Drug Utilization Review Board

Oklahoma Health Care Authority

4545 N. Lincoln Suite 124

Oklahoma City, Oklahoma 73105

OHCA Board Room

June 14, 2006 @ 6:00 p.m.

THE UNIVERSITY OF OKLAHOMA

THE UNIVERSITY OF OKLAHOMA

MEMORANDUM

TO: Drug Utilization Review Board Members

FROM: Shellie Gorman, Pharm.D.

SUBJECT: **Packet Contents for Board Meeting – June 14, 2006**

DATE: June 7, 2006

NOTE: **THE DUR BOARD WILL MEET AT 6:00 P.M.**

Enclosed are the following items related to the June meeting. Material is arranged in order of the Agenda.

Call to Order

Public Comment Forum

Action Item – Vote on Board Positions

Action Item – Approval of DUR Board Meeting Minutes – **See Appendix A.**

Update on DUR/MCAU Program – **See Appendix B.**

Action Item – Vote to Prior Authorize Daytrana™ – **See Appendix C.**

30 Day Notice to Prior Authorize Chantix™ – **See Appendix D.**

60 Day Notice to Prior Authorize Pediculicides – **See Appendix E.**

60 Day Notice to Prior Authorize Antiemetics – **See Appendix F.**

Review of Antibiotic Utilization – **See Appendix G.**

Follow Up on Stimulant Usage – **See Appendix H.**

Generic Adherence Review – **See Appendix I.**

New Products and Notices – **See Appendix J.**

FDA and DEA Updates – **See Appendix K.**

Future Business

Adjournment

Drug Utilization Review Board

(DUR Board)

Meeting – June 14, 2006 @ 6:00p.m.

Oklahoma Health Care Authority
4545 N. Lincoln Suite 124
Oklahoma City, Oklahoma 73105
Oklahoma Health Care Authority Board Room

AGENDA

Discussion and Action on the Following Items:

Items to be presented by Chair:

1. Call To Order

A. Roll Call – Dr. Graham

Items to be presented by Chair:

2. Public Comment Forum

A. Acknowledgment of Speakers and Agenda Item

Items to be presented by Chair:

3. Action Item – Vote on New DUR Board Chair and Vice Chair

Items to be presented by Chair:

4. Action Item – Approval of DUR Board Meeting Minutes – See Appendix A.

A. May 10, 2006 DUR Minutes – Vote
B. May 10, 2006 DUR Recommendations Memorandum

Items to be presented by Dr. Flannigan, Chair:

5. Update on DUR/MCAU Program – See Appendix B.

A. Retrospective Drug Utilization Review for February 2006
B. Retrospective Drug Utilization Review Response for December 2005
C. Medication Coverage Activity Audit for May 2006
C. Help Desk Activity Audit for May 2006

Items to be presented by Dr. Gorman, Chair:

6. Action Item – Vote to Prior Authorize Daytrana™ – See Appendix C.

A. Product Summary
B. COP Recommendations
C. Cost Comparison

Items to be presented by Dr. Browning, Chair:

7. 30 Day Notice to Prior Authorize Chantix™ – See Appendix D.

A. Product Summary
B. COP Recommendations
C. Cost Comparison
D. Monograph

Items to be presented by Dr. Patel, Dr. Gorman, Chair:

8. 60 Day Notice to Prior Authorize Pediculicides – See Appendix E.

A. Product Lists and Summaries
B. Utilization and Economic Impact
C. COP Recommendations

Items to be presented by Dr. Gorman, Dr. Chonlahan, Chair:

9. 60 Day Notice to Prior Authorize Antiemetics – See Appendix F.

A. Utilization and Cost Review
B. COP Recommendations
C. Potential Economic Impact

Items to be presented by Dr. Le, Chair:

10. Review of Antibiotic Utilization – See Appendix G.

A. Antibiotic Resistance
B. Utilization Review of Select Classes
C. COP Recommendations

Items to be presented by Dr. Moore, Chair:

11. Follow Up of Stimulant Utilization – See Appendix H.

A. High Dose Utilization Review
B. COP Recommendations

Items to be presented by Dr. Chonlahon, Chair:

12. Generic Adherence – See Appendix I.

A. Introduction and Background
B. Clinical Trial Review
C. COP Recommendations

Items to be presented by Dr. Browning, Dr. Gorman, Chair:

13. New Product Reviews and Notices – See Appendix J.

14. FDA and DEA Updates – See Appendix K.

15. Future Business

A. Antimigraine Utilization Review
B. Antipsychotic Utilization Review
C. New Product Reviews and 30 Day Notices
D. OTC Formulary
E. HIV Utilization Review
F. Annual Reviews

16. Adjournment

APPENDIX A

OKLAHOMA HEALTH CARE AUTHORITY
DRUG UTILIZATION REVIEW BOARD MEETING
MINUTES of MEETING of MAY 10, 2006

BOARD MEMBERS:	PRESENT	ABSENT
Brent Bell, D.O., D.Ph.	X	
Dorothy Gourley, D.Ph.	X	
Anetta Harrell, D.Ph.	X	
Kyle Hrdlicka, D.O.	X	
Dan McNeill, Ph.D., PA-C	X	
Clif Meece, D.Ph.	X	
James Rhymer, D.Ph	X	
Dick Robinson, D.Ph., Vice-Chair	X	
Thomas Whitsett, M.D., Chair	X	

COLLEGE of PHARMACY STAFF:	PRESENT	ABSENT
Leslie Browning, D.Ph./PA Coordinator		X
Metha Chonlahan, D.Ph./Clinical Pharmacist		X
Karen Egesdal, D.Ph./SMAC-ProDUR Coordinator/OHCA Liaison		X
Kelly Flannigan, Pharm.D../Operations Manager	X	
Shellie Gorman, Pharm.D./DUR Manager	X	
Ronald Graham, D.Ph./Pharmacy Director	X	
Chris Le, Pharm.D., Clinical Pharmacist/Coordinator		X
Carol Moore, Pharm.D., Clinical Pharmacist		X
Neeraj Patel, Pharm.D., Clinical Pharmacist		X
Lester A. Reinke, Ph.D.	X	
Visiting Pharmacy Students: (none)		

OKLAHOMA HEALTH CARE AUTHORITY STAFF:	PRESENT	ABSENT
Alex Easton, M.B.A./ Pharmacy Operations Manager		X
Mike Fogarty, J.D., M.S.W./Chief Executive Officer	X	
Lynn Mitchell, M.D., M.P.H/Director of Medical Services	X	
Nancy Nesser, Pharm.D., J.D./Pharmacy Director	X	
Howard Pallotta, J.D./Director of Legal Services		X
Lynn Rambo-Jones, J.D./Deputy General Counsel III	X	
Rodney Ramsey/Drug Reference Coordinator	X	
Jill Ratterman, D.Ph./Pharmacy Specialist		X

OTHERS PRESENT:

Rob Halter, Par Pharma — Donna Erwin, Bristol-Myers Squibb — Jim Delatte, Takeda
John Muchmore, M.D., Integris Health

PRESENT FOR PUBLIC COMMENT:

Nash Halem, Takeda — Agenda Item No. 5

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

1A: Roll Call

Dr. Whitsett called the meeting to order. Roll call by Dr. Graham established the presence of a quorum.

ACTION: NONE REQUIRED.

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

2A: Acknowledgement of Speaker(s) and Agenda Item(s)

Dr. Whitsett acknowledged speaker for Agenda Item 5.

ACTION: NONE REQUIRED.

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

3A: April 12, 2006 DUR Minutes

Dr. McNeill moved to approve minutes as submitted; seconded by Dr. Robinson.

ACTION: MOTION CARRIED.

AGENDA ITEM NO. 4: **UPDATE ON DUR/MCAU PROGRAM**

4A: Retrospective Drug Utilization Review Report: January 2006

4B: Retrospective Drug Utilization Review Response: November 2005

4C: Medication Coverage Activity Report: April 2006

4D: Help Desk Activity Report: April 2006

Reports included in agenda packet; presented by Dr. Flannigan.

ACTION: NONE REQUIRED.

AGENDA ITEM NO. 5: **VOTE TO PRIOR AUTHORIZE AMITIZA™**

For Public Comment, Nash Halem: *Yes. Actually I don't have a presentation. I just wanted to come introduce myself. I work for the medical scientific affairs and I just want to thank you for supporting (unintelligible) working with Dr. Graham's office (unintelligible) and if during the discussion you have any questions I'd be happy to answer them.*

Materials included in agenda packet; presented by Dr. Gorman.

Dr. McNeill moved to approve as submitted; seconded by Dr. Meece.

ACTION: MOTION CARRIED.

AGENDA ITEM NO. 6: **30-DAY NOTICE TO PRIOR AUTHORIZE DAYTRANA™**

Materials included in agenda packet; presented by Dr. Gorman.

ACTION: NONE REQUIRED.

AGENDA ITEM NO. 7: **FISCAL YEAR 2005 UTILIZATION REVIEW**

Materials included in agenda packet; presented by Dr. Gorman.

ACTION: NONE REQUIRED.

AGENDA ITEM NO. 8: **FDA & DEA UPDATES**

Materials included in agenda packet; presented by Dr. Graham.

ACTION: NONE REQUIRED.

AGENDA ITEM NO. 9: **FUTURE BUSINESS**

9A: **Triptan Utilization Review**
9B: **Antiinfectives Utilization Review**
9C: **Antipsychotic Utilization Review**
9D: **Stimulant Follow-Up**
9E: **HIV Utilization Review**
9F: **OTC Formulary**
9G: **New Product Reviews and 30-Day Notices**

Materials included in agenda packet; submitted by Dr. Graham.

ACTION: NONE REQUIRED.

AGENDA ITEM NO. 10: **ADJOURNMENT TO EXECUTIVE SESSION**

The meeting was adjourned to Executive Session.

The University of Oklahoma College of Pharmacy

Pharmacy Management Consultants
ORI W-4403; PO Box 26901
Oklahoma City, OK 73190
(405)-271-9039

Memorandum

Date: May 12, 2006

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

From: Shellie Gorman, Pharm.D.
Drug Utilization Review Manager
Pharmacy Management Consultants

Subject: DUR Board Recommendations from Meeting of May 10, 2006.

Recommendation 1: Vote to Prior Authorize Amitiza™

MOTION CARRIED by unanimous approval.

The College of Pharmacy recommends prior authorization of lubiprostone with the following approval criteria

1. Chronic Idiopathic Constipation in males and females 18 years of age and older who meet the following criteria:
    a. Have documentation that constipating therapies for other disease states have been discontinued (excluding opioid pain medications for cancer patients).
    b. Documented and updated Colon Screening. (>50 years of age)
2. Hydration and treatment attempts with a minimum of three alternate products must be documented.
3. Initial approval for 12 weeks of therapy. An additional year approval may be granted if physician documents client is responding well to treatment.
4. Quantity limit of 100 units for a 50 day supply.

APPENDIX B

Retrospective Drug Utilization Review Report

Claims Reviewed for February 2006

Module	Drug Interaction	Duplication of Therapy	Drug-Disease Precautions	Dosing & Duration
Total # of messages returned by system when no limits were applied	41,137	56,657	661,109	31,801
Limits which were applied	Established, Major, Males and Females, 0-21 years	Narcotics, Females, age 34-37 years	Contraindicated, Female Age 0-15 years, Pregnancy	High dose, Carbamates, Tingabine, Hydantoins, Oxazolidinedions, Succinimides, Valproic Acid, Misc. Anticonvulsants. Males and Females, Age 0-15
Total # of messages after limits were applied	21	270	83	73
Total # of members reviewed after limits were applied	29	185	58	72

LETTERS			
Prescribers		**Pharmacies**	
Sent	**Responded**	**Sent**	**Responded**
203		160	

Retrospective Drug Utilization Review Report

Claims Reviewed for December 2005

Module	Drug Interaction	Duplication of Therapy	Drug-Disease Precautions	Dosing & Duration
Limits which were applied	Established, Major, Females Age 53-65	Narcotics, Females, Age 31-33	Contraindicated, Age, Age 51-65, Asthma	High dose, Centrally acting SMR, Males and Females, Age 22-40

Response Summary (Physician)
Letters Sent: 181
Response Forms Returned: 125

The response forms returned yielded the following results:

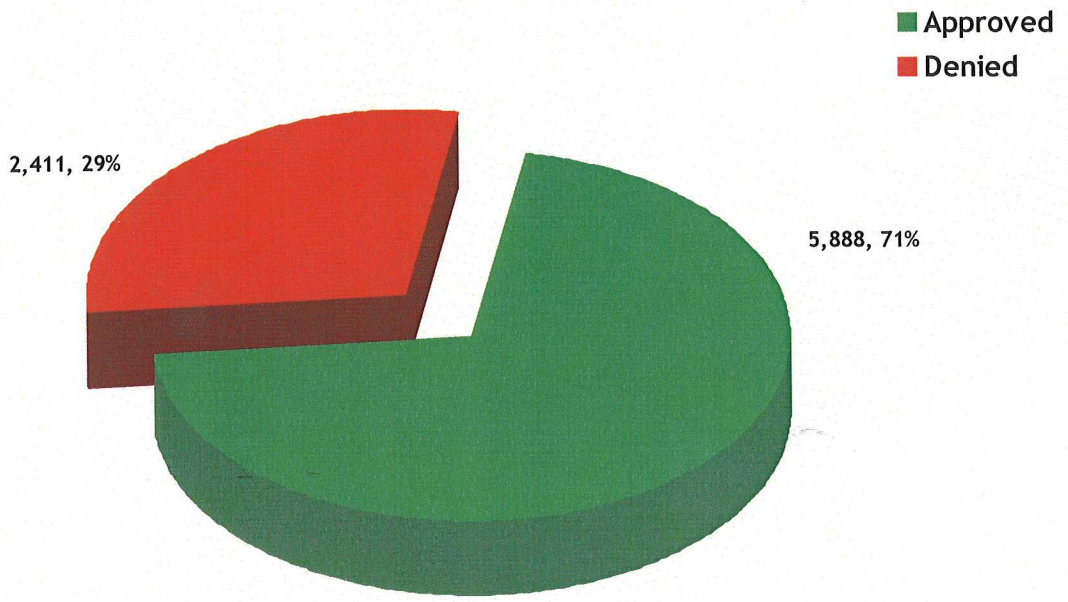
18 (14%)	*Record Error—Not my patient.*
14 (11%)	*No longer my patient.*
5 (4%)	*Medication has been changed prior to date of review letter.*
38 (30%)	*I was unaware of this situation & will consider making appropriate changes in therapy.*
37 (30%)	*I am aware of this situation and will plan to continue monitoring therapy.*
13 (10%)	*Other*

Response Summary (Pharmacy)
Letters Sent: 150
Response Forms Returned: 119

The response forms returned yielded the following results:

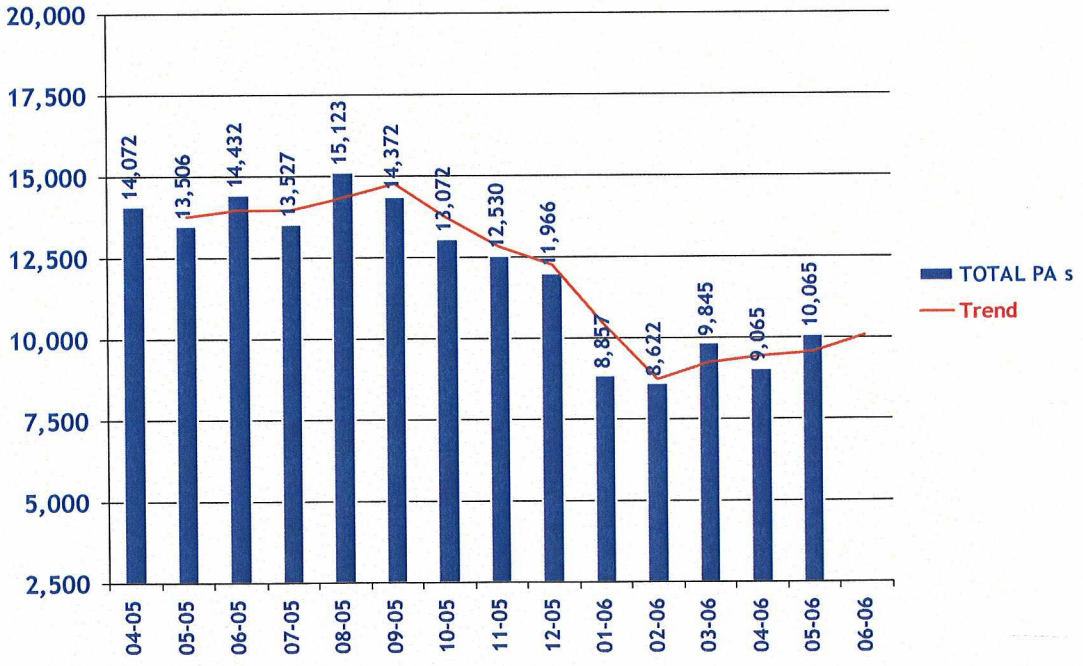
2 (2%)	*Record Error—Not my patient.*
15 (13%)	*No longer my patient.*
5 (4%)	*Medication has been changed prior to date of review letter.*
30 (25%)	*I was unaware of this situation & will consider making appropriate changes in therapy.*
51 (43%)	*I am aware of this situation and will plan to continue monitoring therapy.*
16 (13%)	*Other*

PRIOR AUTHORIZATION ACTIVITY REPORT
May 2006



PHARMACY Management Consultants

PRIOR AUTHORIZATION REPORT
May 2005 - May 2006



PHARMACY Management Consultants

Activity Audit for

May 01 2006 Through May 31 2006

Date	Antiulcers app.	Antiulcers den.	Anxiolytic/ Hypnotics app.	Anxiolytic/ Hypnotics den.	Antihistamine app.	Antihistamine den.	Growth Hormones app.	Growth Hormones den.	Stimulant app.	Stimulant den.	Nsaids app.	Nsaids den.	ACE Inhibitors app.	ACE Inhibitors den.	HTN Combos app.	HTN Combos den.	Calcium Channel Blockers app.	Calcium Channel Blockers den.	Plavix app.	Plavix den.	ARB app.	ARB den.	Anti-depressants app.	Anti-depressants den.	Daily Total
App.	16		2918		1127		31		672		35		15		2		16		157		2		121		
Den.		9		358		783		1		209		127		19		0		78		20		4		168	
Average Length of Approvals in Days	44		93		97		166		192		250		258		4		257		356		108		201		

Changes to existing PA's	930
Total (Previous Year)	13506

* Denial Codes	
762 = Lack of clinical information	30.98%
763 = Medication not eligible	1.45%
764 = Existing PA	1.70%
772 = Not qualified for requested Tier	3.61%
773 = Requested override not approved	12.65%

SUPER PA's	
Admitted to Nursing Home	23
Early Refill Attempts	25420
Dosing Change	356
High Dose	8
Lost/Broken Rx	97
Stolen	7
Other	122
Wrong D.S. on Previous Rx	8
Quantity vs. Days Supply	808
Brand	78
-- Approved	32
-- Denied	26

Monthly Totals

	Number	Percent of Total
Approved	5884	58.46%
Additional PA's	0	0.00%
Emergency PA's	4	0.04%
Duplicates	459	4.56%
Incompletes	1307	12.99%
Denied *	2411	23.95%
Total	10065	100.00%

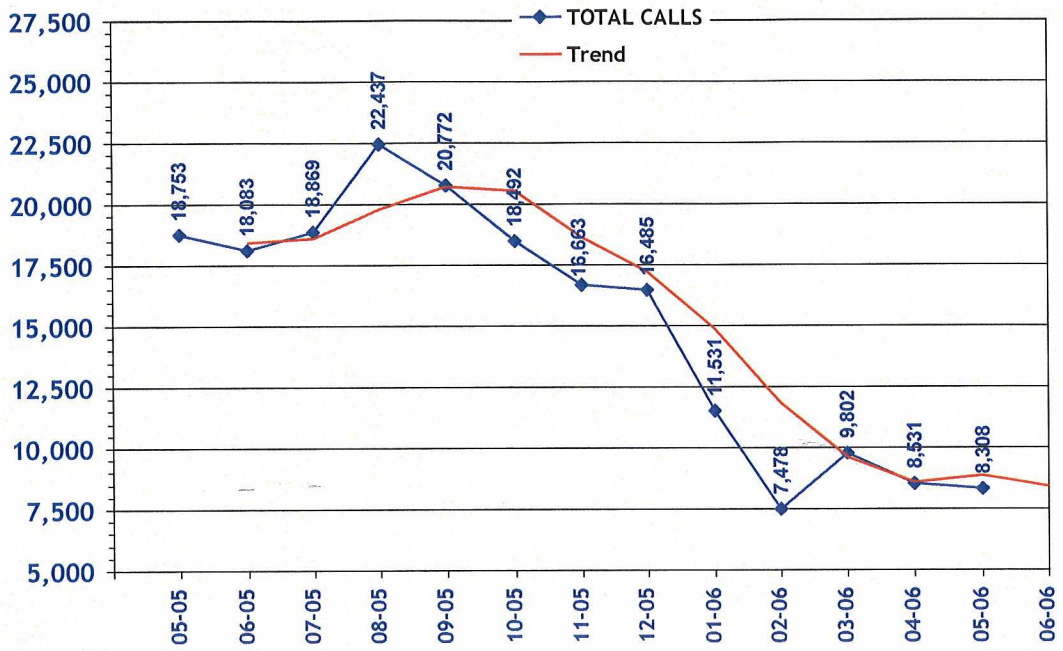
Daily Average of 457.50 for 22 Days

Changes to existing PA's: Backdates, changing units, end dates, etc.

Additional PA's: Done by the help desk (doctor letter responses, PA ran for the wrong person)

Incompletes: Missing necessary information (NDC, SIG, Diagnosis, etc.)

CALL VOLUME MONTHLY REPORT
May 2005 - May 2006



PHARMACY Management consultants

APPENDIX C

Vote to Prior Authorize Daytrana™ (methylphenidate transdermal system)

Oklahoma Health Care Authority
June 2006

Manufacturer Shire Pharmaceuticals Ireland Limited
Classification FDA classification: methylphenidate transdermal system
Status: prescription only (Schedule II)

Summary

Daytrana™ is a methylphenidate-containing transdermal delivery system, designed to treat Attention Deficit Hyperactivity Disorder. It is available in systems to deliver 10mg, 15mg, 20mg, or 30mg over a 9 hour period.

Clinical Trials

The efficacy of Daytrana™ was established in two randomized double-blind, placebo-controlled trials in children 6 to 12 years of age. In both trials the patch was worn for 9 hours. The first trial showed efficacy from 2 hours through 12 hours. The second trial indicated statistical superiority to placebo and generally indicated no additional effectiveness was accomplished by increasing the dose from 20 mg to 30 mg.

Recommendations

The College of Pharmacy recommends including Daytrana™ as a Tier-2 medication in the ADHD Product Based Prior Authorization program. A quantity limit of 30 patches for 30 days is also recommended.

Tier	*Medications*	Age Groups	PA Requirements
First	Ritalin, Ritalin SR, Adderall, Adderall XR Dexedrine, Dexedrine Spansule, Concerta*, Focalin*, Focalin XR*,	Children up to 21 years old	No PA required
		Adults	PA required – Diagnosis of ADHD or narcolepsy.
Second**	Ritalin LA, Metadate CD, Strattera	Children and Adults	***PA Required – Requires failed trial with <u>one</u> first category drug. Diagnosis of ADHD or narcolepsy.***
Third	Desoxyn and Cylert	Children and Adults	***PA Required – Requires failed trial with <u>two</u> first category drugs. Diagnosis of ADHD or narcolepsy.***

*Tier 1 due to supplemental rebate agreement. **Daytrana™ would be included in this tier.

Cost Comparison

	EAC/SMAC	Max FDA Daily Dose	Monthly Cost** (30 day supply)
Daytrana™ 30 mg	$ 4.38 / each*	1 patch daily	$ 131.40
Concerta® 54 mg	$ 3.53 / tab	72 mg daily	$ 105.90
Ritalin LA® 40 mg	$ 2.86 / tab	60 mg daily	$ 85.80
Metadate CD® 60 mg	$ 4.42 / cap	60 mg daily	$ 132.60
Methylphenidate SR 20 mg	$ .42 / tab	60 mg daily	$ 37.80
Methylphenidate IR 20 mg	$ .23 / tab	60 mg daily	$ 20.70

*Flat Priced
**Cost for Concerta® and Ritalin LA® Based on one tablet daily.

References

1. Daytrana™ package insert (www.daytrana.com)

APPENDIX D

30 Day Notice to Prior Authorize Chantix™ (varenicline)

Oklahoma Health Care Authority
June 2006

Manufacturer Pfizer Inc.
Classification *FDA classification*: Smoking Cessation
Status: prescription only

Summary

Chantix™ is the first medication to be approved in over a decade for the purpose of smoking cessation that does not contain any nicotine. It is available in two strengths (0.5mg and 1mg) with a maximum dose of 1mg twice a day. It is a partial agonist that is selective for $\alpha_4\beta_2$ nicotinic acetylcholine receptor subtypes. It binds to $\alpha_4\beta_2$ neuronal nicotinic acetylcholine receptors and stimulates receptor-mediated activity but at a level lower than nicotine. Varenicline blocks nicotine's ability to activate the receptors which won't allow the central nervous mesolimbic dopamine system to be stimulated.

Recommendations:

As with all other smoking cessation products, allow 12 weeks of therapy with out a prior authorization, followed by an additional 12 weeks with a prior authorization. Place a quantity limit of no more than 2 tablets per day of either strength.

Cost comparison

	Average Wholesaler Price (AWP)	Daily Dose*	Monthly Dose (30 day supply)	Length of therapy
Chantix™	NA	2mg		3-6 months
Bupropion SR 150mg	$149.19/100	300mg	$89.51	3 months
Commit® 4mg	$32.81/72	variable	$179.39	3 months
Nicotine patches	$3.49/1	1/day	$97.72	2.5 months
Nicotrol® Inh	$146.94/168	6-16	$236.74	6 months

Pharmacological data

- Varenicline has high affinity binding and selectivity at $\alpha_4\beta_2$ neuronal nicotinic acetylcholine receptors. It's binding causes agonist activity at a sub-type of the nicotinic receptor while also preventing the binding of nicotine to $\alpha_4\beta_2$ receptors.

Therapeutic indications

- An aid to smoking cessation treatment.

Bioavailability/pharmacokinetics

Absorption

- Maximum plasma concentration is normally reached within 3 to 4 hours after oral administration. Steady-state is reached within 4 days of multiple doses. With the recommended dosing, linear pharmacokinetics is seen after single or repeated doses.

Distribution

- Food and time-of-day dosing do not affect oral bioavailability. It has low plasma protein binding that is not affected by age or renal function.

Metabolism

- Metabolism is minimal with 92% being excreted in the urine unchanged. It has a half life of about 24 hours.

Elimination

- It is eliminated primarily through glomerular filtration with active tubular secretion likely via the organic cation transporter, OCT2.

Dosage forms

Oral

- 0.5mg capsular biconvex, white to off-white, film-coated tablet
- 1.0mg capsular biconvex, light blue-film-coated tablet

How Supplied

Packs

- First month of therapy:
  Pack (Includes 1 card - 0.5 mg x 11 tablets and 3 cards -1 mg x 14 tablets) NDC 0069-0471-97

- Continuing months of therapy:
  Pack (Includes 4 cards - 1 mg x 14 tablets) NDC 0069-0469-97

Bottles

- 0.5 mg - bottle of 56 NDC 0069-0468-56
- 1 mg - bottle of 56 NDC 0069-0469-56

Dosage range

- 1 mg twice daily after eating and with a full 8 oz glass of water, starting on day 8 after titrating from 0.5 mg daily for 3 days to 0.5 mg twice a day for 4 days.

- Initial therapy is for 12 weeks. For patients that have successfully stopped smoking at this time, an additional 12 weeks is recommended for patients to increase the chances for long term abstinence. Patients that cannot handle the adverse effects can lower the dose temporarily or permanently.

- Patients with ESRD or undergoing hemodialysis should not exceed 0.5mg daily.

Known adverse effects/toxicities

- Nausea
- Sleep disturbance (problems falling asleep)
- Abnormal dreams
- Constipation
- Flatulence
- Vomiting
- Dysgeusia
- Disorders: blood & lymphatic system, cardiac, ear & labyrinth, endocrine, eye, GI, hepatobiliary, immune system, investigations, metabolism & nutrition, musculoskeletal & connective tissue, nervous system, psychiatric, renal & urinary, reproductive system & breast, general & administration site conditions.

Special precautions

- Not recommended for patients under 18 years of age.
- Pregnancy category C
- In reproduction studies, there were adverse effects on animal fetus.
- Safety and efficacy with other smoking cessation therapies has not been studied.
- Animal studies showed transfer of medication to nursing pups.

Drug interactions

- No clinically pharmacokinetic drug-drug interactions.

Patient monitoring guidelines

- Caution with use in patients with renal impairment.

Patient information

- Set a date to stop smoking and start taking Chantix™ one week prior to this date.
- Titrate up to a dose of 1mg twice a day if tolerated

- Initial therapy should last 12 weeks. If successful, therapy should continue for an additional 12 weeks to assist with long term abstinence.
- Those who do not succeed or relapse are encouraged to try again after the conditions that contributed to the failed trial are addressed.

Clinical Trials of CHANTIX™ (varenicline)

A total of 3,659 chronic cigarette smokers (≥10 cigarettes per day) were treated in six trials involved in showing the efficacy of CHANTIX™.

-The completion rate was 65%
-Subjects were mostly white (79%-96%)
-Average Age = 43
-Average Smoking History = 21 cigarettes/day x 25 years

Outcome of abstinence was determined by self reports and verified by carbon monoxide exhalation (≤10 ppm) at weekly visits.

Patients received an educational booklet and 10 minutes of cessation counseling at each visit. A target quit date (TQD) was set, and CHANTIX™ was initiated one week prior to that date.

Treatment duration was 12 weeks and follow up duration was 40 weeks in all studies except studies 1 and 6.

Study Summaries:

Study 1 – Six-week study comparing CHANTIX™ to placebo; showed that 1mg or 2mg daily of CHANTIX™ was enough to assist in smoking cessation

Study 2 – A 12-week treatment period and 40-week follow-up of 627 patients to determine differences in therapy between 1mg/day and 2mg/day CHANTIX™ versus placebo

- doses were divided into morning an evening doses
- nearly 50% of subjects in both treatment groups had confirmed abstinence during weeks 9-12, compared to 12% in the placebo group
- 31% of both groups were continuously abstinent from 1 week after TQD through the end of the treatment, compared to 8% of the placebo group.

Study 3 – Study of 312 patients; patients were allowed to self-adjust dose between 0.5mg/day and 1mg twice daily

- Over half of the patients used the max dose at one time during the study, but over half of the patients selected a modal dose of 1mg/day or less
- 40% of subjects had confirmed abstinence during weeks 9-12, compared to 12% in the placebo group
- 29% of both groups were continuously abstinent from 1 week after TQD through the end of the treatment, compared to 9% of the placebo group

Study 4 – Double blind study of 1022 patients comparing CHANTIX™ 2mg/day, buproprion sustained release (SR) 150mg BID, and placebo.

- Treatment period was 12 weeks, and follow-up period was 40 weeks
- Study excluded patients in which buproprion use was in appropriate, or if patients were previously taking buproprion

-Confirmed abstinence during weeks 9-12 were as follows: CHANTIX™ (44%), buproprion (30%), and placebo (17%)

-Confirmed abstinence at 1 week following TQD were as follows: CHANTIX™ (29%), buproprion (23%), and placebo (12%)

Study 5 – Double blind study of 1023 patients comparing CHANTIX™ 2mg/day, buproprion sustained release (SR) 150mg BID, and placebo.

- Treatment period was 12 weeks, and follow-up period was 40 weeks
- Study excluded patients in which buproprion use was in appropriate, or if patients were previously taking buproprion

-Confirmed abstinence during weeks 9-12 were as follows: CHANTIX™ (44%), buproprion (30%), and placebo (18%)

-Confirmed abstinence at 1 week following TQD were as follows: CHANTIX™ (29%), buproprion (21%), and placebo (11%)

Study 6 – This study assessed 1927 patients to see if an additional 12 weeks of CHANTIX™ therapy (1mg BID) following the initial 12-week treatment period, would result in increased abstinence.

-Continuous abstinence rates during weeks 13-24 were higher in those receiving additional CHANTIX™ (70%) than for those switching to placebo (50%).

-During 28-week follow-up after 24-week treatment period, more patients taking CHANTIX™ for an extended duration maintained abstinence (54%) versus placebo (39%).

Summary of Studies

-CHANTIX™ (2mg/day) is proven more effective than buproprion SR (150mg BID) or placebo at initiating and maintaining smoking abstinence

-24 weeks of therapy with CHANTIX™ (1mg BID) is more effective than 12 weeks at maintaining extended abstinence.

REFERENCES

1. Chantix™ Package Insert (www.Pfizer.com)

APPENDIX E

60 Day Notice to Prior Authorize Pediculicides

Oklahoma Health Care Authority
June 2006

Introduction

Pediculosis (or lice) is an infestation of the hairy parts of the human body or clothing with eggs, larvae, or adult lice. There are two species of lice that infest humans: *Pediculus humanus* and *Phthirius pubis*. *Pediculus humanus* is further divided into subspecies, *P humanus capitis* (head louse) and *P humanus corporis* (body louse).[1]The head and body louse have similar morphology but have different ecological niches and clinical manifestations. Pediculosis capitis (head louse) is the most common type of pediculosis in the world, infecting about 6-12 million people annually in the United States alone.[1] Scabies is an intensely pruritic and highly contagious infestation of the skin cause by *Sarcoptes scabiei*.[1] There are various medications available to treat these conditions, including OTC products. The Oklahoma Health Care Authority would like to establish a list of OTC products for first-line treatment of these conditions.

The following tables give some examples of the treatment choices available:

Pyrethrums (composite of pyrethrins)- Available OTC

Product Name	Form	Active Ingredients	Cost/Treatment
A-200 Lice Treatment Kit	Shampoo	Pyrethrins 0.33%/ Piperonyl butoxide 4%	$21.23
	Aerosol spray	0.5% resmethrin	
Bio-Sentry Lice Killing	Shampoo	Pyrethrum extract 0.33%/ Piperonyl butoxide 4%	$8.25
Bio-Sentry Lice Treatment	Cream rinse	Pyrethrum extract 0.33%/ Piperonyl butoxide 4%	$11.99
Innogel Plus	Gel	Pyrethrins 0.33%/ Piperonyl butoxide 4%	$14.84
Licetrol	Shampoo	Pyrethrins 0.33%/ Piperonyl butoxide technical 4%	$12.70
Pronto Lice Killing	Shampoo	Piperonyl butoxide 4%, Pyrethrum extract 0.33%	$17.99
	Aerosol spray	0.4% 3-phenoxybenzyl-(1R,3S; 1RS)-2,2-dimethyl-3(2-methylprop-1-enyl) cyclopropanecarboxylate	
R&C Shampoo/Conditioner	Shampoo	Pyrethrins 0.33%/ Piperonyl butoxide 3%	$16.58
R&C spray	Spray	Phenothrin 0.4%	$8.08
RID Lice Elimination Kit	Shampoo	Pyrethrins 0.33%/ Piperonyl butoxide 4%	$20.99
	Aerosol spray	0.5% permethrin	

Pyrethroids (synthetic insecticide) - Available OTC and Rx

Product Name	Form	Active Ingredients	Cost/Treatment
Nix	Cream rinse	Permethrin 1%	$19.99
Elimite	Cream	Permethrin 5%	$13.80 (SMAC)

Lindane (an organochlorine)- Rx only

Product Name	Form	Active Ingredients	Cost/Treatment
Lindane 1%	Lotion	Gamma benzene hexachloride 1%	$123.82 (SMAC)
Lindane 1%	Shampoo	Gamma benzene hexachloride 1%	$110.82 (SMAC)

Malathion (an organophosphate)- Rx only

Product Name	Form	Active Ingredients	Cost/Treatment
Ovide	Lotion	0.005g of malathion per mL (+/-)-[dimethoxyphosphinothioyl0-thio] butanedioic acid diethyl ester	$110.65 (EAC)

Product Name	Form	Active Ingredients	Cost/Treatment
Eurax	Cream 10%	Crotamiton	$11.40
	Lotion 10%	Crotamiton	$12.00

Discussion

Pyrethrins

- Available OTC
- Effective against lice and cosmetically acceptable
- Unstable in heat and light
- Do not kill all unhatched eggs and have no residual activity.
- Require a second treatment 1 week after the first. Treatment failures with pyrethrins are common

Permethrin

- Available OTC (1%) and Prescription (5% cream)
- Synthetic compound based on the insecticidal components of natural pyrethrins
- Heat and light stable with residual activity for 2 weeks or more
- Resistant infestations of head lice have been treated with higher concentrations (5%) which are indicated for scabies. Higher doses are generally not more effective and it is recommended to consider a different drug. The 5% cream is NOT currently approved by the FDA for the treatment of head lice.

Lindane

- Prescription only
- Public health advisory issued in October 2003 concerning the use of the topical formulations.
- Boxed warning emphasizes that it is to be used as a second line treatment
- Not recommended for use in infants
- Use with caution in children and adults weighing <50kg

Malathion (Ovide®)

- Prescription only
- An irreversible cholinesterase inhibitor
- Probably the fastest killing and most ovicidal pediculocide for treatment of head lice
- Seizures and deaths with repeat or prolonged application
- Usually not prescribed due to its objectionable odor, fear of flammability of its alcohol vehicle and its prolonged (8-12 hours) application time[1]
- Effective against permethrin-resistant lice
- Contraindicated in neonates and infants
- Safety and effectiveness in children ≤6 years old not established

Crotamiton (Eurax®)

- Used for treatment of scabies
- Used infrequently due to relative effectiveness and the need for application for 5 consecutive days
- Has been used for the treatment of head lice only after all other treatment options have been exhausted
- One of the treatments of choice for scabies is 5% Permethrin (Elimite or Acticin) cream or 1% cream rinse (Nix)[2]

Guidelines

The American Academy of Pediatrics recommends using Permethrin 1% for the treatment of head lice, with retreatment in 7 to 10 days if live lice are seen.[3]

Recommendations:

The College of Pharmacy recommends prior authorization of prescriptions-only pediculicides and payment for OTC peduculicides as first line treatment. The criterion for prescription only pediculicides would be as follows:

1. Coverage of OTC Permethrin and Pyrethrin products will require a prescription (written or called in)

2. Lindane lotion and shampoo available only after first-line treatment with OTC permethrin or pyrethrin products has failed. At point-of-sale the pharmacy clinical edit will search history for paid claims to identify the following criteria:
   - Member must be ≥13 years old
   - Must have trial of OTC Permethrin or Pyrethrin
   - Quantity limit of 60ml for 7 days. Claim will deny if there is a Lindane prescription in history during the previous 180 days

3. Ovide® lotion available only after treatment with OTC product and Lindane have failed. At point-of-sale the pharmacy clinical edit will search history for paid claims to identify the following criteria:
   - Member must be ≥ 6 years old
   - Quantity limit of 60ml for 7 days; may be repeated once if needed for current infestation after 7 days of date of service of the original fill.

4. Prior authorization required for Eurax.
   - Must have a trial of Permethrin 1% or 5%

5. Clinical exception if known resistance to OTC Permethrin and Pyrethrin.

Potential Economic Impact

Total Reimbursed (Non-Duals): Jul - Dec 2005

Class	Total Claims	Total Reimbursement
Eurax® Cream 10 %	117	$ 2,161.71
Eurax® Lotion 10 %	69	$ 2,167.21
Lindane Lotion 1 %	513	$ 56,762.72
Lindane Shampoo 1 %	3,818	$ 416,966.42
Ovide® Lotion 0.5 %	2,074	$ 286,264.65
Permethrin Cream 5 %	3,409	$ 52,761.70
Total	**10,000**	**$ 817,084.41**

Client Demographics (Non-Duals): Jul - Dec 2005

Age	Female	Male	Totals
0 to 9	2,705	1,556	4,261
10 to 19	1,404	786	2,190
20 to 34	342	44	386
35 to 49	196	47	243
50 to 64	97	45	142
65 to 79	9	4	13
80 to 94	7	1	8
95 and Over	2	0	2
Totals	**4,762**	**2,483**	**7,245**

Potential Administrative Costs

Based on a potential shift of proposed products of between 50 to 75 %, it is estimated that approximately 1,500 to 2,000 petitions would be required annually. The proposed tier changes would affect approximately 50 % of the total population (non-dual) for this PBPA category.

Previously, it has been theorized that total cost per petition to the healthcare system (includes cost to physicians, pharmacists, and program) is between $6.75 and $12.97. Total cost per petition to the healthcare system is estimated to be between $10,125 and $25,940 annually. Anticipated actual administrative cost to the program is projected to be less than $10,000.

Potential Program Savings

Potential savings to the program based on recommended changes and a potential shift of between 50 to 75 % of market share away from prior authorized medications is estimated to be $ 846,831 annually. This is the **net** ingredient cost savings after accounting for rebates and dispensing fees.

Total Potential Savings

Potential Savings:	$ 846,831		$ 846,831
Potential Administrative Cost:	10,125		25,940
Total Potential Program Savings:	**$ 836,706**	**to**	**$ 820,891**

Reference:

1. C, Elston D. Pediculosis. American Academy of Dermatology.2004;10:1-12

2. Huynh T, Norman R. Scabies and Pediculosis. Dermatologic Clinics of North America.2004;22:7-11

3. Frankowski B, Weiner L et al. Head Lice. American Academy of Pediatrics.2002;110:638-643

APPENDIX F

60 Day Notice and Potential Economic Impact of Prior Authorization of Antiemetics

Oklahoma Health Care Authority
June 2006

Total Reimbursed for Select Antiemetics (Non-Duals) – 2nd Qtr FY '06

Class	Total Claims	Total Reimbursement
Anzemet®	16	$ 7,110.68
Kytril®	67	$ 38,635.58
Zofran®	998	$ 321,329.06
Emend®	33	$ 9,716.61
Marinol®	85	$ 51,343.75
Total	**1,199**	**$ 428,135.68**
Annualized		**$ 1,712,542.72**

No usage for Aloxi® during this quarter.

Client Demographics (Non-Duals) – 2nd Qtr FY '06

Table 1a. All Clients

Age	Female	Male	Totals
0 to 9	64	57	121
10 to 19	160	41	201
20 to 34	318	8	326
35 to 49	49	19	68
50 to 64	49	18	67
65 to 79	1	0	1
80 to 94	4	0	4
95 and Over	0	1	1
Totals	**645**	**144**	**789**

Table 1b. Clients in a Care Facility

Age	Female	Male	Totals
0 to 9	0	1	1
10 to 19	0	0	0
20 to 34	0	0	0
35 to 49	2	4	6
50 to 64	5	8	13
65 to 79	1	0	1
80 to 94	3	0	0
95 and Over	0	0	0
Totals	**11**	**13**	**24**

Table 1c. Waiver-Advantage Clients

Age	Female	Male	Totals
0 to 9	0	0	0
10 to 19	0	0	0
20 to 34	0	1	1
35 to 49	3	0	0
50 to 64	5	0	5
65 to 79	0	0	0
80 to 94	0	0	0
95 and Over	0	0	0
Totals	**8**	**1**	**9**

Market Analysis for Select Oral Antiemetics (Non-Duals) – 2nd Qtr FY '06

Table 2a. Market Share and Cost

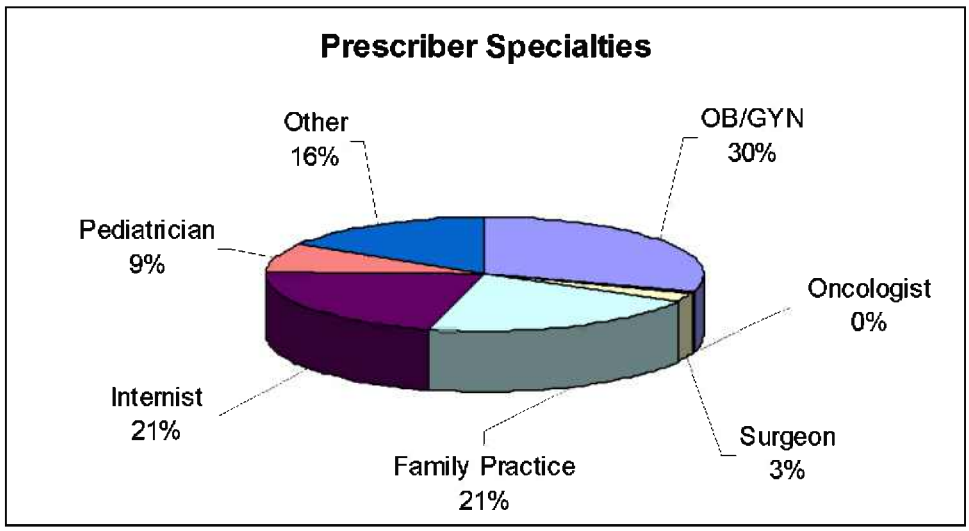
Product	Total Claims	Total Days	Total Reimbursement	% Market Share	% Cost
Anzemet® Tabs	16	103	$ 7,110.68	0.35%	1.75%
Kytril® Tabs	48	474	$ 31,498.85	1.62%	7.73%
Kytril® Sol	5	55	$ 1,925.33	0.19%	0.47%
Zofran® Tabs	469	13,069	$ 161,551.35	44.60%	39.66%
Zofran® ODT Tabs	500	12,565	$ 141,099.47	42.89%	34.64%
Zofran® Sol	14	392	$ 3,137.19	1.34%	0.77%
Emend® Caps	33	194	$ 9,716.61	0.66%	2.39%
Marinol® Caps	85	2,448	$ 51,343.75	8.35%	12.60%
Total	**1,170**	**29,300**	**$ 407,383.23**	**100.00**	**100.01**

Table 2b. Product Cost Comparison

Product	EAC	Average Unit Cost*
Zofran® 4 mg Tablet	$ 22.22	$ 21.12
Zofran® 8 mg Tablet	$ 37.01	$ 35.32
Zofran® 24 mg Tablet	$ 104.72	N/A
Zofran® 4 mg / 5 ml Solution	$ 4.51	$ 4.27
Zofran® ODT 4 mg	$ 20.96	$ 20.11
Zofran® ODT 8 mg	$ 34.91	$ 32.76
Kytril® 1 mg Tablet	$ 47.77	$ 43.31
Kytril® 1 mg / 5 ml Solution	$ 9.10	$ 8.28
Anzemet® 50 mg Tablet	$ 50.62	$ 50.52
Anzemet® 100 mg Tablet	$ 67.09	$ 66.72
Aloxi® 0.25mg/5ml Vial	$ 65.47	N/A
Emend® 80 mg Capsule	$ 93.61	$ 82.52
Emend® 125 mg Capsule	$ 108.68	$ 89.66
Emend® 125-80 mg DS PK	$ 98.66	$ 93.75
Marinol® 2.5 mg Capsule	$ 5.29	$ 4.83
Marinol® 5 mg Capsule	$ 11.00	$ 10.06
Marinol® 10 mg Capsule	$ 20.20	$ 18.50

*Average Unit Cost = Total Reimbursment – Dispensing Fees / Total Units

Prescribing Patterns (Non-Duals) – 2nd Qtr FY '06



	Percent of Total Clients	Percent with at Least One Other Antiemetic Medication
Hyperemesis Gravidum	16.9 %	0.0 %
All Other Diagnoses	83.1 %	21.1 %

Anticipated Market Changes

- Zofran is scheduled for patent expiration in December 2006. However SMAC pricing will not be possible until a minimum of six months after the availability of the first generic to market.
- Cesamet (Nabilone) is a synthetic cannabinoid used for treatment of nausea and vomiting due to chemotherapy regimens including low-dose cisplatin (20 mg/m^2). Cesamet (nabilone) received FDA approval on May 15, 2006.

Potential Secondary Costs

Overall efficacy has been shown to be equal across the class, but drug selection requires individual patient history which includes, but is not limited to: other illness/disease risk factors, individual diet restrictions, and drug-drug interaction profiles.

Care will be taken to insure continuation of current therapy for members undergoing chemotherapy. Implementation of this prior authorization class will not occur until January 2007 when the DUR Plus system is in place. This system looks at claim details which include previous medications, prescriber specialties and diagnoses from medical claims and generates automatic approvals for claims which meet the established criteria. This system will allow claims to pay for these medications when they are prescribed by Oncologists or when members have cancer-related diagnoses or chemotherapy agents in claims history.

Review of Select Products

% Emesis Response Rate	Generic Name	Brand Name	Dosage Forms Available[3]	Usual Adult Dose	Indications	% 2005 Non-Dual Market Share[4]	Cost Ratio[5]	% Complete Response	Response Ratio[1]	Cost/ Response Ratio[6]
High to Moderate	Aprepitant[2]	Emend®	80 and 125 mg Tabs	80 to 125 mg QD[2]	1	0.67	7.73	63 - 73	2.83	2.73
	Ondansetron	Zofran®	4, 8 & 24 mg Tabs; 4 & 8 mg ODT Tabs	24 mg PO 30 min prior to chemo	1-3	88.84	2.73	55 – 66	2.44	1.12
	Palonosetron	Aloxi®	0.25 mg / 5 ml Vial	0.25 mg IV 30 min prior to chemo	1	0.00	4.78	59	2.46	1.95
Moderate to Low	Dolasetron	Anzemet®	50 and 100 mg Tabs	100 mg PO 60 min prior to chemo	1-3	0.36	2.59	44 – 57	2.10	1.23
	Granisetron	Kytril®	1 mg Tabs	2 mg PO 60 min prior to chemo	1-3	1.64	3.65	44 – 52	2.00	1.82
Low	Prochlorperazine	Compazine®	5 & 10 mg Tabs, 10 and 15 mg Caps	5 to 10 mg TID to QID	5	N/A	0.02	41	1.71	0.01
	Dronabinol	Marinol®	2.5, 5 and 10 mg Caps	5 mg/m^2 PO 1 hr prior to chemo, and q 2-4 after, max of 6 doses	1	8.48	1.00	36	1.50	0.67
	Metoclopramide	Reglan®	5 and 10 mg Tabs	2 to 4 mg/kg PO/IV for 2 to 5 doses	1,2	N/A	0.03	24	1.00	0.03

[1]Based on the midpoint for labeled complete response rate percentages for highly emetogenic chemotherapy treatment from manufacturer's clinical trial data (dolasetron, palonosetron, and metoclopramide were based on injectible forms) Prochlorperazine was included in granisetron clinical trial data and metoclopramide was included in dolasetron clinical trial data.
[2]Aprepitant response rate based on combination regimine of aprepitant 125 mg PO, dexamethasone 12 mg PO, and ondansetron 32mg IV on day one, followed by aprepitant 80 mg days 2 and 3 and dexamethasone 8 mg PO days 2-4.
[3]Solution and injectibles not included in this cost ratio calculation with the exception of palonosetron.
[4]% of market includes use for all diagnoses.
[5]Cost Ratio does not reflect an actual dollar amount. Dronabinol used as base for comparison
[6]Cost/Response Ratio = Cost Ratio / Response Ratio.

Indications:

1. Chemotherapy-Induced Nausea and Vomiting
2. Radiation-Induced Nausea and Vomiting
3. Post-Operative Nausea and Vomiting
4. Nausea and Vomiting of Pregnancy
5. Severe Nausea and Vomiting

Current Recommendations

The College of Pharmacy recommends consideration of prior authorization for 5HT3 antagonists, substance P antagonists, and cannabinoids to ensure appropriate utilization. Quantity limits already established will remain in effect.

Purpose: Ensure appropriate utilization of antiemetic medication.

Why: Antiemetic prescription claims accounted for 19,932 prescription drug claims,totaling $2,255,605.12, for the period of July 01, 2004 thru June 30, 2005. The 5HT3 receptor antagonists accounted for only 25% of claims but incurred 75% of the cost. Analysis of relevant ICD-9 diagnosis indicates about 34% of members using 5HT3 antagonists had a diagnosis of pregnancy and 24% for non-specific nausea and vomiting. Due to the shift to Part D for dual eligible members, the relative frequency of use of these medications in the remaining population for non-oncology related diagnoses is expected to increase. Aprepitant is approved only in combination with other antiemetic medications. Dronabinol should only be used as a third-line antiemetic agent.

Criteria for Approval:

1. *FDA approved diagnosis.*
2. *Clinical supporting information on failure or contraindication with at least TWO conventional antiemetic drug therapies at maximum FDA approved daily dose with dates and dosages.*

Clinical Exceptions:

1. *Approval granted through the Point-of-Sale system for members undergoing chemotherapy, radiation therapy or surgery for cancer related diagnosis and prescriptions written by an oncologist.*
2. *Documented adverse effect, drug interaction, or contraindication to tier-1 products.*
3. *Approval granted for hyperemesis gravidarum with supporting documentation listing*
    a. *week of gestation,*
    b. *presence of weight loss,*
    c. *recent hospitalizations or emergency room visits due to hyperemesis, or*
    d. *history of hyperemesis gravidarum with previous pregnancies.*
4. *Approval granted if there is a unique FDA-approved indication not covered by any other products.*

Due to uniqueness of side-effects, efficacy, and costs, appropriate management and cost-effective use of antiemetics in nausea and vomiting have the potential to improve quality of life while reducing unnecessary medical costs.

Antiemetic Medications	
No PA	**PA Required**
Corticosteroids	**5HT3 Antagonist**
Dexamethasone, methylprednisone, cortisone, prednisone, prednisolone	Dolasetron Ondansetron
Antidopaminergic	
Torecan	Granisetron
Antihistaminic	
Meclizine, hydroxyzine	Palonosetron
	Appetite stimulant/Antiemetic
Promethazine	Dronabinol
Anticholinergic	
Scopolamine, trimethobenzamide,	
Prokinetic	**Substance P/Neurokinin Antagonist**
Metoclopramide	Aprepitant (only in combination with corticosteroid or 5HT3 antagonist)
Antipsychotic	**Cannabinoids**
Droperidol	Nabilone
Chlorpromazine	
Prochlorperazine	

Potential Administrative Costs

Based on a potential shift of 60% from Tier 2 to Tier 1 products, it is estimated that approximately 2,500 to 3,000 petitions would be required annually. The proposed implementation of prior authorization for selected antiemetic products would affect approximately 60% of the population utilizing drugs in this category.

Previously, it has been estimated that total cost per petition to the healthcare system (includes cost to physicians, pharmacists, and program) is between $6.75 and $12.97. Total cost per petition to the healthcare system is estimated to be between $16,875 and $38,910 annually. Anticipated actual administrative cost to the program is projected to be less than $15,000.

Potential Program Savings

Potential savings to the program based on recommended changes and a potential shift of 60 % of market share away from prior authorized medications is estimated to be $457,726 annually. This is the **net** ingredient cost savings after accounting for rebates and dispensing fees.

Total Potential Savings

Potential Savings:	$ 457,726		$ 457,726
Potential Administrative Cost:	16,875		38,910
Total Potential Program Savings:	**$ 440,851**	**to**	**$ 418,816**

APPENDIX G

Utilization Review of Select Antibiotic Classes

Oklahoma HealthCare Authority

June 2006

Antibiotic Resistance

Several major factors contributing to the emergence of antibiotic resistance are[1]:

1. Natural survival mechanisms of microbes
   - Fast replication and ability to adapt to new environmental conditions allow for the survival of resistant organisms.
   - The resistant trait is passed on to offspring and other related bacteria and eventually resistance dominates throughout the microbial population.

2. Inappropriate use and misinformation
   - The CDC estimates that among office-based physicians, over 50% of prescriptions for antibiotics are unnecessarily prescribed.
   - Patients contribute to resistance by pressuring doctors to prescribe antibiotics when it is not necessary, failing to follow dosing schedules, and not finishing the course of the prescribed antibiotic.
   - Hospitals contribute to resistance by noncompliance of infection control practices and extensive use of antibiotics.
   - The use of antibiotics as growth promoters in the livestock industry is still debatable; however, it will certainly contribute to antibiotic resistance.

3. Aging of the population
   - The elderly are living longer and are at increased risk of infections compared to the younger population.
   - Infections are more difficult to treat in the geriatric population and as a result they are more likely to be hospitalized and die of infections.

Emerging Trends in Antibiotic Resistance

For an overall picture of resistance trends among some commonly used antibiotics the Oklahoma Department of Health have collected and reported the following data:

Nonsusceptibility Rates of *Streptococcus pneumoniae**

		Antibiotic		
Hospital Location	***Isolates***	***Penicillin***	***Erythromycin***	***3rd Gen Ceph***
OKC Metro Area	**1,091**	**12 %**	**28 %**	**5 %**
Tulsa Metro Area	**367**	**10 %**	**18 %**	**3 %**
Oklahoma - Others	**616**	**11 %**	**30 %**	**1 %**
Oklahoma - All	**2,074**	**12 %**	**27 %**	**3 %**

**Streptococcus pneumoniae* was reported as the leading cause of organism-specific related death in Oklahoma.[2]

Nationally reported resistance rates for Azithromycin are similar to Erythromycin at 20% to as high as 50%. Fluoroquinolone resistance rates are reported to be minimal at around 1-3% for *Streptococcus pneumoniae*.

Utilization of Select Antibiotic Classes

The following data are gathered from the non-dual eligible population utilizing one of the selected antibiotic classes during the calendar year 2005:

- Ampicillins
- Penicillin Combination Products
- Azithromycin
- 3rd Generation cephalosporins
- Fluoroquinolones

Utilization of Ampicillins

A total of 132,528 members utilized this class, of which 93% were non-dual eligible members.

DRUGNAME	CLAIMS	UNITS	DAYS	MEMBERS	COST	COST/CLAIM
TRIMOX CAP 250MG	7,993	232,011	73,949	6,969	$45,415.01	$5.68
TRIMOX CAP 500MG	37,598	1,027,947	344,349	30,660	$213,627.19	$5.68
TRIMOX SUS 250/5ML	68,649	11,318,622	676,651	56,013	$482,591.30	$6.16
TRIMOX SUS 125/5ML	13,295	1,815,910	129,599	11,138	$81,957.80	$7.03
AMOXIL TAB 500MG	79	2,171	695	78	$1,300.00	$16.46
AMOXIL TAB 875MG	3,963	79,039	39,108	3,460	$62,976.46	$15.89
AMOXIL CHW 200MG	50	1,427	447	40	$792.73	$15.85
AMOXIL CHW 400MG	2,586	73,210	25,126	2,345	$42,549.37	$16.45
AMOXIL DRO 50MG/ML	815	27,574	14,087	691	$6,168.33	$7.57
AMOXIL SUS 200/5ML	3,578	453,785	36,092	3,266	$47,656.98	$13.32
AMOXIL SUS 400/5ML	32,126	4,283,981	323,231	26,263	$435,006.22	$13.54
AMOXICILLIN CHW 125MG	45	1,516	445	43	$332.36	$7.39
AMOXICILLIN CHW 250MG	4,352	134,227	39,201	3,780	$39,320.66	$9.04
DISPERMOX TAB 200MG	40	883	428	27	$599.14	$14.98
DISPERMOX TAB 400MG	40	795	450	26	$639.87	$16.00
DISPERMOX TAB 600MG	31	620	285	25	$599.23	$19.33
PRINCIPEN CAP 250MG	230	7,505	2,010	205	$1,793.89	$7.80
PRINCIPEN CAP 500MG	1,301	42,186	12,484	1,124	$12,573.98	$9.66
PRINCIPEN SUS 125/5ML	41	8,300	390	34	$425.96	$10.39
PRINCIPEN SUS 250/5ML	126	24,200	1,194	107	$1,218.44	$9.67
AMPICILLIN INJ 250MG	8	172	53	4	$596.70	$74.59
AMPICILLIN INJ 500MG	4	102	53	4	$274.89	$68.72
AMPICILLIN INJ 1GM	4	1,886	14	3	$520.11	$130.03
AMPICILLIN INJ 1GM	19	344	72	7	$2,604.56	$137.08
AMPICILLIN INJ 2GM	27	9,277	124	6	$6,781.11	$251.15
AMPICILLIN INJ 2GM	17	336	50	2	$6,014.66	$353.80
TOTALS	**177,017**	**19,548,026**	**1,720,587**	**123,313***	**$1,494,336.95**	**$8.44**

*Unduplicated Non-Dual Eligible Members

Utilization of Penicillin Combos

A total of 52,375 members utilized this class, of which 90% were non-dual eligible members.

DRUGNAME	CLAIMS	UNITS	DAYS	MEMBERS	COST	COST/CLAIM
BICILLIN C-R INJ 1200000	5	28	61	3	$149.06	$29.81
BICILLIN C-R INJ 900/300	1	20	30	1	$314.81	$314.81
AUGMENTIN TAB 250MG	562	13,865	5,244	513	$41,942.38	$74.63
AUGMENTIN CHW 125MG	5	330	47	4	$490.40	$98.08
AUGMENTIN CHW 250MG	144	3,674	1,394	120	$10,344.05	$71.83
AUGMENTIN SUS 125/5ML	1,060	146,400	10,675	939	$45,308.89	$42.74
AUGMENTIN SUS 250/5ML	3,618	511,032	36,287	3,329	$287,570.94	$79.48
AUGMENTIN SUS 400/5ML	11,452	1,266,631	115,615	10,005	$721,934.86	$63.04
AUGMENTIN SUS ES-600	23,221	3,617,314	246,666	17,940	$1,249,589.40	$53.81
AUGMENTIN XR TAB SR 12HR	2,956	71,804	29,282	2,494	$205,562.06	$69.54
AMOX/K CLAV TAB 500MG	5,771	125,079	55,321	5,128	$260,320.09	$45.11
AMOX/K CLAV TAB 875MG	7,581	148,938	74,076	6,645	$398,447.04	$52.56
AMOX/K CLAV CHW 200MG	193	4,338	1,915	157	$7,128.41	$36.93
AMOX/K CLAV CHW 400MG	1,517	34,861	15,331	1,356	$83,579.74	$55.10
AMOX/K CLAV SUS 200/5ML	3,319	384,824	33,124	2,982	$116,801.05	$35.19
UNASYN INJ 1.5GM	4	51	10	2	$396.16	$99.04
UNASYN INJ 3GM	18	244	92	4	$3,360.19	$186.68
UNASYN INJ 3GM	4	310	85	2	$4,548.81	$1,137.20
TIMENTIN INJ 3.1GM	21	613	136	9	$8,576.60	$408.41
TIMENTIN INJ 31GM	6	45	68	4	$6,229.23	$1,038.21
ZOSYN INJ 2G-0.25G	13	628	31	4	$1,413.39	$108.72
ZOSYN INJ 3-0.375G	8	170	75	5	$2,736.48	$342.06
ZOSYN INJ 4GM/0.5G	19	495	128	8	$10,135.41	$533.44
ZOSYN INJ	1	7	21	1	$1,315.20	$1,315.20
ZOSYN SOL 4G-0.50G	4	6,342	35	2	$1,505.64	$376.41
ZOSYN SOL 3-0.375G	17	6,850	35	1	$2,615.62	$153.86
TOTALS	**61,520**	**6,344,892**	**625,784**	**47,113***	**$3,472,315.91**	**$56.44**

*Unduplicated Non-Dual Eligible Members

Utilization of Azithromycin

A total of 105,610 members utilized this class, of which 88% were non-dual eligible members.

DRUGNAME	CLAIMS	UNITS	DAYS	MEMBERS	COST	COST/CLAIM
ZITHROMAX TAB Z-PAK	41,064	248,717	206,321	34,255	$1,997,015.96	$48.63
ZITHROMAX TAB TRI-PAK	6,884	22,220	21,486	6,195	$355,266.03	$51.61
ZITHROMAX TAB 600MG	284	3,285	7,605	89	$60,294.54	$212.30
ZITHROMAX SUS 100/5ML	25,974	494,749	127,306	19,400	$1,165,787.28	$44.88
ZITHROMAX SUS 200/5ML	57,450	1,238,986	291,247	41,711	$2,187,862.41	$38.08
ZMAX SUS 2GM	910	3,087	1,576	851	$60,868.39	$66.89
ZITHROMAX INJ 500MG	13	148	30	9	$2,936.47	$225.88
ZITHROMAX POW 1GM PAK	750	1,162	1,318	652	$30,262.91	$40.35
TOTALS	**133,329**	**2,012,354**	**656,889**	**93,338***	**$5,860,293.99**	**$43.95**

*Unduplicated Non-Dual Eligible Members

Utilization of 3rd Generation Cephalosporins

A total of 27,387 members utilized this class, of which 90% were non-dual eligible members.

DRUGNAME	CLAIMS	UNITS	DAYS	MEMBERS	COST	COST/CLAIM
OMNICEF CAP 300MG	3,693	64,086	34,204	3,180	$290,139.11	$78.56
OMNICEF SUS 125MG/5	16,285	1,383,508	165,203	12,684	$1,033,069.57	$63.44
OMNICEF SUS 250MG/5	9,252	725,051	97,367	7,498	$1,030,867.10	$111.42
SPECTRACEF TAB 200MG	466	8,578	4,104	390	$17,163.15	$36.83
SUPRAX TAB 400MG	3	14	14	3	$119.61	$39.87
SUPRAX SUS 100/5ML	286	22,425	3,016	246	$19,714.63	$68.93
VANTIN TAB 100MG	111	2,719	1,110	86	$10,878.30	$98.00
VANTIN TAB 200MG	388	7,668	3,962	322	$38,499.20	$99.22
VANTIN SUS 50MG/5ML	145	14,350	1,398	118	$7,611.60	$52.49
VANTIN SUS 100/5ML	757	73,525	7,914	626	$71,513.89	$94.47
CEFOTAXIME INJ 500MG	3	69	28	3	$452.67	$150.89
CLAFORAN INJ 1GM	26	610	134	11	$5,879.50	$226.13
CLAFORAN INJ 1GM	1	6	2	1	$65.99	$65.99
CLAFORAN INJ 2GM	5	33	26	3	$666.53	$133.31
CLAFORAN INJ 10GM	6	13	31	4	$1,030.61	$171.77
FORTAZ INJ 500MG	4	49	16	4	$290.09	$72.52
TAZICEF INJ 1GM	28	9,228	202	18	$6,348.35	$226.73
TAZICEF INJ 1GM	3	28	14	2	$334.86	$111.62
TAZICEF INJ 2GM	9	202	85	6	$4,341.41	$482.38
FORTAZ INJ 2GM	1	21	7	1	$536.61	$536.61
FORTAZ INJ 6GM	34	425	274	12	$31,102.29	$914.77
CEDAX CAP 400MG	73	769	749	66	$6,538.44	$89.57
CEDAX SUS 90MG/5ML	570	52,509	6,989	429	$39,441.77	$69.20
ROCEPHIN INJ 250MG	173	486	349	144	$7,657.92	$44.27
ROCEPHIN INJ 500MG	302	926	898	259	$21,091.50	$69.84
ROCEPHIN INJ 1GM	793	3,662	3,004	627	$146,443.19	$184.67
ROCEPHIN INJ 1GM	9	62	62	5	$2,925.92	$325.10
ROCEPHIN INJ 2GM	54	1,445	342	24	$27,849.36	$515.73
ROCEPHIN INJ 2GM	1	9	9	1	$829.49	$829.49
ROCEPHIN INJ 10GM	7	9	60	5	$3,272.22	$467.46
ROCEPHIN/DEX INJ 1GM	6	1,753	70	4	$1,256.36	$209.39
ROCEPHIN/DEX INJ 2GM	2	900	18	2	$1,124.13	$562.07
TOTALS	**33,496**	**2,375,137**	**331,661**	**24,714***	**$2,829,055.37**	**$84.46**

*Unduplicated Non-Dual Eligible Members

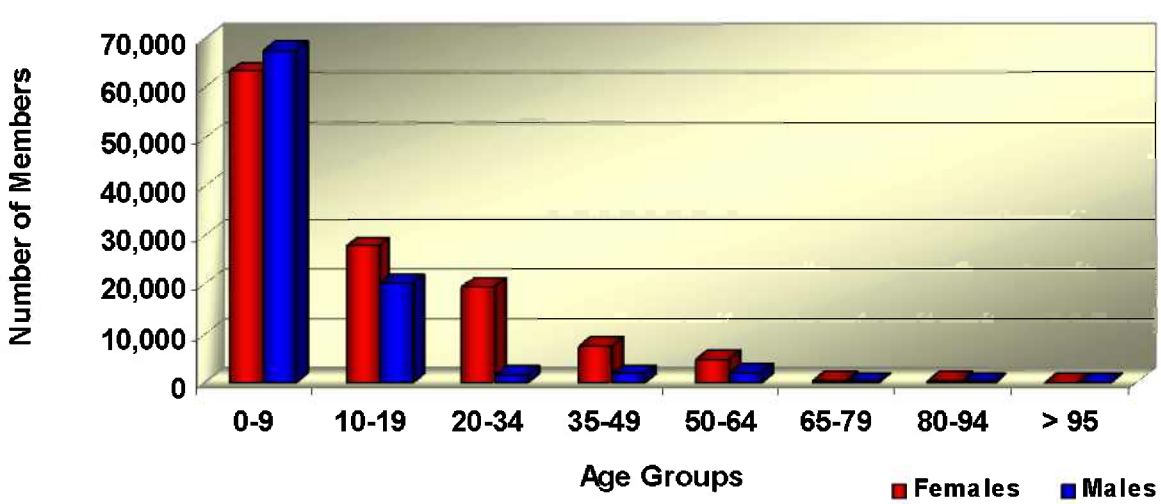
Utilization of Fluoroquinolones

A total of 37,629 members utilized this class, of which 42% were non-dual eligible members.

DRUGNAME	CLAIMS	UNITS	DAYS	MEMBERS	COST	COST/CLAIM
CIPRO I.V. INJ 400MG	8	4,100	40	5	$2,666.66	$333.33
CIPRO I.V. SOL 400MG	10	23,312	89	7	$3,112.86	$311.29
CIPRO XR TAB 500MG	334	2,251	2,308	284	$18,560.00	$55.57
CIPRO XR TAB 1000MG	220	1,830	1,880	193	$16,745.13	$76.11
CIPROFLOXACN SUS 10%	147	16,550	1,653	106	$20,104.97	$136.77
CIPROFLOXACN SUS 5%	146	17,300	1,762	94	$17,995.99	$123.26
CIPROFLOXACN TAB 100MG	8	60	32	7	$207.54	$25.94
CIPROFLOXACN TAB 250MG	1,251	20,384	10,545	1,019	$6,539.90	$5.23
CIPROFLOXACN TAB 500MG	8,364	138,119	70,483	6,668	$44,524.09	$5.32
CIPROFLOXACN TAB 750MG	295	8,750	4,426	236	$3,295.37	$11.17
LEVAQUIN TAB 250MG	921	7,472	7,106	781	$68,921.44	$74.83
LEVAQUIN TAB 500MG	7,122	63,444	63,023	5,622	$663,780.44	$93.20
LEVAQUIN TAB LEVA-PAK	1,684	16,798	16,829	1,390	$319,674.98	$189.83
LEVAQUIN INJ 25MG/ML	7	1,529	66	6	$2,908.70	$415.53
LEVAQUIN SOL 25MG/ML	35	5,968	446	20	$3,858.41	$110.24
LEVAQUIN/D5W INJ 750/150	14	12,500	101	7	$4,978.18	$355.58
AVELOX ABC TAB 400MG	1,201	10,531	10,436	1,009	$103,994.32	$86.59
NOROXIN TAB 400MG	28	579	469	18	$2,091.46	$74.70
OFLOXACIN TAB 200MG	19	334	168	16	$1,366.15	$71.90
OFLOXACIN TAB 300MG	21	332	165	18	$1,482.37	$70.59
OFLOXACIN TAB 400MG	108	1,103	593	96	$5,018.66	$46.47
TEQUIN TAB 200MG	26	680	417	20	$5,248.12	$201.85
TEQUIN TAB 400MG	726	6,367	6,641	612	$58,168.52	$80.12
TEQUIN INJ 2MG/ML	5	241	169	5	$55.41	$11.08
FACTIVE TAB 320MG	42	252	252	38	$4,490.19	$106.91
TOTALS	22,742	360,785	200,099	15,661*	$1,379,789.86	$60.67

*Unduplicated Non-Dual Eligible Members

Demographics of Non-Dual Eligible Members



Geographical Trends of Members Utilizing Select Antibiotic Classes

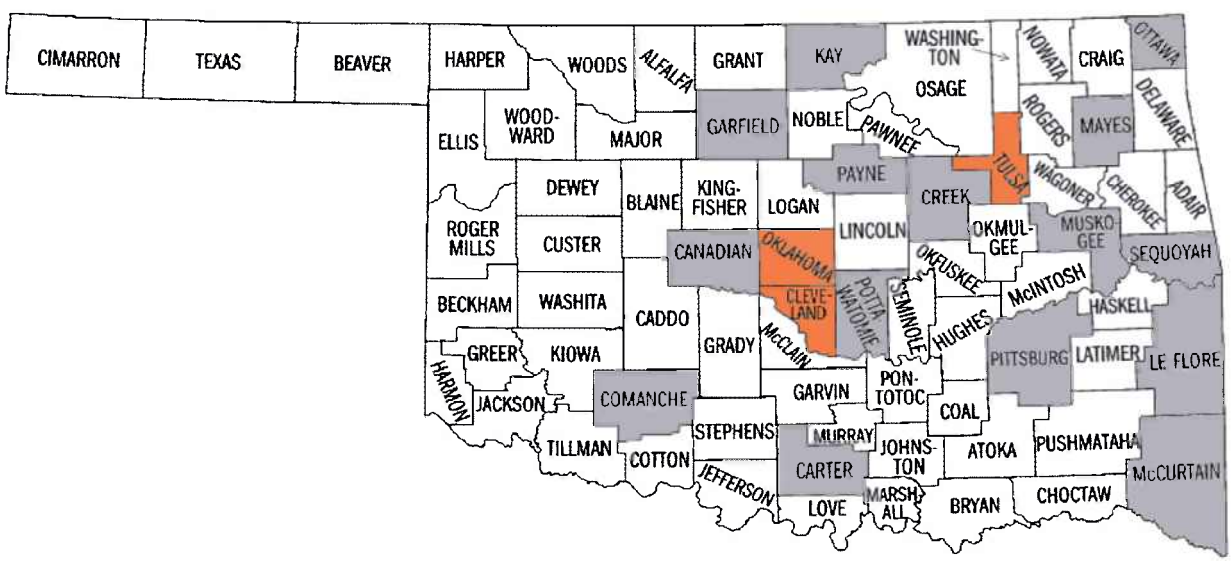
When the databases of the selected antibiotic classes were combined, there were a total of 428,104 claims incurred by 217,606 non-dual eligible members. The claims were analyzed to compile the following charts of most commonly occurring variables:

Regions ranked by Percent of Claims

Ampicillins		Pen Combinations		Azithromycin		3rd Gen Cephs		Fluoroquinolones	
Region	Percent	Region	Percent	Region	Percent	Region	Percent	Region	Percent
OKC	31.2	OKC	31.5	OKC	22.3	OKC	32.7	OKC	27.2
Tulsa	17.3	SE	17.6	SE	22.0	SE	18.7	SE	21.1
SE	17.2	Tulsa	15.3	NE	16.4	NE	15.3	NE	17.0
NE	15.0	NE	12.7	Tulsa	15.1	Tulsa	15.0	Tulsa	15.8
SW	10.7	SW	11.8	SW	14.1	SW	9.3	SW	12.2
NW	8.5	NW	11.1	NW	10.2	NW	9.0	NW	6.8

Top 10 Counties ranked by Percent of Claims

Ampicillins		Pen Combos		Azithromycin		3rd Gen Cephs		Fluoroquinolones	
Counties	**% Claims**	**Counties**	**% Claims**	**Counties**	**% Claims**	**Counties**	**% Claims**	**Counties**	**% Claims**
Oklahoma	19.9	Oklahoma	16.4	Oklahoma	12.5	Oklahoma	19.5	Oklahoma	17.6
Tulsa	11.0	Tulsa	9.3	Tulsa	9.0	Tulsa	9.2	Tulsa	10.4
Cleveland	4.9	Cleveland	5.6	Cleveland	4.2	Cleveland	4.7	Cleveland	4.3
Muskogee	2.6	Pottawatomie	4.0	Comanche	2.9	Pottawatomie	4.1	Muskogee	3.1
Pottawatomie	2.3	Kay	3.0	Le Flore	2.9	Muskogee	3.8	McCurtain	2.8
Le Flore	2.2	Canadian	2.9	McCurtain	2.4	Pittsburg	3.5	Comanche	2.8
Comanche	2.0	Comanche	2.6	Muskogee	2.2	McCurtain	3.0	Sequoyah	2.3
Creek	2.0	Payne	2.4	Garfield	2.1	Payne	2.3	Ottawa	2.2
McCurtain	1.9	Creek	2.3	Carter	2.1	Comanche	2.2	Le Flore	2.1
Canadian	1.9	Carter	2.2	Mayes	2.1	Canadian	2.1	Pottawatomie	2.0
Total	**50.6**	**Total**	**50.7**	**Total**	**42.4**	**Total**	**54.4**	**Total**	**49.6**



Top 10 Days Supplies ranked by Percent of Claims

The following are the most common days supply that were entered on claims. Approximately 95% of the claims were filled for the following days supply:

Ampicillins		Pen Combos		Azithromycin		3rd Gen Cephs		Fluoroquinolones	
Days	% Claims	Days	% Claims	Days	% Claims	Days	% Claims	Days	% Claims
10	75.2	10	73.0	5	72.4	10	62.0	10	33.6
7	11.6	7	10.0	3	12.5	7	7.9	7	27.9
5	2.5	12	4.5	6	4.8	12	7.8	5	12.7
6	1.7	14	2.4	4	3.3	5	5.5	14	5.7
13	1.3	15	2.0	1	3.0	6	3.0	3	5.5
14	1.1	5	1.9	10	0.9	1	2.3	1	3.3
1	1.1	13	1.4	7	0.9	13	1.8	30	2.4
8	0.9	8	0.8	2	0.7	8	1.7	15	1.4
15	0.7	20	0.7	30	0.5	14	1.5	6	1.4
12	0.7	6	0.6	8	0.3	20	1.3	4	1.1
Total	**96.7**	**Total**	**97.3**	**Total**	**99.2**	**Total**	**94.8**	**Total**	**94.9**

Percent Generic Utilization among Select Antibiotic Classes

The generic utilization of each class is listed on the following table. The mandatory generic plan applies and a Brand Name Override petition must be submitted for consideration where there is a generic available.

- Y = indicates generic product utilized.
- N = indicates no generic product available.
- O= indicates generic product available, but brand name product was utilized.

Generic	Ampicillins	Pen Combos	Azithromycin	3rd Gen Cephs	Fluoroquinolones
Y	98.6 %	85.3 %	4.1 %	1.9 %	44.2 %
N	0.5 %	13.7 %	91.7 %	96.6 %	55.4 %
O	0.9 %	1.0 %	4.2 %	1.5 %	0.0 %

Prescribers of Select Antibiotic Classes

From the 5 selected antibiotic classes reviewed, a total of 428,104 antibiotic claims were written by approximately 8,670 distinct prescribers. Of these prescribers, there is an average of 91 antibiotic prescriptions (claims) per prescriber during the calendar year 2005. Only about 12% of prescribers exceeded this average, however, that 12% accounted for more than 75% of the prescriptions in these classes. The following table shows an example of the top ranking prescribers and number of select antibiotic prescriptions during calendar year 2005.

Top 20 Prescribers ranked by Number of Claims

Provider	Specialty	Antibiotic Claims	% of Total Claims
1. A	General Practitioner	2,597	0.65
2. B	Pediatrician	2,241	0.56
3. C	Pediatrician	2,240	0.56
4. D	Pediatrician	2,177	0.55
5. E*	General Practitioner	1,823	0.46
6. F	Family Practitioner	1,816	0.46
7.G	Pediatrician	1,766	0.44
8. H	Pediatrician	1,740	0.44
9. I	Family Practitioner	1,681	0.42
10. J	Family Practitioner	1,539	0.39
11. K	Family Practitioner	1,400	0.35
12. L	Pediatrician	1,351	0.34
13. M	Pediatrician	1,339	0.34
14. N	Orthopedic Surgeon	1,320	0.33
15. O	Family Practitioner	1,254	0.32
16. P	Pediatrician / Allergist	1,250	0.31
17. Q	Emergency / General	1,241	0.31
18. R	Pediatrician	1,237	0.31
19. S	Family Practitioner	1,208	0.30
20. T	Pediatrician	1,193	0.30

*Doctor is no longer a SoonerCare provider.

The claims were also analyzed to detect the cities in which the prescribers accounted for the most claims. The following is a chart showing the cities with the most prescribers of the selected antibiotics.

Top 10 Prescriber Cities ranked by Percent of Claims

Ampicillins		Pen Combos		Azithromycin		3rd Gen Cephs		Fluoroquinolones	
City	% Claims	City	% Claims	City	% Claims	City	% Claims	City	% Claims
Oklahoma	23.2	Oklahoma	20.3	Oklahoma	18.0	Oklahoma	21.2	Oklahoma	18.2
Tulsa	15.6	Tulsa	15.9	Tulsa	14.0	Tulsa	15.8	Tulsa	16.3
Muskogee	3.0	Lawton	3.3	Lawton	3.5	Muskogee	4.9	Lawton	3.2
Lawton	2.8	Shawnee	3.2	Norman	2.4	McAlester	4.5	Cyril	2.9
Norman	2.3	Norman	2.8	Muskogee	2.3	Cyril	4.0	Muskogee	2.6
Chickasha	2.0	Ardmore	2.3	Durant	2.2	Lawton	3.3	Norman	2.4
Ardmore	2.0	Enid	2.2	Poteau	1.9	Idabel	2.3	Durant	2.1
Okmulgee	1.7	McAlester	2.2	Ardmore	1.8	Norman	2.1	Chickasha	1.5
Durant	1.7	Yukon	1.9	Chickasha	1.8	Durant	2.0	Ardmore	1.4
Enid	1.5	Muskogee	1.8	Ada	1.8	Shawnee	2.0	Ada	1.4
Total	**55.8**	**Total**	**55.9**	**Total**	**49.6**	**Total**	**61.9**	**Total**	**51.8**

Conclusion and Recommendations

Inappropriate utilization of antibiotics results in two major sequelae: rapid propagation of antibiotic resistance and increased health care costs. With antibiotic resistance, each infection is more difficult to treat, resulting in increased resource utilization, morbidity, and mortality.

Of the factors contributing to the emergence of antibiotic resistance mentioned, one factor that can be altered is the inappropriate use and misinformation regarding antibiotics. Both prescribers and members contribute to the inappropriate over utilization of the reviewed antibiotic classes. To address both populations, the College of Pharmacy recommends the following actions:

1. Mass Member Based Education:

   - Patient-targeted materials are available from the CDC for printing and distribution. The College recommends sending these materials to targeted members. This will cover all adult females and mothers of younger children.

2. Select Prescriber Based Intervention:

   - Physician-targeted materials are also available for download from the CDC including:
     - Preprinted prescription pads.
     - Patient-targeted educational posters.

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[1] Roth CS, Corcoran DJ. ***Emerging Trends in Antibiotic Resistance: Strategies for Appropriate Antibiotic Use.*** Managed HealthCare Executive. December 2005. Vol 15. Supplement 1.

[2] Oklahoma Dept. of Health. 2004 Annual Summary of Infectious Diseases. Available online at: http://www.health.state.ok.us/program/cdd/2004%20Annual%20Summary.pdf

APPENDIX H

ADHD/Narcolepsy Drugs – Follow-up

Oklahoma Medicaid
June 2006

The question was raised during the annual review of ADHD drugs regarding the number of members taking high doses of stimulant, specifically methylphenidate or amphetamines. A "high dose" is defined as a daily dose that is between 1 and 1.5 times the FDA approved maximum daily dose.

Current Policy - Based on recommendations approved by the DUR Board in January 2004

- Stimulant doses over 1.5 times the FDA approved maximum should not be covered.
- When the prescriber requests stimulant doses between 1 and 1.5 times the FDA approved maximum, the following additional information will be requested before the prior authorization is approved:
    1. Documentation of the patient's titration up to and, if available, progress on high dose.
    2. Patient's level of appetite suppression, sleep loss, and hallucinations,
    3. Description of psychosocial treatment being used along with drug therapy
    4. Results of recent testing via objective rating scales to assess patient's response to treatment.
- More than one dosage unit of Concerta or Adderall XR should not be covered.

High dose utilization

In CY 2005, a total of 21,424 ***non-dual*** members received anorexiant/stimulant drugs (of any kind) through the Medicaid fee-for-service program. Methylphenidate and amphetamine salt combination products, both immediate and extended release, were evaluated for excessive daily dosing.

Parameters	Methylphenidate*	Amphetamines
Total Members	10,317	9,456
# of high dose members	209	416
% of high dose members	2.03%	4.4%
Mean daily dose	28.8 mg	20.72 mg
Highest daily dose	467 mg	125 mg
Lowest daily dose	2.5 mg	2.5 mg

*includes dexmethylphenidate

Prior authorization activity

A total of 950 Quantity vs. Days Supply and 6 High Dose override requests were submitted for this category during FY2005. These totals include Provigil.

Action	Quantity Limit/ High Dose
Total Approved	521
Total Denied	263
Total Incomplete	172

Manufacturers' Dosing Recommendations

Drug	*How Supplied*	*Dosing Schedule*	*Max FDA Approved Dose/Day*	*PA Req'd?*
Methylphenidate HCl (generic)	5, 10, and 20 mg tablets	BID – TID	**60 mg**	N
Ritalin®	5, 10, and 20 mg tablets	BID – TID	**60 mg**	N
Methylin®	2.5, 5, 10, and 20 mg tablets	BID – TID	**60 mg**	N
Methylphenidate HCl (generic) CR, ER, SR	20 mg extended-release tablets	QD - BID	**60 mg**	N
Methylin® ER	10 and 20 mg tablets	QD - BID	**60 mg**	N
Metadate™ ER	10 and 20 mg tablets	QD - BID	**60 mg**	N
Ritalin-SR®	20 mg tablets	QD - BID	**60 mg**	N
Ritalin® LA	10, 20, 30, and 40 mg capsules	QD	**60 mg**	**Y; QL***
Metadate® CD	10, 20, 30, 40, 50, and 60 mg capsules	QD	**60 mg**	**Y; QL**
Concerta™	18, 27, 36, and 54 mg tablets	QD	**72 mg**	N; **QL**
Focalin™	2.5, 5, and 10 mg tablets	BID	**20 mg**	N; **QL**
Focalin XR™	5, 10 and 20 mg tablets	QD	**20 mg**	N; **QL**
Amphetamine Salt Combo (generic)	5, 7.5, 10, 12.5, 15, 20, and 30 mg tablets	QD - BID	**60 mg**	N
Adderall®	5, 7.5, 10, 12.5, 15, 20, and 30 mg tablets	QD - BID	**60 mg**	N
Adderall XR™	5, 10, 15, 20, 25, and 30 mg capsules	QD	**30 mg**	N; **QL**

*QL – Quantity Limit

Quantity Limits

Effective June 15, 2005, quantity limits were put into effect.

Stimulants			
Drug	**Quantity Limits**	**Comments**	**Daily Max**
Amphetamine Salt Combo (**Adderall XR**) 5, 10, 15, 20, 25, & 30 mg extended release capsules	30 capsules per 30 days	QD	30mg
Dexmethylphenidate (**Focalin**)	60 capsules per 30 days	BID	20mg
Dexmethylphenidate (**Focalin XR**) 5, 10, & 20 mg extended release capsules	30 capsules per 30 days	QD	20mg
Methylphenidate (**Concerta**) 18, 27, 36, & 54 mg extended release tablets	18, 27, & 54 mg: 30 tablets per 30 days 36 mg: 60 tablets per 30 days	QD	72mg
Methylphenidate (**Metadate CD**) 10, 20, 30, 40, 50, & 60 mg extended release capsules	30 capsules per 30 days	QD	60mg
Methylphenidate (**Ritalin LA**) 20, 30, & 40 mg extended release capsules	20 & 40 mg: 30 capsules per 30 days 30 mg: 60 capsules per 30 days	QD	60mg

APPENDIX I

Review of Generic Utilization and Adherence
June 2006

Introduction

This review will describe issues surrounding the impact of generic utilization on patient adherence to therapy and prescriber adherence to formulary guidelines in a tiered pharmacy benefit design based on two recent clinical trials. Clinical literature has shown the use and availability of generic products can provide adequate or even improved therapeutic outcomes while minimizing health care costs.

Facts and Figures[1,2,3,4,6,7,8]

- Health care costs are expected to increase to $3.4 trillion by 2013
- ~15 % health care costs are for prescription benefits
- $100 billion in health care costs due to lack of adherence to therapy
- ~50% of people with chronic disease comply with therapy
- ~65% of Americans in employer based prescription drug coverage are enrolled in 3-tier pharmacy benefit program
- ~60% cost savings with generic products versus branded products
- FDA recognizes a generic drug as bioequivalent if made up of same active ingredients as branded drug and the rate and extent of absorption falls between -3% to 4% or less compared to branded drug.

Background

Adherence or compliance to a prescribed medication regimen based on evidence-based guidelines has a substantial impact in achieving optimal therapeutic outcomes and cost-effective health care. Adherence can be influenced by many factors involving issues of personal beliefs, values, culture, mental capacity, understanding of disease, and support system among patients and prescribers. Adverse effects, complexity of dosing regimen, and financial considerations also influence prescribing and patient preference to therapy. In response to escalating medication costs, many cost-containment mechanisms have been established to assist in maintaining comprehensive access to medications while reducing costs and ensuring quality of care. Research has shown that the implementation of a tiered pharmacy benefit design can impact the behavior of prescription drug utilization and adherence to prescribed medication therapy. This review will describe issues surrounding adherence to therapy and the impact of generic utilization in tiered pharmacy benefit design based on recent clinical literature.

Clinical Trial Data One [4,5]

Purpose: Evaluate drug-use patterns with respect to generic utilization in a tiered pharmacy benefit design on patient and prescriber adherence to therapy and treatment guidelines.

Setting: Anthem Blue Cross and Blue Shield Prescription Management database of approximately **270,137** members enrolled in an employer-based 3-tiered pharmacy benefit program between October 1, 2001 and October 1, 2002.

Trial-Specific Information:

Prescriptions (Total=7,532)		
Non-Preferred	*Preferred*	*Generic*
1,747	4,376	1,409
Patients sample size		
6,755		
Physicians		
3,110		

3-Tiered Copay: Highest copayments for non-preferred branded products, smaller copayments for preferred branded products, and smallest or no copayments for generic products.

Drug Classes (6): Calcium channel blockers, 3-hydroxy-3-methylglutaryl coenzyme A reductase inhibitors (statins), oral contraceptives, *orally inhaled corticosteroids, *angiotensin receptor blockers, and angiotensin-converting enzyme inhibitors. **no generics at time of study*

- 90% filled in one drug class, 9% filled in 2 classes, and 1% had prescriptions filled in 3 to 4 classes.

Outcome Measures:

- Switching behaviors were measured by the frequency with which patients switched from initial (index) prescription to a different tiered drug within the same drug class.
- Adherence was assessed by using the proportion of therapy days a member had for the year of any medication within a drug class after the initial (index) prescription. Patient received adequate adherence if greater than 80% of the days covered in the year for any one medication.
- Study also accounted for age, sex, and income on adherence.

Results:

Demographic	Value
Age	42.2 years
Female	65.3%
No. of prescriptions/month	2.7
Annual Income	
Low	10.3%
Middle	68.9%
High	21.8%

Drug Class	Total Rx (s)	Generic %	Preferred %	Nonpreferred %	Adherence
Oral Contraceptives	2,407	34.2	38.2	27.5	54.8
Calcium Channel Blockers	633	41.1	42.8	16.1	56.5
ACE Inhibitors	1,852	16.4	61.9	21.8	64.9
Angiotensin Receptor Blockers	325	0	58.5	41.5	60.7
Statins	1,641	1.4	73.9	24.7	62.1
Inhaled Corticosteroids	674	0	94.5	5.5	20.6
Overall	7,532	18.7	58.1	23.2	56.1

Initial Prescription	% Patients Who Switched to a Medication in Different Tier			
	Generic	Preferred	Nonpreferred	Total Switches
Generic	0	7.5	6.1	13.6
Preferred	14.9	0	5.0	19.9
Nonpreferred	10.0	18.3	0	28.3

- Overall patients were 2.8 times more likely to switch to a lower tiered medication than to a higher tiered medication
- In comparison to nonpreferred products, patients who initially filled generic had a 12.6% increase in adherence and patients who filled preferred products had a 8.8% increase in adherence
- Older patients and males were more adherent
- 62% better odds for adherence with generic and 30% better chance with preferred products
- Patients with higher incomes was shown to have better adherence

Limitations:

This study was limited by inclusion of younger members with employer-based insurance plans and doesn't take into account benefit design differences among Medicaid funded insurance programs.

Physician and patient beliefs that more expensive medications may translate into better efficacy and less side

effects were not measured. This might have shown better adherence due to perceived beliefs on branded medications. Lack of awareness of formulary structure based on treatment guidelines and identification of generic availability and FDA standards on bioequivalency may have improved adherence rates.

Pharmacy claims data does notcapture unpaid claims or prescriptions never filled which may have affected rates of nonadherence.

Conclusion: The study demonstrates the importance of initial drug selection within a tiered formulary and the impact that prescribing habits have on adherence to therapy. The findings also suggest pharmacists play a vital role in providing awareness of formulary structure, treatment guidelines, and availability of generic products which can minimize costs while ensuring optimal therapeutic outcomes.

Clinical Trial Data Two [5]

Purpose: Assess the impact of generic utilization and adherence to therapy with antihypertensive medications.

Setting: PHARMO database linking drug-dispensing records from community pharmacies and hospital discharge records for 950,000 members.

Patients (Total=1028)	
Patients with generic substitution	463
Patients without generic substitution	565

Member's age, gender, therapy start date, duration of use, and generic product were accounted for in data analysis.

Results: 13.6% of patients who switched from brand to generic were nonadherent. 18.7% of patients who remained on branded medications were nonadherent.

No differences in hospitalizations due to cardiovascular events were observed during six months following generic substitution.

Limitations: Study does not account for individual member disease severity, socioeconomic characteristics, adverse effects and blood pressure monitoring data, or complexity of dosing regimen.

Conclusion: Generic substitution was shown not to affect adherence nor hospitalizations due to generic substitution of antihypertensive drugs. As generic products become

available they should be utilized to achieve therapeutics outcomes while minimizing unnecessary costs.

Conclusion

With the vast majority of people participating in tiered pharmacy benefits plans and the implementation of Medicare Part D, members and health care providers must be aware of the importance of initial drug selection and subsequent costs resulting from nonadherence to drug therapy and formulary guidelines. The clinical literature reports the use and availability of generic products have been shown to decrease pharmacy costs while maintaining optimal therapeutic outcomes. Prior to drug selection, the prescriber should assess any financial constraints for the patient and the health care system which could impact overall costs and quality of care. Pharmacists play a vital role in providing information on the cost-effective alternatives and assist in maintaining adherence to drug therapy according to evidenced-based treatment guidelines.

Recommendations

The College of Pharmacy recommends consideration of providing periodic updates on recently approved or upcoming availability of generic products within the DUR or Provide Update Newsletters. The awareness and utilization of generic products which undergo rigorous FDA approval evaluations have been shown to minimize costs while ensuring quality of care.

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APPENDIX J

New Product Summaries

Oklahoma Health Care Authority
June 2006

Drug	Manufacturer	Indications	Dosage	Adverse Effects	Contraindications	New Molecular Entity	AWP/ unit
Azilect® (rasagiline) tablets	Teva Pharmaceutical Industries Ltd.	Treatment of idiopathic Parkinson's disease	**Monotherapy:** recommended dose is 1mg administered once daily **Adjunctive therapy:** recommended initial dose is 0.5mg administered once daily. If a sufficient clinical response is not achieved, the dose may be increased to 1 mg administered once daily	**Monotherapy:** Headache, arthralgia, dyspepsia, depression, fall, flu syndrome, conjunctivitis, fever, gastroenteritis, rhinitis, arthritis, ecchymosis, malaise, neck pain, paresthesia, vertigo **Adjuncive therapy:** dyskinesia, accidental injury, nausea, headache, fall, weight loss, constipation, postural hypotension, arthralgia, vomiting, dry mouth, rash, somnolence, abdominal pain, anorexia, diarrhea, ecchymosis, dyspepsia, paresthesia, abnormal dreams, hallucinations, ataxia, dyspnea, infection, neck pain, sweating, tenosynovitis, dystonia, gingivitis, hemorrhage, hernia, myasthenia	Meperidine, MAO inhibitors, tramadol, propoxyphene, methadone, dextromethorphan, St. John's wort, mirtazapine, cyclobenzaprine, sympathomimetic amines (amphetamines, psuedoephedrine, phenylephrine, phenylpropanolamine , ephedrine), pheochromocytoma, tyramine-rich foods	Yes	N/A

Omnitrope™ (somatropin (rDNA origin) for injection	Sandoz	-Long-term treatment of pediatric patients who have growth failure due to inadequate secretion of endogenous growth hormone -Long-term replacement therapy in adults with GHD of either childhood- or adult-onset.	-give weekly dose divided into daily subcutaneous injections in the thigh, buttocks, or abdomen -administer preferably in the evening *Pediatric GHD* 0.16 to 0.24 mg/kg/wk *Adult GHD* Initial dose of NMT 0.04 mg/kg/wk, dose may be increased at 4- to 8-wk intervals according to patient requirements, MAX: 0.08 mg/kg/wk	Hypothyroidism, elevated HbA1c, eosinophilia, hematoma, headache, hypertriglyceridemia, leg pain	-Any evidence of neoplastic activity; intracranial lesions must be inactive and antitumor therapy complete prior to initiation of therapy -not for use in growth promotion in pediatric patients with fused epiphyses -patients with acute critical illness due to complications following open heart or abdominal surgery, multiple accidental traumas, or patients having acute respiratory failure -Prader-Willi syndrome who are severely obese or have respiratory impairment -hypersensitivity to somatropin or any of the excipients -Omnitrope™ 5.8 contains benzyl alcohol as a preservative and should not be used in newborns	No	N/A

APPENDIX K

FDA News

FOR IMMEDIATE RELEASE
P06-75
June 5, 2006

Media Inquiries:
Kimberly Rawlings, 301-827-6242
Consumer Inquiries:
888-INFO-FDA

This press release was revised June 6, 2006, to clarify information in the first paragraph.

FDA Approves Resumed Marketing of Tysabri Under a Special Distribution Program

The Food and Drug Administration (FDA) today approved an application for resumed marketing of Tysabri (natalizumab) subject to a special restricted distribution program. Tysabri is a monoclonal antibody used to treat patients with relapsing forms of multiple sclerosis (MS) to reduce the frequency of exacerbations (flare-ups). Tysabri is indicated for use as monotherapy, because we don't know enough about how its use with other immune modifying drugs could impact risk. It is also meant for patients who have not responded adequately to, or cannot tolerate, other treatments for MS.

Tysabri was initially approved by the FDA in November 2004, but was withdrawn by the manufacturer, Biogen-Idec, in February 2005, after three patients in the drug's clinical trials developed progressive multifocal leukoencephalopathy (PML), a serious and rare viral infection of the brain. Two of the cases were fatal. Based on this information, FDA put clinical trials of the drug on hold in February 2005. FDA allowed a clinical trial of Tysabri to resume in February 2006, following a re-examination of the patients who had participated in the previous clinical trials, confirming that there were no additional cases of PML.

To decrease the possibility of patients developing PML in the future, while also making Tysabri available to appropriate MS patients, FDA consulted in March 2006 with its Peripheral and Central Nervous Systems Drugs Advisory Committee. The Advisory Committee recommended a risk-minimization program with mandatory patient registration and periodic follow-up to identify as early as possible any cases of PML that may occur, and to try to determine the reason the infection occurs. In response, Biogen-Idec, submitted to FDA a Risk Management Plan, called the TOUCH Prescribing Program, to help ensure safe use of the product.

Following a thorough review of Biogen-Idec's Risk Management Plan and proposed changes to its original marketing application, FDA determined that Tysabri can be made available under the TOUCH Program with the following main features:

- The drug will only be prescribed, distributed, and infused by prescribers, infusion centers, and pharmacies registered with the program.
- Tysabri will only be administered to patients who are enrolled in the program.
- Prior to initiating the therapy, health care professionals are to obtain the patient's Magnetic Resonance Imaging (MRI) scan to help differentiate potential future multiple sclerosis symptoms from PML.
- Patients on Tysabri are to be evaluated at 3 and 6 months after the first infusion and every 6 months after that, and their status will be reported regularly to Biogen Idec.

More information, including a detailed product history, is available at www.fda.gov/cder/drug/infopage/natalizumab/default.htm.

Biogen Idec is the manufacturer and Elan the distributor for Tysabri. Additional information on the TOUCH Prescribing Program is available from the companies by calling 1-800-456-2255.

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FDA News

FOR IMMEDIATE RELEASE
P06-73
May 26, 2006

Media Inquiries:
Heather Howell, 301-827-6242
Consumer Inquiries:
888-INFO-FDA

FDA Licenses New Vaccine to Reduce Older Americans' Risk of Shingles

The Food and Drug Administration (FDA) licensed Zostavax, on May 25, 2006, a new vaccine to reduce the risk of shingles (herpes zoster) for use in people 60 years of age and older.

Shingles is a disease caused by the varicella-zoster virus, the same virus that causes chickenpox. After an attack of chickenpox, the virus lies dormant in certain nerve tissue. As people age, it is possible for the virus to reappear in the form of shingles, which is estimated to affect 2 in every 10 people in their lifetime. Shingles is characterized by clusters of blisters, which develop on one side of the body and can cause severe pain that may last for weeks, months or years after the virus reappears.

"This vaccine gives health care providers an important tool that can help prevent an illness that affects many older Americans and often results in significant chronic pain," said Jesse L. Goodman, MD, MPH, Director of FDA's Center for Biologics Evaluation and Research.

Zostavax, a live virus vaccine, was shown to boost immunity against varicella-zoster virus. This is thought to be the mechanism by which the vaccine protects against zoster and its complications. The vaccine is given as a single injection under the skin, preferably in the upper arm.

Zostavax was studied in approximately 38,000 individuals throughout the United States who were 60 years of age and older. Of these 38,000 people, half received Zostavax and half received a placebo. All study participants were then followed for an average of three years to see if they developed shingles and, if they did, how long the pain lasted.

At the conclusion of the study, researchers found that, overall, in those ages 60 and above the vaccine reduced the occurrence of shingles by about 50%. For individuals ages 60-69 it reduced occurrence by 64%.

In addition to preventing approximately half of the cases, the duration of pain following the onset of shingles was slightly reduced in people who developed the disease–despite being vaccinated with Zostavax.

The most common side effects in people who received Zostavax were redness, pain and tenderness, swelling at the site of injection, itching and headache. The percent of significant adverse events observed in the study were not different between persons who received the vaccine versus placebo.

As part of the development program, a smaller study was conducted to look more closely at safety. In this smaller study, serious adverse events for all age groups were noted more frequently in those who received Zostavax (1.9%) than those who received placebo (1.3%). Although FDA has concluded that the available data do not establish that these events are related to the vaccine, the manufacturer will perform a Phase 4 (postmarket) study to provide additional safety information.

Zostavax is manufactured by Merck & Co., Inc., of Whitehouse Station, New Jersey.

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FDA News

FOR IMMEDIATE RELEASE
P06-71
May 19, 2006

Media Inquiries:
Kimberly Rawlings, 301-827-6242
Consumer Inquiries:
888-INFO-FDA

FDA Approves Remicade for Children with Crohn's Disease

The Food and Drug Administration today approved Remicade (infliximab) to treat children with active Crohn's disease, a chronic, inflammatory condition of the bowel that can be severely debilitating. Remicade is a genetically engineered monoclonal antibody, which reduces inflammation (swelling/redness) by blocking the action of tumor necrosis factor-alpha (TNF-α), that was initially approved in 1998 to treat Crohn's disease in adults.

Dr. Steven Galson, director of the FDA's Center for Drug Evaluation and Research, noted that there have been no satisfactory treatments for children with Crohn's disease who have moderate to severe disease activity despite traditional or conventional therapies. Crohn's disease can cause diarrhea, cramping, abdominal pain, gastrointestinal bleeding, and in some cases creates abnormal connections (fistulas) leading from the intestine to the skin.

"Remicade is not a cure, but it provides a much-needed option for reducing the symptoms and inducing and maintaining disease remission in children who have no other safe and effective therapy," he said. "We believe that the potential benefits of this product outweigh the risks that are known and have been carefully evaluated."

The safety and effectiveness of Remicade in pediatric Crohn's disease were assessed in a randomized study in 112 children who were 6 to 17 years old with moderately to severely active Crohn's disease who had an inadequate response to conventional therapies. The proportion of these patients who achieved clinical response compared favorably with the proportion of adults in an earlier Remicade study in adult Crohn's disease, and the pediatric trial's results showed no new safety concerns not already expressed in the product's current label.

In general, the safety profile for Remicade in the pediatric trial was similar to the data that was presented at an FDA Arthritis Advisory Committee meeting in March 2003, and that dealt with the extent to which anti-TNF therapies may increase the risk of serious infections and malignancies, such as sepsis and pneumonia in certain patients.

These risks, which are described in a study in the May 17 issue of the Journal of the American Medical Association, are included in the current labels for all approved TNF-alpha blocking agents, including Remicade.

More recently, the FDA has received rare post-marketing reports of an aggressive and often fatal type of T-cell lymphoma (hepatosplenic T-cell lymphoma) in adolescent and young adult patients with the Crohn's disease. In most, but not all cases, these patients were treated with standard immunosuppressive therapies (azathioprine or 6-mercaptopurine) in combination with Remicade. The FDA is working with the manufacturer to address this risk by updating the Warnings sections of the Remicade label.

FDA continues to actively and carefully monitor the safety experience with Remicade and similar therapies in an effort to maximize their very real benefits yet limit, to the degree possible, the potential for very serious toxicities.