Division of Medicaid

Office of the Governor

State of Mississippi

DUR Board Meeting

September 20, 2007

2:00 p.m.

Woolfolk Building, Room 117

Jackson, MS

DIVISION OF MEDICAID
OFFICE OF THE GOVERNOR
DRUG UTILIZATION REVIEW BOARD
AGENDA

September 20, 2007

Welcome — **Frank Marascalco, RPh**

Old Business

- **Approval of Meeting Minutes**
- **Updates** — **Dennis Smith, RPh**
  - **Cost Management Analysis**
  - **DUR Activity Report**

Pharmacy Program Update — **Judith Clark, RPh**

New Business — **Dennis Smith, RPh**

- **Potential Misuse of ADHD Agents**
- **Inappropriate Use of Antibiotics**
- **HIV Criteria Report**
- **Proper Singulair® Utilization**
- **Other Criteria Recommendations**
- **Boxed Warning Update**

Next Meeting Information — **Frank Marascalco, RPh**

Drug Utilization Review Board

Roy L. Arnold, Jr., R.Ph.
Clayton Drug Store
216 Main Street
Collins, MS 39428-0787
Term Expires: June 30, 2009

Harold B. Blakely, R.Ph.
Delta Area Hospice Care
5357 Cliff Gookin Boulevard
Tupelo, MS 38801
Term Expires: June 30, 2008

Laura Gray, M.D.
905 Garfield Street
Tupelo, MS 38801
Term Expires: June 30, 2008

Troy Griffin
Advanced Healthcare Management
402 5th Avenue SW
Magee, MS 39111
Term Expires: June 30, 2008

Frank Marascalco, R.Ph
Sav-Mor Drugs
1967 Commerce Street
Grenada, MS 38901
Term Expires: June 30, 2008

Wallace Strickland
Rush Foundation Hospital
8219 Sycamore Creek Drive
Meridian, MS 39305
Term Expires: June 30, 2008

Lee Voulters, M.D.
1340 Broad Ave Suite 440
Gulfport, MS 39501
Term Expires: June 30, 2009

John M. Wallace, M.D.
Jefferson Medical Clinic
1203 Jefferson Street
Laurel, MS 39440
Term Expires: June 30, 2009

Upcoming Mississippi DUR Board Meeting Dates

November 15, 2007
May 15, 2008
February 21, 2008
August 21, 2008

Minutes

Cost Analysis

Drug Utilization Review Board

ADHD

State of Mississippi, Division of Medicaid
Health Information Designs, Inc.
September 20, 2007

Antibiotics

HIV

Singulair

New Criteria

Boxed Warnings

Mississippi Division of Medicaid
Drug Utilization Review (DUR) Board
Minutes of the May 17, 2007 Meeting

Members Attending: Billy Brown, Pharm.D.; Harold Blakely, R.Ph.; Laura Gray, M. D.; Frank Marascalco, R.Ph., Chair; Wallace Strickland; Lee Voulters, M.D.; John Wallace, M.D.

Members Absent: Roy Arnold, R.Ph.; Randy Calvert, R.Ph.; Lee Montgomery, M.D.; Andrea Phillips, M.D.; Troy Griffin.

Also Present:
DOM Staff: Judith Clark, R.Ph., Director of the Medicaid Pharmacy Bureau; Terri Kirby, R.Ph.; Paige Clayton, Pharm.D.

HID Staff: Dennis Smith, R.Ph., Project Manager; Ashleigh Holeman, Pharm.D.; Kathleen Burns, R.N.; Gail Franks, R.N.

Call to Order:
Frank Marascalco,R.Ph.,Chairman of the Board, called the meeting to order at 2:05 p.m.

Ms. Clark asked that the Board proceed with business that would not require a vote while awaiting arrival of enough members to constitute a quorum.

Updates:
Cost Management Analysis
Mr. Smith began by presenting a report reflecting pharmacy costs during the month of February 2007. The analysis began with the top 15 therapeutic classes by total costs in claims. The top therapeutic class by cost was the antipsychotic agents followed by monoclonal antibodies. The top 25 drugs based on the total number of claims were led by azithromycin. Mr. Smith continued the report with the top 25 drugs based on total claims cost, led by Synagis. It was pointed out that Synagis is a seasonal pharmaceutical with most utilization ending in March.

Approval of the Minutes:
With the arrival of a seventh Board member, Wallace Strickland made a motion to accept as submitted the minutes for the February 15, 2007 meeting. Dr. Voulters seconded the motion. All voted in favor of the approval.

DUR Activity Report:
Mr. Smith continued with a discussion of the role of the retrospective DUR program in encouraging proper utilization of medications. Dr. Voulters brought to the Board his input on the proper utilization of stimulants in both children and adults. It was suggested that HID develop criteria to alert the system of the use of stimulants, as well as Strattera. These initial retrospective reports will be presented at the next Board meeting.

Pharmacy Program Update:
Ms. Clark began her update by reviewing a handout concerning the removal of Zelnorm from the market by the FDA. In addition, she alerted the Board of the revised PDL that will be in place starting July 1, 2007. The new PDL will be published in the June Medicaid Bulletin.

New Business:
Ophthalmic Antibiotics
Mr. Smith began by presenting an extensive report on bacterial conjunctivitis and the appropriate use of ophthalmic antibiotics. Appropriate use of these agents has become a concern of many managed care organizations. As a result, many health insurers have limited access to these agents through prior authorization step-therapy requirements. These agents will be reviewed by the Mississippi Medicaid Pharmacy and Therapeutics Committee at the July meeting for the inclusion on the Preferred Drug List.

HID recommended distribution of a Medicaid Prescribing Update for this drug category. This is to be delivered to prescribers by the Academic Detailing staff of HID. This document should also be available by link from the Division of Medicaid's Website. In addition, HID recommended retrospective DUR criteria to focus on appropriate length of therapy and use in appropriate age patients. The motion was made by Harold Blakely and seconded by Dr. Laura Gray to accept these recommendations. All voted in favor of this motion.

HIV Therapy
Mr. Smith continued with a report based on the most recent NIH treatment guidelines for the treatment of HIV, updated in October 2006. He presented criteria based on these guidelines. After extensive discussions ranging from the total cost of the medications to the appropriate treatment for HIV patients, the criteria were brought to the Board for a vote. Dr. Voulters motioned that the criteria presented with requested changes be accepted. Mr. Strickland seconded the motion. All voted in favor of accepting the 83 criteria as presented by HID.

Other Criteria Recommendations
Continuing with a review of the remaining 31 criteria pertaining to several new drugs, Dr. Voulters made a motion to accept the criteria as presented with a second by Dr. Laura Gray. All voted in favor of the motion.

Mr. Smith asked the Board for input on developing a response to prescribers related to the removal of Zelnorm® from the market. The board recommended developing a Medicaid Prescribing Update (one pager) with the input of a gastroenterologist to help inform physicians of the appropriate approach to treatment of chronic idiopathic constipation and irritable bowel syndrome (IBS).

Mr. Smith introduced an off-the-agenda discussion of the antiplatelet class of medications. These medications were reviewed at the April meeting by the P& T Committee. It was noted that from April 2006 through April 2007, approximately 10,000

claims had been processed at a total of 1.4 million dollars. He continued that a Medicaid Prescribing Update (one pager) could be delivered to the physicians to educate them on the comparison studies available for this class of drugs. It is believed that the utilization of this class is appropriate but should be addressed educationally. All members supported the distribution of such a document by the Academic Detailers.

Boxed Warnings Update:
Mr. Smith presented black box warnings, other warnings, and labeling changes issued by the FDA concerning the following:

Actiq (fentanyl citrate) Oral Transmucosal Lozenge:
WARNINGS: IMPORTANCE OF PROPER PATIENT SELECTION
and POTENTIAL FOR ABUSE
See full prescribing information for complete boxed warning.

- Must not be used in opioid non-tolerant patients.
- Contains fentanyl, a Schedule II controlled substance with abuse liability similar to other opioid analgesics.
- Life-threatening hypoventilation could occur at any dose in patients not taking chronic opiates.
- Contraindicated in management of acute or postoperative pain.
- Contains medicine in an amount that can be fatal to a child. Keep out of reach of children and discard opened units properly.
- Use with strong and moderate CYP450 3A4 inhibitors may result in potentially fatal respiratory depression.

Femring (estradiol acetate vaginal ring):
BOXED WARNING: Cardiovascular and Other Risks
.....The estrogen-alone substudy of the Women's Health Initiative (WHI) reported increased risks of stroke and deep vein thrombosis (DVT) in postmenopausal women (50 to 79 years of age) during 6.8 years and 7.1 years, respectively, of treatment with oral conjugated estrogens (CE 0.625 mg) per day relative to placebo. The estrogen-plus-progestin substudy of WHI reported increased risks of myocardial infarction, stroke, invasive breast cancer, pulmonary emboli, and deep vein thrombosis in postmenopausal women (50 to 79 years of age) during 5.6 years of treatment with oral conjugated estrogens (CE 0.625 mg) combined with medroxyprogesterone acetate (MPA 2.5 mg) per day, relative to placebo. The Women's Health Initiative Memory Study (WHIMS), a substudy of WHI, reported increased risk of developing probable dementia in postmenopausal women 65 years of age or older during 5.2 years of treatment with CE 0.625 mg alone and during 4 years of treatment with CE 0.625 mg combined with MPA 2.5 mg, relative to placebo. It is unknown whether this finding applies to younger postmenopausal women.....

Humira (adalimumab) Solution for Subcutaneous Injection:
BOXED WARNING
.....Patients should be evaluated for tuberculosis risk factors and be tested for latent tuberculosis infection prior to initiating Humira and during therapy.....

Ketek (telithromycin) Tablets:
BOXED WARNING
Ketek is contraindicated in patients with myasthenia gravis. There have been reports of fatal and life-threatening respiratory failure in patients with myasthenia gravis associated with the use of Ketek.

Benazepril-containing products (Lotensin, Lotensin HCT, Lotrel):
BOXED WARNING**:** Use in Pregnancy
When used in pregnancy, ACE inhibitors can cause injury and even death to the developing fetus. When pregnancy is detected, Lotensin should be discontinued as soon as possible.....

Next Meeting Information:
Ms. Clark announced that the next meeting would be on August 16, 2007. She continued with the information that there would be new additions to the Board at the next meeting.

Special recognition:
Billy Brown, Pharm.D., was complimented for his service on this Board as his term will end prior to the next meeting.

Frank Marascalco called for the meeting to be adjourned. Dr. Lee Voulters made the motion to adjourn and Harold Blakely seconded the motion. All voted in favor of the motion to adjourn.

Respectfully Submitted:
Health Information Designs

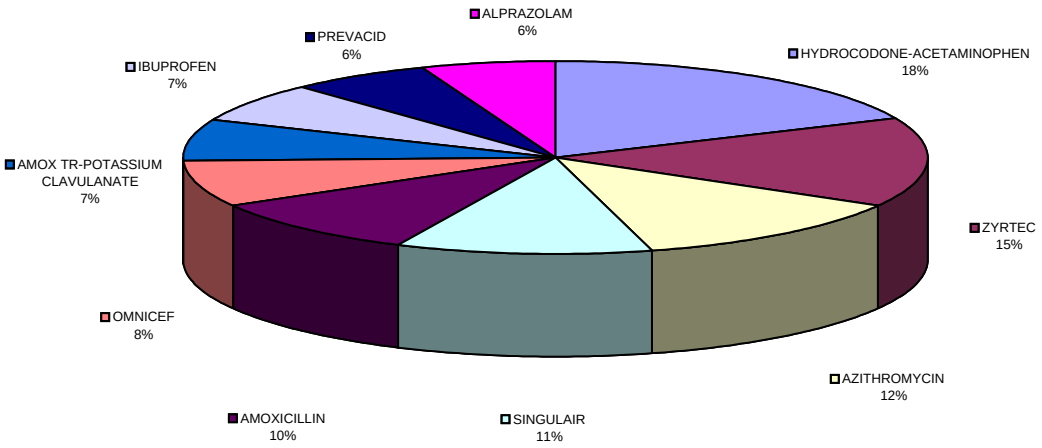
MISSISSIPPI MEDICAID
Cost Management Analysis

TOP 25 DRUGS BASED ON NUMBER OF CLAIMS FROM 04/01/07-04/30/07

Drug	AHFS Therapeutic Class	Rx	Paid	Paid/Rx
HYDROCODONE-ACETAMINOPHEN	OPIATE AGONISTS	12,350	$ 130,490.39	$ 10.57
ZYRTEC	SECOND GENERATION ANTIHISTAMINES	10,268	$ 550,672.80	$ 53.63
AZITHROMYCIN	MACROLIDES	8,473	$ 302,315.33	$ 35.68
SINGULAIR	LEUKOTRIENE MODIFIERS	7,434	$ 759,350.79	$ 102.15
AMOXICILLIN	PENICILLINS	6,643	$ 56,005.42	$ 8.43
OMNICEF	CEPHALOSPORINS	5,270	$ 479,727.67	$ 91.03
AMOX TR-POTASSIUM CLAVULANATE	PENICILLINS	4,776	$ 253,898.39	$ 53.16
IBUPROFEN	NONSTEROIDAL ANTI-INFLAMMATORY AGENTS	4,466	$ 35,334.94	$ 7.91
PREVACID	PROTON-PUMP INHIBITORS	4,100	$ 577,472.85	$ 140.85
ALPRAZOLAM	BENZODIAZEPINES (ANXIOLYTIC,SEDATIV/HYP)	4,006	$ 32,942.41	$ 8.22
ED A-HIST	PROPYLAMINE DERIVATIVES	3,865	$ 36,411.75	$ 9.42
SULFAMETHOXAZOLE/TRIMETHOPRIM	SULFONAMIDES (SYSTEMIC)	3,723	$ 44,096.80	$ 11.84
AMOXICILLIN TRIHYDRATE	PENICILLINS	3,637	$ 42,782.68	$ 11.76
CEPHALEXIN	CEPHALOSPORINS	3,621	$ 58,667.27	$ 16.20
PROMETHAZINE HCL	PHENOTHIAZINE DERIVATIVES	3,198	$ 37,792.30	$ 11.82
ACETAMINOPHEN W/CODEINE	OPIATE AGONISTS	3,182	$ 27,118.37	$ 8.52
ALBUTEROL SULFATE	BETA-ADRENERGIC AGONISTS	3,176	$ 80,675.60	$ 25.40
ADDERALL XR	AMPHETAMINES	3,090	$ 386,459.74	$ 125.07
CLONAZEPAM	BENZODIAZEPINES (ANTICONVULSANTS)	3,022	$ 56,657.02	$ 18.75
ALBUTEROL	BETA-ADRENERGIC AGONISTS	2,890	$ 70,211.25	$ 24.29
RISPERDAL	ANTIPSYCHOTIC AGENTS	2,801	$ 719,307.82	$ 256.80
LORAZEPAM	BENZODIAZEPINES (ANXIOLYTIC,SEDATIV/HYP)	2,635	$ 70,758.64	$ 26.85
CONCERTA	ANOREX.,RESPIR.,CEREBRAL STIMULANTS,MISC	2,572	$ 323,113.63	$ 125.63
FERROUS SULFATE	IRON PREPARATIONS	2,462	$ 9,414.04	$ 3.82
NYSTATIN	ANTIFUNGALS (SKIN & MUCOUS MEMBRANE)	2,422	$ 33,131.42	$ 13.68
TOTAL TOP 25		114,082	$ 5,174,809.32	$ 45.36

Total Rx Claims From 04/01/07-04/30/07	353,044

Top 10 Drugs
Based on Number of Claims



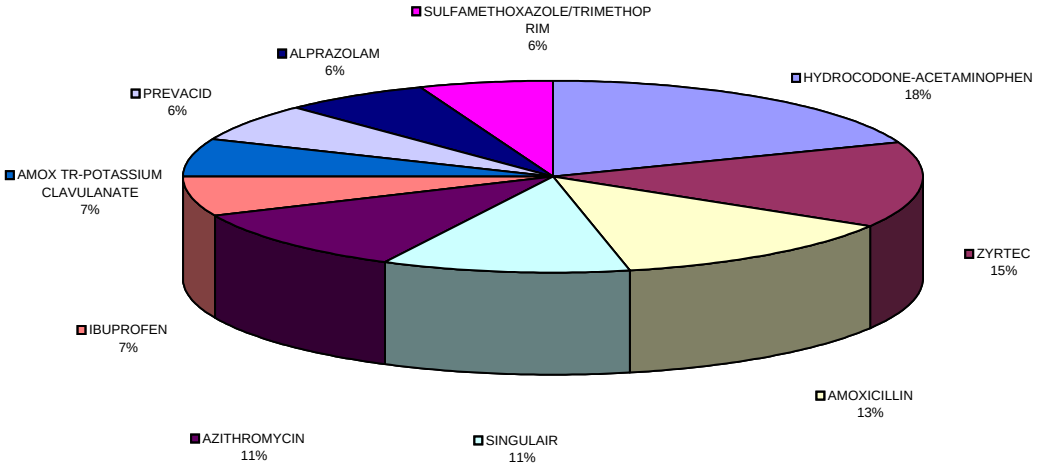
MISSISSIPPI MEDICAID
Cost Management Analysis

TOP 25 DRUGS BASED ON NUMBER OF CLAIMS FROM 05/01/07-05/31/07

Drug	AHFS Therapeutic Class	Rx	Paid	Paid/Rx
HYDROCODONE-ACETAMINOPHEN	OPIATE AGONISTS	12,471	$ 130,138.86	$ 10.44
ZYRTEC	SECOND GENERATION ANTIHISTAMINES	9,580	$ 511,949.13	$ 53.44
AMOXICILLIN	PENICILLINS	8,584	$ 81,041.88	$ 9.44
SINGULAIR	LEUKOTRIENE MODIFIERS	7,129	$ 731,059.75	$ 102.55
AZITHROMYCIN	MACROLIDES	6,998	$ 248,580.68	$ 35.52
IBUPROFEN	NONSTEROIDAL ANTI-INFLAMMATORY AGENTS	4,312	$ 34,384.48	$ 7.97
AMOX TR-POTASSIUM CLAVULANATE	PENICILLINS	4,263	$ 221,330.33	$ 51.92
PREVACID	PROTON-PUMP INHIBITORS	4,238	$ 595,373.55	$ 140.48
ALPRAZOLAM	BENZODIAZEPINES (ANXIOLYTIC,SEDATIV/HYP)	4,172	$ 34,509.41	$ 8.27
SULFAMETHOXAZOLE/TRIMETHOPRIM	SULFONAMIDES (SYSTEMIC)	3,791	$ 44,816.69	$ 11.82
CEPHALEXIN	CEPHALOSPORINS	3,311	$ 52,885.97	$ 15.97
CLONAZEPAM	BENZODIAZEPINES (ANTICONVULSANTS)	3,202	$ 59,941.67	$ 18.72
ACETAMINOPHEN W/CODEINE	OPIATE AGONISTS	3,110	$ 25,539.40	$ 8.21
ED A-HIST	PROPYLAMINE DERIVATIVES	2,967	$ 27,363.59	$ 9.22
PROMETHAZINE HCL	PHENOTHIAZINE DERIVATIVES	2,905	$ 35,246.84	$ 12.13
ALBUTEROL SULFATE	BETA-ADRENERGIC AGONISTS	2,864	$ 73,072.22	$ 25.51
RISPERDAL	ANTIPSYCHOTIC AGENTS	2,857	$ 736,294.75	$ 257.72
LORAZEPAM	BENZODIAZEPINES (ANXIOLYTIC,SEDATIV/HYP)	2,806	$ 74,163.97	$ 26.43
ADDERALL XR	AMPHETAMINES	2,767	$ 348,180.79	$ 125.83
ALBUTEROL	BETA-ADRENERGIC AGONISTS	2,750	$ 67,430.59	$ 24.52
OMNICEF	CEPHALOSPORINS	2,558	$ 238,240.03	$ 93.14
FERROUS SULFATE	IRON PREPARATIONS	2,551	$ 9,193.21	$ 3.60
NYSTATIN	ANTIFUNGALS (SKIN & MUCOUS MEMBRANE)	2,430	$ 33,016.78	$ 13.59
MUPIROCIN	ANTIBACTERIALS (SKIN & MUCOUS MEMBRANE)	2,396	$ 90,503.84	$ 37.77
CONCERTA	ANOREX.,RESPIR.,CEREBRAL STIMULANTS,MISC	2,261	$ 285,862.24	$ 126.43
TOTAL TOP 25		107,273	$ 4,790,120.65	$ 44.65

Total Rx Claims From 05/01/07-05/31/07	343,357

Top 10 Drugs
Based on Number of Claims



Health Information
Designs, Inc.

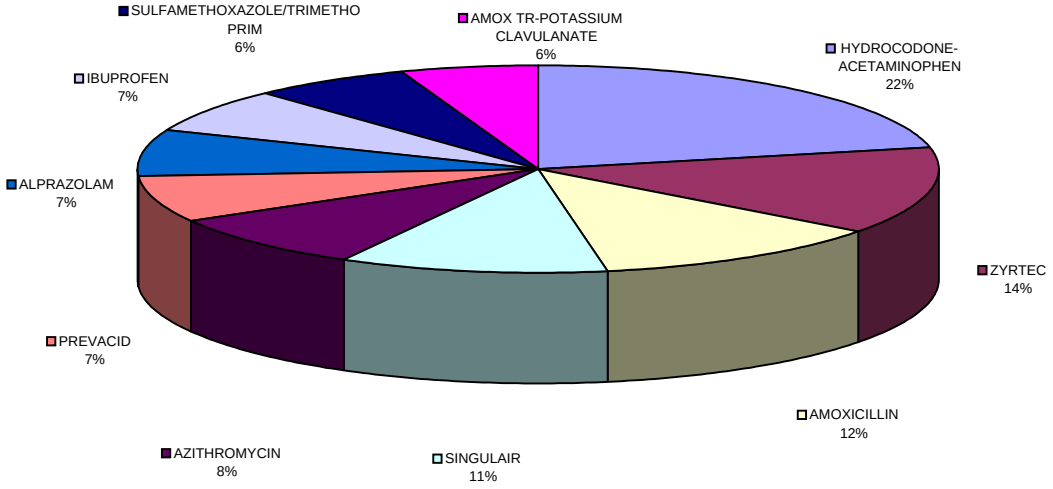
MISSISSIPPI MEDICAID
Cost Management Analysis

TOP 25 DRUGS BASED ON NUMBER OF CLAIMS FROM 06/01/07-06/30/07

Drug	AHFS Therapeutic Class	Rx	Paid	Paid/Rx
HYDROCODONE-ACETAMINOPHEN	OPIATE AGONISTS	12,332	$ 130,086.45	$ 10.55
ZYRTEC	SECOND GENERATION ANTIHISTAMINES	7,839	$ 422,201.09	$ 53.86
AMOXICILLIN	PENICILLINS	6,878	$ 63,465.32	$ 9.23
SINGULAIR	LEUKOTRIENE MODIFIERS	6,178	$ 632,765.05	$ 102.42
AZITHROMYCIN	MACROLIDES	4,787	$ 169,986.64	$ 35.51
PREVACID	PROTON-PUMP INHIBITORS	4,211	$ 598,410.12	$ 142.11
ALPRAZOLAM	BENZODIAZEPINES (ANXIOLYTIC,SEDATIV/HYP)	4,186	$ 34,737.76	$ 8.30
IBUPROFEN	NONSTEROIDAL ANTI-INFLAMMATORY AGENTS	3,830	$ 30,342.72	$ 7.92
SULFAMETHOXAZOLE/TRIMETHOPRIM	SULFONAMIDES (SYSTEMIC)	3,685	$ 44,867.88	$ 12.18
AMOX TR-POTASSIUM CLAVULANATE	PENICILLINS	3,205	$ 167,658.01	$ 52.31
CLONAZEPAM	BENZODIAZEPINES (ANTICONVULSANTS)	3,073	$ 57,473.57	$ 18.70
ACETAMINOPHEN W/CODEINE	OPIATE AGONISTS	2,953	$ 23,519.73	$ 7.96
CEPHALEXIN	CEPHALOSPORINS	2,922	$ 45,933.42	$ 15.72
CEFDINIR	CEPHALOSPORINS	2,907	$ 205,577.93	$ 70.72
RISPERDAL	ANTIPSYCHOTIC AGENTS	2,824	$ 731,482.24	$ 259.02
LORAZEPAM	BENZODIAZEPINES (ANXIOLYTIC,SEDATIV/HYP)	2,744	$ 72,039.43	$ 26.25
FERROUS SULFATE	IRON PREPARATIONS	2,528	$ 8,791.19	$ 3.48
ALBUTEROL	BETA-ADRENERGIC AGONISTS	2,508	$ 61,854.71	$ 24.66
MUPIROCIN	ANTIBACTERIALS (SKIN & MUCOUS MEMBRANE)	2,452	$ 92,466.81	$ 37.71
PROMETHAZINE HCL	PHENOTHIAZINE DERIVATIVES	2,384	$ 29,858.53	$ 12.52
FUROSEMIDE	LOOP DIURETICS	2,342	$ 12,209.76	$ 5.21
ADDERALL XR	AMPHETAMINES	2,311	$ 293,719.28	$ 127.10
ALBUTEROL SULFATE	BETA-ADRENERGIC AGONISTS	2,215	$ 59,394.97	$ 26.81
NYSTATIN	POLYENES	2,180	$ 30,604.59	$ 14.04
LISINOPRIL	ANGIOTENSIN-CONVERTING ENZYME INHIBITORS	2,080	$ 47,834.09	$ 23.00
TOTAL TOP 25		95,554	$ 4,067,281.29	$ 42.57

Total Rx Claims From 06/01/07-06/30/07	316,818

Top 10 Drugs
Based on Number of Claims



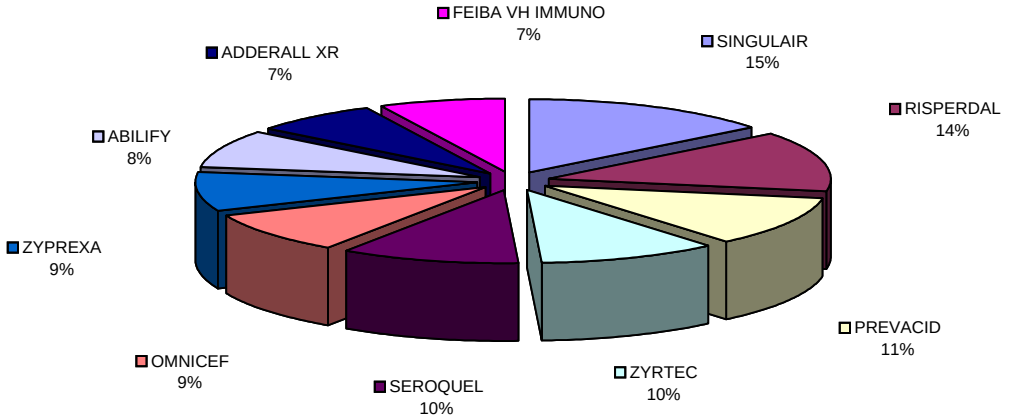
MISSISSIPPI MEDICAID
Cost Management Analysis

TOP 25 DRUGS BASED ON TOTAL CLAIMS COST FROM 04/01/07-04/30/07

Drug	AHFS Therapeutic Class	Rx	Paid	Paid/Rx
SINGULAIR	LEUKOTRIENE MODIFIERS	7,434	$ 759,350.79	$ 102.15
RISPERDAL	ANTIPSYCHOTIC AGENTS	2,801	$ 719,307.82	$ 256.80
PREVACID	PROTON-PUMP INHIBITORS	4,100	$ 577,472.85	$ 140.85
ZYRTEC	SECOND GENERATION ANTIHISTAMINES	10,268	$ 550,672.80	$ 53.63
SEROQUEL	ANTIPSYCHOTIC AGENTS	1,860	$ 547,554.19	$ 294.38
OMNICEF	CEPHALOSPORINS	5,270	$ 479,727.67	$ 91.03
ZYPREXA	ANTIPSYCHOTIC AGENTS	1,022	$ 463,778.87	$ 453.80
ABILIFY	ANTIPSYCHOTIC AGENTS	1,041	$ 444,327.66	$ 426.83
ADDERALL XR	AMPHETAMINES	3,090	$ 386,459.74	$ 125.07
FEIBA VH IMMUNO	HEMOSTATICS	6	$ 376,259.11	$ 62,709.85
PULMICORT	ADRENALS	1,600	$ 375,466.03	$ 234.67
TOPAMAX	ANTICONVULSANTS, MISCELLANEOUS	1,197	$ 327,059.26	$ 273.23
CONCERTA	ANOREX.,RESPIR.,CEREBRAL STIMULANTS,MISC	2,572	$ 323,113.63	$ 125.63
AZITHROMYCIN	MACROLIDES	8,473	$ 302,315.33	$ 35.68
XOPENEX	BETA-ADRENERGIC AGONISTS	1,749	$ 266,296.55	$ 152.26
ADVAIR DISKUS	BETA-ADRENERGIC AGONISTS	1,490	$ 260,962.90	$ 175.14
AMOX TR-POTASSIUM CL	PENICILLINS	4,776	$ 253,898.39	$ 53.16
TRILEPTAL	ANTICONVULSANTS, MISCELLANEOUS	1,141	$ 217,035.93	$ 190.22
GEODON	ANTIPSYCHOTIC AGENTS	741	$ 215,867.26	$ 291.32
LAMICTAL	ANTICONVULSANTS, MISCELLANEOUS	697	$ 205,824.43	$ 295.30
STRATTERA	CENTRAL NERVOUS SYSTEM AGENTS, MISC.	1,368	$ 199,841.31	$ 146.08
GABAPENTIN	ANTICONVULSANTS, MISCELLANEOUS	1,725	$ 197,524.39	$ 114.51
EXJADE	HEAVY METAL ANTAGONISTS	49	$ 188,226.38	$ 3,841.35
LIPITOR	HMG-COA REDUCTASE INHIBITORS	1,757	$ 178,146.57	$ 101.39
EFFEXOR XR	ANTIDEPRESSANTS	1,137	$ 169,587.30	$ 149.15
TOTAL TOP 25		67,364	$ 8,986,077.16	$ 133.40

Total Rx Claims From 04/01/07-04/30/07	353,044

Top 10 Drugs
Based on Total Claims Cost



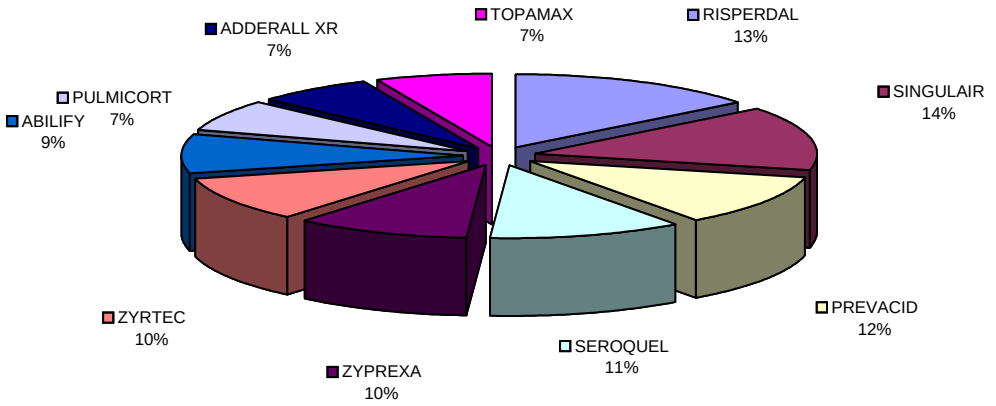
MISSISSIPPI MEDICAID
Cost Management Analysis

TOP 25 DRUGS BASED ON TOTAL CLAIMS COST FROM 05/01/07-05/31/07

Drug	AHFS Therapeutic Class	Rx	Paid	Paid/Rx
RISPERDAL	ANTIPSYCHOTIC AGENTS	2,857	$ 736,294.75	$ 257.72
SINGULAIR	LEUKOTRIENE MODIFIERS	7,129	$ 731,059.75	$ 102.55
PREVACID	PROTON-PUMP INHIBITORS	4,238	$ 595,373.55	$ 140.48
SEROQUEL	ANTIPSYCHOTIC AGENTS	1,905	$ 562,895.02	$ 295.48
ZYPREXA	ANTIPSYCHOTIC AGENTS	1,108	$ 516,615.55	$ 466.26
ZYRTEC	SECOND GENERATION ANTIHISTAMINES	9,580	$ 511,949.13	$ 53.44
ABILIFY	ANTIPSYCHOTIC AGENTS	1,059	$ 450,197.96	$ 425.12
PULMICORT	ADRENALS	1,520	$ 351,036.91	$ 230.95
ADDERALL XR	AMPHETAMINES	2,767	$ 348,180.79	$ 125.83
TOPAMAX	ANTICONVULSANTS, MISCELLANEOUS	1,214	$ 340,962.12	$ 280.86
ADVATE	HEMOSTATICS	14	$ 301,220.76	$ 21,515.77
CONCERTA	ANOREX.,RESPIR.,CEREBRAL STIMULANTS,MISC	2,261	$ 285,862.24	$ 126.43
FEIBA VH IMMUNO	HEMOSTATICS	3	$ 276,680.56	$ 92,226.85
ADVAIR DISKUS	BETA-ADRENERGIC AGONISTS	1,495	$ 262,487.36	$ 175.58
AZITHROMYCIN	MACROLIDES	6,998	$ 248,580.68	$ 35.52
OMNICEF	CEPHALOSPORINS	2,558	$ 238,240.03	$ 93.14
XOPENEX	BETA-ADRENERGIC AGONISTS	1,460	$ 226,778.34	$ 155.33
LAMICTAL	ANTICONVULSANTS, MISCELLANEOUS	753	$ 222,248.65	$ 295.15
TRILEPTAL	ANTICONVULSANTS, MISCELLANEOUS	1,182	$ 221,337.65	$ 187.26
AMOX TR-POTASSIUM CL	PENICILLINS	4,263	$ 221,330.33	$ 51.92
GEODON	ANTIPSYCHOTIC AGENTS	752	$ 219,406.04	$ 291.76
EXJADE	HEAVY METAL ANTAGONISTS	54	$ 210,853.32	$ 3,904.69
GABAPENTIN	ANTICONVULSANTS, MISCELLANEOUS	1,718	$ 201,364.19	$ 117.21
STRATTERA	CENTRAL NERVOUS SYSTEM AGENTS, MISC.	1,254	$ 180,915.56	$ 144.27
DEPAKOTE	ANTICONVULSANTS, MISCELLANEOUS	1,016	$ 180,814.62	$ 177.97
TOTAL TOP 25		59,158	$ 8,642,685.86	$ 146.09

Total Rx Claims From 05/01/07-05/31/07	343,357

Top 10 Drugs
Based on Total Claims Cost



Health Information Designs, Inc.

MISSISSIPPI MEDICAID
Cost Management Analysis

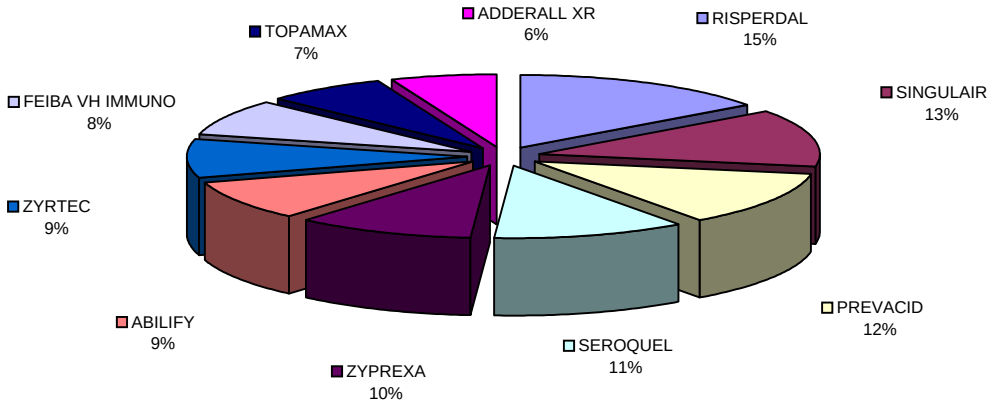
08/01/2007

TOP 25 DRUGS BASED ON TOTAL CLAIMS COST FROM 06/01/07-06/30/07

Drug	AHFS Therapeutic Class	Rx	Paid	Paid/Rx	% Total Claims
RISPERDAL	ANTIPSYCHOTIC AGENTS	2,824	$ 731,482.24	$ 259.02	0.89%
SINGULAIR	LEUKOTRIENE MODIFIERS	6,178	$ 632,765.05	$ 102.42	1.95%
PREVACID	PROTON-PUMP INHIBITORS	4,211	$ 598,410.12	$ 142.11	1.33%
SEROQUEL	ANTIPSYCHOTIC AGENTS	1,812	$ 541,165.14	$ 298.66	0.57%
ZYPREXA	ANTIPSYCHOTIC AGENTS	1,053	$ 503,888.73	$ 478.53	0.33%
ABILIFY	ANTIPSYCHOTIC AGENTS	1,020	$ 443,713.95	$ 435.01	0.32%
ZYRTEC	SECOND GENERATION ANTIHISTAMINES	7,839	$ 422,201.09	$ 53.86	2.47%
FEIBA VH IMMUNO	HEMOSTATICS	5	$ 388,447.47	$ 77,689.49	0.00%
TOPAMAX	ANTICONVULSANTS, MISCELLANEOUS	1,173	$ 352,022.05	$ 300.10	0.37%
ADDERALL XR	AMPHETAMINES	2,311	$ 293,719.28	$ 127.10	0.73%
PULMICORT	ADRENALS	1,134	$ 265,189.02	$ 233.85	0.36%
ADVAIR DISKUS	BETA-ADRENERGIC AGONISTS	1,445	$ 256,286.83	$ 177.36	0.46%
CONCERTA	ANOREX.,RESPIR.,CEREBRAL STIMULANTS,MISC	1,873	$ 241,683.35	$ 129.04	0.59%
GEODON	ANTIPSYCHOTIC AGENTS	754	$ 220,021.58	$ 291.81	0.24%
TRILEPTAL	ANTICONVULSANTS, MISCELLANEOUS	1,144	$ 218,010.65	$ 190.57	0.36%
LAMICTAL	ANTICONVULSANTS, MISCELLANEOUS	728	$ 213,831.49	$ 293.72	0.23%
ADVATE	HEMOSTATICS	8	$ 206,386.62	$ 25,798.33	0.00%
CEFDINIR	CEPHALOSPORINS	2,907	$ 205,577.93	$ 70.72	0.92%
GABAPENTIN	ANTICONVULSANTS, MISCELLANEOUS	1,686	$ 196,531.34	$ 116.57	0.53%
EXJADE	HEAVY METAL ANTAGONISTS	48	$ 190,668.41	$ 3,972.26	0.02%
LIPITOR	HMG-COA REDUCTASE INHIBITORS	1,807	$ 183,121.20	$ 101.34	0.57%
EFFEXOR XR	ANTIDEPRESSANTS	1,220	$ 182,446.33	$ 149.55	0.39%
HELIXATE FS	HEMOSTATICS	9	$ 181,755.04	$ 20,195.00	0.00%
KEPPRA	ANTICONVULSANTS, MISCELLANEOUS	741	$ 176,869.18	$ 238.69	0.23%
DEPAKOTE	ANTICONVULSANTS, MISCELLANEOUS	985	$ 171,164.41	$ 173.77	0.31%
TOTAL TOP 25		44,915	$ 8,017,358.50	$ 178.50	14.18%

Total Rx Claims From 06/01/07-06/30/07	316,818

Top 10 Drugs
Based on Total Claims Cost



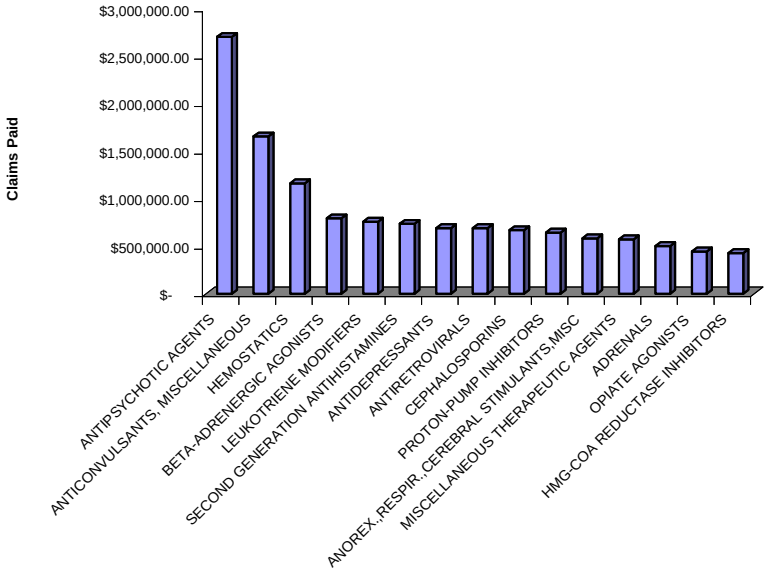
MISSISSIPPI MEDICAID
Cost Management Analysis

TOP 15 THERAPEUTIC CLASSES BY TOTAL COST OF CLAIMS FROM 04/01/07-04/30/07

AHFS Therapeutic Class	Rx	Paid	Paid/Rx	% Total Claims
ANTIPSYCHOTIC AGENTS	9,610	$ 2,704,581.53	$ 281.43	2.72%
ANTICONVULSANTS, MISCELLANEOUS	9,941	$ 1,656,651.23	$ 166.65	2.82%
HEMOSTATICS	41	$ 1,162,563.96	$28,355.22	0.01%
BETA-ADRENERGIC AGONISTS	10,985	$ 794,295.49	$ 72.31	3.11%
LEUKOTRIENE MODIFIERS	7,439	$ 759,935.34	$ 102.16	2.11%
SECOND GENERATION ANTIHISTAMINES	14,584	$ 737,084.01	$ 50.54	4.13%
ANTIDEPRESSANTS	13,069	$ 692,699.05	$ 53.00	3.70%
ANTIRETROVIRALS	1,058	$ 690,616.65	$ 652.76	0.30%
CEPHALOSPORINS	11,215	$ 669,489.82	$ 59.70	3.18%
PROTON-PUMP INHIBITORS	4,641	$ 645,192.90	$ 139.02	1.31%
ANOREX.,RESPIR.,CEREBRAL STIMULANTS,MISC	5,222	$ 584,756.89	$ 111.98	1.48%
MISCELLANEOUS THERAPEUTIC AGENTS	2,063	$ 573,026.03	$ 277.76	0.58%
ADRENALS	8,132	$ 501,866.81	$ 61.72	2.30%
OPIATE AGONISTS	22,922	$ 446,091.63	$ 19.46	6.49%
HMG-COA REDUCTASE INHIBITORS	4,671	$ 428,075.79	$ 91.65	1.32%
TOTAL TOP 15	125,593	$ 13,046,927.13	$ 103.88	35.57%

Total Rx Claims	353,044
From 04/01/07-04/30/07	

Top 15 Therapeutic Classes
Based on Total Cost of Claims



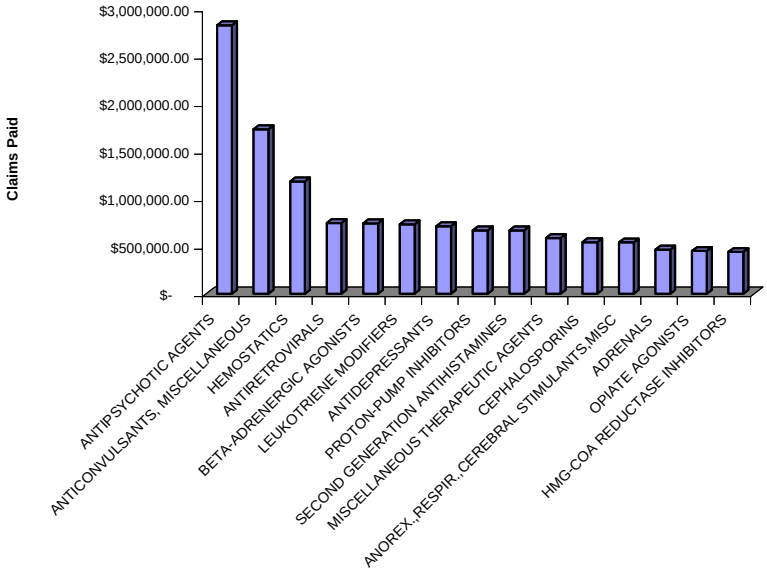
MISSISSIPPI MEDICAID
Cost Management Analysis

TOP 15 THERAPEUTIC CLASSES BY TOTAL COST OF CLAIMS FROM 05/01/07-05/31/07

AHFS Therapeutic Class	Rx	Paid	Paid/Rx	% Total Claims
ANTIPSYCHOTIC AGENTS	9,953	$ 2,826,486.82	$ 283.98	2.90%
ANTICONVULSANTS, MISCELLANEOUS	10,269	$ 1,732,759.83	$ 168.74	2.99%
HEMOSTATICS	49	$ 1,183,892.07	$24,161.06	0.01%
ANTIRETROVIRALS	1,096	$ 744,319.28	$ 679.12	0.32%
BETA-ADRENERGIC AGONISTS	10,202	$ 742,484.21	$ 72.78	2.97%
LEUKOTRIENE MODIFIERS	7,135	$ 731,487.37	$ 102.52	2.08%
ANTIDEPRESSANTS	13,389	$ 711,625.05	$ 53.15	3.90%
PROTON-PUMP INHIBITORS	4,807	$ 668,920.07	$ 139.16	1.40%
SECOND GENERATION ANTIHISTAMINES	13,340	$ 668,180.08	$ 50.09	3.89%
MISCELLANEOUS THERAPEUTIC AGENTS	2,146	$ 587,584.02	$ 273.80	0.63%
CEPHALOSPORINS	9,963	$ 544,324.64	$ 54.63	2.90%
ANOREX.,RESPIR.,CEREBRAL STIMULANTS,MISC	4,759	$ 541,489.88	$ 113.78	1.39%
ADRENALS	7,581	$ 464,644.88	$ 61.29	2.21%
OPIATE AGONISTS	23,044	$ 450,481.81	$ 19.55	6.71%
HMG-COA REDUCTASE INHIBITORS	4,820	$ 440,748.01	$ 91.44	1.40%
TOTAL TOP 15	122,553	$ 13,039,428.02	$ 106.40	35.69%

Total Rx Claims	343,357
From 05/01/07-05/31/07	

Top 15 Therapeutic Classes
Based on Total Cost of Claims



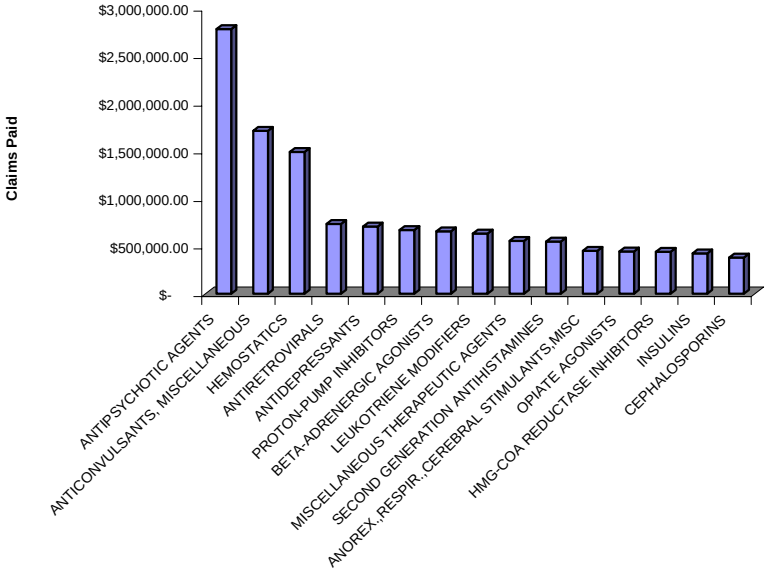
MISSISSIPPI MEDICAID
Cost Management Analysis

TOP 15 THERAPEUTIC CLASSES BY TOTAL COST OF CLAIMS FROM 06/01/07-06/30/07

AHFS Therapeutic Class	Rx	Paid	Paid/Rx	% Total Claims
ANTIPSYCHOTIC AGENTS	9,702	$ 2,779,742.93	$ 286.51	3.06%
ANTICONVULSANTS, MISCELLANEOUS	10,036	$ 1,711,302.07	$ 170.52	3.17%
HEMOSTATICS	54	$ 1,489,297.53	$27,579.58	0.02%
ANTIRETROVIRALS	1,114	$ 732,695.54	$ 657.72	0.35%
ANTIDEPRESSANTS	13,222	$ 705,548.69	$ 53.36	4.17%
PROTON-PUMP INHIBITORS	4,768	$ 669,269.62	$ 140.37	1.50%
BETA-ADRENERGIC AGONISTS	8,770	$ 654,974.07	$ 74.68	2.77%
LEUKOTRIENE MODIFIERS	6,185	$ 633,899.34	$ 102.49	1.95%
MISCELLANEOUS THERAPEUTIC AGENTS	2,187	$ 556,509.96	$ 254.46	0.69%
SECOND GENERATION ANTIHISTAMINES	10,896	$ 548,262.98	$ 50.32	3.44%
ANOREX.,RESPIR.,CEREBRAL STIMULANTS,MISC	3,907	$ 452,161.71	$ 115.73	1.23%
OPIATE AGONISTS	22,819	$ 445,823.03	$ 19.54	7.20%
HMG-COA REDUCTASE INHIBITORS	4,856	$ 441,505.19	$ 90.92	1.53%
INSULINS	3,382	$ 424,370.42	$ 125.48	1.07%
CEPHALOSPORINS	7,892	$ 379,685.81	$ 48.11	2.49%
TOTAL TOP 15	109,790	$ 12,625,048.89	$ 114.99	34.65%

Total Rx Claims	316,818
From 06/01/07-06/30/07	

Top 15 Therapeutic Classes
Based on Total Cost of Claims



Potential Misuse of ADHD Agents

Introduction

Attention Deficit Hyperactivity Disorder (ADHD) is a condition that becomes apparent in some children in the preschool and early school years, characterized by inattention, hyperactivity, and impulsivity. Although ADHD is considered to be a childhood disease, it often continues into adulthood, requiring treatment of this population as well.

Problem

At the May 17, 2007 DUR Board Meeting, there were some discussions about the potential misuse of agents that treat ADHD, particularly in the adult population. The following chart lists the medications used in the treatment of ADHD.

Generic Name	Trade Name
Stimulants	
Amphetamine salt combination	Adderall®, Adderall XR®
Lisdexamfetamine	Vyvanse®
Dextroamphetamine	Dexedrine®, Dextrostat®
Dexmethylphenidate	Focalin®, Focalin XR®
Methylphenidate	Ritalin®
Methylphenidate (extended release)	Ritalin SR®, Ritalin LA®, Metadate CD®, Metadate ER®, Concerta®
Methylphenidate (transdermal)	Daytrana®
Selective Norepinephrine Reuptake Inhibitors	
Atomoxetine	Strattera®

Specific concerns were raised about the inappropriate use of these medications in the adult population for off-label indications such as decreased appetite and weight loss, which are common side effects of the ADHD treatment agents.

Method

Utilization data was gathered through RxExplorer®, which searches through paid claims data submitted to HID by the fiscal agent. Two unique searches were conducted covering the period from 7/1/06 through 5/25/07.

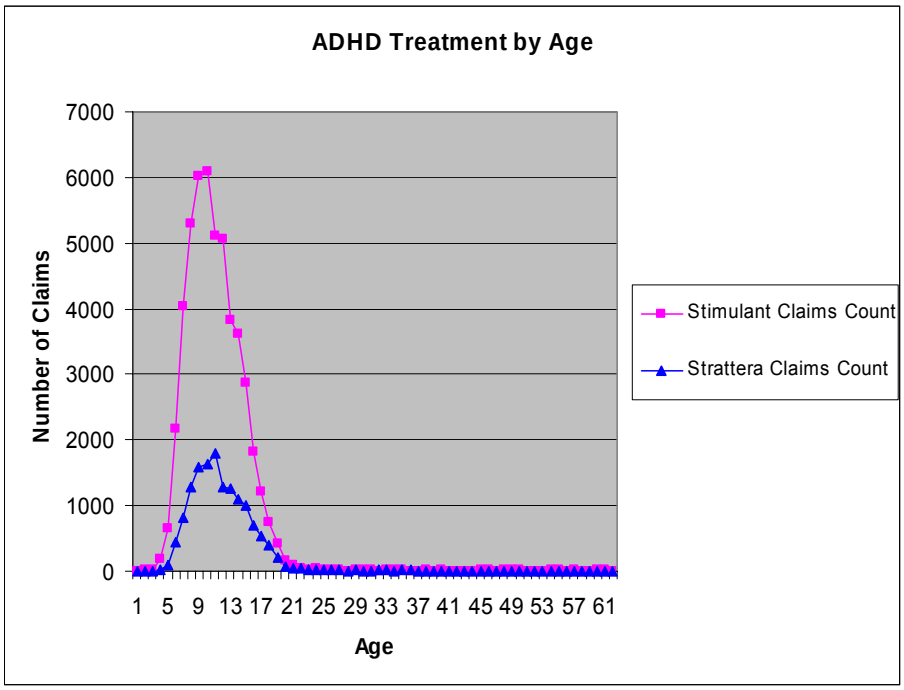
The search parameters were:

1. Stimulant utilization based on age
2. Strattera® utilization based on age

These searches were then compared to show any trends of utilization as a function of age.

Results

During the time period of July 1, 2006 to May 25, 2007, there were a total of 50,152 stimulant claims and 14,637 Strattera® claims. Utilization of both classes was highest for children and adolescents, from ages 5 to 21.



Summary

As the information above reveals, the majority of stimulant and Strattera® use is in children and adolescents. After the age of 21, utilization of both classes drops to insignificant levels, indicating that widespread misuse in adults is not occurring.

Recommendations

Although the above figures do not indicate extensive abuse of ADHD medications in the adult population, a retrospective DUR criterion is recommended to identify those adult patients (age ≥ 21) who may be using these medications inappropriately.

MISSISSIPPI MEDICAID
RETROSPECTIVE DRUG UTILIZATION REVIEW
CRITERIA RECOMMENDATIONS
ADHD RELATED CRITERIA
September 2007

Criteria Recommendations	*Approved*	*Rejected*

1. Stimulants / Appropriate use in Adults _____ _____

Alert Message: Our records do not indicate a supporting diagnosis for the use of the medication(s). Off label uses, diversion, and abuse are concerns with medications used for treating ADHA and/or narcolepsy. These agents have serious adverse effects and should only be used for FDA approved indications.
Conflict Code: TA – Therapeutic Appropriateness
Drugs/Disease:

Util A	Util B	Util C (Negating)
Dextroamphetamine		ADHD
Methamphetamine		ADD
Lisdexamfetamine		Narcolepsy
Amphetamine Mixtures		
Dexmethylphenidate		
Methylphenidate		
Atomoxetine		

Age Range: ≥ 21 years of age

References:
Facts & Comparisons, 2007 Updates.
Micromedex Healthcare Series, DRUGDEX Drug Evaluations, 2007.
Clinical Pharmacology, Gold Standard, 2007.

Inappropriate Use of Antibiotics

Data from the National Center for Health Statistics indicate that in recent years, approximately three fourths of all outpatient antibiotics have been prescribed for otitis media, sinusitis, bronchitis, pharyngitis, or nonspecific upper respiratory tract infection. Antimicrobial drug use rates are highest for children; therefore, the pediatric age group represents the focus of our attention for the following DUR suggestions.

The emergence of bacterial strains that are increasingly resistant to antimicrobial agents is a growing national and worldwide concern. This seems to have been given credence by the spread of organisms such as MRSA, vancomycin-resistant enterococci and multidrug-resistant tuberculosis, all essentially untreatable with routinely available antibiotics. In response to this growing problem, control of the spread of antimicrobial resistance has been identified as a priority by many organizations, including the Centers for Disease Control and Prevention, the American Society for Microbiology, the World Health Organization, the American Academy of Family Physicians, and the American Academy of Pediatrics.

Currently, millions of courses of unnecessary antibiotics are given each year. These courses may take the form of inappropriate diagnosis or inappropriate prescribing habits. There is little doubt that parental misunderstanding of appropriate antibiotic use plays a major role in physician prescribing. A well known study published in *JAMA* in 1995 found that from the time period of 1990 to 1992, almost one in six physician office visits resulted in an antimicrobial prescription. These included >17 million prescriptions for nonspecific upper respiratory infection, 16 million prescriptions for bronchitis, and 13 million prescriptions for pharyngitis. In a recent review of the Medicaid database in Kentucky, 60% of patients diagnosed with the common cold were treated with an antibiotic. These findings have prompted several Governmental agencies to launch national campaigns, such as the CDC's *Get Smart* program, to help educate both health care providers and the general public about the dangers of inappropriate antibiotic usage.

A recent study published in the April issue of *Pediatrics* set out to determine the impact of a community-wide educational intervention on parental misconceptions likely contributing to pediatric antibiotic overprescribing. The study found that although knowledge regarding appropriate use of antibiotics is improving without additional targeted intervention among more socially advantaged populations, parents of Medicaid-insured children may benefit from educational interventions to promote judicious antibiotic use.

Inappropriate antibiotic usage may have more implications than only multi-drug resistant microorganisms. A study recently published in the June issue of *Chest* found that children who were given antibiotics in the first year of life were significantly more likely to develop asthma by age 7. Risk of developing asthma increased with the number of antibiotic courses received: children who received 1-2 courses incurred a 21% increased risk, those who received 3-4 courses had an increased risk of 30%, and those children that were given > 4 courses within the first year of life had a 46% increased risk

of developing asthma. Increased risk of developing asthma was also associated with the prescribing of broad-spectrum antibiotics, particularly broad-spectrum cephalosporins. It is hypothesized by the author of this study that the broad-spectrum antibiotics may kill off too many of the good bacteria in the body, such as the natural microflora in the gut, that are necessary for proper development of the immune system in the first year of life.

Direct Impact on MS Medicaid

According to the American Lung Association, asthma is the most common chronic illness in childhood and is the leading cause of school absenteeism attributed to chronic conditions. Asthma is also the third leading cause of hospitalization among children under the age of 15, and is associated with an annual direct health care cost of approximately $11.5 billion. In Mississippi approximately 66,620 children (age < 18) and 156,117 adults (age ≥ 18) suffer from asthma. Since asthma cannot be cured, only controlled, researchers are now concentrating on factors that may play a role in initial development of the disease.

Upon review of the Cost Analysis reports for April 2007 and May 2007, it is clear that pharmaceutical treatment of asthma is a significant cost to the State. In those months four respiratory agents, Singulair®, Pulmicort®, Advair® and Xopenex®, were in the top 25 drugs based on total claims cost. Prevention of future asthma cases could present considerable cost savings to the State in drug expenditures alone.

Recommendations

In an effort to educate providers, a retrospective DUR criterion is recommended to identify those patients less than 1 year of age that may have been overutilizing antibiotic treatments.

MISSISSIPPI MEDICAID
RETROSPECTIVE DRUG UTILIZATION REVIEW
CRITERIA RECOMMENDATIONS
ASTHMA ANTIBIOTIC CRITERIA
September 2007

Recommendations ***Approved*** ***Rejected***

1. Antibiotics / Therapeutic Appropriateness _____ _____

Alert Message: The use of antibiotics during the first year of life has been associated with an increased risk of developing childhood asthma. The risk increases with the use of multiple courses of antibiotics and the use of broad-spectrum antibiotics. This risk may be reduced by the judicious and appropriate prescribing of antibiotics, particularly avoiding the use of broad-spectrum cephalosporins.

Conflict Code: TA – Therapeutic Appropriateness

Drugs/Disease:

Util A	Util B	Util C
Penicillins		
Cephalosporins		
Monobactams		
Quinolones		
Fluoroquinolones		
Tetracyclines		
Macrolides		
Ketolides		
Oxazolidinones		
Aminoglycosides Oral		
Sulfonamides		
Bacitracin		
Metronidazole		
Nitrofurans		
Methenamines		
Folate Antagonists		

Age Range: 0 – 1 year of age

References:

Kozyrskyj A, Ernst P, Becker AB, Increased risk of childhood asthma from antibiotic use in early life, Chest. 2007;131(6):1753-1759.

Marra F, Lynd L, Coombes M, et al., Does antibiotic exposure during infancy lead to development of asthma? Chest. 2006;126:610-618.

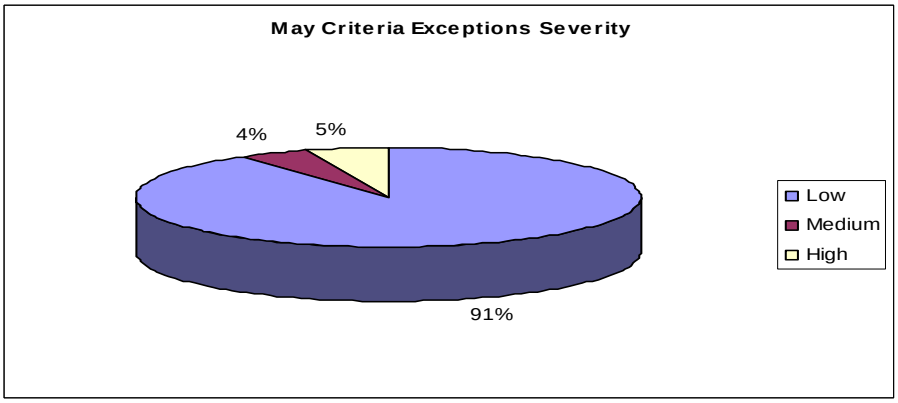
Johnson CC, Ownby DR, Alford SH, et al., Antibiotic exposure in early infancy and risk of childhood atopy. The Journal of Allergy and Clinical Immunology, June 2005. Vol. 115, Issue 6:1218-1224.

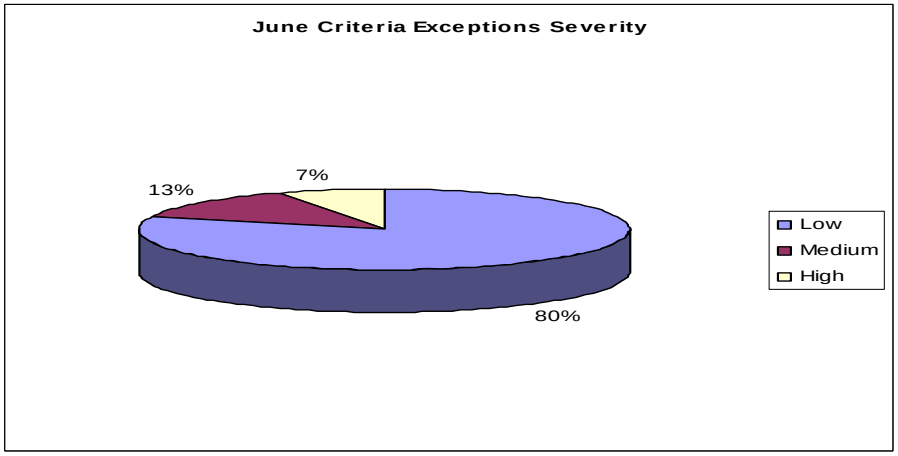
HIV Criteria Report

At the May 17, 2007 DUR Board Meeting there were several new criteria related to HIV therapy that were presented to the Board for consideration. Due to the very serious and complex nature of this disease and its treatment, there were some lengthy discussions related to concerns about the management of HIV patients. As a result HID has reviewed the activity of these criteria for May and June and compiled the results below.

Criteria Type (# of Criteria)	May Exceptions	June Exceptions
Impaired Antiviral Effect (4)	0	2
Protease Inhibitor Interaction (1)	1	1
Antiretroviral Drug Interaction (6)	7	6
Non-Adherence to Antiretroviral therapy (27)	124	86
Inappropriate HIV Drug Regimen (48)	73	63
Total HIV- Related Criteria Exceptions	205	158
Percentage of Total Criteria Exceptions	1.02%	0.88%`

HID has designed a system that accounts for individual patient factors that increase the risk for each criteria, as well as the documentation of the adverse event related to each criteria in the literature. A focused inquiry was made into the severity of the exceptions generated in May and June for the HIV- related criteria, and the charts below illustrate these findings.





Based on the information above, it appears that there is not a significant drug therapy problem in HIV patients enrolled in Mississippi Medicaid. Furthermore, of those identified as having a drug therapy problem, only a small percentage of those are considered to be high-risk. However, since appropriate use of HIV medications is imperative in *each* patient, retrospective DUR criteria are used to assist physicians in providing effective treatment for their HIV patients.

Proper Singulair Utilization

Singulair® (montelukast sodium) is a leukotriene receptor antagonist that is indicated for use in asthma and allergic rhinitis. Leukotriene-mediated effects are responsible for the signs and symptoms associated with asthma and allergic rhinitis. By inhibiting the physiologic activity of leukotrienes, Singulair® results in less airway edema, smooth muscle contraction, and altered cellular activity associated with the inflammatory process.

Singulair® is consistently one of the leaders in the monthly cost analysis reports. For example, in April 2007, it was the leading drug based on total claims cost for Medicaid, with a total of 7,434 prescriptions and $759,350.79 paid by DOM. Due to these consistently large numbers, there is some concern that Singulair® may be overutilized for allergic rhinitis when less expensive alternatives are available, such as generic antihistamines.

HID gathered utilization data for Singulair® through RxExlorer®, which searches through paid claims data submitted to HID by the fiscal agent. From 5/1/06 to 5/1/07 a total of 29,273 individual beneficiaries received Singulair®. The chart below illustrates the findings of Singulair® use based on diagnosis during this time frame.

Number of Patients	Diagnosis
18,914	Asthma
18,897	Allergic rhinitis
12,716	Asthma and allergic rhinitis

From May 2006 to May 2007, approximately 62% of patients who received Singulair® had an asthma diagnosis, while approximately 65% of patients who received Singulair® had an allergic rhinitis diagnosis. Approximately 43% of those patients who had a prescription for Singulair® filled during this time period had a diagnosis for both asthma and allergic rhinitis. According to this information, there doesn't appear to be gross overutilization of Singulair® outside of the asthma population.

While there are cheaper alternatives to Singulair® in the treatment of allergic rhinitis, it has a definite role in the management of this illness. It has been found to be as or more effective than antihistamines, with fewer side effects, such as dry mouth, drowsiness, constipation, etc. Also, a growing number of ENT physicians strongly oppose the use of antihistamines in patients with allergic rhinitis since they tend to make the mucus secretions more viscous and harder to clear. This can lead to build up of mucus in the sinus cavities and Eustachian tubes, setting up the ideal environment for recurrent otitis media and chronic sinusitis. Although the general consensus is that intranasal corticosteroids are more effective at treating allergic rhinitis than Singulair®, there are concerns with their use in young children due to the fear of growth suppression associated with corticosteroid use. All of these factors have led to increased use of Singulair® in allergic rhinitis patients.

MISSISSIPPI MEDICAID
RETROSPECTIVE DRUG UTILIZATION REVIEW
CRITERIA RECOMMENDATIONS
3rd QUARTER 2007

Criteria Recommendations ***Approved*** ***Rejected***

1. Elidel / Therapeutic Appropriateness #2804 _____ _____

Alert Message: The topical calcineurin inhibitor, Elidel (pimecrolimus), is indicated as second-line therapy for the short-term, non-continuous chronic treatment of mild to moderate atopic dermatitis in patients who are unresponsive or intolerant to other agents. Rare cases of malignancy (i.e., skin cancer and lymphoma) have been reported in patients treated with topical pimecrolimus. Application should be limited to the areas affected with atopic dermatitis.
Conflict Code: TA - Therapeutic Appropriateness
Drug/Disease:

Util A	Util B	Util C (Negating)
Pimecrolimus		High to Very High Potency Topical Corticosteroids
		Augmented Betamethasone
		Clobetasol
		Diflorasone
		Halobetasol
		Amcinonide
		Betamethasone
		Desoximetasone
		Fluocinolone
		Fluocinonide
		Halcinonide
		Triamcinolone

Day Supply: 20 days in current 90 days
Age Range: 0 – 999 years of age
References:
Facts & Comparisons, 2006 Updates.
Elidel Prescribing Information, Jan. 2006. Novartis Pharmaceuticals Corp.

2. Protopic / Therapeutic Appropriateness #2805 _____ _____

Alert Message: The topical calcineurin inhibitor, Protopic (tacrolimus), is indicated as second-line therapy for the short-term, non-continuous chronic treatment of moderate to severe atopic dermatitis in patients who are unresponsive or intolerant to other agents. Rare cases of malignancy (i.e., skin cancer and lymphoma) have been reported in patients treated with topical tacrolimus. Application should be limited to the areas affected with atopic dermatitis.
Conflict Code: TA - Therapeutic Appropriateness
Drug/Disease:

Util A	Util B	Util C (Negating)
Tacrolimus		Very High Potency Topical Corticosteroids
		Augmented Betamethasone
		Clobetasol
		Diflorasone
		Halobetasol
		Amcinonide
		Betamethasone
		Desoximetasone
		Fluocinolone
		Fluocinonide
		Halcinonide
		Triamcinolone

Day Supply: 20 days in current 90 days
Age Range: 0 – 999 years of age
References:
Facts & Comparisons, 2006 Updates.
Protopic Prescribing Information, Jan. 2006, Astellas Pharma Inc.

3. Protopic & Elidel / Therapeutic Appropriateness (AGE) #2806 _____ _____

Alert Message: The topical calcineurin inhibitors, Protopic (tacrolimus) and Elidel (pimecrolimus), are not recommended for use in children less than 2 years of age. The long-term safety and effects of these agents on the developing immune system are unknown.
Conflict Code: TA - Therapeutic Appropriateness
Drug/Disease:

Util A	Util B	Util C
Tacrolimus		
Pimecrolimus		

Age Range: 0 – 1 years of age
References:
Facts & Comparisons, 2006 Updates.
Protopic Prescribing Information, Jan. 2006, Astellas Pharma Inc.
Elidel Prescribing Information, Jan. 2006, Novartis Pharmaceuticals, Inc.

4. Protopic / Therapeutic Appropriateness (AGE) #2807 _____ _____

Alert Message: The use of Protopic 0.1% ointment (topical tacrolimus) is not recommended in children less than 15 years of age. The 0.03% tacrolimus ointment is approved for use in children ages 2 to 15. Application should be limited to areas affected with atopic dermatitis. If signs and symptoms have not resolved within 6 weeks patient should be re-examined to confirm diagnosis.
Conflict Code: TA - Therapeutic Appropriateness
Drug/Disease:

Util A	Util B	Util C
Tacrolimus 0.1%		

Age Range: 2-15 years of age
References:
Facts & Comparisons, 2006 Updates.
Protopic Prescribing Information, Jan. 2006, Astellas Pharma Inc.

5. Elidel / Immunocompromised Patients #2808 _____ _____

Alert Message: Elidel (topical pimecrolimus) should not be used in immunocompromised adults and children. These patients are at risk for increased systemic exposure and adverse effects of pimecrolimus.
Conflict Code: DB – Drug-Drug Marker and/or Diagnosis
Drug/Disease:

Util A	Util B	Util C
Pimecrolimus	HIV Diagnosis	
	Antiretrovirals	
	Transplant Diagnoses	
	Immunosuppressive Agents	

Age Range: 0-999 years of age
References:
Facts & Comparisons, 2006 Updates.
Elidel Prescribing Information, Jan. 2006, Novartis Pharmaceuticals, Inc.

6. Protopic / Immunocompromised Patients #2809 _____ _____

Alert Message: Protopic (topical tacrolimus) should not be used in immunocompromised adults and children. These patients are at risk for increased systemic exposure and adverse effects of tacrolimus.
Conflict Code: DB – Drug-Drug Marker and/or Diagnosis
Drug/Disease:

Util A	Util B	Util C
Tacrolimus	HIV Diagnosis	
	Antiretrovirals	
	Transplant Diagnosis	
	Immunosuppressive Agents	

Age Range: 0-999 years of age
References:
Facts & Comparisons, 2006 Updates.
Elidel Prescribing Information, Jan. 2006, Novartis Pharmaceuticals, Inc.

7. Topical Immunomodulators / Therapeutic Duplications #2964 _____ _____

Alert Message: Therapeutic duplication of topical immunomodulator agents may be occurring.
Conflict Code:
Drug/Disease:

Util A	Util B	Util C
Tacrolimus		
Pimecrolimus		

References:
Facts & Comparisons, 2006 Updates.
Micromedex Healthcare Series, DRUGDEX Drug Evaluations, 2007.

8. Tizanidine / Ciprofloxacin #2982 _____ _____

Alert Message: Concurrent use of tizanidine and ciprofloxacin, a potent CYP 1A2 inhibitor, is contraindicated. Co-administration of these agents has been shown to cause significant increases in the AUC and Cmax of tizanidine resulting in hypotension, excessive sedation, and psychomotor impairment.
Conflict Code: DD – Drug/Drug Interaction
Drugs/Disease:

Util A	Util B	Util C
Tizanidine	Ciprofloxacin	

References:
Zanaflex Prescribing Information, June 2006, Acorda Therapeutics.
Micromedex Healthcare Series, DrugDex Drug Evaluations, 2007.
MedWatch – The FDA Safety Information and Adverse Event Reporting Program, 2007.

9. Tizanidine / Fluvoxamine #2414 _____ _____

Alert Message: Concurrent use of tizanidine and fluvoxamine, a potent CYP 1A2 inhibitor, is contraindicated. Significant alterations of pharmacokinetic parameters of tizanidine, including AUC, t1/2, Cmax, increased oral bioavailability and decreased plasma clearance, have been observed with concomitant fluvoxamine administration. Coadministration of these agents has resulted in profound hypotension, bradycardia and excessive drowsiness.
Conflict Code: DD – Drug/Drug Interaction
Drugs/Disease:

Util A	Util B	Util C
Tizanidine	Fluvoxamine	

References:
Zanaflex Prescribing Information, June 2006, Acorda Therapeutics.
Micromedex Healthcare Series, DrugDex Drug Evaluations, 2007.
MedWatch – The FDA Safety Information and Adverse Event Reporting Program, 2007.

10. Pioglitazone / Therapeutic Appropriateness #2965 _____ _____

Alert Message: Pioglitazone-containing products (Actos/ActoPlusMet/Duetact) may increase the risk of fractures in female patients. Analysis of clinical trial data revealed an increased incidence of fractures in female patients taking long-term pioglitazone therapy as compared to females taking a comparator (placebo or active). Consider the risk of fractures when initiating or treating female, type 2 diabetic patients with pioglitazone.
Conflict Code: TA – Therapeutic Appropriateness
Drugs/Disease:

Util A	Util B	Util C
Pioglitazone		

Gender: Female
References:
MedWatch – The FDA Safety Information and Adverse Event Reporting Program, 2007.

11. Rosiglitazone / Congestive Heart Failure & Fluid Retention #2947 _____ _____

Alert Message: Rosiglitazone-containing products may cause or exacerbate congestive heart failure. Their use is contraindicated in patients with NYHA class 3 or 4 heart failure and not recommended in patients with symptomatic heart failure. Patients should be observed for signs and symptoms of heart failure (rapid weight gain, dyspnea, and /or edema). If heart failure develops initiate appropriate therapy and consider alternative antidiabetic therapy.
Conflict Code: MC – Drug (Actual) Disease Precaution
Drugs/Disease

Util A	Util B	Util C
Rosiglitazone	Heart Failure	
	Fluid Retention	

References:
Avandia Prescribing Information, September 2006, GlaxoSmtihKline.
Avandamet Prescribing Information, Feb. 2007, GlaxoSmithKline.
Avandaryl Prescribing Information, Oct. 2006, GlaxoSmithKline.

12. Pioglitazone / Congestive Heart Failure & Fluid Retention #1053 _____ _____

Alert Message: Pioglitazone-containing products may cause or exacerbate congestive heart failure. Their use is contraindicated in patients with NYHA class 3 or 4 heart failure and not recommended in patients with symptomatic heart failure. Patients should be observed for signs and symptoms of heart failure (rapid weight gain, dyspnea, and/or edema). If heart failure develops initiate appropriate therapy and consider alternative antidiabetic therapy.
Conflict Code: MC – Drug (Actual) Disease Precaution
Drugs/Disease

Util A	Util B	Util C
Pioglitazone	Heart Failure	
	Fluid Retention	

References:
Facts & Comparisons, 2006 Updates.
Actos Prescribing Information, Nov. 2006, Takeda Pharmaceuticals American, Inc.
ActoPlus Met Prescribing Information, Nov. 2006, Takeda Pharmaceuticals American, Inc.
DuetAct Met Prescribing Information, Nov. 2006, Takeda Pharmaceuticals American, Inc.

13. Codeine / Pregnancy _____ _____

Alert Message: Nursing infants may be at an increased risk of morphine overdose if their mothers are taking codeine-containing products and are ultra-rapid metabolizers of codeine. If codeine use is necessary in the nursing mothers prescribe the lowest effective dose for the shortest amount of time. Inform mothers receiving codeine of the potential risks and signs of morphine overdose in themselves and their infants.

Conflict Code: MC – Drug (Actual) Disease Precaution

Drugs/Disease

Util A	Util B	Util C (Negating)
Codeine	Pregnancy	Miscarriage
	Lactation	Abortion

References:

FDA Public Health Advisory: Use of Codeine by some Breastfeeding Mothers may lead to Life-threatening Side Effect in Nursing Babies. August 17, 2007. Available at: http://www.fda.gov/cder/drug/advisory/codeine.htm

Boxed Warning Update

The following information is provided to the DUR Board to assist in identifying drug products with potential for concern surrounding safety and appropriate utilization. Most of the safety alert information provided is derived from recent FDA safety alerts. While many of the alerts included are not Black Box Warning additions or updates, they are labeling changes or updates with relevance worthy of action by FDA.

Included for reference, the following is the Code of Federal Regulations definition for Black Box Warnings. (Citation: Title 21 CFR 201.57 Section E)

(e) Warnings. Under this section heading, the labeling shall describe serious adverse reactions and potential safety hazards, limitations in use imposed by them, and steps that should be taken if they occur. The labeling shall be revised to include a warning as soon as there is reasonable evidence of an association of a serious hazard with a drug; a causal relationship need not have been proved. A specific warning relating to a use not provided for under the "Indications and Usage: section of labeling may be required by the Food and Drug Administration if the drug is commonly prescribed for a disease of condition, and there is lack of substantial evidence of effectiveness for that disease or condition, and such usage is associated with serious risk or hazard. Special problems, particularly those that may lead to death or serious risk or hazard. Special problems, particularly those that may lead to death or serious injury, may be required by the Food and Drug Administration to be placed in a prominently displayed box. The boxed warning ordinarily shall be based on clinical data, but serious animal toxicity may also be the basis of a boxed warning in the absence of clinical data. If a boxed warning is required, its location will be specified by the Food and Drug Administration. The frequency of these adverse reactions and , if known, the approximate mortality and morbidity rates for patients sustaining the reaction, which are important to safe and effective used of the drug, shall be expressed as provided under the "Adverse Reactions" section of the labeling.

Thiazolidinediones - Avandia (rosiglitazone maleate), Actos (pioglitazone) and combination products

After a review of postmarketing adverse event reports, FDA determined that an updated label with a boxed warning on the risks of heart failure was needed for the entire thiazolidinedione class of antidiabetic drugs. These drugs are used in conjunction with diet and exercise to improve blood sugar control in adults with type 2 diabetes. Manufacturers of certain drugs have agreed to the upgraded warning.

The strengthened warning advises healthcare professionals to observe patients carefully for the signs and symptoms of heart failure, including excessive, rapid weight gain, shortness of breath, and edema after starting drug therapy. Patients with these symptoms who then develop heart failure should receive appropriate management of the heart failure and use of the drug should be reconsidered. People who have questions should contact their healthcare providers to discuss alternative treatments.

Exjade (deferasirox) Tablets For Oral Suspension

Novartis and FDA notified healthcare professionals of changes to the WARNINGS and ADVERSE REACTIONS sections of the product labeling for Exjade, a drug used to treat chronic iron overload due to blood transfusions (transfusional hemosiderosis) in patients 2 years of age and older. Cases of acute renal failure, some with a fatal outcome, have been reported following the post marketing use of Exjade. Most of the fatalities occurred in patients with multiple co-morbidities and who were in advanced stages of their hematological disorders. Additionally, there were post marketing reports of cytopenias, including agranulocytosis, neutropenia and thrombocytopenia in patients treated with Exjade where some of the patients died. The relationship of these episodes to treatment with Exjade is uncertain. Most of these patients had preexisting hematologic disorders that are frequently associated with bone marrow failure. Further, cases of leukocytoclastic vasculitis, urticaria, and hypersensitivity reactions (including anaphylaxis and angioedema) were reported.

Healthcare professionals should monitor serum creatinine in patients who are at increased risk of complications, having preexisting renal conditions, are elderly, have co-morbid conditions, or are receiving medicinal products that depress renal function. Blood counts should also be monitored regularly and treatment should be interrupted in patients who develop unexplained cytopenia.

Propofol (marketed as Diprivan and generic products)

FDA informed healthcare professionals about several clusters of patients who experienced chills, fever, and body aches shortly after receiving propofol for sedation or general anesthesia. Multiple vials and several lots of propofol used in patients who experienced these symptoms were tested and there was no evidence that the propofol vials or prefilled syringes used were contaminated with bacteria or endotoxins. Propofol is an intravenous sedative-hypnotic agent for use in the induction and maintenance of anesthesia or sedation. To minimize the potential for bacterial contamination, propofol vials and prefilled syringes should be used within six hours of opening and one vial should be used for one patient only. Patients who develop fever, chills, body aches or other symptoms of acute febrile reactions shortly after receiving propofol should be evaluated for bacterial sepsis. Healthcare professionals who administer propofol for sedation or general anesthesia should carefully follow the recommendations for handling and use in the product's full prescribing information.

Rocephin (ceftriaxone sodium) for Injection
Roche and FDA informed healthcare professionals of revisions to the CONTRAINDICATIONS, WARNINGS, PRECAUTIONS, ADVERSE REACTIONS and DOSAGE AND ADMINISTRATION sections of the prescribing information for Rocephin for Injection. The revisions are based on new information that describes the potential risk associated with concomitant use of Rocephin with calcium or calcium containing solutions or products. Cases of fatal reactions with calcium-ceftriaxone

precipitates in the lungs and kidneys in both term and premature neonates were reported. Hyperbilirubinemic neonates, especially prematures, should not be treated with Rocephin. The drug must not be mixed or administered simultaneously with calcium-containing solutions or products, even via different infusion lines. Additionally, calcium-containing solutions or products must not be administered within 48-hours of the last administration of ceftriaxone.