavaborole (Kerydin™)
clotrimazole (OTC)* cream	**clotrimazole solution**	
clotrimazole/betamethasone cream	clotrimazole/betamethasone lotion	
ketoconazole cream, shampoo	**econazole cream**	
nystatin cream, ointment, powder	ketoconazole foam (Extina®)	
terbinafine (OTC)* cream	ketoconazole gel (Xolegel™)	
tolnaftate (OTC)*cream	luliconazole cream (Luzu™)	
	miconazole/zinc oxide/white petrolatum (Vusion®)	
	naftifine (Naftin®)	
	nystatin/triamcinolone cream, ointment	
	oxiconazole (Oxistat®)	
	salicylic acid (Bensal HP®)	
	sertaconazole nitrate (Ertaczo®)	
	sulconazole (Exelderm®)	

*Over-the-counter (OTC) antifungal products are covered for pediatric members 0-20 years of age without prior authorization.

Recommendation 10: 30-Day Notice to Prior Authorize Ocaliva™ (Obeticholic Acid)

NO ACTION REQUIRED.

Recommendation 11: Annual Review of Opioid Analgesics and Buprenorphine Products & 30-Day Notice to Prior Authorize Belbuca™ (Buprenorphine Buccal Film), Dolophine® (Methadone), MorphaBond™ (Morphine Extended-Release), Xtampza™ ER (Oxycodone Extended-Release), & Probuphine® (Buprenorphine Implant)

NO ACTION REQUIRED.

Recommendation 12: Annual Review of Anti-Ulcer Medications and 30-Day Notice to Prior Authorize Dexilant™ SoluTab (Dexlansoprazole Delayed-Release Orally Disintegrating Tablets)

NO ACTION REQUIRED.

Recommendation 13: Annual Review of Antidepressants

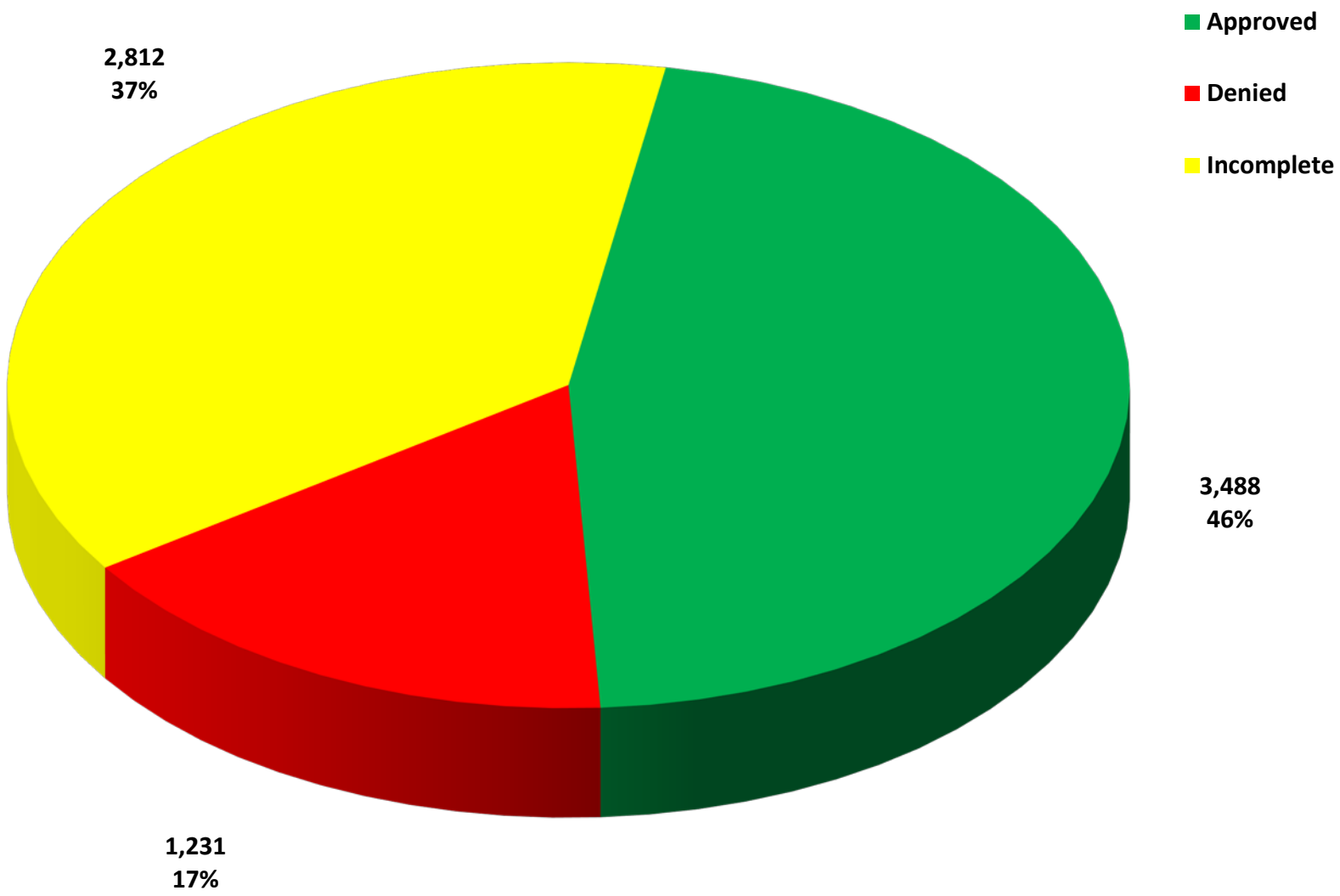
NO ACTION REQUIRED.

Recommendation 14: Annual Review of Myalept® (Metreleptin)

NO ACTION REQUIRED.

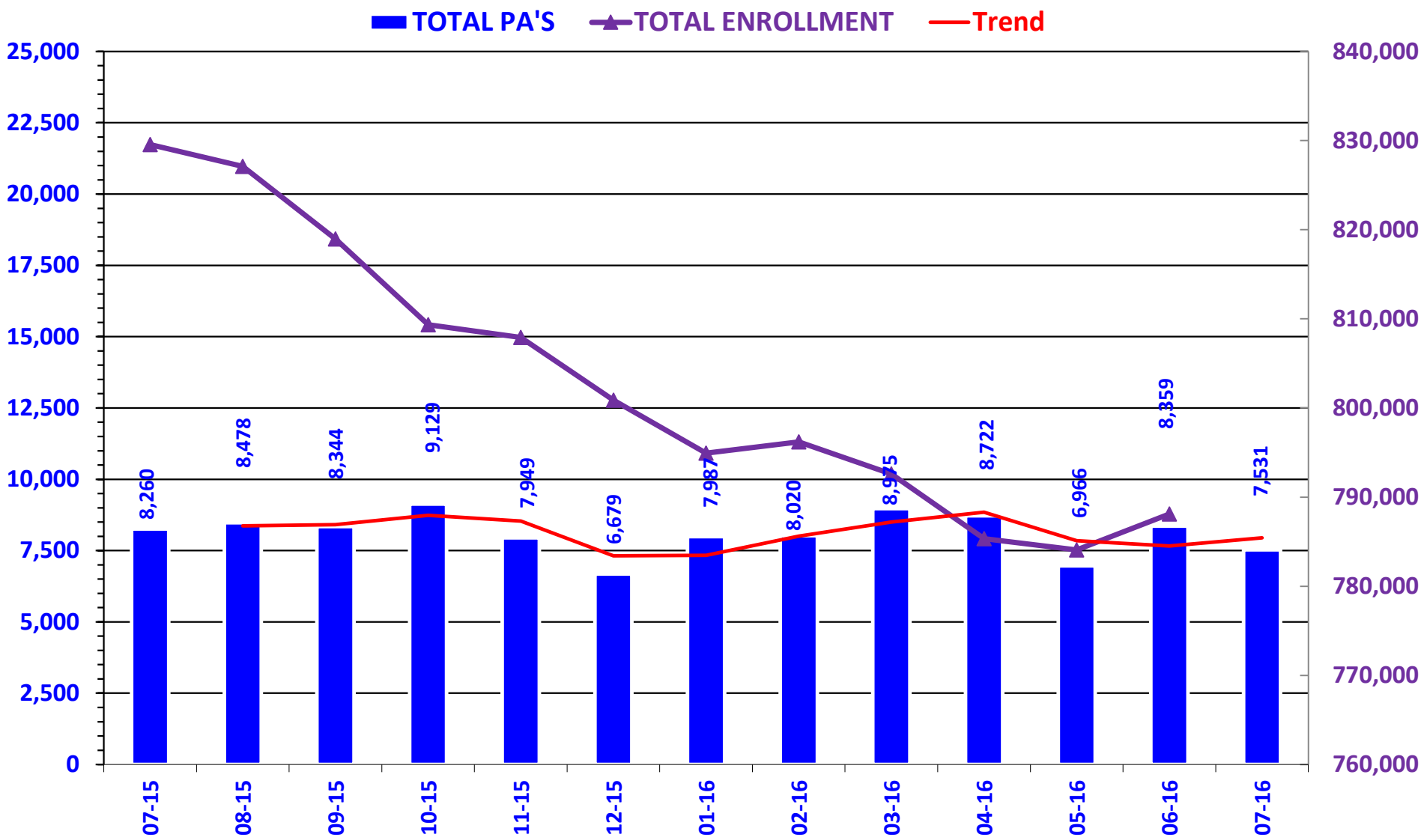
Appendix B

PRIOR AUTHORIZATION ACTIVITY REPORT: JULY 2016



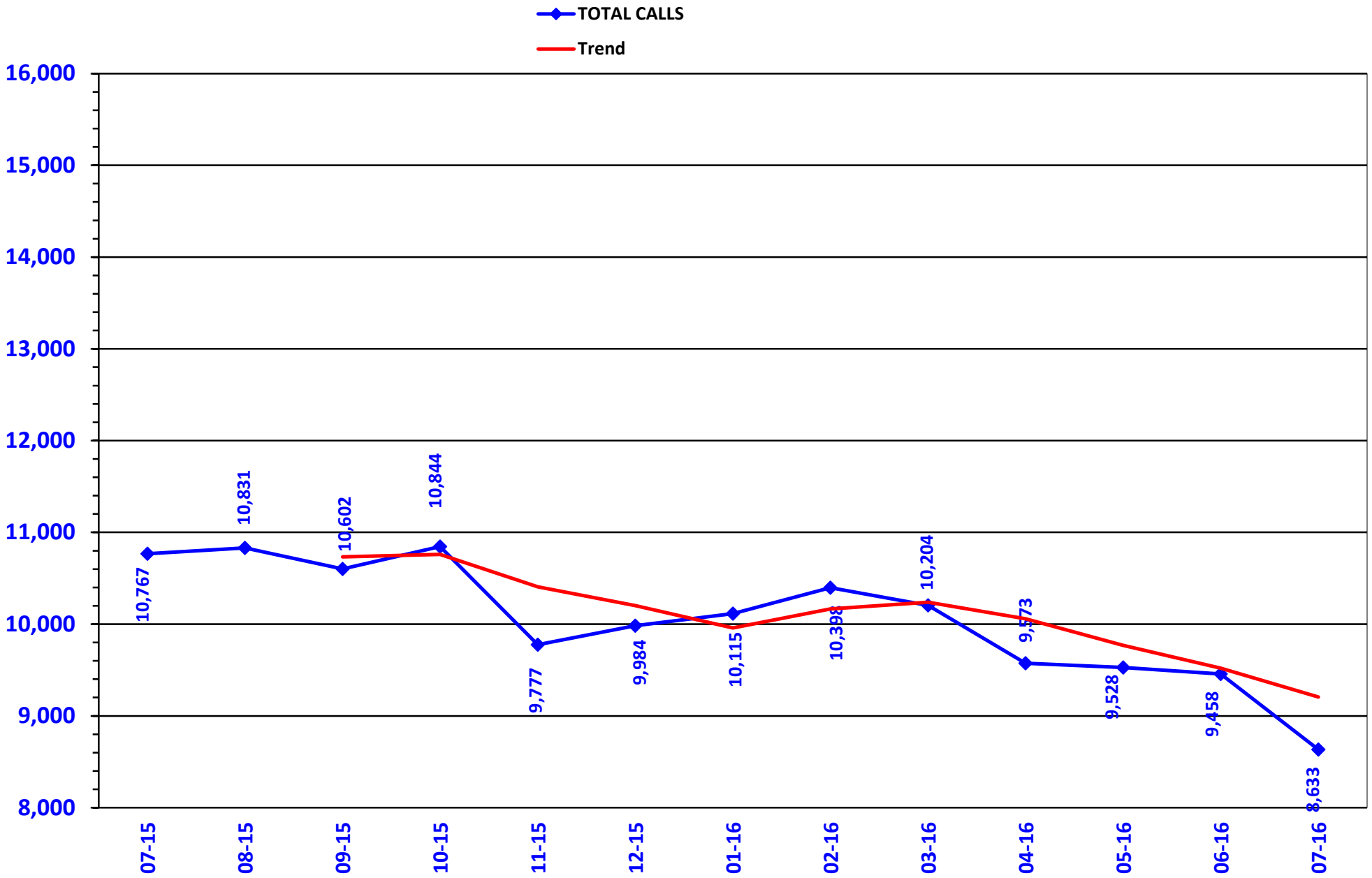
PA totals include approved/denied/incomplete/overrides

PRIOR AUTHORIZATION REPORT: JULY 2015 – JULY 2016



PA totals include approved/denied/incomplete/overrides

CALL VOLUME MONTHLY REPORT:
JULY 2015 – JULY 2016



Prior Authorization Activity

7/1/2016 Through 7/31/2016

	Total	Approved	Denied	Incomplete	Average Length of Approvals in Days
Advair/Symbicort/Dulera	321	122	66	133	355
Analgesic - NonNarcotic	19	0	6	13	0
Analgesic, Narcotic	420	230	54	136	164
Angiotensin Receptor Antagonist	17	6	2	9	359
Antiasthma	69	20	14	35	307
Antibiotic	17	6	2	9	300
Anticonvulsant	120	68	13	39	330
Antidepressant	59	10	11	38	322
Antidiabetic	177	81	25	71	350
Antifungal	15	0	5	10	0
Antihistamine	142	117	3	22	358
Antimigraine	28	7	4	17	307
Antineoplastic	15	9	0	6	167
Antiplatelet	13	1	6	6	363
Antiulcers	177	37	62	78	196
Anxiolytic	61	33	6	22	291
Atypical Antipsychotics	362	198	37	127	354
Biologics	104	59	18	27	336
Bladder Control	50	10	13	27	350
Blood Thinners	187	114	7	66	324
Botox	22	8	9	5	357
Buprenorphine Medications	248	186	7	55	76
Cardiovascular	80	31	13	36	315
Cephalosporins	14	2	3	9	58
Chronic Obstructive Pulmonary Disease	72	15	16	41	357
Constipation/Diarrhea Medications	125	15	39	71	209
Contraceptive	24	19	0	5	305
Dermatological	79	7	49	23	120
Diabetic Supplies	508	277	12	219	186
Endocrine & Metabolic Drugs	78	60	0	18	128
Erythropoietin Stimulating Agents	13	9	2	2	84
Fibromyalgia	154	23	73	58	342
Fish Oils	15	2	9	4	217
Gastrointestinal Agents	162	33	48	81	149
Growth Hormones	80	58	8	14	147
Hematopoietic Agents	28	9	7	12	99
Hepatitis C	152	68	47	37	7
HFA Rescue Inhalers	50	15	8	27	323
Insomnia	29	7	7	15	176
Insulin	64	16	11	37	357
Miscellaneous Antibiotics	27	6	1	20	12
Multiple Sclerosis	49	23	9	17	243
Muscle Relaxant	58	10	19	29	153
Nasal Allergy	79	15	25	39	214
Neurological Agents	44	33	3	8	347
Nsaids	181	15	62	104	304
Ocular Allergy	54	8	15	31	152
Ophthalmic Anti-infectives	13	1	8	4	7
Osteoporosis	29	14	4	11	309
Other*	286	71	77	138	202
Otic Antibiotic	63	3	14	46	7
Pediculicide	28	5	3	20	12
Statins	64	16	15	33	330
Stimulant	694	329	78	287	335
Testosterone	70	18	21	31	344
Topical Antibiotic	15	1	2	12	19

* Includes any therapeutic category with less than 10 prior authorizations for the month.

	Total	Approved	Denied	Incomplete	Average Length of Approvals in Days
Topical Corticosteroids	120	2	44	74	87
Vitamin	57	10	36	11	230
Pharmacotherapy	89	76	0	13	262
Emergency PAs	0	0	0	0	
Total	**6,429**	**2,645**	**1,169**	**2,615**	

Overrides					
Brand	63	44	5	14	316
Cumulative Early Refill	1	1	0	0	180
Diabetic Supplies	3	3	0	0	266
Dosage Change	280	262	3	15	14
High Dose	2	2	0	0	357
Ingredient Duplication	30	22	1	7	8
Lost/Broken Rx	69	65	0	4	13
NDC vs Age	20	19	0	1	217
Nursing Home Issue	74	66	1	7	9
Opioid Quantity	20	19	1	0	170
Other*	22	20	2	0	13
Prescriber Temp Unlock	2	2	0	0	358
Quantity vs. Days Supply	482	305	42	135	254
STBS/STBSM	13	10	2	1	49
Stolen	7	4	2	1	15
Temporary Unlock	3	3	0	0	18
Third Brand Request	37	21	4	12	31
Overrides Total	**1,102**	**843**	**62**	**197**	
Total Regular PAs + Overrides	**7,531**	**3,488**	**1,231**	**2,812**	

Denial Reasons	
Unable to verify required trials.	2,342
Does not meet established criteria.	1,259
Lack required information to process request.	439

Other PA Activity	
Duplicate Requests	428
Letters	6,583
No Process	3
Changes to existing PAs	530
Helpdesk Initiated Prior Authorizations	642
PAs Missing Information	24

* Includes any therapeutic category with less than 10 prior authorizations for the month.

Overview of FDA Safety Alerts

Oklahoma Health Care Authority
August 2016

Introduction[1,2,3,4,5,6,7,8,9,10,11,12,13]

The following are recent U.S. Food and Drug Administration (FDA) safety alerts included for the Drug Utilization Review (DUR) Board's consideration. SoonerCare specific data may be presented where applicable. The College of Pharmacy will make recommendations as well as take recommendations from the DUR Board.

Date	Drug	Issue
04/05/2016	**DPP-4 Inhibitors: Saxagliptin and Alogliptin Containing Drugs**	**Risk of heart failure**
Issue Details: The FDA released a Drug Safety Communication regarding the increased risk of heart failure in patients with type-2 diabetes taking medications containing dipeptidyl peptidase-4 (DPP-4) inhibitor drugs, saxagliptin and alogliptin. Patients are at an increased risk especially if already diagnosed with heart or kidney disease. Medications include the following brand name drugs: Onglyza® (saxagliptin), Kombiglyze® XR, (saxagliptin/metformin), Nesina® (alogliptin), Kazano® (alogliptin/metformin), and Oseni® (alogliptin/pioglitazone). **FDA Recommendations:** The *Warnings and Precautions* section of the drug labels have been updated to include this information. Patients should not stop taking these medications, but should contact their health professional if they exhibit signs and symptoms of heart failure. If symptoms occur, the prescribers should consider discontinuing the drug and switching to another class of diabetes medication. **Pharmacy Claims Evaluation:** These Tier-2 DPP-4 inhibitor medications were utilized by 461 SoonerCare members in fiscal year 2016. Of these, 23 had a diagnosis of congestive heart failure (ICD-9 code 428.0, ICD-10 code L50.0) during that same period of time. Causation cannot be inferred or determined.		

Date	Drug	Issue
04/08/2016	**Metformin**	**Use in diabetes patients with kidney disease**
Issue Details: The FDA issued a Drug Safety Communication indicating that certain patients with type-2 diabetes with mild-to-moderate kidney impairment can safely use metformin and metformin-containing medications based on a review of studies in medical literature. Current labels strongly advise against using metformin in patients with any level of kidney impairment. **FDA Recommendations:** The FDA required label updates to reflect the new recommendations. Prescribers are advised to use the glomerular filtration rate estimating equation (eGFR) to determine the level of kidney function instead of the blood creatinine concentration.		

SoonerCare Action: SoonerCare diabetic medication criteria follows clinical guidelines with a trial of metformin as recommended first-line treatment.

Date	Drug	Issue
04/26/2016	**Oral Fluconazole**	**Increased risk of miscarriage**

Issue Details: A Danish study found that use of oral fluconazole for yeast infections during pregnancy can possibly increase the risk of miscarriage. The authors concluded that "use of oral fluconazole in pregnancy was associated with a statistically significant increased risk of spontaneous abortion compared with risk among unexposed women and women with topical azole exposure in pregnancy."[4] The study is available in the January 5, 2016 edition of *The Journal of the American Medical Association (JAMA).*

FDA Recommendations: Until a full review of the data is completed by the FDA, caution is advised regarding the use of fluconazole for pregnant women, or those who are trying to become pregnant. The CDC guidelines recommend using only topical antifungal formulations to treat vulvovaginal yeast infections in pregnant woman.

SoonerCare Action: The College of Pharmacy will continue to monitor FDA recommendations regarding use of oral fluconazole for yeast infections during pregnancy. Educational initiatives will be conducted where appropriate.

Date	Drug	Issue
05/03/2016	**Aripiprazole (Abilify®, Abilify Maintena®, Aristada®)**	**Problems with impulse control**

Issue Details: The FDA released a Drug Safety Communication regarding the increase in compulsive or uncontrollable urges to gamble, binge eat, shop, and have sex in patients taking aripiprazole. These behaviors stopped when aripiprazole was reduced or discontinued. The increased urge to gamble was previously listed as a side effect; however, the current data identifies additional areas of diminished impulse control.

FDA Recommendations: Warnings have been added to the product labels regarding this behavior. Patients at higher risk of impulse-control problems should be closely monitored; this includes those with a personal or family history of obsessive-compulsive disorder, impulse-control disorder, bipolar disorder, impulsive personality, alcoholism, drug abuse, or other addictive behaviors.

Pharmacy Claims Evaluation: In calendar year 2015, 4,481 members, ranging in age from 4 to 81 years, had paid claim for an aripiprazole product.

Date	Drug	Issue
05/10/2016	**Olanzapine**	**Skin reactions**

Issue Details: The FDA warned that patients taking olanzapine have experienced Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS). DRESS is a rare, potentially life-threatening, drug-induced hypersensitivity reaction that includes skin eruption, hematologic abnormalities (e.g., eosinophilia, atypical lymphocytosis), lymphadenopathy, and internal

organ involvement (e.g., liver, kidney, and lung). Review of the FDA Adverse Event Reporting System (FAERS) database revealed 23 cases since 1996 when olanzapine was introduced on the market. One death was reported, though it is not certain that olanzapine was the specific cause.

FDA Recommendations: The product labels will be updated to include this warning. Prescribers should stop the drug if symptoms of rash, fever, and swollen lymph glands occur.

Pharmacy Claims Evaluation: Review of claims data reveals that in calendar year 2015, 4,124 SoonerCare members used an olanzapine-containing medication. Comparison with medical claims from the same time period did not reveal any episodes of drug-induced hypersensitivity.

Date	Drug	Issue
05/12/2016	**Fluoroquinolone Antibiotics**	**Side effects profile**

Issue Details: The FDA issued a Drug Safety Communication regarding the use of systemic fluoroquinolones for certain uncomplicated infections such as acute sinusitis, acute bronchitis, and uncomplicated urinary tract infections. The risk of serious side effects has been shown to outweigh the benefits of this class of drugs, so the FDA is recommending using oral and injected fluoroquinolones only if alternative treatments are not effective. Side effects involve musculoskeletal pain and neurological symptoms, as well as confusion and hallucinations. Some of these effects have been disabling and permanent. The FDA first required a boxed warning on fluoroquinolones in 2008 regarding musculoskeletal effects.

FDA Recommendations: Updates to the product labels, including strengthening the boxed warning, are required to include this safety information. Prescribers should stop the drugs immediately if symptoms occur.

Pharmacy Claims Evaluation: During calendar year 2015, 20,164 SoonerCare members submitted 26,489 claims for an oral or intravenous fluoroquinolone; the most utilized were ciprofloxacin and levofloxacin. Hospital use of these medications cannot be determined.

SoonerCare Action: The College of Pharmacy will send an educational mailing to prescribers of oral and intravenous fluoroquinolone medications. The mailing will include information on the updated boxed warning as well as the FDA recommendations regarding appropriate use.

Date	Drug	Issue
05/19/2016	**Ketoconazole Tablets**	**Liver damage, adrenal problems**

Issue Details: The FDA issued a follow-up Safety Communication regarding the continued use of oral ketoconazole for skin and nail infections despite the previous withdrawal of these indications from the label.

FDA Recommendations: Prescribers are again reminded that oral ketoconazole should be used only for serious fungal infections for which no other antifungal therapy is available.

Pharmacy Claims Evaluation: Since implementing the prior authorization requirement for oral ketoconazole in December 2013, three SoonerCare pediatric members accounted for a total of 5 claims for the oral tablet formulation, all in 2014. One case was for a member with Cushing syndrome, which was determined to be a clinical exception. The other two members received

compounded oral suspensions for skin infections, for which prior authorization of the ketoconazole was not requested and the tablets were not reimbursed by SoonerCare.
SoonerCare Action: Current SoonerCare criteria restricts authorization of oral ketoconazole to systemic infections where other oral antifungal therapies are not tolerated or effective. The College of Pharmacy does not recommend changes to the current prior authorization criteria for ketoconazole tablets in light of the FDA recommendations.

Date	Drug	Issue
05/23/2016	**Lomitapide (Juxtapid®)**	**Hepatotoxicity**

Issue Details: The FDA Center for Drug Evaluation and Research (CDER) recommended safety label changes regarding the patient selection for use of lomitapide. Only patients with homozygous familial hypercholesterolemia (HoFH) should be prescribed this drug because of increased risk of hepatotoxicity. The safety and efficacy has not been established for patients with heterozygous familial hypercholesterolemia (HeFH).
FDA Recommendations: The boxed warning on the product label has been updated to include the restriction for use only in patients with HoFH. Prescribers of this medication must be certified through the Juxtapid® REMS Program.
Pharmacy Claims Evaluation: Since its introduction onto the market in January 2013, one SoonerCare member has utilized lomitapide.
SoonerCare Action: Current SoonerCare prior authorization criteria for lomitapide requires a diagnosis of HoFH for authorization. The College of Pharmacy does not recommend changes to the current prior authorization criteria for lomitapide in light of the FDA recommendations.

Date	Drug	Issue
06/02/2016	**Sumatriptan Patch (Zecuity®)**	**Risk of burns and scars**

Issue Details: The FDA issued a Drug Safety Communication regarding the occurrence of serious burns and permanent scarring as a result of wearing the Zecuity® (sumatriptan) transdermal patch for migraine headaches.
FDA Recommendations: Patients should immediately remove the transdermal patch if severe pain, redness, or blistering occurs.
06/10/2016: Follow-up: Teva Pharmaceuticals has temporarily suspended sales of Zecuity® transdermal patches. Prescribers should discontinue prescribing this formulation, and patients should stop using any that they have on hand and seek an alternative from their prescriber.
Pharmacy Claims Evaluation: Reimbursement of this formulation for SoonerCare members requires prior authorization. Since Zecuity® was introduced on the market in August 2015, SoonerCare has had no utilization.

Date	Drug	Issue
06/07/2016	**Loperamide**	**Risk of serious heart problems**

Issue Details: The FDA is warning that use of higher than recommended doses of over-the-counter (OTC) and prescription strength loperamide can cause QT interval prolongation,

Torsades de Pointes, or other ventricular arrhythmias, syncope, and cardiac arrest. These issues are primarily seen in patients who are intentionally over-medicating to treat opioid withdrawal symptoms or to achieve a feeling of euphoria.
FDA Recommendations: The FDA will continue to monitor and recommend label changes as needed. Prescribers should advise their patients to take these medications only as prescribed, or according to the OTC package label. Patients with opioid addiction issues should be referred for treatment.
Pharmacy Claims Evaluation: A total of 732 members utilized prescription strength loperamide during calendar 2015. OTC use cannot be determined.

Date	Drug	Issue
06/14/2016	**Canagliflozin (Invokana®, Invokamet®), Dapagliflozin (Farxiga®, Xigduo® XR)**	**Risk of acute kidney injury**

Issue Details: The FDA is strengthening the label warnings for the sodium-glucose cotransporter-2 (SGLT2) inhibitors, canagliflozin and dapagliflozin, to include increased risk of kidney damage, along with information to reduce the risk. Since March 2013 when the first of the SGLT2 inhibitors, canagliflozin, was introduced on the market, 101 cases of acute kidney injury were reported to FAERS. Empagliflozin, also an SGLT2 inhibitor, does not appear to have this effect.
FDA Recommendations: Prescribers should be cautioned regarding the use of these medications in patients who may be predisposed to acute kidney injury. Risk factors include decreased blood volume, chronic renal insufficiency, congestive heart failure, use of diuretics, use of angiotensin-converting enzyme (ACE) inhibitors and angiotensin receptor blockers (ARBs), and use of nonsteroidal anti-inflammatory drugs (NSAIDs).
Pharmacy Claims Evaluation: During calendar year 2015, 183 SoonerCare members had paid claims for either canagliflozin or dapagliflozin, both of which are Tier-3 medications.

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[1] FDA Drug Safety Information: FDA adds warnings about heart failure risk to labels of type 2 diabetes medicines containing saxagliptin and alogliptin. Available online at: http://www.fda.gov/Drugs/DrugSafety/ucm486096.htm. Issued 04/05/2016. Last accessed 07/15/2016.
[2] FDA Drug Safety Communication: FDA revises warnings regarding use of the diabetes medicine metformin in certain patients with reduced kidney function. Available online at: http://www.fda.gov/Drugs/DrugSafety/ucm493244.htm. Issued 4/08/2016. Last accessed 07/15/2016.
[3] FDA Drug Safety Communication: FDA to review study examining use of oral fluconazole (Diflucan®) in pregnancy. Available online at: http://www.fda.gov/Drugs/DrugSafety/ucm497482.htm. Issued 04/26/2016. Last accessed 07/15/2016.
[4] Mølgaard-Nielsen D, Svanstrom H, Melbye M, Hviid A, Pasternak B. Association between Use of Oral Fluconazole during Pregnancy and Risk of Spontaneous Abortion and Stillbirth. *JAMA.* 2016; 315(1):58-67.
[5] FDA Drug Safety Communication: FDA warns about new impulse-control problems associated with mental health drug aripiprazole (Abilify®, Abilify Maintena®, Aristada®). Available online at: http://www.fda.gov/Drugs/DrugSafety/ucm498662.htm. Issued 05/03/2016. Last accessed 07/15/2016.
[6] FDA Drug Safety Communication: FDA warns about rare but serious skin reactions with mental health drug olanzapine (Zyprexa®, Zyprexa Zydis®, Zyprexa Relprevv®, and Symbyax®). Available online at: http://www.fda.gov/Drugs/DrugSafety/ucm499441.htm. Issued 05/10/2016. Last accessed 07/15/2016.
[7] Husain Z, Reddy BY, Schwartz RA. DRESS syndrome: Part I. Clinical perspectives. *J Am Acad Dermatol* 2013; 68:693.e1.

[8] FDA Drug Safety Communication: FDA advises restricting fluoroquinolone antibiotic use for certain uncomplicated infections; warns about disabling side effects that can occur together. Available online at: http://www.fda.gov/Drugs/DrugSafety/ucm500143.htm. Issued 05/12/2016. Last accessed 07/18/2016.

[9] FDA Drug Safety Communication: FDA warns that prescribing of Nizoral® (ketoconazole) oral tablets for unapproved uses including skin and nail infections continues; linked to patient death. Available online at: http://www.fda.gov/Drugs/DrugSafety/ucm500597.htm. Issued 05/19/2016. Last accessed 07/18/2016.

[10] Juxtapid® (Lomitapide) Capsules Detailed View: Safety Labeling Changes Approved by FDA Center for Drug Evaluation and Research (CDER). Available online at: http://www.fda.gov/Safety/MedWatch/SafetyInformation/ucm352228.htm. Issued 05/23/2016. Last accessed 07/18/2016.

[11] FDA Drug Safety Communication: FDA evaluating the risk of burns and scars with Zecuity® (sumatriptan) migraine patch. Available online at: http://www.fda.gov/Drugs/DrugSafety/ucm504588.htm. Issued 06/02/2016. Last accessed 07/18/2016.

[12] FDA Drug Safety Communication: FDA warns about serious heart problems with high doses of the antidiarrheal medicine loperamide (Imodium®), including from abuse and misuse. Available online at: http://www.fda.gov/Drugs/DrugSafety/ucm504617.htm. Issued 06/07/2016. Last accessed 07/18/2016.

[13] FDA Drug Safety Communication: FDA strengthens kidney warnings for diabetes medicines canagliflozin (Invokana, Invokamet) and dapagliflozin (Farxiga®, Xigduo® XR). Available online at: http://www.fda.gov/Drugs/DrugSafety/ucm505860.htm. Issued 06/14/2016. Last accessed 07/18/2016.

Appendix C

Calendar Year 2015 Annual Review of Ocular Antibiotic Products and 30-Day Notice to Prior Authorize AK-Tracin® (Bacitracin) and Bleph-10® (Sulfacetamide Sodium) Ophthalmic Ointment

Oklahoma Health Care Authority
August 2016

Current Prior Authorization Criteria

Ocular Antibiotics: Liquids		
Tier-1	**Tier-2**	**Tier-3**
ciprofloxacin (Ciloxan®)	levofloxacin (Quixin®)	azithromycin (Azasite®)
gentamicin (Gentak®)		besifloxacin (Besivance®)
neomycin/polymyxin B/gramicidin (Neosporin®)		gatifloxacin (Zymaxid®)
ofloxacin (Ocuflox®)		moxifloxacin (Vigamox®, Moxeza®)
polymyxin B/trimethoprim (Polytrim®)		
sulfacetamide sodium (Bleph-10®)		
tobramycin (Tobrex®)		

Ocular Antibiotics: Ointments	
Tier-1	**Tier-2**
bacitracin (AK-Tracin®)	ciprofloxacin (Ciloxan®)
bacitracin/polymyxin B (AK-Poly-Bac ®)	
erythromycin (Ilotycin™, Roymcin®)	
gentamicin (Gentak®)	
neomycin/polymyxin B/bacitracin (Neosporin®)	
sulfacetamide sodium (Bleph-10®, Sodium Sulamyd®)	
tobramycin (Tobrex®)	

Ocular Antibiotics/Steroid Combination Products	
Tier-1	**Tier-2**
	bacitracin/polymyxin B/neomycin/HC oint
	gentamicin/prednisolone (Pred-G®) susp & oint
	neomycin/polymyxin B/dexamethasone (Maxitrol®) susp & oint
	neomycin/polymyxin B/HC (Cortisporin®) susp
	sulfacetamide/prednisolone (Blephamide®) susp & oint
	tobramycin/dexamethasone (Tobradex®) susp & oint
	tobramycin/loteprednol (Zylet®) susp

oint= ointment; susp= suspension; HC = hydrocortisone
Tier structures based on supplemental rebate participation and/or state maximum allowable cost (SMAC).

Ocular Antibiotic Tier-2 Approval Criteria:

1. An approved indication/suspected infection by an organism not known to be covered by Tier-1 products, or failure of a Tier-1 product; or
2. Known contraindication to all indicated Tier-1 medications; or
3. Prescriptions written by optometrists/ophthalmologists; or
4. When requested medication is being used for pre/post-operative prophylaxis.

Ocular Antibiotic Tier-3 Approval Criteria:

1. An approved indication/suspected infection by an organism not known to be covered by Tier-2 products, or failure of a Tier-2 product; or
2. Known contraindication to all indicated Tier-2 medications; or
3. Prescription written by optometrists/ophthalmologists; or
4. When requested medication is being used for pre/post-operative prophylaxis.

Ocular Antibiotic/Steroid Combination Tier-2 Approval Criteria:

1. Prescription written by optometrists/ophthalmologists; or
2. When requested medication is being used for pre/post-operative prophylaxis.

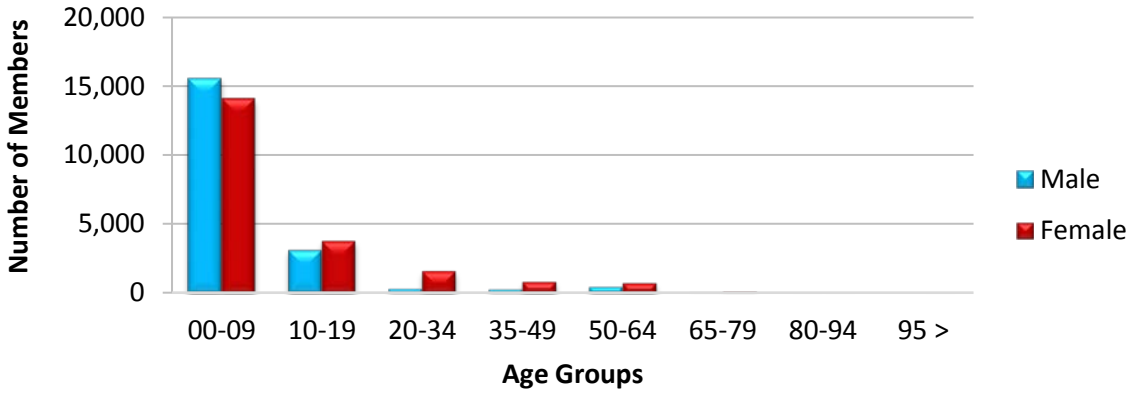
Utilization of Ocular Antibiotic Products: Calendar Year 2015

Comparison of Calendar Years

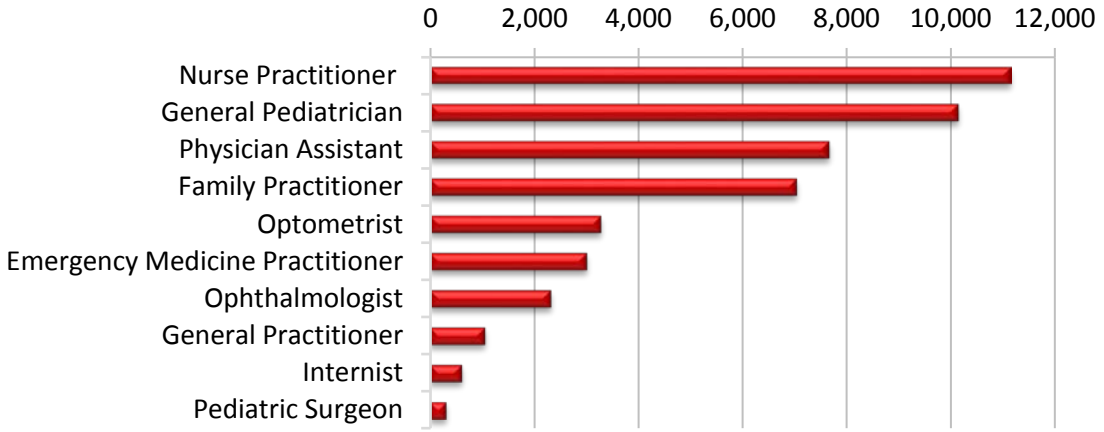
Calendar Year	*Total Members	Total Claims	Total Cost	Cost/ Claim	Cost/ Day	Total Units	Total Days
2014	36,115	42,152	$796,410.42	$18.89	$1.67	291,976	477,849
2015	41,211	48,475	$860,799.53	$17.76	$1.55	332,668	554,488
% Change	**14.10%**	**15.00%**	**8.10%**	**-6.00%**	**-7.20%**	**13.90%**	**16.00%**
Change	**5,096**	**6,323**	**$64,389.11**	**-$1.13**	**-$0.12**	**40,692**	**76,639**

*Total number of unduplicated members.
Costs do not reflect rebated prices or net costs.

Demographics of Members Utilizing Ocular Antibiotic Products



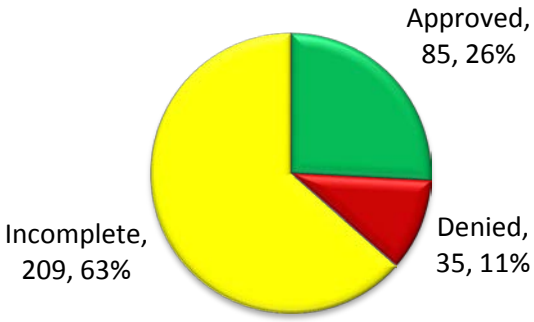
Top Prescriber Specialties of Ocular Antibiotic Products by Number of Claims



Prior Authorization of Ocular Antibiotic Products

There were 329 prior authorization requests submitted for the ocular antibiotic products during calendar year 2015. Computer edits are in place to detect Tier-1 medications in the member's recent claims history and generate automated prior authorizations where possible. The following chart shows the status of the submitted petitions.

Status of Petitions



Market News and Updates[1,2,3]

Anticipated Patent Expiration(s):

- Azasite® (azithromycin): March 2019
- Vigamox® (moxifloxacin): March 2020
- Tobradex® ST (tobramycin/dexamethasone): August 2028
- Besivance® (besifloxacin): January 2031

New Generic Approval(s):

- **May 2015:** The U.S. Food and Drug Administration (FDA) approved a generic formulation of Moxeza® (moxifloxacin). However, there is not a significant cost difference between the brand and generic formulations at this time.

Cost Increases

Product summaries for bacitracin ophthalmic ointment and sulfacetamide sodium ophthalmic ointment are included below. Summaries for these products are provided as these products have a greater net cost than other Tier-1 medications included in the ocular antibiotic ointment category.

AK-Tracin® (Bacitracin) Ophthalmic Ointment Product Summary[4,5]

Indications: AK-Tracin® (bacitracin) ophthalmic ointment is indicated for the treatment of superficial ocular infections involving the conjunctiva and/or cornea caused by bacitracin susceptible organisms.

Dosing:

- AK-Tracin® is an ophthalmic ointment containing 500 units of bacitracin per gram supplied in a 1 gram sterile tube and 3.5 gram sterile tube, both with an ophthalmic tip.
- Bacitracin ophthalmic ointment should be applied directly into the conjunctival sac one to three times daily.
- In blepharitis, all scales and crusts should be carefully removed and the ointment then spread uniformly over the lid margins.
- Patients should take appropriate measures to avoid gross contamination of the ointment when applying the ointment directly to the infected eye(s).

Mechanism of Action: Bacitracin is an antibiotic that exerts a profound action against many gram-positive pathogens, including the common Streptococci and Staphlococci. It is also destructive for certain gram-negative organisms. It is ineffective against fungi.

Contraindications: Patients with known hypersensitivity to bacitracin.

Safety: Bacitracin ophthalmic ointment should not be used in deep-seated ocular infections or in those that are likely to become systemic. The prolonged use of antibiotic containing preparations may result in overgrowth of nonsusceptible organisms particularly fungi. If new infections develop during treatment, appropriate antibiotic or chemotherapy should be instituted.

Adverse Reactions:

- Hypersensitivity reaction (7%)
- Post marketing and/or case reports: Contact Dermatitis

Cost Comparison:

Ocular Ointment Drugs	Package Size	Cost per Gram*	Cost per Package
bacitracin 500 units/gram	**1 gram**	**$33.09/gram**	**$33.09**
bacitracin 500 units/gram	**3.5 grams**	**$28.33/gram**	**$99.16**
bacitracin/polymyxin B 500-10,000 units/gram	3.5 grams	$3.55/gram	$12.43
erythromycin 5mg/gram	3.5 grams	$2.99/gram	$10.47

*SMAC = state maximum allowable cost; above listed products are active against a similar spectrum of pathogens.

Bleph-10® (Sulfacetamide Sodium) Ophthalmic Ointment Product Summary[6]

Indications: Bleph-10® (sulfacetamide sodium) ophthalmic ointment is indicated for the treatment of conjunctivitis and other superficial ocular infections due to susceptible microorganisms: *Escherichia coli, Staphylococcus aureus, Staphylococcus pneumonia, Streptococcus* (viridans group), *Haemophilus influenzae, Klebsiella* species, and *Enterobacter* species. Topically applied sulfonamides do not provide adequate coverage against *Neisseria* species, *Serratiamarcescens,* and *Pseudomonas aeroginosa*. A significant percentage of staphylococcal isolates are completely resistant to sulfa drugs.

Dosing:

- Bleph-10® is a 10% (100mg sulfacetamide sodium per one gram) ophthalmic ointment supplied in a 3.5 gram sterile tube.
- For conjunctivitis and other superficial ocular infections: Patients should apply a small amount (approximately one-half inch ribbon) into the conjunctival sac(s) of the affected eye(s) every three to four hours and at bedtime. Dosages may be tapered by increasing the time interval between doses as the condition responds. The ointment may be used as an adjunct to the solution. The usual duration of treatment is seven to ten days.
- To avoid contamination, patients should not touch the tip of container to the eye, eyelid, or any surface.

Mechanism of Action: The sulfonamides are bacteriostatic agents and the spectrum of activity is similar for all. Sulfonamides inhibit bacterial synthesis of dihydrofolic acid by preventing the condensation of pteridine with aminobenzoic acid through competitive inhibition of the enzyme dihydropteroate synthetase.

Contraindications: Hypersensitivity to sulfonamides or to any ingredient of the preparation.

Safety:

- Bleph-10® is for topical eye use only.
- Sensitizations may recur when a sulfonamide is readministered, irrespective of the route of administration. Sensitivity reactions have been reported in individuals with no prior history of sulfonamide hypersensitivity.
- At the first sign of hypersensitivity, skin rash or other serious reaction, use of this preparation should be discontinued.
- Prolonged use of topical anti-bacterial agents may give rise to bacterial resistance or overgrowth of nonsusceptible organisms including fungi.
- Ophthalmic ointments may retard corneal wound healing.
- The effectiveness of sulfonamides may be reduced by the para-aminobenzoic acid present in the purulent exudates.

Adverse Reactions:

- Bacterial and fungal corneal ulcers have developed during treatment with sulfonamide ophthalmic preparations.
- The most frequently reported reactions are local irritation, stinging, and burning.

- Less commonly reported reactions include non-specific conjunctivitis, conjunctival hyperemia, secondary infections, and allergic reactions.
- Fatalities have occurred, although rarely, due to severe reactions to sulfonamides including Stevens-Johnson syndrome, toxic epidermal necrolysis, fulminant hepatic necrosis, agranulocytosis, aplastic anemia, and other blood dyscrasias.

Cost Comparison:

Ocular Drugs	Package Size	Cost per Gram*	Cost per Package
Sulfacetamide sodium 10% ointment	**3.5gram**	**$16.56/gram**	**$57.96**
sulfacetamide sodium 10% solution	5mL	$2.84/mL	$14.20
bacitracin/polymyxin B 500-10,000 units/gram	3.5grams	$3.55/gram	$12.43
erythromycin 5mg/gram	3.5grams	$2.99/gram	$10.47

*SMAC = state maximum allowable cost; above listed products are active against a similar spectrum of pathogens.

Recommendations

The College of Pharmacy recommends the following changes to the ocular antibiotics category:

1. Moving AK-Tracin® (bacitracin) ophthalmic ointment and Bleph-10® (sulfacetamide sodium) ophthalmic ointment from Tier-1 to Tier-2 of the Ophthalmic Antibiotics Ointments Tier Chart based on increases in state maximum allowable costs (SMAC). Current criteria for this category will apply.
2. Move Maxitrol® suspension and ointment (neomycin/polymyxin B/dexamethasone) and sulfacetamide/prednisolone 10%-0.23% solution from Tier-2 to Tier-1 of the Ocular Antibiotics/Steroid Combination Products Tier Chart based on decreases in net costs.

Ocular Antibiotic Tier-2 Approval Criteria:

1. An approved indication/suspected infection by an organism not known to be covered by Tier-1 products, or failure of a Tier-1 product; or
2. Known contraindication to all indicated Tier-1 medications; or
3. Prescription written by optometrists/ophthalmologists; or
4. When requested medication is being used for pre/post-operative prophylaxis.

Ocular Antibiotic Tier-3 Approval Criteria:

1. An approved indication/suspected infection by an organism not known to be covered by Tier-2 products, or failure of a Tier-2 product; or
2. Known contraindication to all indicated Tier-2 medications; or
3. Prescription written by optometrists/ophthalmologists; or
4. When requested medication is being used for pre/post-operative prophylaxis.

Ocular Antibiotic/Steroid Combination Tier-2 Approval Criteria:

1. An approved indication/suspected infection by an organism not known to be covered by Tier-1 products, or failure of a Tier-1 product; or
2. Prescription written by optometrists/ophthalmologists; or
3. When requested medication is being used for pre/post-operative prophylaxis.

Ocular Antibiotics: Liquids		
Tier-1	**Tier-2**	**Tier-3**
ciprofloxacin (Ciloxan®)	levofloxacin (Quixin®)	azithromycin (Azasite®)
gentamicin (Gentak®)		besifloxacin (Besivance®)
neomycin/polymyxin B/gramicidin (Neosporin®)		gatifloxacin (Zymaxid®)
ofloxacin (Ocuflox®)		moxifloxacin (Vigamox®, Moxeza®)
polymyxin B/trimethoprim (Polytrim®)		
sulfacetamide sodium (Bleph-10®)		
tobramycin (Tobrex®)		

Ocular Antibiotics: Ointments	
Tier-1	**Tier-2**
bacitracin/polymyxin B (AK-Poly-Bac ®)	**bacitracin (AK-Tracin®)**
erythromycin (Ilotycin™, Roymcin®)	ciprofloxacin (Ciloxan®)
gentamicin (Gentak®)	**sulfacetamide sodium (Bleph-10®, Sodium Sulamyd®)**
neomycin/polymyxin B/bacitracin (Neosporin®)	
tobramycin (Tobrex®)	

Ocular Antibiotics/Steroid Combination Products	
Tier-1	**Tier-2**
neomycin/polymyxin B/dexamethasone (Maxitrol®) susp & oint	bacitracin/polymyxin B/neomycin/HC oint
sulfacetamide/prednisolone 10%-0.23% solution	gentamicin/prednisolone (Pred-G®) susp & oint
	neomycin/polymyxin B/HC (Cortisporin®) susp
	sulfacetamide/prednisolone 10%-0.2% (Blephamide®) susp & oint
	tobramycin/dexamethasone (Tobradex®) susp & oint
	tobramycin/loteprednol (Zylet®) susp

oint= ointment; susp= suspension; HC = hydrocortisone

Tier structures based on supplemental rebate participation and/or state maximum allowable cost (SMAC).

Utilization Details of Ocular Antibiotic Products: Calendar Year 2015

PRODUCT UTILIZED	TOTAL CLAIMS	TOTAL MEMBERS	TOTAL COST	COST/ DAY	COST/ CLAIM	PERCENT COST
OCULAR ANTIBIOTIC LIQUIDS						
TIER-1 PRODUCTS						
POLYMYXIN B/ SOL	11,971	11,396	$131,191.16	$0.81	$10.96	15.24%
GENTAMICIN SOL 0.3% OP	6,718	6,310	$59,400.27	$0.85	$8.84	6.90%
TOBRAMYCIN SOL 0.3% OP	6,331	5,940	$69,243.82	$1.07	$10.94	8.04%
OFLOXACIN DRO 0.3% OP	3,498	3,138	$69,777.53	$1.71	$19.95	8.11%
SULFACET SOD SOL 10% OP	1,939	1,881	$68,854.26	$2.69	$35.51	8.00%
SOD SULFACET SOL 10% OP	1,328	1,275	$28,622.50	$1.15	$21.55	3.33%
TRIMETHOPRIM SOL	1,134	1,075	$14,281.59	$0.96	$12.59	1.66%
CIPROFLOXACN SOL 0.3% OP	931	879	$8,593.07	$0.88	$9.23	1.00%
NEO/POLY/GRA SOL OP	446	431	$21,334.01	$3.73	$47.83	2.48%
POLYTRIM SOL OP	14	13	$183.91	$1.98	$13.14	0.02%
NEOSPORIN SOL OP	1	1	$60.51	$6.72	$60.51	0.01%
TIER-1 SUBTOTAL	**34,311**	**32,339**	**$471,542.63**	**$2.05**	**$22.82**	**54.79%**
TIER-3 PRODUCTS						
BESIVANCE SUS 0.6%	153	114	$21,644.10	$6.60	$141.46	2.51%
AZASITE SOL 1%	46	26	$6,003.57	$6.62	$130.51	0.70%
VIGAMOX DRO 0.5%	443	336	$61,757.91	$10.87	$139.41	7.17%
GATIFLOXACIN SOL 0.5%	94	71	$9,314.10	$6.79	$99.09	1.08%
MOXEZA SOL 0.5%	22	20	$2,986.53	$10.48	$135.75	0.35%
TIER-3 SUBTOTAL	**758**	**567**	**$101,706.21**	**$8.27**	**$129.24**	**11.81%**
TOTAL	**35,069**	**32,906**	**$573,248.84**	**$5.16**	**$76.03**	**66.60%**
OCULAR ANTIBIOTIC OINTMENTS						
TIER-1 PRODUCTS						
ERYTHROMYCIN OIN OP	8,802	8,165	$106,510.63	$1.46	$12.10	12.37%
GENTAK OIN 0.3% OP	928	876	$17,248.98	$2.09	$18.59	2.00%
ERYTHROMYCIN OIN	456	415	$6,378.31	$1.54	$13.99	0.74%
BACIT/POLYMY OIN OP	365	345	$6,365.21	$1.97	$17.44	0.74%
BACITRACIN OIN OP	186	177	$13,953.82	$7.63	$75.02	1.62%
TOBREX OIN 0.3% OP	139	133	$19,459.90	$15.62	$140.00	2.26%
AK-POLY-BAC OIN OP	82	80	$1,407.16	$1.99	$17.16	0.16%
GENTAMICIN OIN 0.3% OP	65	64	$1,237.08	$2.28	$19.03	0.14%
POLYCIN OIN OP	48	43	$822.75	$1.59	$17.14	0.10%
NEO/BAC/POLY OIN OP	41	40	$1,656.11	$4.42	$40.39	0.19%
SULFACET SOD OIN 10% OP	27	27	$1,566.98	$6.93	$58.04	0.18%
BLEPH-10 SOL 10% OP	24	24	$496.79	$1.95	$20.70	0.06%
NEO-POLYCIN OIN OP	8	8	$333.03	$4.69	$41.63	0.04%
ILOTYCIN OIN OP	1	1	$13.10	$1.87	$13.10	0.00%
TIER-1 SUBTOTAL	**11,172**	**10,398**	**$177,449.85**	**$4.00**	**$36.02**	**20.60%**
TIER-2 PRODUCTS						
CILOXAN OIN 0.3% OP	4	4	$677.06	$19.34	$169.27	0.08%

PRODUCT UTILIZED	TOTAL CLAIMS	TOTAL MEMBERS	TOTAL COST	COST/ DAY	COST/ CLAIM	PERCENT COST
TIER-2 SUBTOTAL	4	4	$677.06	$19.34	$169.27	0.08%
TOTAL	**11,176**	**10,402**	**$178,126.91**	**$11.67**	**$102.65**	**20.68%**
OCULAR ANTIBIOTIC/STEROID COMBINATION PRODUCTS						
TIER-2 PRODUCTS						
NEO/POLY/DEX SUS 0.1% OP	886	779	$14,588.65	$1.20	$16.47	1.69%
TOBRA/DEXAME SUS 0.3-	645	589	$52,379.30	$5.58	$81.21	6.08%
NEO/POLY/DEX OIN 0.1% OP	517	437	$8,063.13	$1.40	$15.60	0.94%
TOBRADEX OIN 0.3-0.1%	110	102	$21,935.54	$16.69	$199.41	2.55%
ZYLET SUS 0.5-0.3%	31	31	$6,999.02	$11.36	$225.77	0.81%
TOBRADEX ST SUS 0.3-0.05	25	25	$4,037.31	$12.90	$161.49	0.47%
NEO/POLY/HC SUS OP	5	5	$604.15	$8.16	$120.83	0.07%
TOBRADEX SUS 0.3-0.1%	4	4	$349.32	$7.76	$87.33	0.04%
NEO/POLY/BAC OIN /HC	2	2	$92.43	$5.44	$46.22	0.01%
SULF/PRED NA SOL OP	2	2	$49.66	$1.66	$24.83	0.01%
BLEPHAMIDE OIN S.O.P.	2	2	$220.06	$14.67	$110.03	0.03%
BLEPHAMIDE SUS OP	1	1	$105.21	$15.03	$105.21	0.01%
TIER-2 SUBTOTAL	**2,230**	**1,979**	**$109,423.78**	**$8.49**	**$99.53**	**12.71%**
TOTAL	**2,230**	**1,979**	**$109,423.78**	**$8.49**	**$99.53**	**12.71%**
GRAND TOTAL	**48,475**	**41,211***	**$860,799.53**	**$1.55**	**$64.31**	**100%**

*Total number of unduplicated members.
Costs do not reflect rebated prices or net costs.

[1] U.S. Food and Drug Administration (FDA) Orange Book: Approved Drug Products with Therapeutic Equivalence Evaluations. Available online at: http://www.accessdata.fda.gov/scripts/cder/ob/default.cfm. Last revised 02/2016. Last accessed 07/2016.

[2] Drugs@FDA: FDA Approved Drug Products. Available online at: http://www.accessdata.fda.gov/scripts/cder/drugsatfda/index.cfm?fuseaction=Reports.MonthlyApprovalsAll. Last accessed 07/2016.

[4] Bacitracin Prescribing Information. Dailymed: Bacitracin ophthalmic ointment. Available online at: https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=6ed2f2bd-9d2f-46af-a44c-95a02ca034de. Last revised 12/2013. Last accessed 06/2016.

[5] Lexicomp Online: Bacitracin Ophthalmic. Available at: http://online.lexi.com/lco/action/doc/retrieve/docid/patch_f/5071943. Last revised 2016. Last accessed 06/2016.

[6] Sulfacetamide Sodium Prescribing Information. Dailymed: Sulfacetamide sodium ophthalmic ointment. Available online at: https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=558280c6-893e-4645-9018-40c69be936d3. Last revised 08/2014. Last accessed 06/2016.

Appendix D

Fiscal Year 2016 Annual Review of Glaucoma Medications and 30-Day Notice to Prior Authorize Betimol® (Timolol Ophthalmic Solution), Betoptic® (Betaxolol Ophthalmic Solution), and Timoptic-XE® (Timolol Maleate Ophthalmic Gel-Forming Solution)

Oklahoma Health Care Authority
August 2016

Current Prior Authorization Criteria

Glaucoma Medications*	
Tier-1	**Tier-2**
Beta-Blockers	
betaxolol (Betoptic® 0.5%)	betaxolol (Betoptic-S®)
carteolol (Ocupress® 1%)	brimonidine/timolol (Combigan®)
dorzolamide/timolol (Cosopt®)	dorzolamide/timolol (Cosopt® PF)
levobunolol (Betagan®)	timolol maleate (Timoptic Ocudose®)
metipranolol (OptiPranolol®)	
timolol (Betimol®)	
timolol maleate (Istalol®, Timoptic®, Timoptic-XE®)	
Prostaglandin Analogs	
latanoprost (Xalatan®)	bimatoprost (Lumigan®)
travoprost 0.004% (Travatan-Z®)	tafluprost (Zioptan™)
	travoprost 0.004% (Travatan®)
	travoprost 0.003% (Izba®)
	unoprostone (Rescula®)
Adrenergic Agonists	
dipivefrin (Propine®)	
Alpha-2 Adrenergic Agonists	
brimonidine 0.2%	apraclonidine (Iopidine®)
brinzolamide/brimonidine (Simbrinza™)	brimonidine (Alphagan-P® 0.1%, 0.15%)
	brimonidine/timolol (Combigan®)
Carbonic Anhydrase Inhibitors	
acetazolamide (Diamox®)[+]	dorzolamide/timolol (Cosopt® PF)
brinzolamide (Azopt®)	
brinzolamide/brimonidine (Simbrinza™)	
dorzolamide (Trusopt®)	
dorzolamide/timolol (Cosopt®)	
methazolamide (Neptazane®)[+]	
([+]Indicates Available Oral Products)	
Cholinergic Agonists/Cholinesterase Inhibitors	
pilocarpine (Isopto® Carpine®, Pilopine HS®)	carbachol (Miostat® 0.01%)
	echothiophate iodide (Phospholine Iodide®)

*Tier structure based on State Maximum Allowable Cost (SMAC) and/or supplemental rebate participation. Please note, combination products are included in both applicable pharmaceutical classes; therefore, are each listed twice in the tier chart.

Glaucoma Medications Tier-2 Approval Criteria:

1. An FDA approved diagnosis; and
2. The member must have documented, recent (within the last 120 days) trials with at least three Tier-1 medications for a minimum of four weeks duration each. Tier-1 trials may be from any pharmacologic class; or
3. Approvals may be granted if there is a documented adverse effect, drug interaction, or contraindication to all Tier-1 medications; or
4. Approvals may be granted if there is a unique FDA approved indication not covered by all Tier-1 medications; and
5. The member must have had a comprehensive, dilated eye exam within the last 365 day period as recommended by the National Institute of Health; and
6. Approvals will be for the duration of one year.

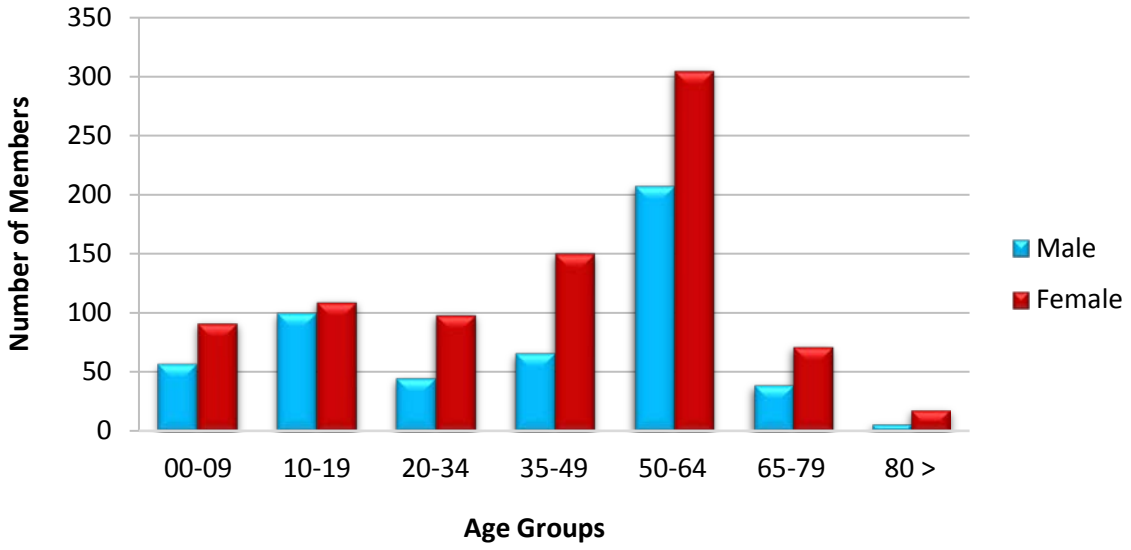
Utilization of Glaucoma Medications: Fiscal Year 2016

Comparison of Fiscal Years

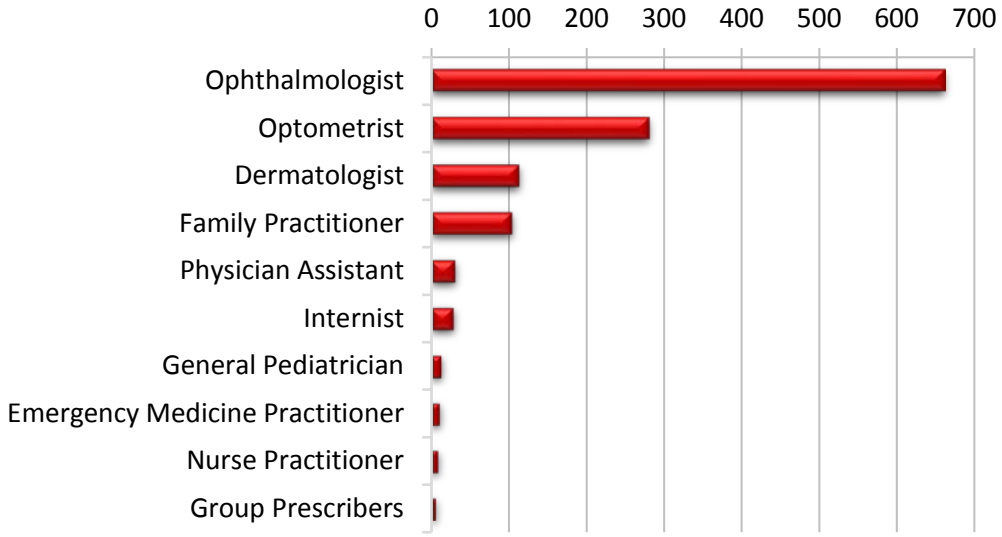
Fiscal Year	*Total Members	Total Claims	Total Cost	Cost/ Claim	Cost/ Day	Total Units	Total Days
2015	1,258	6,264	$512,057.39	$81.75	$2.55	86,210	200,614
2016	1,387	6,713	$582,993.06	$86.85	$2.70	92,672	215,648
% Change	**10.30%**	**7.20%**	**13.90%**	**6.20%**	**5.90%**	**7.50%**	**7.50%**
Change	**129**	**449**	**$70,935.67**	**$5.10**	**$0.15**	**6,462**	**15,034**

*Total number of unduplicated members.
Costs do not reflect rebated prices or net costs.

Demographics of Members Utilizing Glaucoma Medications



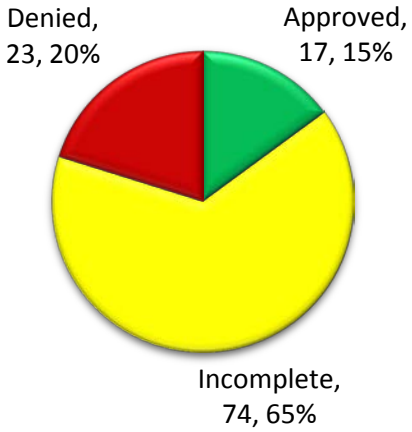
Top Prescriber Specialties of Glaucoma Medications by Number of Claims



Prior Authorization of Glaucoma Medications

There were 114 prior authorization requests submitted for glaucoma medications during fiscal year 2016. Computer edits are in place to detect Tier-1 medications in the member's recent claims history and generate automated prior authorizations where possible. The following chart shows the status of the submitted petitions.

Status of Petitions



Market News and Updates[1,2,3,4,5,6,7,8]

Anticipated Patent Expiration(s):

- Zioptan™ (tafluprost): December 2022
- Combigan® (brimonidine/timolol): January 2023
- Alphagan-P® (brimonidine): March 2024
- Simbrinza™ (brinzolamide/brimonidine): October 2030

News:

- **April 2015:** The U.S. Food and Drug Administration (FDA) approved a first-time generic product for Istalol® (once-daily timolol maleate 0.5% ophthalmic solution). Generic once-daily timolol maleate 0.5% ophthalmic solution is not yet available on the market. However, generic Timoptic® (timolol maleate 0.25% and 0.5% ophthalmic solution) is currently available on the market and is dosed once to twice daily, but is not considered a therapeutic equivalent to Istalol®.
- **July 2015:** The FDA approved a first-time generic product for Travatan Z® (travoprost 0.004% ophthalmic solution). Generic travoprost 0.004% ophthalmic solution is not yet available on the market. However, generic Travatan® (travoprost 0.004% ophthalmic solution) is currently available on the market, but is not considered a therapeutic equivalent to Travatan Z®. Travatan Z®, an updated formulation of Travatan®, replaced benzalkonium chloride (BAK), a preservative commonly found in ophthalmic solutions, with Sofzia, an ionic buffered preservative that is gentler on the ocular surface.
- **July 2016:** Valeant Pharmaceuticals received a Complete Response Letter (CRL) from the FDA regarding the New Drug Application (NDA) for Vesneo™ (latanoprostene bunod ophthalmic solution), with concerns pertaining to a Current Good Manufacturing Practice (CGMP) inspection at Bausch + Lomb's manufacturing facility in Tampa, Florida where some deficiencies were identified by the FDA. The CRL did not cite efficacy or safety concerns with respect to the NDA and did not request any additional clinical trials of latanoprostene bunod ophthalmic solution. Valeant Pharmaceuticals intends to meet with the FDA as soon as possible to work on a resolution and address the concerns identified in the CRL. If approved, Vesneo™ will be the first nitric oxide donating prostaglandin receptor agonist available for the treatment of open-angle glaucoma or ocular hypertension.

Discontinued Medications:

- Using the FDA website for FDA approved drug products, the following medications were determined to be discontinued: Propine® (dipivefrin), Rescula® (unoprostone), and Izba® (travoprost 0.003%).

Recommendations

The College of Pharmacy recommends the following changes to the Glaucoma Medications Product Based Prior Authorization (PBPA) category:

1. Move betaxolol ophthalmic solution (Betoptic®) and timolol maleate ophthalmic gel-forming solution (Timoptic-XE®) to Tier-2 based on an increase in state maximum allowable cost (SMAC). The existing Tier-2 criteria for this category will apply.
    a. The current SMAC for betaxolol ophthalmic solution and timolol maleate ophthalmic gel-forming solution is $9.60 and $21.05 per milliliter, respectively. The average cost of other available Tier-1 beta-blocker glaucoma medications is $1.48 per milliliter.
2. Move Betimol® (timolol ophthalmic solution) to Tier-2 based on increased net cost. The existing Tier-2 criteria for this category will apply.

a. The current estimated acquisition cost (EAC) for Betimol® is $14.23 per milliliter. The average cost of other available Tier-1 beta-blocker glaucoma medications is $1.48 per milliliter.

3. Update the Glaucoma Medications tier chart to remove the discontinued medications: Propine® (dipivefrin), Rescula® (unoprostone), and Izba® (travoprost 0.003%).

Glaucoma Medications*	
Tier-1	**Tier-2**
Beta-Blockers	
carteolol (Ocupress® 1%)	betaxolol (**Betoptic®,** Betoptic-S®)
dorzolamide/timolol (Cosopt®)	brimonidine/timolol (Combigan®)
levobunolol (Betagan®)	dorzolamide/timolol (Cosopt® PF)
metipranolol (OptiPranolol®)	**timolol (Betimol®)**
timolol maleate (Istalol®, Timoptic®)	timolol maleate (**Timoptic-XE®,** Timoptic Ocudose®)
Prostaglandin Analogs	
latanoprost (Xalatan®)	bimatoprost (Lumigan®)
travoprost 0.004% (Travatan-Z®)	tafluprost (Zioptan™)
	travoprost 0.004% (Travatan®)
	~~**travoprost 0.003% (Izba®)**~~
	~~**unoprostone (Rescula®)**~~
Adrenergic Agonists	
~~**dipivefrin (Propine®)**~~	
Alpha-2 Adrenergic Agonists	
brimonidine 0.2%	apraclonidine (Iopidine®)
brinzolamide/brimonidine (Simbrinza™)	brimonidine (Alphagan-P® 0.1%, 0.15%)
	brimonidine/timolol (Combigan®)
Carbonic Anhydrase Inhibitors	
acetazolamide (Diamox®)+	dorzolamide/timolol (Cosopt® PF)
brinzolamide (Azopt®)	
brinzolamide/brimonidine (Simbrinza™)	
dorzolamide (Trusopt®)	
dorzolamide/timolol (Cosopt®)	
methazolamide (Neptazane®)+	
(+Indicates Available Oral Products)	
Cholinergic Agonists/Cholinesterase Inhibitors	
pilocarpine (Isopto® Carpine®, Pilopine HS®)	carbachol (Miostat® 0.01%)
	echothiophate iodide (Phospholine Iodide®)

*Tier structure based on State Maximum Allowable Cost (SMAC) and/or supplemental rebate participation. Please note, combination products are included in both applicable pharmaceutical classes; therefore, are each listed twice in the tier chart.

Utilization Details of Glaucoma Medications: Fiscal Year 2016

PRODUCT UTILIZED	TOTAL CLAIMS	TOTAL MEMBERS	TOTAL COST	COST/ DAY	COST/ CLAIM	% COST
TIER-1 UTILIZATION						
PROSTAGLANDIN ANALOGS						
LATANOPROST SOL 0.005%	1,992	448	$21,472.63	$0.38	$10.78	3.68%
TRAVATAN Z DRO 0.004%	1,103	288	$212,697.04	$5.97	$192.84	36.48%
XALATAN SOL 0.005%	2	2	$25.90	$0.43	$12.95	0.00%
SUBTOTAL	**3,097**	**738**	**$234,195.57**	**$2.56**	**$75.62**	**40.17%**
CARBONIC ANHYDRASE INHIBITORS						
ACETAZOLAMID TAB 250MG	499	140	$68,967.38	$4.72	$138.21	11.83%
SIMBRINZA SUS 1-0.2%	236	64	$30,385.12	$3.89	$128.75	5.21%
ACETAZOLAMID CAP 500MG	233	88	$36,501.72	$5.30	$156.66	6.26%
DORZOLAMIDE SOL 2% OP	179	61	$3,023.67	$0.46	$16.89	0.52%
AZOPT SUS 1% OP	89	27	$23,860.60	$8.20	$268.10	4.09%
ACETAZOLAMID TAB 125MG	60	21	$7,799.55	$4.57	$129.99	1.34%
METHAZOLAMID TAB 50MG	24	3	$7,086.66	$9.56	$295.28	1.22%
METHAZOLAMID TAB 25MG	4	4	$78.88	$2.82	$19.72	0.01%
SUBTOTAL	**1,324**	**408**	**$177,703.58**	**$4.31**	**$134.22**	**30.48%**
BETA-BLOCKERS						
DORZOL/TIMOL SOL 22.3-6.8	499	148	$8,499.04	$0.44	$17.03	1.46%
TIMOLOL MAL SOL 0.5% OP	459	204	$3,341.07	$0.17	$7.28	0.57%
TIMOLOL GEL SOL 0.5% OP	209	105	$25,632.53	$3.95	$122.64	4.40%
TIMOLOL MAL SOL 0.25% OP	63	31	$321.88	$0.13	$5.11	0.06%
LEVOBUNOLOL SOL 0.5% OP	24	4	$322.24	$0.46	$13.43	0.06%
TIMOLOL GEL SOL 0.25% OP	16	10	$1,831.34	$3.78	$114.46	0.31%
BETAXOLOL SOL 0.5% OP	5	2	$386.72	$2.21	$77.34	0.07%
COSOPT PF SOL	2	1	$180.98	$3.02	$90.49	0.03%
BETIMOL SOL 0.5%	1	1	$136.96	$6.85	$136.96	0.02%
SUBTOTAL	**1,278**	**506**	**$40,652.76**	**$0.83**	**$31.81**	**6.97%**
ALPHA-2 ADRENERGIC AGONISTS						
BRIMONIDINE SOL 0.2% OP	345	130	$3,665.71	$0.32	$10.63	0.63%
SUBTOTAL	**345**	**130**	**$3,665.71**	**$0.32**	**$10.63**	**0.63%**
CHOLINERIC AGONISTS/CHOLINESTERASE INHIBITORS						
PILOCARPINE SOL 1% OP	12	7	$663.67	$1.24	$55.31	0.11%
ISOPTO CARP SOL 1% OP	7	2	$504.84	$2.10	$72.12	0.09%
PILOCARPINE SOL 4% OP	5	1	$447.12	$1.60	$89.42	0.08%
PILOCARPINE SOL 2% OP	3	3	$172.00	$1.27	$57.33	0.03%
ISOPTO CARP SOL 4% OP	1	1	$92.07	$1.64	$92.07	0.02%
SUBTOTAL	**28**	**14**	**$1,879.70**	**$1.51**	**$67.13**	**0.32%**
TIER-1 SUBTOTAL	**6,072**	**1,353***	**$458,097.32**	**$2.35**	**$75.44**	**78.58%**
TIER-2 UTILIZATION						
ALPHA-2 ADRENERGIC AGONISTS						
COMBIGAN SOL 0.2/0.5%	231	47	$43,209.02	$6.03	$187.05	7.41%

PRODUCT UTILIZED	TOTAL CLAIMS	TOTAL MEMBERS	TOTAL COST	COST/ DAY	COST/ CLAIM	% COST
ALPHAGAN P SOL 0.1%	106	25	$22,995.95	$6.68	$216.94	3.94%
BRIMONIDINE SOL 0.15%	99	28	$13,585.04	$4.43	$137.22	2.33%
ALPHAGAN P SOL 0.15%	21	5	$5,370.63	$6.97	$255.74	0.92%
SUBTOTAL	**457**	**105**	**$85,160.64**	**$5.90**	**$186.35**	**14.61%**
PROSTAGLANDIN ANALOGS						
LUMIGAN SOL 0.01%	150	28	$33,386.91	$6.40	$222.58	5.73%
TRAVOPROST DRO 0.004%	23	5	$3,299.84	$4.82	$143.47	0.57%
ZIOPTAN DRO 0.0015%	5	2	$1,164.20	$4.31	$232.84	0.20%
BIMATOPROST SOL 0.03%	1	1	$340.76	$5.68	$340.76	0.06%
SUBTOTAL	**179**	**36**	**$38,191.71**	**$6.13**	**$213.36**	**6.55%**
BETA-BLOCKERS						
BETOPTIC-S SUS 0.25% OP	5	2	$1,543.39	$6.40	$308.68	0.26%
SUBTOTAL	**5**	**2**	**$1,543.39**	**$6.40**	**$308.68**	**0.26%**
TIER-2 SUBTOTAL	**641**	**124***	**$124,895.74**	**$5.97**	**$194.85**	**21.42%**
TOTAL	**6,713**	**1,387***	**$582,993.06**	**$2.70**	**$86.85**	**100%**

*Total number of unduplicated members.
Costs do not reflect rebated prices or net costs.
Please note, utilization details for combination products are only listed in one pharmaceutical class/subcategory, although they are listed in both applicable pharmaceutical classes in the tier chart.

[1] U.S. Food and Drug Administration (FDA): Orange Book: Approved Drug Products with Therapeutic Equivalence Evaluations. Available online at: http://www.accessdata.fda.gov/scripts/cder/ob/default.cfm. Last revised 07/22/2016. Last accessed 07/25/2016.
[2] FDA ANDA Approval: Timolol Maleate Ophthalmic Solution 0.5% (Once Daily). Available online at: http://www.accessdata.fda.gov/drugsatfda_docs/appletter/2015/204936Orig1s000ltr.pdf. Issued 04/17/2015. Last accessed 07/25/2016.
[3] FDA ANDA Approval: Travoprost Ophthalmic Solution 0.004% (Ionic Buffered Solution). Available online at: http://www.accessdata.fda.gov/drugsatfda_docs/appletter/2015/203431Orig1s000ltr.pdf. Issued 07/10/2015. Last accessed 07/25/2016.
[4] ASCRS EyeWorld: FDA Approves Travatan Z. Available online at: http://www.eyeworld.org/article.php?sid=3540. Issued 12/2006. Last accessed 07/25/2016.
[5] Valeant Pharmaceuticals Press Release: Valeant Pharmaceuticals Receives Complete Response Letter from the FDA. Available online at: http://ir.valeant.com/tools/viewpdf.aspx?page={3D245E0A-CE7F-40E0-8202-CB4DD1EF9695}. Issued 07/22/2016. Last accessed 07/25/2016.
[6] PR Newswire: Bausch + Lomb and Nicox Announce FDA Acceptance of New Drug Application for Novel Glaucoma Candidate Vesneo™ (latanoprostene bunod). Available online at: http://www.prnewswire.com/news-releases/bausch--lomb-and-nicox-announce-fda-acceptance-of-new-drug-application-for-novel-glaucoma-candidate-vesneo-latanoprostene-bunod-300146826.html. Issued 09/22/2015. Last accessed 07/25/2016.
[7] P&T Community: FDA Rejects Latanoprostene Eye Drops for Glaucoma. Available online at: http://www.ptcommunity.com/news/2016-07-22-000000/fda-rejects-latanoprostene-eye-drops-glaucoma?utm_source=HL+16-07-22&utm_campaign=ptc+HL+16-07-22&utm_medium=email. Issued 07/2016. Last accessed 07/25/2016.
[8] Drugs@FDA: FDA Approved Drug Products. Available online at: http://www.accessdata.fda.gov/scripts/cder/drugsatfda/index.cfm. Last revised 07/26/2016. Last accessed 07/27/2016.

Appendix E

Fiscal Year 2016 Annual Review of Nonsteroidal Anti-Inflammatory Drugs (NSAIDs) and 30-Day Notice to Prior Authorize Vivlodex™ (Meloxicam Capsules)

Oklahoma Health Care Authority
August 2016

Current Prior Authorization Criteria

Nonsteroidal Anti-Inflammatory Drugs (NSAIDs)		
Tier-1	**Tier-2**	**Special PA**
diclofenac ER (Voltaren® XR)	celecoxib (Celebrex®)	diclofenac (Zorvolex®)
diclofenac potassium (Cataflam®)	diclofenac sodium/misoprostol (Arthrotec®)	diclofenac epolamine (Flector® patch)
diclofenac sodium (Voltaren®) 50mg and 75mg tablets	diclofenac sodium (Voltaren®) 25mg tablets	diclofenac potassium (Cambia® powder pack)
etodolac (Lodine®) 400mg and 500mg tablets	etodolac (Lodine®) 200mg and 300mg capsules	diclofenac potassium (Zipsor® capsule)
flurbiprofen (Ansaid®)	etodolac ER (Lodine® XL)	diclofenac sodium (Dyloject™)
ibuprofen (Motrin®)	fenoprofen (Nalfon®)	diclofenac sodium (Pennsaid® topical drops)
ketoprofen (Orudis®)	meclofenamate (Meclomen®)	diclofenac sodium (Voltaren Gel®)
meloxicam (Mobic®)	naproxen sodium (Anaprox®) 275mg and 550mg tablets	ibuprofen/famotidine (Duexis®)
nabumetone (Relafen®)	oxaprozin (Daypro®)	indomethacin (Indocin®)
naproxen (Naprosyn®)	tolmetin (Tolectin®)	indomethacin (Tivorbex™)
naproxen EC (Naprosyn®)		ketoprofen ER (Oruvail®)
sulindac (Clinoril®)		mefenamic acid (Ponstel®)
		naproxen sodium ER (Naprelan®)
		naproxen/esomeprazole (Vimovo®)
		piroxicam (Feldene®)

ER = Extended-Release, EC = Enteric Coated
Tier structure based on supplemental rebate participation and/or state maximum allowable cost.

NSAIDs Tier-2 Approval Criteria:

1. Previous use of at least two Tier-1 NSAID products (from different product lines) plus a proton pump inhibitor (PPI) within the last 120 days; or
2. For those with a prior gastrointestinal (GI) bleed who must have an NSAID, a Tier-2 product may be approved (celecoxib should be taken with a PPI).

NSAIDs Special Prior Authorization (PA) Approval Criteria:

1. A unique indication for which a Tier-1 or Tier-2 medication is not appropriate, such as the diagnosis of gout for indomethacin; or
2. Previous use of at least two Tier-1 NSAID products (from different product lines); and
3. A patient-specific, clinically-significant reason why a special formulation is needed over a Tier-1 product.

4. Additionally, use of Tivorbex™ will require a patient-specific, clinically significant reason why the member cannot use all other available generic indomethacin products.

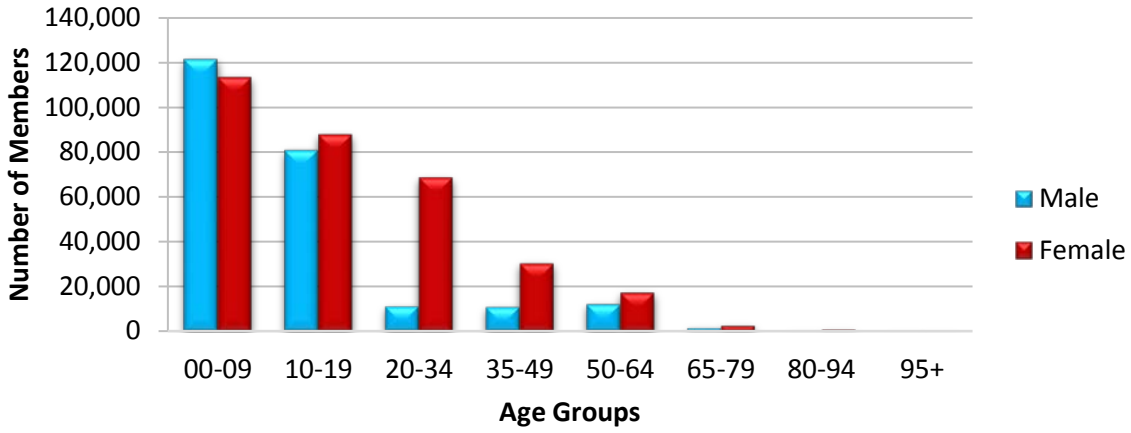
Utilization of NSAIDs: Fiscal Year 2016

Comparison of Fiscal Years

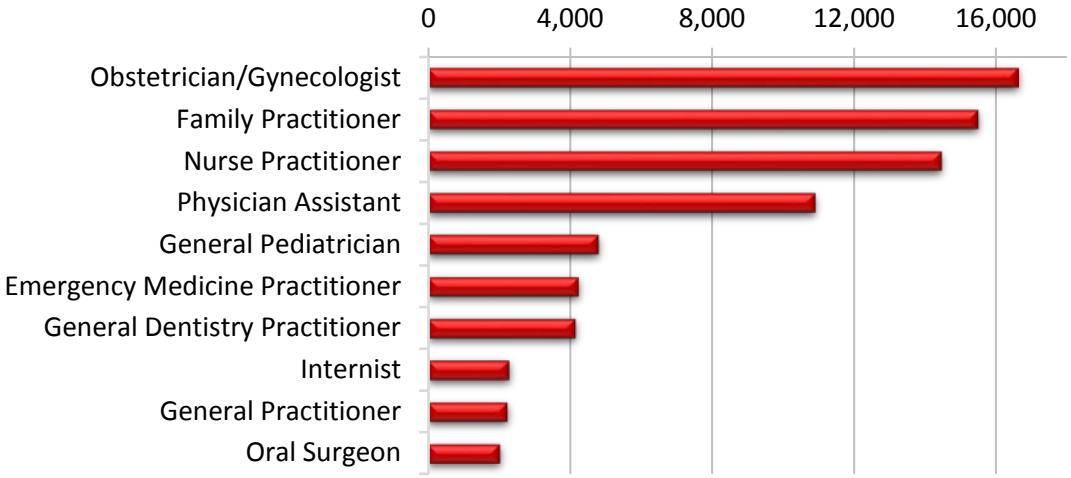
Fiscal Year	*Total Members	Total Claims	Total Cost	Cost/ Claim	Cost/ Day	Total Units	Total Days
2015	90,969	157,663	$1,519,130.61	$9.64	$0.45	8,777,406	3,391,311
2016	86,134	149,545	$1,450,709.78	$9.70	$0.44	8,241,716	3,263,390
% Change	**-5.30%**	**-5.10%**	**-4.50%**	**0.60%**	**-2.20%**	**-6.10%**	**-3.80%**
Change	**-4,835**	**-8,118**	**-$68,420.83**	**$0.06**	**-$0.01**	**-535,690**	**-127,921**

*Total number of unduplicated members.
Costs do not reflect rebated prices or net costs.

Demographics of Members Utilizing NSAIDs

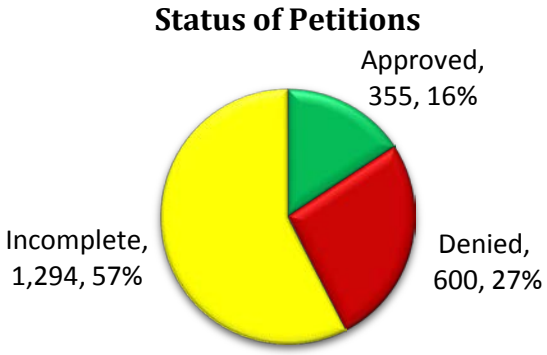


Top Prescriber Specialties of NSAIDs by Number of Claims



Prior Authorization of NSAIDs

There were 2,249 prior authorization requests submitted for the NSAID category during fiscal year 2016. Computer edits are in place to detect Tier-1 medications in a member's recent claims history and generate automated prior authorizations where possible. The following chart shows the status of the submitted petitions.



Market News and Updates[1,2,3,4,5,6,7]

Anticipated Patent Expiration(s):

- Flector® Patch (diclofenac epolamine topical patches): April 2019
- Cambia® (diclofenac potassium powder packs): June 2026
- Duexis® (ibuprofen/famotidine tablets): July 2026
- Dyloject™ (diclofenac sodium for injection): March 2027
- Zipsor® (diclofenac potassium capsules): February 2029
- Tivorbex™ (indomethacin capsules): April 2030
- Zorvolex® (diclofenac capsules): April 2030
- Pennsaid® (diclofenac sodium topical drops 2%): August 2030
- Vimovo® (naproxen/esomeprazole tablets): October 2031

U.S. Food and Drug Administration (FDA) Approval(s):

- **October 2015:** Iroko Pharmaceuticals announced that the U.S. Food and Drug Administration (FDA) approved Vivlodex™ (meloxicam capsules) for the management of osteoarthritis pain. Vivlodex™ is the first FDA-approved low dose SoluMatrix® meloxicam. Vivlodex™ was developed in light of recommendations from the FDA that NSAIDs should be used at the lowest effective dose for the shortest possible duration. Meloxicam is available generically in a tablet formulation in 7.5mg and 15mg strengths. According to the company, "SoluMatrix Fine Particle Technology™ contains meloxicam as submicron particles that are approximately 10 times smaller than their original size. The reduction in particle size provides an increased surface area, leading to faster dissolution."[2]
- **March 2016:** Amneal Pharmaceuticals announced the launch of its first-to-market generic equivalent of Voltaren® Gel (diclofenac sodium topical gel) 1% after receiving final FDA approval for its Abbreviated New Drug Application.

Safety Update(s):

- **July 2015:** The FDA issued a Drug Safety Communication regarding the increased risk of heart attack or stroke in patients taking non-aspirin NSAIDs. The FDA recommended the

strengthening of existing non-aspirin NSAID labels for prescription NSAIDs, as well as the Drug Facts labels for over-the-counter (OTC) NSAIDs. The prescription NSAID labels were revised to reflect the following information:

- The risk of heart attack or stroke can occur as early as the first week of using an NSAID, and may increase with longer use.
- The risk is greater at higher doses.
- It is less clear if the risk is similar for all NSAIDs; there is insufficient data to determine if the risk is higher or lower for any particular NSAID.
- NSAIDs can increase the risk of heart attack or stroke in patients with or without heart disease or risk factors for heart disease.
- In general there is a greater likelihood of heart attack or stroke following NSAID use in patients who already have heart disease because they have a higher risk at baseline.
- Patients treated with NSAIDs following a first heart attack were more likely to die in the first year after the heart attack compared to patients who were not treated with NSAIDs after their first heart attack.
- There is an increased risk of heart failure with NSAID use.

In light of the FDA Drug Safety Communication the College of Pharmacy sent an educational letter in May 2016 to prescribers informing them of the safety update. Prescribers were included in the mailing if they were listed on paid claim(s) for NSAIDs for a minimum of 90 days in a member with at least one cardiovascular risk factor from October 1, 2015 to April 30, 2016. Results of the educational mailing will be reviewed with the DUR board at a later date.

Pipeline:

- **June 2016:** Kitov Pharmacetuicals reported positive results from a phase 3 study of a combination product containing celecoxib, an NSAID, and amlodipine, a calcium channel blocker (CCB). The combination medication was designed to treat osteoarthritis pain and hypertension. The study results suggest that the combination product may lower systolic blood pressure by an average of 8.8mmHg and have beneficial effects on renal function by reducing serum creatinine levels and lower rates of peripheral edema compared to amlodipine alone.
- **July 2016:** Recro Pharma, Inc. reported positive results from a phase 3 study of intravenous (IV) meloxicam for the treatment of acute postoperative pain in patients following bunionectomy surgery. According to the company, "IV meloxicam achieved the primary endpoint of a statistically significant difference in Summed Pain Intensity Difference (SPID) over the first 48 hours compared to placebo."[5]

News:

- **April 2016:** A meta-analysis of 82 randomized controlled trials accounting for 125,053 participants evaluated strategies for preventing NSAID-associated gastrointestinal toxicity in patients taking nonselective NSAIDs, selective cyclooxygenase (COX)-2 inhibitors, or nonselective NSAIDs/COX-2 inhibitors plus gastroprotective agents including proton pump inhibitors (PPIs), histamine-2 receptor (H_2) antagonists, or misoprostol. Results revealed that the combination of selective COX-2 inhibitors plus PPIs provided the best

gastrointestinal protection, followed by selective COX-2 inhibitors, and nonselective NSAIDs plus PPIs.

Vivlodex™ (Meloxicam Capsules) Product Summary[8]

Indications: Vivlodex™ (meloxicam capsules) is a NSAID indicated for management of osteoarthritis (OA) pain.

Boxed Warning:

- Cardiovascular Thrombotic Events: NSAIDs cause an increased risk of serious cardiovascular thrombotic events, including myocardial infarction and stroke, which can be fatal. This risk may occur early in treatment and may increase with duration of use. Vivlodex™ is contraindicated in the setting of coronary artery bypass graft (CABG) surgery.
- Gastrointestinal Bleeding, Ulceration, and Perforation: NSAIDs cause an increased risk of serious gastrointestinal (GI) adverse events including bleeding, ulceration, and perforation of the stomach or intestines, which can be fatal. These events can occur at any time during use and without warning symptoms. Elderly patients and patients with a prior history of peptic ulcer disease and/or GI bleeding are at a greater risk for serious GI events.

Dosing:

- Vivlodex™ is available as oral capsules in the following strengths: 5mg and 10mg.
- The recommended dose for the management of osteoarthritis pain is 5mg by mouth once daily. The dose may be increased to 10mg daily in patients who require additional analgesia. The maximum recommended dose is 10mg daily.
- Patients should use the lowest effective dose for the shortest duration consistent with individual patient treatment goals.
- Vivlodex™ capsules have not shown equivalent systemic exposure to other formulations of oral meloxicam and therefore are not interchangeable with other formulations of meloxicam even if the milligram strength is the same.

Mechanism of Action: Vivlodex™ has analgesic, anti-inflammatory, and antipyretic properties. The mechanism of action of Vivlodex™, like that of other NSAIDs, is not completely understood but involves inhibition of cyclooxygenase (COX-1 and COX-2).

Contraindications:

- Known hypersensitivity to meloxicam or any components of Vivlodex™.
- History of asthma, urticaria, or other allergic-type reactions after taking aspirin or other NSAIDs. Severe, sometimes fatal, anaphylactic reactions to NSAIDs have been reported in such patients.
- In the setting of coronary artery bypass graft (CABG) surgery.

Warnings and Precautions:

- Cardiovascular Thrombotic Events: Clinical trials of several COX-2 selective and nonselective NSAIDs have shown an increased risk of serious cardiovascular (CV) thrombotic events, including myocardial infarction (MI) and stroke, which can be fatal. It

is unclear that the risk for CV thrombotic events is similar for all NSAIDs. The relative increase in serious CV thrombotic events over baseline conferred by NSAID use appears to be similar in those with and without known CV disease or risk factors for CV disease. However, patients with known CV disease or risk factors had a higher absolute incidence of excess serious CV thrombotic events, due to their increased baseline rate. Some observational studies found that this increased risk of serious CV thrombotic events began as early as the first weeks of treatment. The increase in CV thrombotic risk has been observed most consistently at higher doses. To minimize the potential risk for an adverse CV event in NSAID-treated patients, the lowest effective dose for the shortest duration possible should be used.

- Gastrointestinal Bleeding, Ulceration, and Perforation: NSAIDs cause serious GI adverse events including inflammation, bleeding, ulceration, and perforation of the esophagus, stomach, small intestine, or large intestine, which can be fatal. These serious adverse events can occur at any time, with or without warning symptoms. Upper GI ulcers, gross bleeding, or perforation caused by NSAIDs occurred in approximately 1% of patients treated for 3 to 6 months, and in about 2% to 4% of patients treated for one year.
- Hepatotoxicity: Elevations of ALT or AST (three or more times the upper limit of normal [ULN]) have been reported in approximately 1% of NSAID-treated patients in clinical trials. In addition, rare, sometimes fatal, cases of severe hepatic injury, including fulminant hepatitis, liver necrosis, and hepatic failure have been reported.
- Hypertension: NSAIDs can lead to new onset or worsening of pre-existing hypertension, either of which may contribute to the increased incidence of CV events. Patients taking angiotensin converting enzyme (ACE) inhibitors, thiazide diuretics, or loop diuretics may have impaired response to these therapies when taking NSAIDs.
- Heart Failure and Edema: The Coxib and traditional NSAID Trialists' Collaboration meta-analysis of randomized controlled trials demonstrated a two-fold increase in hospitalizations for heart failure in COX-2 selective-treated patients and nonselective NSAID-treated patients compared to placebo-treated patients. In a Danish National Registry study of patients with heart failure, NSAID use increased the risk of MI, hospitalization for heart failure, and death. Additionally, fluid retention and edema have been observed in some patients treated with NSAIDs. The use of Vivlodex™ should be avoided in patients with severe heart failure unless the benefits are expected to outweigh the risk of worsening heart failure.
- Renal Toxicity and Hyperkalemia: Long-term administration of NSAIDs has resulted in renal papillary necrosis and other renal injury. No information is available from controlled clinical studies regarding the use of Vivlodex™ in patients with advanced renal disease. The renal effects of Vivlodex™ may hasten the progression of renal dysfunction in patients with pre-existing renal disease. Increases in serum potassium concentration, including hyperkalemia, have been reported with use of NSAIDs, even in some patients without renal impairment.

Adverse Reactions: The most common adverse reactions (≥2%) experienced during clinical trials include the following:

- Arthralgia
- Urinary Tract Infection
- Osteoarthritis
- Hypertension
- Diarrhea
- Headache
- Upper Respiratory Tract Infection
- Back Pain
- Nasopharyngitis
- Bronchitis
- Sinusitis
- Constipation
- Dyspepsia
- Nausea
- Edema Peripheral
- Pain in Extremity

Efficacy: The efficacy of Vivlodex™ for the management of osteoarthritis pain was evaluated in a randomized, double-blind, placebo-controlled study comparing Vivlodex™ 5mg or 10mg once daily to placebo in 402 patients with OA pain of the knee or hip. The primary efficacy endpoint was the change from baseline to Week 12 in the Western Ontario and McMaster University Osteoarthritis Index (WOMAC) Pain Subscale Score. Vivlodex™ 5mg and 10mg significantly reduced OA pain compared with placebo. The proportion of responders achieving reductions in pain intensity from baseline to Week 12 was similar for both the 5mg and 10mg doses.

Cost:

Product	Strength	Cost Per Unit	Cost Per 30 Days
Vivlodex™ (meloxicam) capsules	**5mg, 10mg**	**$20.91⁺**	**$627.30**
meloxicam tablets	7.5mg, 15mg	$0.07*	$2.10

Costs do not reflect rebated prices or net costs.
⁺Costs based on estimated acquisition cost (EAC).
*Costs based on state maximum allowable cost (SMAC).
Unit = capsule or tablet

Recommendations

The College of Pharmacy recommends the following:

1. The placement of Vivlodex™ (meloxicam capsules) into the Special PA Tier of the NSAID Product Based Prior Authorization (PBPA) category. Current Special PA criteria for this category will apply.
2. The addition of an age restriction on meloxicam suspension. Members older than 7 years of age would require a reason why they need the liquid formulation and cannot use the oral tablet formulation.
3. Move indomethacin 25mg and 50mg immediate-release capsules from the Special PA Tier to Tier-1. A quantity limit of eight tablets per day would apply. The suspension and extended-release formulation would remain in the Special PA Tier.
    a. Indomethacin capsules were previously included in the Special PA Tier due to a poor adverse effect profile compared to other NSAIDs. Due to the low net cost of indomethacin and similar adverse effect profile to other non-selective NSAIDs the College of Pharmacy recommends moving indomethacin to Tier-1.
4. Move piroxicam capsules from the Special PA Tier to Tier-2 based on decreases in state maximum allowable cost (SMAC). The current Tier-2 criteria for this category will apply.

Nonsteroidal Anti-Inflammatory Drugs (NSAIDs)		
Tier-1	**Tier-2**	**Special PA**
diclofenac ER (Voltaren® XR)	celecoxib (Celebrex®)	diclofenac (Zorvolex®)
diclofenac potassium (Cataflam®)	diclofenac sodium/misoprostol (Arthrotec®)	diclofenac epolamine (Flector® patch)
diclofenac sodium (Voltaren®) 50mg and 75mg tablets	diclofenac sodium (Voltaren®) 25mg tablets	diclofenac potassium (Cambia® powder pack)
etodolac (Lodine®) 400mg and 500mg tablets	etodolac (Lodine®) 200mg and 300mg capsules	diclofenac potassium (Zipsor® capsule)
flurbiprofen (Ansaid®)	etodolac ER (Lodine® XL)	diclofenac sodium (Dyloject™)
ibuprofen (Motrin®)	fenoprofen (Nalfon®)	diclofenac sodium (Pennsaid® topical drops)
indomethacin immediate-release capsules (Indocin®)	meclofenamate (Meclomen®)	diclofenac sodium (Voltaren Gel®)
ketoprofen (Orudis®)	naproxen sodium (Anaprox®) 275mg and 550mg tablets	ibuprofen/famotidine (Duexis®)
meloxicam (Mobic®)	oxaprozin (Daypro®)	**indomethacin suspension and extended-release capsules (Indocin®)**
nabumetone (Relafen®)	**piroxicam (Feldene®)**	indomethacin (Tivorbex™)
naproxen (Naprosyn®)	tolmetin (Tolectin®)	ketoprofen ER (Oruvail®)
naproxen EC (Naprosyn®)		mefenamic acid (Ponstel®)
sulindac (Clinoril®)		**meloxicam capsules (Vivlodex™)**
		naproxen sodium ER (Naprelan®)
		naproxen/esomeprazole (Vimovo®)

ER = Extended-Release, EC = Enteric Coated
Tier structure based on supplemental rebate participation and/or state maximum allowable cost.

NSAIDs Tier-2 Approval Criteria:

1. Previous use of at least two Tier-1 NSAID products (from different product lines) plus a proton pump inhibitor (PPI) within the last 120 days; or
2. For those with a prior gastrointestinal (GI) bleed who must have an NSAID, a Tier-2 product may be approved (celecoxib should be taken with a PPI).

NSAIDs Special Prior Authorization (PA) Approval Criteria:

1. A unique indication for which a Tier-1 or Tier-2 medication is not appropriate; or
2. Previous use of at least two Tier-1 NSAID products (from different product lines); and
3. A patient-specific, clinically-significant reason why a special formulation is needed over a Tier-1 product.
4. Additionally, use of Tivorbex™ will require a patient-specific, clinically significant reason why the member cannot use all other available generic indomethacin products.

Utilization Details of NSAIDs: Fiscal Year 2016

PRODUCT UTILIZED	TOTAL CLAIMS	TOTAL MEMBERS	TOTAL COST	CLAIMS/ CLIENT	COST/ CLAIM
TIER-1 NSAIDS					
IBUPROFEN PRODUCTS					
IBUPROFEN TAB 800MG	47,423	32,440	$347,814.07	1.46	$7.33
IBUPROFEN TAB 600MG	13,424	10,784	$89,541.86	1.24	$6.67
IBUPROFEN SUS 100/5ML	12,274	10,679	$117,098.64	1.15	$9.54
IBUPROFEN TAB 400MG	5,897	4,283	$41,783.29	1.38	$7.09
IBUPROFEN DRO 50/1.25	65	60	$609.85	1.08	$9.38
ADVIL CHILD SUS 100/5ML	57	57	$419.93	1	$7.37
CHLD IBUPRFN DRO 40MG/ML	8	8	$79.42	1	$9.93
IBU-DROPS DRO 40MG/ML	4	3	$38.77	1.33	$9.69
INFANT ADVIL DRO 50/1.25	3	3	$20.63	1	$6.88
IBUPROFEN POW	3	3	$14.11	1	$4.70
IBU-DROPS DRO 50/1.25	2	2	$44.66	1	$22.33
SUBTOTAL	**79,160**	**56,647**	**$597,465.23**	**1.4**	**$7.55**
MELOXICAM PRODUCTS					
MELOXICAM TAB 15MG	20,822	9,840	$66,365.84	2.12	$3.19
MELOXICAM TAB 7.5MG	10,279	5,601	$36,742.54	1.84	$3.57
MELOXICAM SUS 7.5/5ML	329	97	$30,852.39	3.39	$93.78
MOBIC SUS 7.5/5ML	9	4	$1,722.85	2.25	$191.43
SUBTOTAL	**31,439**	**14,942**	**$135,683.62**	**2.1**	**$4.32**
NAPROXEN PRODUCTS					
NAPROXEN TAB 500MG	20,778	13,765	$120,209.41	$0.26	$5.79
NAPROXEN TAB 375MG	2,718	1,883	$15,692.60	$0.27	$5.77
NAPROXEN TAB 250MG	1,633	1,185	$10,046.65	$0.32	$6.15
NAPROXEN DR TAB 500MG	786	462	$11,477.40	$0.55	$14.60
NAPROXEN SUS 125/5ML	372	256	$11,721.98	$1.95	$31.51
NAPROXEN DR TAB 375MG	146	100	$1,580.68	$0.49	$10.83
NAPROSYN TAB 500MG	1	1	$9.56	$0.32	$9.56
SUBTOTAL	**26,434**	**17,301**	**$170,738.28**	**1.53**	**$6.46**
ETODOLAC PRODUCTS					
ETODOLAC TAB 400MG	1,855	1,113	$74,038.14	1.67	$39.91
ETODOLAC TAB 500MG	695	317	$34,714.63	2.19	$49.95
SUBTOTAL	**2,550**	**1,416**	**$108,752.77**	**1.8**	**$42.65**
DICLOFENAC PRODUCTS					
DICLOFEN POT TAB 50MG	1,379	910	$40,615.36	1.52	$29.45
DICLOFENAC POW SODIUM	112	71	$1,103.05	1.58	$9.85
SUBTOTAL	**1,491**	**981**	**$41,718.41**	**1.52**	**$27.98**
KETOPROFEN PRODUCTS					
KETOPROFEN CAP 75MG	170	128	$3,702.03	1.33	$21.78
KETOPROFEN POW	124	91	$12,293.84	1.36	$99.14
KETOPROFEN CAP 50MG	88	71	$1,617.28	1.24	$18.38
KETOPROFEN POW	8	7	$1,059.53	1.14	$132.44
SUBTOTAL	**390**	**294**	**$18,672.68**	**1.33**	**$47.88**
SULINDAC PRODUCTS					
SULINDAC TAB 200MG	152	77	$1,929.05	1.97	$12.69
SULINDAC TAB 150MG	68	21	$827.03	3.24	$12.16
SUBTOTAL	**220**	**98**	**$2,756.08**	**2.24**	**$12.53**
FLURBIPROFEN PRODUCTS					

PRODUCT UTILIZED	TOTAL CLAIMS	TOTAL MEMBERS	TOTAL COST	CLAIMS/ CLIENT	COST/ CLAIM
FLURBIPROFEN TAB 100MG	79	29	$1,531.39	2.72	$19.38
SUBTOTAL	**79**	**29**	**$1,531.39**	**2.72**	**$19.38**
TIER-1 SUBTOTAL	**144,482**	**84,522**	**$1,114,723.16**	**1.71**	**$7.72**
TIER-2 NSAIDS					
NAPROXEN PRODUCTS					
NAPROXEN SOD TAB 550MG	1,889	1,521	$106,446.52	1.24	$56.35
NAPROXEN SOD TAB 275MG	214	165	$6,726.45	1.3	$31.43
SUBTOTAL	**2,103**	**1,681**	**$113,172.97**	**1.25**	**$53.82**
CELECOXIB PRODUCTS					
CELECOXIB CAP 200MG	1,170	303	$74,593.37	3.86	$63.76
CELECOXIB CAP 100MG	229	68	$13,467.39	3.37	$58.81
CELEBREX CAP 200MG	34	6	$8,190.34	5.67	$240.89
CELECOXIB CAP 50MG	11	6	$395.97	1.83	$36.00
CELECOXIB CAP 400MG	8	3	$1,093.49	2.67	$136.69
CELEBREX CAP 100MG	3	1	$202.33	3	$67.44
SUBTOTAL	**1,455**	**370**	**$97,942.89**	**3.93**	**$67.31**
ETODOLAC PRODUCTS					
ETODOLAC CAP 300MG	706	543	$32,878.30	1.3	$46.57
ETODOLAC CAP 200MG	196	153	$8,485.20	1.28	$43.29
ETODOLAC ER TAB 400MG	42	25	$4,707.86	1.68	$112.09
ETODOLAC ER TAB 500MG	20	8	$3,246.04	2.5	$162.30
ETODOLAC ER TAB 600MG	20	7	$2,207.46	2.86	$110.37
SUBTOTAL	**984**	**731**	**$51,524.86**	**1.35**	**$52.36**
OXAPROZIN PRODUCTS					
OXAPROZIN TAB 600MG	80	32	$10,417.46	2.5	$130.22
SUBTOTAL	**80**	**32**	**$10,417.46**	**2.5**	**$130.22**
MECLOFENAMATE PRODUCTS					
MECLOFEN SOD CAP 50MG	19	3	$2,284.76	6.33	$120.25
MECLOFEN SOD CAP 100MG	7	6	$1,786.32	1.17	$255.19
SUBTOTAL	**26**	**9**	**$4,071.08**	**2.89**	**$156.58**
TOLMETIN PRODUCTS					
TOLMETIN SOD CAP 400MG	12	2	$1,609.77	6	$134.15
TOLMETIN SOD TAB 600MG	1	1	$231.91	1	$231.91
SUBTOTAL	**13**	**3**	**$1,841.68**	**4.33**	**$141.67**
FENOPROFEN PRODUCTS					
FENOPROFEN CAP 400MG	3	3	$822.19	1	$274.06
SUBTOTAL	**3**	**3**	**$822.19**	**1**	**$274.06**
TIER-2 SUBTOTAL	**4,664**	**2,807**	**$279,793.13**	**1.66**	**$59.99**
SPECIAL PA NSAIDS					
DICLOFENAC PRODUCTS					
VOLTAREN GEL 1%	151	84	$20,825.49	1.8	$137.92
DICLOFENAC GEL 1%	34	29	$3,818.82	1.17	$112.32
PENNSAID SOL 2%	7	3	$11,836.95	2.33	$1,690.99
CAMBIA POW 50MG	3	1	$1,554.22	3	$518.07
FLECTOR DIS 1.3%	2	2	$587.81	1	$293.91
DICLOFENAC SOL 1.5%	2	1	$385.67	2	$192.84
SUBTOTAL	**199**	**109**	**$39,008.96**	**1.83**	**$196.02**
INDOMETHACIN PRODUCTS					
INDOMETHACIN CAP 50MG	96	44	$882.46	2.18	$9.19
INDOCIN SUS 25MG/5ML	38	5	$12,786.69	7.6	$336.49

PRODUCT UTILIZED	TOTAL CLAIMS	TOTAL MEMBERS	TOTAL COST	CLAIMS/ CLIENT	COST/ CLAIM
INDOMETHACIN CAP 25MG	29	16	$288.13	1.81	$9.94
INDOMETHACIN CAP 75MG ER	18	5	$1,509.29	3.6	$83.85
INDOMETHACIN POW	1	1	$3.98	1	$3.98
SUBTOTAL	**182**	**70**	**$15,470.55**	**2.6**	**$85.00**
PIROXICAM PRODUCTS					
PIROXICAM CAP 10MG	12	1	$354.68	12	$29.56
PIROXICAM CAP 20MG	2	2	$194.80	1	$97.40
PIROXICAM POW	1	1	$16.69	1	$16.69
SUBTOTAL	**15**	**4**	**$566.17**	**3.75**	**$37.74**
KETOPROFEN PRODUCTS					
KETOPROFEN CAP 200MG ER	2	2	$90.74	1	$45.37
SUBTOTAL	**2**	**2**	**$90.74**	**1**	**$45.37**
NAPROXEN PRODUCTS					
NAPRELAN TAB 500MG CR	1	1	$1,057.07	1	$1,057.07
SUBTOTAL	**1**	**1**	**$1,057.07**	**1**	**$1,057.07**
SPECIAL PA SUBTOTAL	**399**	**186**	**$56,193.49**	**2.15**	**$140.84**
TOTAL	**149,545**	**86,134***	**$1,450,709.78**	**1.74**	**$9.70**

*Total number of unduplicated members.
Costs do not reflect rebated prices or net costs.

[1] U.S. Food and Drug Administration (FDA): Orange Book: Approved Drug Products with Therapeutic Equivalence Evaluations. Available online at: http://www.accessdata.fda.gov/scripts/cder/ob/default.cfm. Last revised 07/26/2016. Last accessed 07/26/2016.

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Appendix F

Calendar Year 2015 Annual Review of Alzheimer's Medications

Oklahoma Health Care Authority
August 2016

Current Prior Authorization Criteria

Alzheimer's Medications Approval Criteria:

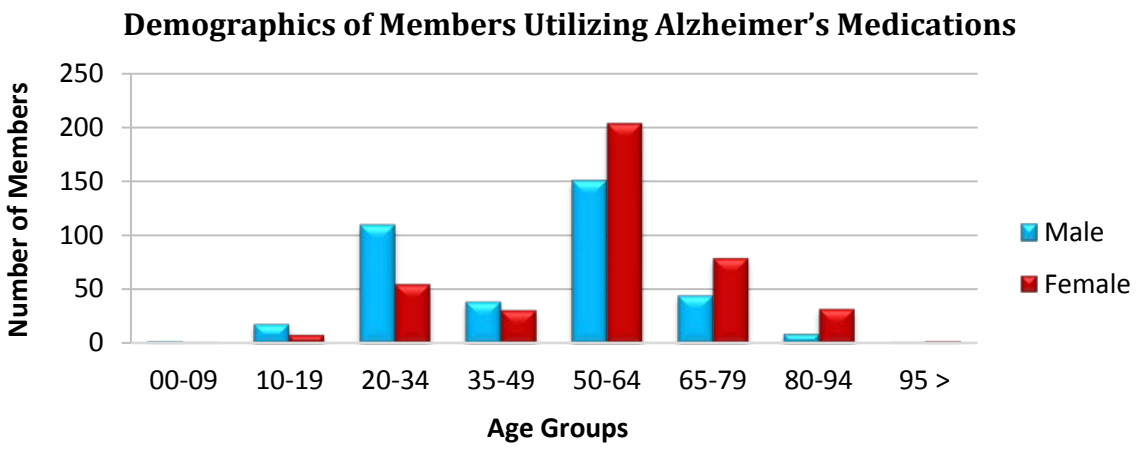
1. Special formulation products including oral solutions, transdermal patches, and other convenience formulations require prior authorization with the following approval criteria:
   a. A patient-specific, clinically significant reason why the special formulation is necessary in place of the standard formulation.
2. An age restriction for ages 0 to 50 years applies to all Alzheimer's medications. Members older than 50 years of age can receive regular formulations without prior authorization. Members younger than 50 years of age will require prior authorization with the following criteria:
   a. An FDA approved diagnosis; or
   b. Other patient-specific, clinically significant information supporting the use of the medication.
3. Namzaric™ (Memantine Extended-Release/Donepezil) Approval Criteria:
   a. Member must have a patient-specific, clinically significant reason why the separate products cannot be used over this combination product; and
   b. A quantity limit of 30 capsules per 30 days will apply.

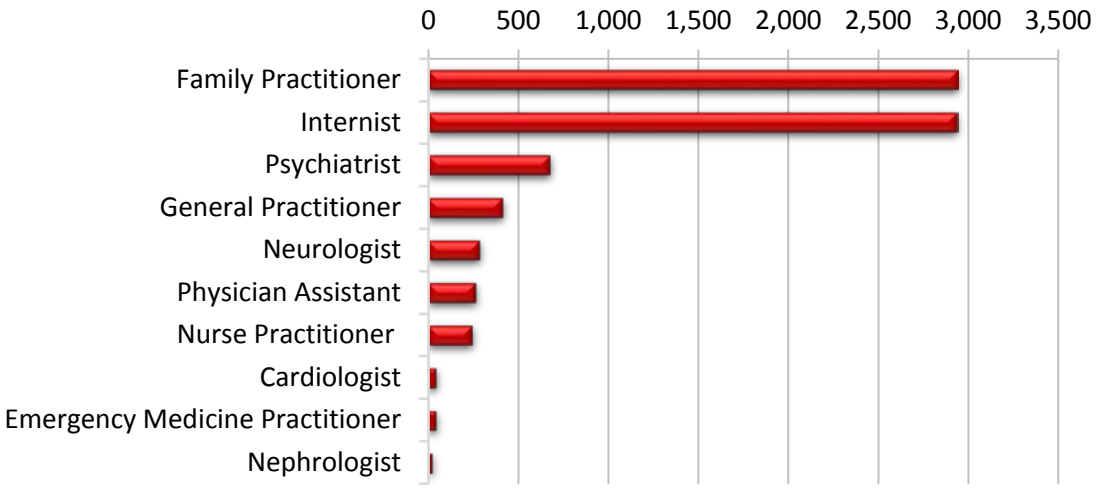
Utilization of Alzheimer's Medications: Calendar Year 2015

Comparison of Calendar Years

Calendar Year	*Total Members	Total Claims	Total Cost	Cost/ Claim	Cost/ Day	Total Units	Total Days
2014	811	8,300	$1,648,213.80	$198.58	$7.25	359,214	227,262
2015	787	7,961	$1,365,906.97	$171.57	$6.11	326,076	223,696
% Change	**-3.00%**	**-4.10%**	**-17.10%**	**-13.60%**	**-15.70%**	**-9.20%**	**-1.60%**
Change	**-24**	**-339**	**-$282,306.83**	**-$27.01**	**-$1.14**	**-33,138**	**-3,566**

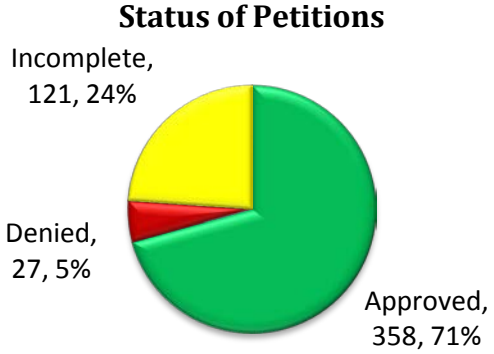
*Total number of unduplicated members.
Costs do not reflect rebated prices or net costs.





Prior Authorization of Alzheimer's Medications

There were 506 prior authorization requests submitted for the Alzheimer's medications category during calendar year 2015. The following chart shows the status of the submitted petitions.



Market News and Updates[1,2,3,4,5,6,7,8,9,10,11]

Anticipated Patent Expiration(s):

- Namenda XR® (memantine ER capsules): September 2029
- Namzaric™ (memantine ER/donepezil): December 2029

New Safety Information and Update(s):

- **January 2015:** Janssen Pharmaceuticals, a division of Johnson & Johnson, entered a deal to further develop the anti-Tau vaccine, ACI-35, with AC Immune which is in an early-stage phase Ib clinical trial. ACI-35 is a liposomal, therapeutic anti-Tau vaccine designed to stimulate the patient's immune system to produce a response against the misfolded and phosphorylated pathogenic forms of theTau protein. Those pathogenic forms of Tau aggregate to create neurofibrillary tangles which represent one of the major hallmarks of Alzheimer's disease. In preclinical testing the vaccine induced an antibody response that was highly specific to pathogenic Tau and resulted in a reduction of both misfolded and phosphorylated Tau as well as in an improvement in cognitive clinical parameters. ACI-35 has a T-cell independent mechanism of action suggesting a favorable safety profile. It is the first vaccine against phosphorylated pathological Tau to reach this stage of development by any company.
- **July 2015:** Crenezumab, a humanized monoclonal antibody (MAB) that binds all forms of misfolded Abeta proteins to prevent and break up Abeta aggregation was moved into phase III clinical development by Genentech in patients with prodromal to mild Alzheimer's disease. In 2014, two phase II studies showed potential clinical activity in the mild patient subset treated with higher intravenous (IV) doses (15mg/kg).
- **March 2016:** Eli Lilly and Company announced a change of the primary endpoint to solely cognition in the EXPEDITION3 clinical trial, a phase III study of solanezumab in patients with mild Alzheimer's dementia. The original study design included co-primary endpoints of cognition and function. Functional outcomes will be measured during the trial in the same manner as previously designed but will now be considered secondary endpoints. Lilly notes that the endpoint change affects the study's data analysis plan, but it does not affect anything related to the actual conduct of the trial.
- **April 2016:** Eli Lilly and Co and AstraZeneca announce AMARANTH, a phase 2/3 study of AZD3293, an oral beta secretase cleaving enzyme (BACE) inhibitor currently in development as a potential treatment for early Alzheimer's disease, will continue to phase III of the phase 2/3 seamless trial. AZD3293 has shown in phase I studies to reduce levels of amyloid beta in the cerebro-spinal fluid of people with Alzheimer's and healthy volunteers. Inhibiting BACE is expected to prevent the formation of amyloid plaque and eventually slow the progression of disease. The AMARANTH independent data monitoring committee recommended the study to continue without modification after an interim safety analysis. The analysis was not designed to review efficacy.
- **April 2016:** According to a retrospective study in the journal *The Consultant Pharmacist*, the use of cholinesterase inhibitors (ChEIs) may increase the risk of chronic obstructive pulmonary disease (COPD) exacerbation in the first 90 days of therapy in patients with dementia and COPD. This finding is clinically significant as previous studies have indicated no risk.

- **April 2016:** An investigational 5-HT_6 receptor antagonist by Lundbeck, idalopirdine, has shown to significantly slow cognitive decline compared to donepezil alone when added to donepezil in patients with moderate Alzheimer's disease in a phase II trial. The only safety signal of note were mild elevations in liver transaminases affecting about 10% of patients receiving idalopirdine. Three separate 24-week phase III studies with a total of 2,500 patients are currently underway.
- **June 2016:** Axon Neuroscience announced the initiation of the phase II study of AADvac1 which is intended to be the first disease-modifying Tau vaccine for Alzheimer's disease. AADvac1 is designed to elicit antibodies against the pathological Tau protein, which is the primary cause of neurofibrillary pathology in Alzheimer's disease. These antibodies are expected to prevent the Tau protein from pathological interactions, to facilitate the removal of Tau pathology, and thus slow down or halt the progress of Alzheimer's disease. ADAMANT is a 24-month, randomized, placebo-controlled, parallel group, double-blind, multicenter, phase II study to assess the safety and efficacy of AADvac1 in patients with mild Alzheimer's disease. ADAMANT will be conducted in several countries in Europe and is estimated to enroll 185 patients into the study.
- **July 2016:** A Phase I clinical trial conducted by Genentech evaluating the safety, tolerability, and pharmacokinetics of an anti-Tau humanized MAB in people with mild-to-moderate Alzheimer's disease and healthy volunteers has commenced. The study is evaluating various dosing regimens. The anti-Tau compound is a humanized MAB that is believed to bind specifically to Tau. Tau pathology is widely recognized to be closely associated with cognitive decline and neurodegeneration in Alzheimer's disease and other tauopathies.
- **July 2016:** The FDA approved an expanded indication of Namzaric™ (memantine extended-release/donepezil capsules) for the treatment of moderate-to-severe dementia of the Alzheimer's type in patients stabilized on 10mg of donepezil once daily. This is in addition to the original indication for the treatment of moderate-to-severe dementia of the Alzheimer's type in patients stabilized on memantine and donepezil. In addition, two new strengths were also approved, Namzaric™ 7mg/10mg and 21mg/10mg extended-release (ER) capsules in addition to the currently approved strengths: 14mg/10mg and 28mg/10mg ER capsules. Allergan and Adamas plan to launch the two new strengths of Namzaric™ in September of 2016.

Recommendations

The College of Pharmacy does not recommend any changes to the existing Alzheimer's medications criteria at this time.

Utilization Details of Alzheimer's Medications: Calendar Year 2015

PRODUCT UTILIZED	TOTAL CLAIMS	TOTAL MEMBERS	TOTAL COST	COST/ DAY	COST/ CLAIM
MEMANTINE PRODUCTS					
NAMENDA XR CAP 28MG	1,991	204	$564,190.42	$11.21	$283.37
NAMENDA TAB 10MG	1,991	342	$585,409.87	$11.02	$294.03
MEMANTINE TAB HCL 10MG	1,232	282	$39,015.00	$1.11	$31.67
NAMENDA TAB 5MG	220	55	$54,823.71	$9.50	$249.20
MEMANTINE TAB HCL 5MG	113	35	$3,959.85	$1.25	$35.04
NAMENDA XR CAP 14MG	112	24	$25,099.86	$11.11	$224.11
NAMENDA XR CAP 21MG	34	14	$9,859.27	$11.31	$289.98
NAMENDA XR CAP 7MG	27	15	$5,477.02	$12.01	$202.85
NAMENDA SOL 10MG/5ML	18	3	$9,211.85	$17.06	$511.77
NAMENDA XR CAP TITRATIO	1	1	$317.19	$11.33	$317.19
MEMANTINE HC SOL	1	1	$280.72	$9.36	$280.72
SUBTOTAL	**5,740**	**976**	**$1,297,644.76**	**$9.66**	**$247.27**
DONEPEZIL PRODUCTS					
DONEPEZIL TAB 10MG	1,454	249	$10,784.58	$0.22	$7.42
DONEPEZIL TAB 5MG	520	126	$3,450.22	$0.21	$6.64
DONEPEZIL TAB HCL 23MG	7	2	$1,755.08	$8.36	$250.73
SUBTOTAL	**1,981**	**377**	**$15,989.88**	**$2.93**	**$88.26**
RIVASTIGMINE PRODUCTS					
RIVASTIGMINE CAP 1.5MG	40	9	$4,681.66	$4.03	$117.04
RIVASTIGMINE CAP 3MG	40	9	$4,166.50	$3.43	$104.16
RIVASTIGMINE CAP 6MG	40	5	$5,568.69	$4.72	$139.22
EXELON DIS 9.5MG/24	37	7	$16,223.30	$14.95	$438.47
EXELON DIS 13.3/24	16	3	$7,054.37	$15.44	$440.90
EXELON DIS 4.6MG/24	15	2	$6,599.05	$15.24	$439.94
RIVASTIGMINE CAP 4.5MG	8	2	$816.05	$3.40	$102.01
RIVASTIGMINE DIS 9.5MG/24	6	2	$2,178.12	$12.10	$363.02
RIVASTIGMINE DIS 4.6MG/24	4	2	$1,648.34	$13.74	$412.09
RIVASTIGMINE DIS 13.3/24	2	1	$726.04	$12.10	$363.02
SUBTOTAL	**208**	**42**	**$49,662.12**	**$9.92**	**$291.99**
GALANTAMINE PRODUCTS					
GALANTAMINE TAB 4MG	12	1	$581.47	$1.62	$48.46
GALANTAMINE CAP 8MG ER	8	1	$259.91	$1.08	$32.49
GALANTAMINE TAB 8MG	8	1	$408.89	$1.70	$51.11
SUBTOTAL	**28**	**3**	**$1,250.27**	**$1.47**	**$44.02**
MEMANTINE/ DONEPEZIL PRODUCTS					
NAMZARIC CAP 28-10MG	4	3	$1,359.94	$11.33	$339.99
SUBTOTAL	**4**	**3**	**$1,359.94**	**$11.33**	**$339.99**
TOTAL	**7,961**	**787***	**$1,365,906.97**	**$6.11**	**$227.74**

*Total number of unduplicated members.

Costs do not reflect rebated prices or net costs.

[1] U.S. Food and Drug Administration (FDA): Orange Book: Approved Drug Products with Therapeutic Equivalence Evaluations. Available online at: http://www.accessdata.fda.gov/scripts/cder/ob/default.cfm. Last revised 07/2016. Last accessed 07/2016.
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Appendix G

Fiscal Year 2016 Annual Review of Daraprim® (Pyrimethamine)

Oklahoma Health Care Authority
August 2016

Introduction[1,2,3,4,5]

Toxoplasmosis is a disease that results from infection with the *Toxoplasma gondii* parasite, which is one of the world's most common parasites. For generally healthy individuals, symptoms of toxoplasmosis are either nonexistent or mild, consisting mainly of flu-like body aches and fever. The symptoms typically last for a few weeks and resolve with or without treatment, sometimes leaving the parasite dormant indefinitely. The infection only progresses to illness in individuals with compromised immune systems, such as Human Immunodeficiency Virus (HIV) and cancer, and in pregnant women because their immune system is unable to control the parasite. Severe toxoplasmosis can cause brain and organ damage and can result in blindness.

Daraprim® (pyrimethamine) was FDA approved in 1953; however, no generic products are available. Pyrimethamine is a folic acid antagonist that is highly selective against plasmodia and *Toxoplasma gondii.* Pyrimethamine is indicated for the treatment of toxoplasmosis when used concomitantly with a sulfonamide, as synergism exists with this combination. Pyrimethamine is the only FDA approved medication for the treatment of toxoplasmosis.

Pyrimethamine is also indicated for the treatment of acute malaria, but should not be used as monotherapy. Fast-acting schizonticides such as chloroquine or quinine are indicated and preferable for the treatment of acute malaria. However, concurrent use of pyrimethamine with a sulfonamide will initiate transmission control and suppression of susceptible strains of plasmodia. Lastly, pyrimethamine is indicated for the chemoprophylaxis of malaria due to susceptible strains of plasmodia. However, resistance to pyrimethamine is prevalent worldwide; therefore, it is not suitable as a prophylactic agent for travelers to most areas.

In August 2015, Daraprim® increased in price by more than 5,000%, from an estimated acquisition cost (EAC) of $14.31 to $792.00 per tablet. The increase in price is a result of the acquisition of Daraprim® by Turing Pharmaceuticals in August of 2015. The Drug Utilization Review (DUR) Board voted to prior authorize Daraprim® in December 2015.

Current Prior Authorization Criteria

Daraprim® (Pyrimethamine) Approval Criteria:

1. An FDA approved indication for the treatment of toxoplasmosis; or
2. An FDA approved indication for the treatment of susceptible strains of acute malaria; and
3. Member must take Daraprim® concomitantly with a sulfonamide; and
4. Approval length will be based on recommended dosing regimen specific to the member's diagnosis.

Utilization of Daraprim® (Pyrimethamine): Fiscal Year 2016

Comparison of Fiscal Years

Fiscal Year	*Total Members	Total Claims	Total Cost	Cost/ Claim	Cost/ Day	Total Units	Total Days
2015	2	8	$1,406.92	$175.87	$3.47	116	406
2016	1	3	$17,422.91	$5,807.64	$139.38	22	125
% Change	**-50.00%**	**-62.50%**	**1138.40%**	**3202.20%**	**3916.70%**	**-81.00%**	**-69.20%**
Change	**-1**	**-5**	**$16,015.99**	**$5,631.77**	**$135.91**	**-94**	**-281**

*Total number of unduplicated members.

Demographics of Members Utilizing Daraprim® (Pyrimethamine)

- Due to the small number of members utilizing Daraprim® detailed demographic information could not be provided.

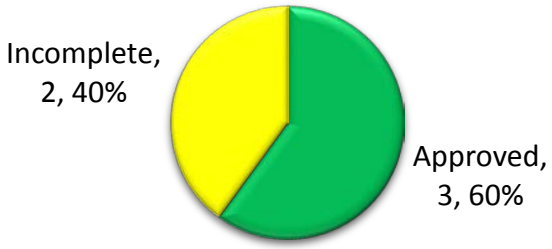
Top Prescriber Specialties of Daraprim® (Pyrimethamine) by Number of Claims

- The only prescriber specialty listed on paid claims for Daraprim® during fiscal year 2016 was an internist.

Prior Authorization of Daraprim® (Pyrimethamine)

There were 5 prior authorization requests submitted for Daraprim® during fiscal year 2016. The following chart shows the status of the submitted petitions.

Status of Petitions



Recommendations

The College of Pharmacy does not recommend any changes at this time.

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[1] Mayo Clinic: Toxoplasmosis. Available online at: http://www.mayoclinic.org/diseases-conditions/toxoplasmosis/basics/definition/con-20025859. Last revised 07/24/2015. Last accessed 07/22/2016.

[2] Infectious Disease Society of America (IDSA): Toxoplasmosis in Patients with HIV: Basic Facts. Available online at: http://www.hivma.org/uploadedFiles/HIVMA/News_Announcements/Toxo%20The%20Basics_FINAL.pdf. Last revised 09/23/2015. Last accessed 07/22/2016.

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Appendix H

Fiscal Year 2015 Annual Review of Oral Antifungal Medications

Oklahoma Health Care Authority
August 2016

Current Prior Authorization Criteria

Cresemba® (Isavuconazonium Sulfate) Approval Criteria:

1. An FDA approved diagnosis of one of the following:
    a. Invasive aspergillosis; or
    b. Invasive mucormycosis; and
2. For the treatment of invasive aspergillosis, a patient-specific, clinically significant reason why voriconazole cannot be used must be provided.

Ketoconazole Oral Tablets Approval Criteria:

Consideration for approval requires the following:

1. An FDA approved indication of systemic fungal infections with one of the following:
    a. blastomycosis; or
    b. coccidioidomycosis; or
    c. histoplasmosis; or
    d. chromomycosis; or
    e. paracoccidioidomycosis; and
2. Member is 3 years old or older; and
3. Member does not have underlying hepatic disease; and
4. Trials with other effective oral antifungal therapies, including fluconazole, itraconazole, and voriconazole, have failed to resolve infection; or
5. Other effective oral antifungal therapies are not tolerated or potential benefits outweigh the potential risks; and
6. Hepatic function tests must be done at baseline and weekly during treatment.
7. A clinical exception may apply for members with a diagnosis of Cushing's disease when other modalities are not available.

Lamisil® Oral Granules (Terbinafine) Approval Criteria:

1. An FDA approved indication of tinea capitis or onychomychosis; and
2. No improvement after at least three weeks of therapy with griseofulvin; or
3. Intolerance or hypersensitivity to griseofulvin or penicillin; and
4. Member unable to swallow tablets.

Noxafil® (Posaconazole) Approval Criteria:

1. An FDA approved diagnosis of one of the following:
    a. Prophylaxis of invasive *Aspergillus* and *Candida* infections in high-risk patients due to being severely immunocompromised, such as hematopoietic stem cell transplant (HSCT) recipients with graft-versus-host disease (GVHD) or those with hematologic malignancies with prolonged neutropenia from chemotherapy; or

b. Treatment of oropharyngeal candidiasis (OPC), including OPC refractory (rOPC) to itraconazole and/or fluconazole; or
2. Treatment of invasive mucormycosis; or
3. Other appropriate diagnoses for which Noxafil® is not FDA approved may be considered with submission of a manual prior authorization; and
4. For the diagnosis of OPC, only the oral suspension may be used.

Onmel® (Itraconazole Oral Tablets) Approval Criteria:

1. An FDA approved diagnosis of onychomychosis of the toenail caused by *Trichophyton rubrum* or *T. mentagrophytes;* and
2. A patient-specific, clinically significant reason why itraconazole 100mg oral capsules cannot be used in place of Onmel® 200mg tablets.

Oravig® (Miconazole Buccal Tablets) Approval Criteria:

1. An FDA-approved diagnosis of oropharyngeal candidiasis in adults age 18 and older; and
2. Recent trials (within the last month) of the following medications at recommended dosing and duration of therapy:
   a. Clotrimazole troches; and
   b. Nystatin suspension; and
   c. Fluconazole tablets; or
3. Contraindication(s) to all available alternative medications.

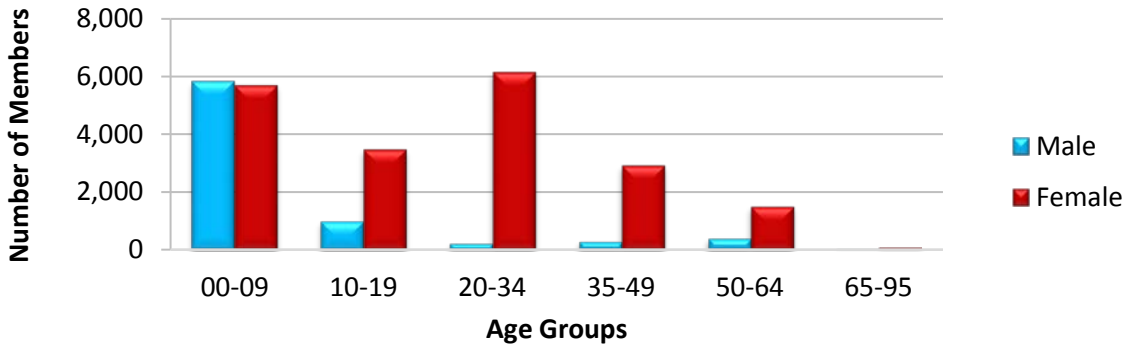
Utilization of Oral Antifungal Medications: Fiscal Year 2015

Comparison of Fiscal Years

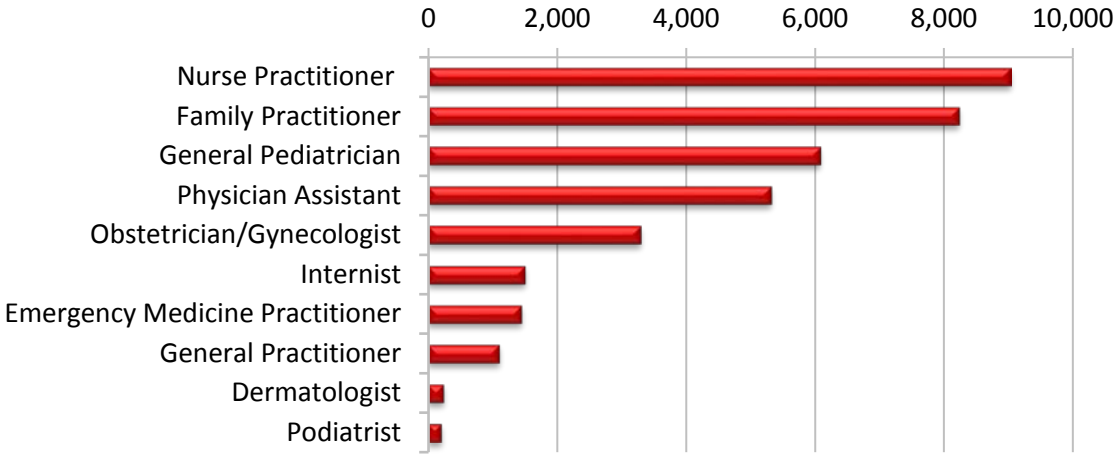
Fiscal Year	*Total Members	Total Claims	Total Cost	Cost/ Claim	Cost/ Day	Total Units	Total Days
2014	29,112	41,482	$1,313,239.33	$31.66	$2.88	2,268,388	456,347
2015	27,482	38,501	$1,150,308.44	$29.88	$2.73	2,283,030	421,889
% Change	**-5.60%**	**-7.20%**	**-12.40%**	**-5.60%**	**-5.20%**	**0.60%**	**-7.60%**
Change	**-1,630**	**-2,981**	**-$162,930.89**	**-$1.78**	**-$0.15**	**14,642**	**-34,458**

*Total number of unduplicated members.
Costs do not reflect rebated prices or net costs.

Demographics of Members Utilizing Oral Antifungal Products



Top Prescriber Specialties of Oral Antifungal Products by Number of Claims



Prior Authorization of Oral Antifungal Medications

There were 206 prior authorization requests submitted for the oral antifungal medications during fiscal year 2015. The following chart shows the status of the submitted petitions.

Status of Petitions

Market News and Updates[1,2,3,4,5,6]

Anticipated Patent Expiration(s):

- Noxafil® (posaconazole): July 2019
- Cresemba® (isavuconazonium): October 2020
- Oravig® (miconazole): September 2022
- Onmel® (itraconazole): October 2028

Safety Alert(s):

- **April 2016:** The U.S. Food and Drug Administration (FDA) issued a safety alert on the use of fluconazole in pregnant women. The FDA is evaluating the results of a Danish study that found a possible increase in the risk of miscarriage with the use of oral fluconazole. The current FDA drug label states that data available from human studies do not suggest an increased risk of abnormalities or problems during pregnancy with a single dose of fluconazole 150mg. Abnormalities at birth were reported with high doses of fluconazole (400mg-800mg/day) taken for more than a single dose. By contrast, in the Danish study

most of the doses of fluconazole were for 150mg for one or two doses. The FDA advises cautious prescribing of oral fluconazole during pregnancy, until more is understood about the study and other available data.

- Of note, the Centers for Disease Control and Prevention recommends only using topical antifungal products to treat pregnant women with vulvovaginal yeast infections, including for longer periods than usual if these infections persist or recur. Additionally, the American College of Obstetricians and Gynecologists notes that treatment of vulvovaginal candidiasis in pregnancy should consist of one of the topical imidazole therapies (e.g., clotrimazole or miconazole).

- **May 2016:** The FDA issued an update to the ketoconazole safety alert originally released July 2013. This alert was released to warn health care professionals to avoid prescribing ketoconazole oral tablets to treat skin and nail fungal infections. The FDA further warns that the use of this medication carries the risk of serious liver damage, adrenal gland problems, and harmful interactions with other medicines that outweigh its benefit in treating these conditions. The FDA approved label changes to oral ketoconazole tablets in 2013 removing the indication for treatment of skin and nail fungal infections. Despite the label changes, an FDA safety review found oral ketoconazole continues to be prescribed for these conditions. In the 18 months ending in June 2015, skin and nail fungal infections were the only diagnoses cited for the use of oral ketoconazole in an office-based physician surveys database. Additionally, since the 2013 labeling change, one patient death has been reported to the FDA due to liver failure associated with oral ketoconazole prescribed to treat a fungal infection of the nails.
    - The FDA recommends that health care professionals should use ketoconazole tablets only to treat serious fungal infections when no other antifungal therapies are available. Further, the FDA warns that ketoconazole tablets should not be used as a first-line treatment for any fungal infection because it can cause severe liver injury and adrenal gland problems, and can lead to harmful interactions with other medicines.

Product Discontinuation:

- Novartis Pharmaceuticals Corporation recently released a notification that Lamisil® (terbinafine hydrochloride) oral granules will be made available only through August or September 2016. Novartis advised that prescribing activity be monitored and that efforts be made to transition current patients to an alternative product. No reason was provided at this time regarding the announcement. However, the FDA reports discontinuation of the product is not due to manufacturing, product quality, safety, or efficacy concerns. Novartis indicated that specific trade notice information will soon be available.

Recommendations

The College of Pharmacy does not recommend any changes to the Oral Antifungal Medications category at this time.

Utilization Details of Oral Antifungal Medications: Fiscal Year 2015

PRODUCT UTILIZED	TOTAL CLAIMS	TOTAL MEMBERS	TOTAL COST	COST/ DAY	COST/ CLAIM
AMPHOTERICIN B PRODUCTS					
AMPHOTERICIN B FOR INJ	7	2	$921.29	$13.75	$131.61
AMPHOTERICIN B LIPOSOME IV MG	52	7	$146,642.02	$268.58	$2,820.04
AMPHOTERICIN B POWDER	9	7	$124.67	$0.82	$13.85
SUBTOTAL	**68**	**16**	**$147,687.98**	**$193.06**	**$2,171.88**
CLOTRIMAZOLE PRODUCTS					
CLOTRIMAZOLE LOZ 10MG	64	59	$1,871.72	$2.37	$29.25
CLOTRIMAZOLE TROC 10MG	47	29	$1,296.62	$2.98	$27.59
SUBTOTAL	**111**	**88**	**$3,168.34**	**$2.59**	**$28.54**
FLUCONAZOLE PRODUCTS					
FLUCONAZOLE SUS 10MG/ML	1,610	1,360	$31,125.51	$1.78	$19.33
FLUCONAZOLE SUS 10MG/ML	19	15	$409.62	$1.60	$21.56
FLUCONAZOLE SUS 40MG/ML	1,414	1,205	$42,873.97	$2.69	$30.32
FLUCONAZOLE SUS 40MG/ML	1	1	$300.23	$100.08	$300.23
FLUCONAZOLE IN DEXTROSE INJ 400	4	3	$143.63	$4.95	$35.91
FLUCONAZOLE IN NACL 0.9% INJ 400	9	5	$274.57	$4.43	$30.51
FLUCONAZOLE TAB 100 MG	1,901	1,457	$34,953.97	$1.78	$18.39
FLUCONAZOLE TAB 100 MG	1	1	$7.11	$3.56	$7.11
FLUCONAZOLE TAB 150 MG	14,654	10,574	$99,896.14	$1.83	$6.82
FLUCONAZOLE TAB 150 MG	5	2	$49.74	$1.04	$9.95
FLUCONAZOLE TAB 200 MG	2,384	1,841	$53,574.47	$2.31	$22.47
FLUCONAZOLE TAB 50 MG	26	24	$280.22	$1.22	$10.78
SUBTOTAL	**22,028**	**16,488**	**$263,889.18**	**$2.01**	**$11.98**
FLUCYTOSINE PRODUCTS					
FLUCYTOSINE CAP 500 MG	1	1	$2,048.27	$146.31	$2,048.27
SUBTOTAL	**1**	**1**	**$2,048.27**	**$146.31**	**$2,048.27**
GRISEOFULVIN PRODUCTS					
GRISEOFULVIN MIC SUS 125/5	2,106	1,661	$111,086.37	$2.08	$52.75
GRISEOFULVIN MICRO 500MG	377	298	$76,720.68	$6.83	$203.50
GRISEOFULVIN MICRO 500MG MG	15	14	$2,517.47	$6.17	$167.83
GRISEOFULVIN ULTRA 125MG	44	34	$10,055.84	$8.46	$228.54
GRISEOFULVIN ULTRA 125MG	16	13	$3,181.11	$7.82	$198.82
GRISEOFULVIN ULTRA 250MG	273	212	$67,585.50	$8.58	$247.57
GRISEOFULVIN ULTRA 250MG	42	34	$8,815.59	$7.75	$209.90
SUBTOTAL	**2,873**	**2,266**	**$279,962.56**	**$3.71**	**$97.45**
ITRACONAZOLE PRODUCTS					
ITRACONAZOLE CAP 100 MG	251	123	$81,609.97	$13.40	$325.14
ITRACONAZOLE ORAL SOL 10MG/	41	35	$14,331.48	$15.59	$349.55
SUBTOTAL	**292**	**158**	**$95,941.45**	**$13.69**	**$328.57**
KETOCONAZOLE PRODUCTS					
KETOCONAZOLE TAB 200 MG	5	3	$76.47	$0.57	$15.29

PRODUCT UTILIZED	TOTAL CLAIMS	TOTAL MEMBERS	TOTAL COST	COST/ DAY	COST/ CLAIM
SUBTOTAL	**5**	**3**	**$76.47**	**$0.57**	**$15.29**
MICONAZOLE PRODUCTS					
MICONAZOLE POWDER	3	3	$108.23	$1.20	$36.08
SUBTOTAL	**3**	**3**	**$108.23**	**$1.20**	**$36.08**
NYSTATIN PRODUCTS					
NYSTATIN SUSP 100000 U	10,916	9,012	$160,365.88	$1.25	$14.69
NYSTATIN TAB 500000 UNIT	86	32	$3,890.75	$1.82	$45.24
SUBTOTAL	**11,002**	**9,044**	**$164,256.63**	**$1.26**	**$14.93**
POSACONAZOLE PRODUCTS					
POSACONAZOLE SUSP 40 MG	12	3	$14,883.52	$48.01	$1,240.29
POSACONAZOLE TAB 100 MG	17	6	$96,267.20	$197.27	$5,662.78
SUBTOTAL	**29**	**9**	**$111,150.72**	**$139.29**	**$3,832.78**
TERBINAFINE PRODUCTS					
TERBINAFINE GRAN 125 MG	8	7	$4,288.70	$16.31	$536.09
TERBINAFINE GRAN 187.5 MG	3	2	$1,881.42	$19.20	$627.14
TERBINAFINE TAB 250 MG	2,029	1,422	$15,246.78	$0.21	$7.51
SUBTOTAL	**2,040**	**1,431**	**$21,416.90**	**$0.29**	**$10.50**
VORICONAZOLE PRODUCTS					
VORICONAZOLE INJ 200 MG	2	1	$2,528.14	$126.41	$1,264.07
VORICONAZOLE SUS 40MG MG/ML	2	1	$2,318.88	$105.40	$1,159.44
VORICONAZOLE TAB 200 MG	41	15	$52,560.76	$48.13	$1,281.97
VORICONAZOLE TAB 50 MG	4	2	$3,193.93	$30.42	$798.48
SUBTOTAL	**49**	**19**	**$60,601.71**	**$48.91**	**$4,503.96**
TOTAL	**38,501**	**27,482***	**$1,150,308.44**	**$2.73**	**$29.88**

*Total number of unduplicated members.
Costs do not reflect rebated prices or net costs.

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[1] U.S. Food and Drug Administration (FDA): Orange Book: Approved Drug Products with Therapeutic Equivalence Evaluations. Available online at: http://www.accessdata.fda.gov/scripts/cder/ob/default.cfm. Last revised 04/2016. Last accessed 06/06/2016.

[2] U.S. Food and Drug Administration (FDA): Safety: Fluconazole (Diflucan®): Drug Safety Communication - FDA Evaluating Study Examining Use of Oral Fluconazole (Diflucan®) in Pregnancy. Available online at: http://www.fda.gov/Safety/MedWatch/SafetyInformation/SafetyAlertsforHumanMedicalProducts/ucm497656.htm?source=govdelivery&utm_medium=email&utm_source=govdelivery. Issued 04/26/2016. Last accessed 07/26/2016.

[3] The American Congress of Obstetricians and Gynecologist. FDA Releases Safety Alert on Fluconazole (Diflucan®) Use in Pregnancy. Available online at: http://www.acog.org/About-ACOG/Announcements/FDA-Releases-Safety-Alert-on-Fluconazole-Diflucan-Use-in-Pregnancy. Issued 04/2016. Last accessed 07/26/2016.

[4] U.S. Food and Drug Administration (FDA): Safety: FDA Drug Safety Communication: FDA Warns that Prescribing of Nizoral (ketoconazole) Oral Tablets for Unapproved Uses Including Skin and Nail Infections Continues; Linked to Patient Death. Available online at: http://www.fda.gov/Drugs/DrugSafety/ucm500597.htm. Issued 06/15/2016. Last accessed 07/26/2016.

[5] Novartis Pharmaceutical Corporation via e-Pharm/alert 2016. Important Information For You And Your Patients: Lamisil® (terbinafine hydrochloride) Oral Granules. Last accessed 07/25/2016.

[6] U.S. Food and Drug Administration (FDA): FDA Drug Shortages: Current and Resolved Drug Shortages and Discontinuations Reported to FDA. Available online at: http://www.accessdata.fda.gov/scripts/drugshortages/dsp_ActiveIngredientDetails.cfm?AI=Terbinafine+(Lamisil)+Oral+Granules&st=d&tab=tabs-2. Issued 05/24/2016. Last accessed 07/26/2016.

Appendix I

Fiscal Year 2015 Annual Review of Nasal Allergy Medications and 30-Day Notice to Prior Authorize Nasarel® (Flunisolide)

Oklahoma Health Care Authority
August 2016

Introduction[1,2]

The medications in the Nasal Allergy Product Based Prior Authorization (PBPA) category have experienced a number of changes since October 2013, beginning with the U.S. Food and Drug Administration (FDA) approval of over-the-counter (OTC) Nasacort® (triamcinolone acetonide). This approval ultimately led to the removal of Nasacort® from the Nasal Allergy PBPA. Since 2014, a total of four nasal allergy products were granted generic product approval by the FDA. Additionally, in July 2014, Flonase® (fluticasone), and in March 2015, Rhinocort® Allergy (budesonide), were granted OTC approval. Costs for Flonase® (fluticasone) have continued to decline since its generic and OTC approval. These changes will undoubtedly impact the current and future costs of these medications.

Current Prior Authorization Criteria

Nasal Allergy Medications*		
Tier-1	**Tier-2**	**Tier-3**
flunisolide (Nasalide®, Nasarel®)	beclomethasone (Beconase® AQ)	azelastine (Astelin®, Astepro®)
fluticasone (Flonase®)		azelastine/fluticasone (Dymista®)
		beclomethasone (Qnasl®)
		budesonide (Rhinocort AQ®)
		ciclesonide (Omnaris®, Zetonna)
		fluticasone (Veramyst®)
		mometasone (Nasonex®)
		olopatadine (Patanase®)

*Tier structure based on supplemental rebate participation and/or state maximum allowable cost (SMAC).

Nasal Allergy Medications Tier-2 Approval Criteria:

1. Failure with all Tier-1 medications defined as no beneficial response after at least three weeks use at the maximum recommended dose; or
2. Documented adverse effect or contraindication to all Tier-1 medications.
3. No grandfathering of Tier-2 or Tier-3 products will be allowed for this category.
4. For 2 to 4 year old members, the age-appropriate, lower-tiered generic products must be tried prior to the approval of higher tiered products.
5. Approvals will be for the duration of three months, except for members with chronic diseases such as asthma or chronic obstructive pulmonary disease (COPD), in which case authorizations will be for the duration of one year.

Nasal Allergy Medications Tier-3 Approval Criteria:

1. All Tier-2 criteria must be met; and
2. Failure with all available Tier-2 products defined as no beneficial response after at least three weeks use at the maximum recommended dose; or
3. Documented adverse effect or contraindication to all Tier-2 medications.
4. No grandfathering of Tier-2 or Tier-3 products will be allowed for this category.
5. For 2 to 4 year old members, the age-appropriate, lower-tiered generic products must be tried prior to the approval of higher tiered products.
6. Approvals will be for the duration of three months, except for members with chronic diseases such as asthma or COPD, in which case authorizations will be for the duration of one year.

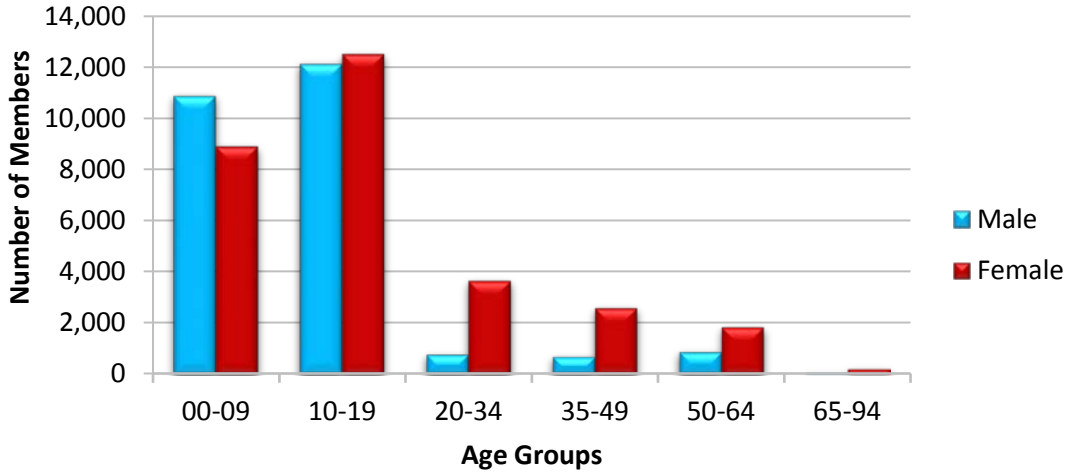
Utilization of Nasal Allergy Medications: Fiscal Year 2015

Comparison of Fiscal Years

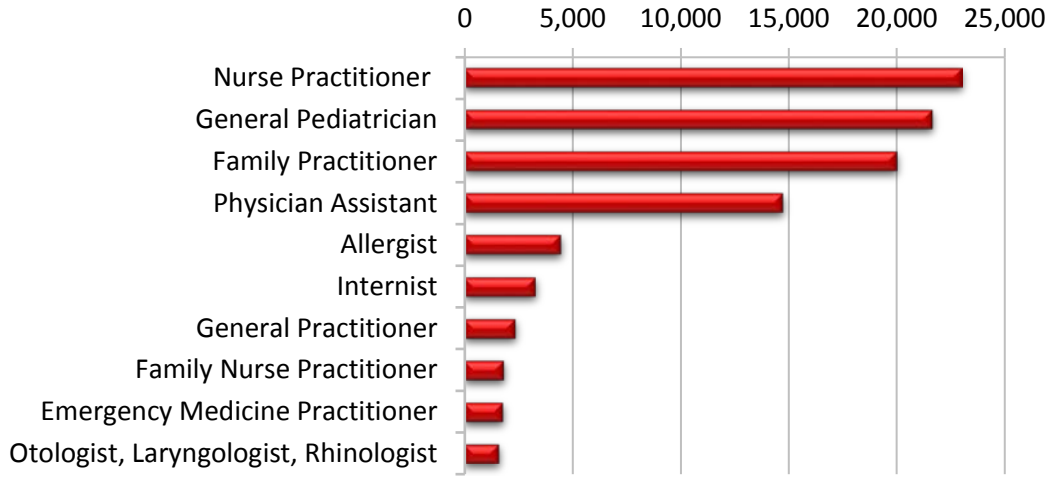
Fiscal Year	*Total Members	Total Claims	Total Cost	Cost/ Claim	Cost/ Day	Total Units	Total Days
2014	53,539	96,122	$1,937,375.88	$20.16	$0.60	1,552,045	3,203,337
2015	56,340	104,303	$1,620,020.61	$15.53	$0.45	1,682,565	3,567,299
% Change	**5.20%**	**8.50%**	**-16.40%**	**-23.00%**	**-25.00%**	**8.40%**	**11.40%**
Change	**2,801**	**8,181**	**-$317,355.27**	**-$4.63**	**-$0.15**	**130,520**	**363,962**

*Total number of unduplicated members.
Costs do not reflect rebated prices or net costs.

Demographics of Members Utilizing Nasal Allergy Medications

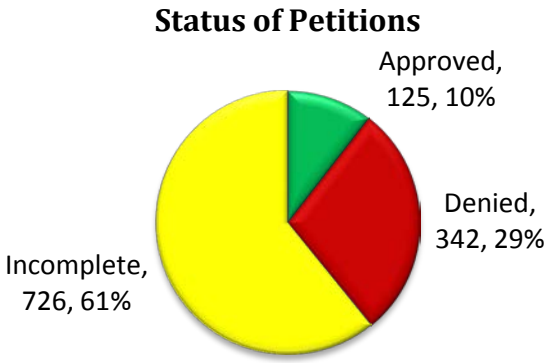


Top Prescriber Specialties of Nasal Allergy Medications by Number of Claims



Prior Authorization of Nasal Allergy Medications

There were 1,193 prior authorization requests submitted for the Nasal Allergy PBPA category during fiscal year 2015. Computer edits are in place to detect Tier-1 medications in a member's recent claims history and generate automated prior authorizations where possible. The following chart shows the status of the submitted petitions.



Market News and Updates[1,2,3,4]

Anticipated Patent Expiration(s):

- Dymista® (azelastine/Fluticasone): February 2026
- Qnasl® (beclomethasone): January 2027
- Omnaris® (ciclesonide): February 2028
- Zetonna® (ciclesonide): February 2028
- Veramyst® (fluticasone): October 2028

New Generic Approval(s):

- **May 2014:** The U.S. Food and Drug Administration (FDA) approved generic versions of Rhinocort® Aqua (budesonide) nasal spray and Astepro® (azelastine) nasal spray. Astelin® (azelastine) is also available as a generic.

- **October 2014:** The FDA approved a generic version of Patanase® (olopatadine) nasal spray.
- **March 2016:** The FDA approved a generic version of Nasonex® (mometasone) nasal spray.

FDA Update(s):

- **March 2015:** The FDA approved Rhinocort® Allergy (budesonide) nasal spray for over-the-counter (OTC) treatment of nasal allergy symptoms in patients six years of age and older. The prescription product, Rhinocort Aqua®, is approved for the treatment of nasal symptoms of seasonal or perennial allergic rhinitis in adults and children six years of age and older. The OTC approval of Rhinocort® Allergy is considered a full Rx to OTC switch by the FDA, as shown by the indications above. That is, all the original prescription indications were kept for the OTC approval.

Guideline Update(s):

- **February 2015:** New clinical practice guidelines for the treatment of allergic rhinitis (AR) were published in *Otolaryngology-Head and Neck Surgery* in February 2015. The guidelines suggest that clinicians should treat AR with intranasal steroids when patients' symptoms impair their quality of life, and they also suggest that clinicians should recommend second-generation oral antihistamines for patients complaining of sneezing and itching.

Recommendations

The College of Pharmacy recommends the following changes to the Nasal Allergy Product Based Prior Authorization (PBPA) category:

1. Move Astelin® (azelastine) and Qnasl® 80mcg (beclomethasone) from Tier-3 to Tier-2 based on state maximum allowable cost (SMAC) and net costs after rebates.
2. Move flunisolide (Nasarel®) from Tier-1 to Tier-3 based on increases in SMAC.
3. Move beclomethasone (Beconsase® AQ) from Tier-2 to Tier-1 based on net costs after rebates.
4. Initiate a prescriber/pharmacy mailing or fax to inform providers of Nasal Allergy PBPA category changes.

Nasal Allergy Medications*		
Tier-1	**Tier-2**	**Tier-3**
beclomethasone (Beconase® AQ)	**azelastine (Astelin®)**	azelastine (Astepro®)
fluticasone (Flonase®)	**beclomethasone (Qnasl® 80mcg)**	azelastine/fluticasone (Dymista®)
		beclomethasone (Qnasl®40mcg)
		budesonide (Rhinocort AQ®)
		ciclesonide (Omnaris®, Zetonna®)
		flunisolide (Nasalide®, Nasarel®)
		fluticasone (Veramyst®)
		mometasone (Nasonex®)
		olopatadine (Patanase®)

*Tier structure based on supplemental rebate participation and/or state maximum allowable cost (SMAC).

Utilization Details of Nasal Allergy Medications: Fiscal Year 2015

PRODUCT UTILIZED	TOTAL CLAIMS	TOTAL MEMBERS	TOTAL COST	COST/ DAY	COST/ CLAIM	% COST
TIER-1 UTILIZATION						
FLUTICASONE SPR 50MCG	99,000	54,144	$1,121,824.45	$0.33	$11.33	69.25%
TRIAMCINOLON AER 55MCG	3,699	2,246	$362,464.69	$2.79	$97.99	22.37%
FLUNISOLIDE SPR 0.025%	1,164	551	$61,790.60	$1.88	$53.08	3.81%
FLUNISOLIDE SPR 29MCG	6	2	$156.78	$0.87	$26.13	0.01%
NASACORT AQ AER 55MCG/AC	8	6	$985.28	$3.72	$123.16	0.06%
TIER-1 SUBTOTAL	**103,877**	**56,949**	**$1,547,221.80**	**$0.44**	**$14.89**	**95.50%**
TIER-2 UTILIZATION						
BECONASE AQ SUS 0.042%	35	22	$7,152.39	$5.68	$204.35	0.44%
TIER-2 SUBTOTAL	**35**	**22**	**$7,152.39**	**$5.68**	**$204.35**	**0.44%**
TIER-3 UTILIZATION						
VERAMYST SPR 27.5MCG	139	19	$20,483.74	$4.88	$147.37	1.26%
PATANASE SPR 0.6%	59	21	$14,462.80	$7.52	$245.13	0.89%
NASONEX SPR 50MCG/AC	55	12	$10,444.25	$6.33	$189.90	0.64%
DYMISTA SPR 137-50	29	7	$4,850.94	$5.58	$167.27	0.30%
OLOPATADINE SPR 0.6%	28	10	$5,231.33	$5.28	$186.83	0.32%
QNASL AER 80MCG	25	5	$3,491.44	$4.66	$139.66	0.22%
BUDESONIDE SUS 32MCG	17	14	$2,126.42	$3.73	$125.08	0.13%
AZELASTINE SPR 0.15%	11	5	$1,192.38	$3.22	$108.40	0.07%
AZELASTINE SPR 0.1%	11	7	$418.04	$1.27	$38.00	0.03%
OMNARIS SPR	9	1	$1,594.01	$5.90	$177.11	0.10%
ZETONNA AER 37MCG	6	1	$1,056.00	$5.87	$176.00	0.07%
RHINOCORT SUS AQUA	1	1	$160.67	$5.36	$160.67	0.01%
ASTEPRO SPR 0.15%	1	1	$134.40	$1.49	$134.40	0.01%
TIER-3 SUBTOTAL	**391**	**104**	**$65,646.42**	**$5.37**	**$167.89**	**4.05%**
GRAND TOTAL	**104,303**	**56,340***	**$1,620,020.61**	**$0.45**	**$15.53**	**100%**

*Total number of unduplicated members.
Costs do not reflect rebated prices or net costs.

[1] U.S. Food and Drug Administration (FDA): Orange Book: Approved Drug Products with Therapeutic Equivalence Evaluations. Available online at: http://www.accessdata.fda.gov/scripts/cder/ob/default.cfm. Last revised 07/2016. Last accessed 06/29/2016.
[2] Drugs@FDA: FDA Approved Drug Products. Available online at: http://www.accessdata.fda.gov/scripts/cder/drugsatfda/index.cfm?fuseaction=Reports.MonthlyApprovalsAll. Last revised 07/26/2016. Last accessed 07/26/2016.
[3] Henderson D. New Guidelines for Allergic Rhinitis Released. *Medscape*. Available online at: http://www.medscape.com/viewarticle/839130. Issued 02/03/2015. Last accessed 06/29/2016.
[4] Mahoney KM. The ABC's of OTC's: Little Known Facts About Over-the-Counter Drugs. Available online at: http://www.fda.gov/downloads/drugs/newsevents/ucm493622.pdf. Last accessed 07/26/2016.

Appendix J

FDA & DEA Updates (additional information can be found at http://www.fda.gov/Drugs/default.htm)

FDA NEWS RELEASE

For Immediate Release: July 8th, 2016

FDA approves Differin Gel 0.1% for over-the-counter use to treat acne

The U.S. Food and Drug Administration approved Differin Gel 0.1% (adapalene), a once-daily topical gel for the over-the-counter (OTC) treatment of acne. Differin Gel 0.1% is approved for use in people 12 years of age and older.

Differin Gel 0.1% is the first in a class of drugs known as retinoids to be made available OTC for the treatment of acne, and contains the first new active ingredient for acne treatment for OTC use since the 1980s. Differin Gel 0.1% was originally approved in 1996 as a prescription product for the treatment of acne vulgaris in patients 12 years of age and older.

Acne is a common skin disease that affects approximately 50 million people in the United States. Acne pimples form when hair follicles of the skin clog up. Generally, pimples form on the face, neck, back, chest and shoulders. Anyone can get acne, but it is most common in teenagers and young adults. Acne can cause scarring and have adverse psychological effects. Several OTC and prescription treatment options are available for people with acne.

Women who are pregnant, planning to become pregnant, or breast-feeding should ask a doctor before use. While topical retinoid products are often prescribed as first-line therapies for acne of all levels of severity, either alone or in combination with other treatments, Differin Gel 0.1% is the first retinoid acne treatment to be made available OTC. While there have been no adequate and well-controlled studies of Differin Gel 0.1% in pregnant women, there is no specific evidence that Differin Gel 0.1%, when used topically as directed, causes birth defects in humans. Some other retinoid drugs have been shown to cause birth defects.

Differin Gel's safety and efficacy were initially established based on five clinical trials in people with mild to moderate acne. To support approval for OTC marketing, the data accrued from 1996-2016 on post-marketing safety, data from consumer studies (a label comprehension study, a self-selection study, and an actual use trial), and data from a maximal use trial were submitted.

Overall, results from the consumer studies showed that consumers can understand the information on the OTC label, appropriately select whether the product is right for them, and use the product appropriately. The maximal use trial, a study of absorption of the drug through acne-affected skin when applied daily over a large surface area (face, shoulders, upper back and chest), demonstrated that absorption is limited, thus supporting safe use of Differin Gel 0.1% by people using it OTC.

Consumers should follow the Drug Facts label and consult with their health care providers if their symptoms do not improve. The drug should be applied once daily in a thin layer on the affected areas of skin, and it is for external use only. Differin Gel 0.1% should not be used on damaged skin (for example, cuts, abrasions, eczema, or sunburn). People using Differin Gel 0.1% should avoid sunburn and avoid product contact with their eyes, lips and mouth. Differin Gel 0.1% should not be used by people who are allergic to the product. In the first few weeks of use, skin may become irritated (redness, itching, dryness, burning). Consumers should stop use and ask a doctor if irritation becomes severe, if there is no improvement in acne after three months of daily use, if symptoms of allergic reaction appear, or if they become pregnant or are planning to become pregnant while using the drug.

Differin Gel 0.1% is distributed by Galderma Laboratories, L.P., based in Fort Worth, Texas.

FDA NEWS RELEASE

For Immediate Release: July 28th, 2016

FDA approves Adlyxin to treat type 2 diabetes

The U.S. Food and Drug Administration approved Adlyxin (lixisenatide), a once-daily injection to improve glycemic control (blood sugar levels), along with diet and exercise, in adults with type 2 diabetes.

Type 2 diabetes affects more than 29 million people and accounts for more than 90 percent of diabetes cases diagnosed in the United States. Over time, high blood sugar levels can increase the risk for serious complications, including heart disease, blindness and nerve and kidney damage.

Adlyxin is a glucagon-like peptide-1 (GLP-1) receptor agonist, a hormone that helps normalize blood sugar levels. The drug's safety and effectiveness were evaluated in 10 clinical trials that enrolled 5,400 patients with type 2 diabetes. In these trials, Adlyxin was evaluated both as a standalone therapy and in combination with

other FDA-approved diabetic medications, including metformin, sulfonylureas, pioglitazone and basal insulin. Use of Adlyxin improved hemoglobin A1c levels in these trials.
In addition, more than 6,000 patients with type 2 diabetes at risk for atherosclerotic cardiovascular disease were treated with either Adlyxin or a placebo in a cardiovascular outcomes trial. Use of Adlyxin did not increase the risk of cardiovascular adverse events in these patients.
Adlyxin should not be used to treat people with type 1 diabetes or patients with increased ketones in their blood or urine (diabetic ketoacidosis).
The most common side effects associated with Adlyxin are nausea, vomiting, headache, diarrhea and dizziness. Hypoglycemia in patients treated with both Adlyxin and other antidiabetic drugs such as sulfonylurea and/or basal insulin is another common side effect. In addition, severe hypersensitivity reactions, including anaphylaxis, were reported in clinical trials of Adlyxin.
The FDA is requiring the following post-marketing studies for Adlyxin:

- Clinical studies to evaluate dosing, efficacy and safety in pediatric patients.
- A study evaluating the immunogenicity of lixisenatide.

Adlyxin is manufactured by Sanofi-Aventis U.S. LLC, of Bridgewater, New Jersey.

Safety Announcements

FDA approves a dedicated syringe to be used with Humulin R U-500 insulin

[7/8/16] The U.S. Food and Drug Administration approved a dedicated syringe for the administration of Humulin R U-500 insulin, which is now the only device approved for use with U-500 insulin vial.
Humulin R U-500 insulin vial has been available with no dedicated device for delivery since 1994. To administer the insulin, healthcare practitioners and patients had to make dose conversions to deliver the appropriate dose using a U-100 insulin syringe or a tuberculin (volumetric) syringe. Since conversions are no longer needed with this new device, the Humulin R U-500 insulin vial label will be updated to remove the dose conversion information for U-100 and tuberculin syringes.
Approved syringes for use with Humulin R U-500 insulin vials will only be available with a prescription and should be co-prescribed with U-500 insulin. Humulin R U-500 is also available in a prefilled pen device as well as a vial. For patients that do not use the pen, the vial can be used as an alternative. If patients are hospitalized or transitioning care, their dose of Humulin R U-500 should be clearly communicated to hospital staff. Patients who are prescribed Humulin R U-500 insulin should be aware of the following:

- Only use the U-500 insulin syringe with the U-500 insulin vial.
- Do not switch between types of syringes because it may increase the risk of dosing errors.
- Maintain an adequate supply of U-500 insulin syringes. Patients should not attempt to dose with another type of syringe if their supply of U-500 insulin syringes runs out, but instead call their pharmacist or healthcare professional immediately for further instruction.

Safety Announcements

FDA announces voluntary nationwide recall of oral liquid docusate sodium manufactured by PharmaTech and distributed by Rugby Laboratories

[7/16/16] U.S. Food and Drug Administration is alerting health care professionals that PharmaTech LLC, Davie, Florida, is voluntarily recalling all non-expired lots of **Diocto Liquid**, a docusate sodium solution distributed by Rugby Laboratories, Livonia, Michigan. The agency confirmed the product has been contaminated with Burkholderia cepacia, a bacteria linked to an outbreak in five states.
PharmaTech manufactures the oral liquid docusate sodium, which is distributed nationwide by Rugby with a Rugby label in one pint (473 mL) bottles.
In addition, FDA has received several adverse event reports of B. cepacia infections in patients. Some of these reports identify liquid docusate sodium products manufactured by companies other than PharmaTech. FDA and the Centers for Disease Control and Prevention continue to investigate the extent of this issue in order to identify other potentially contaminated liquid docusate sodium products.
Patient safety is our top priority. FDA joins CDC in recommending that clinicians not use any liquid docusate sodium product as a stool softener or for any other medical purpose.
FDA and CDC will provide additional information when it is available**.**
FDA encourages health care professionals and patients to report adverse events or quality problems experienced with the use of oral liquid docusate sodium products to FDA's MedWatch Adverse Event Reporting program.

Safety Announcements

FDA Drug Safety Communication: FDA updates warnings for oral and injectable fluoroquinolone antibiotics due to disabling side effects

[7-26-2016] The U.S. Food and Drug Administration (FDA) approved changes to the labels of fluoroquinolone antibacterial drugs for systemic use (i.e., taken by mouth or by injection). These medicines are associated with disabling and potentially permanent side effects of the tendons, muscles, joints, nerves, and central nervous system that can occur together in the same patient. As a result, we revised the *Boxed Warning*, FDA's strongest warning, to address these serious safety issues. We also added a new warning and updated other parts of the drug label, including the patient Medication Guide.

We have determined that fluoroquinolones should be reserved for use in patients who have no other treatment options for acute bacterial sinusitis, (ABS), acute bacterial exacerbation of chronic bronchitis (ABECB), and uncomplicated urinary tract infections (UTI) because the risk of these serious side effects generally outweighs the benefits in these patients. For some serious bacterial infections the benefits of fluoroquinolones outweigh the risks, and it is appropriate for them to remain available as a therapeutic option.

Patients must contact their health care professional immediately if they experience any serious side effects while taking your fluoroquinolone medicine. Some signs and symptoms of serious side effects include unusual joint or tendon pain, muscle weakness, a "pins and needles" tingling or pricking sensation, numbness in the arms or legs, confusion, and hallucinations. Talk with your health care professional if you have any questions or concerns.

Health care professionals should not prescribe systemic fluoroquinolones to patients who have other treatment options for acute bacterial sinusitis (ABS), acute bacterial exacerbation of chronic bronchitis (ABECB), and uncomplicated urinary tract infections (UTI) because the risks outweigh the benefits in these patients. Stop fluoroquinolone treatment immediately if a patient reports serious side effects, and switch to a non-fluoroquinolone antibacterial drug to complete the patient's treatment course.

The labels of fluoroquinolone medicines already have a *Boxed Warning* for tendinitis, tendon rupture, and worsening of myasthenia gravis. The labels also include warnings about the risks of peripheral neuropathy and central nervous system effects. Other serious risks associated with fluoroquinolones are described in the labels, such as cardiac, dermatologic, and hypersensitivity reactions. After FDA's 2013 review that led to the additional warning that peripheral neuropathy may be irreversible, FDA evaluated post-marketing reports of apparently healthy patients who experienced disabling and potentially permanent side effects involving two or more body systems after being treated with a systemic fluoroquinolone. We evaluated only reports submitted to FDA, so there are likely additional cases of which we are unaware. The side effects occurred within hours to weeks after starting the fluoroquinolone, and at the time we received the reports, the side effects had continued for an average of 14 months to as long as 9 years after stopping the medicines. Several cases reported that some side effects stopped or improved after discontinuation of the medicine; others reported the side effects worsened or continued.

We previously communicated about these safety issues associated with fluoroquinolones in May 2016. Additional communications about related safety issues associated with fluoroquinolones occurred in August 2013 (peripheral neuropathy) and July 2008 (tendinitis and tendon rupture). The safety issues described in this Drug Safety Communication were also discussed at an FDA Advisory Committee meeting in November 2015.

In addition to updating information in the *Boxed Warning*, we are also including information about these safety issues in the *Warnings and Precautions* section of the label. The *Indications and Usage* section contains new limitation-of-use statements to reserve fluoroquinolones for patients who do not have other available treatment options for acute bacterial sinusitis (ABS), acute bacterial exacerbation of chronic bronchitis (ABECB), and uncomplicated urinary tract infections (UTI). The patient Medication Guide that is required to be given to the patient with each fluoroquinolone prescription describes the safety issues associated with these medicines. We are continuing to assess safety issues with fluoroquinolones as part of FDA's usual ongoing review of drugs and will update the public if additional actions are needed.

Current Drug Shortages Index (as of August 1st, 2016):

The information provided in this section is provided voluntarily by manufacturers.

Acetohydroxamic Acid (Lithostat) Tablets	***Currently in Shortage***
Ammonium Chloride Injection	***Currently in Shortage***
Anagrelide Hydrochloride Capsules	***Currently in Shortage***
Atropine Sulfate Injection	***Currently in Shortage***
Bleomycin Sulfate for Injection	***Currently in Shortage***
Caffeine Anhydrous (125mg/mL); Sodium Benzoate (125mg/mL) Injection	***Currently in Shortage***
Calcium Chloride Injection, USP	***Currently in Shortage***
Calcium Gluconate Injection	***Currently in Shortage***
Cefepime Injection	***Currently in Shortage***
Cefotaxime Sodium (Claforan) Injection	***Currently in Shortage***
Cefotetan Disodium Injection	***Currently in Shortage***
Chloramphenicol Sodium Succinate Injection	***Currently in Shortage***
Desmopressin Acetate Injection	***Currently in Shortage***
Dexamethasone Sodium Phosphate Injection	***Currently in Shortage***
Dextrose 5% Injection Bags	***Currently in Shortage***
Dextrose Injection USP, 70%	***Currently in Shortage***
Dihydroergotamine Mesylate Injection	***Currently in Shortage***
Disopyramide Phosphate (Norpace) Capsules	***Currently in Shortage***
Doxorubicin Lyophilized Powder for Injection	***Currently in Shortage***
Epinephrine Injection	***Currently in Shortage***
Ethiodized Oil (Lipiodol) Injection	***Currently in Shortage***
Fentanyl Citrate (Sublimaze) Injection	***Currently in Shortage***
Fomepizole Injection	***Currently in Shortage***
Gemifloxacin Mesylate (Factive) Tablets	***Currently in Shortage***
Imipenem and Cilastatin for Injection, USP	***Currently in Shortage***
Indigotindisulfonate Sodium (Indigo Carmine) Injection	***Currently in Shortage***
L-Cysteine Hydrochloride Injection	***Currently in Shortage***
Leucovorin Calcium Lyophilized Powder for Injection	***Currently in Shortage***
Leuprolide Acetate Injection	***Currently in Shortage***
Lidocaine Hydrochloride (Xylocaine) Injection	***Currently in Shortage***
LifeCare PCA™ Sterile Empty Vial and Injector	***Currently in Shortage***
Liotrix (Thyrolar) Tablets	***Currently in Shortage***
Mecasermin [rDNA origin] (Increlex) Injection	***Currently in Shortage***
Methyldopate Hydrochloride Injection	***Currently in Shortage***
Methylprednisolone Sodium Succinate for Injection, USP	***Currently in Shortage***
Morphine Sulfate Injection, USP, CII, (Preservative-Free)(For PCA Use Only)	***Currently in Shortage***
Multi-Vitamin Infusion (Adult and Pediatric)	***Currently in Shortage***
Mupirocin Calcium Nasal Ointment	***Currently in Shortage***
Nimodipine (Nymalize) Oral Solution	***Currently in Shortage***
Penicillin G Benzathine (Bicillin L-A) Injection	***Currently in Shortage***
Peritoneal Dialysis Solutions	***Currently in Shortage***
Piperacillin and Tazobactam (Zosyn) Injection	***Currently in Shortage***
Potassium Chloride Injection	***Currently in Shortage***
Reserpine Tablets	***Currently in Shortage***
Sacrosidase (Sucraid) Oral Solution	***Currently in Shortage***
Sodium Acetate Injection, USP	***Currently in Shortage***
Sodium Bicarbonate Injection, USP	***Currently in Shortage***
Sodium Chloride 0.9% Injection Bags	***Currently in Shortage***
Sodium Chloride 23.4% Injection	***Currently in Shortage***
Sufentanil Citrate (Sufenta) Injection	***Currently in Shortage***

Sumatriptan (Imitrex) Nasal Spray	***Currently in Shortage***
Technetium Tc99m Succimer Injection (DMSA)	***Currently in Shortage***
Theophylline Extended Release Tablets and Capsules	***Currently in Shortage***
Tigecycline (Tygacil) Injection	***Currently in Shortage***
Tobramycin Injection	***Currently in Shortage***
Tretinoin Capsules	***Currently in Shortage***
Triamcinolone Hexacetonide Injectable Suspension (Aristospan)	***Currently in Shortage***
Trimipramine Maleate (SURMONTIL) Capsules	***Currently in Shortage***
Vancomycin Hydrochloride for Injection, USP	***Currently in Shortage***