Division of Medicaid

Office of the Governor

State of Mississippi

DUR Board Meeting

November 19, 2009

2:00 p.m.

Woolfolk Building, Room 117

Jackson, MS

Drug Utilization Review Board

Lee Merritt, R.Ph.
Medfusion
2211 5th Street North
Columbus, MS 39705
Term expires: June 30, 2010

Edgar Donahoe, M.D.
Indianola Family Medical Group
122 Baker Street
Indianola, MS 38751
Term expires: June 30, 2010

Mark Reed, M.D.
University of Mississippi Medical Center
2500 North State Street, Trailer 16
Jackson, MS 39216
Term Expires: June 30, 2010

Vickie Veazey, R.Ph.
MS State Hospital at Whitfield
Building #50
Whitfield, MS 39193
Term expires: June 30, 2010

Frank Wade, M.D.
Family Medical Clinic
376A Simpson Highway 149
Magee, MS 39111
Term Expires: June 30, 2011

Alvin Dixon, R.Ph.
182 Cherry Street
Clarksdale, MS 38614
Term expires: June 30, 2011

Jason Strong, Pharm.D.
Canton Discount
726 East Peace Street
Canton, MS 39046
Term Expires: June 30, 2011

William Bastian, M.D.
Bastian Center of Pediatric Endocrinology
1860 Chadwick Drive, Suite 206
Jackson, MS 39204
Term Expires: June 30, 2011

Upcoming Mississippi DUR Board Meeting Dates

February 18, 2010
May 20, 2010
August 19, 2010
November 18, 2010

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

November 19, 2009

Welcome

Old Business

- **Approval of Meeting Minutes**

Cost Management Analysis — **Ashleigh Holeman, Pharm.D.**

Pharmacy Program Update — **Paige Clayton, Pharm.D.**

New Business — **Ashleigh Holeman, Pharm.D.**

- **DUR Overview**
- **Prior Authorization Status of Immunosuppressants**
- **Appropriate Place in Therapy for Isentress®**
- **Alzheimer's Agents: A Mississippi Medicaid Utilization Review**
- **Other Criteria Recommendations**
- **FDA Updates**

Next Meeting Information

Mississippi Division of Medicaid
Drug Utilization Review (DUR) Board
Minutes of the August 20, 2009 Meeting

Members Attending: William Bastian, M.D.; Alvin Dixon, RPh.; Edgar Donahoe, M.D.; Lee Merritt, RPh; Mark Reed, M.D.; Jason Strong, Pharm.D; Vickie Veazey, RPh.
Members Absent: Frank Wade, M.D.

Also Present:
DOM Staff: Judith Clark, RPh., DOM Pharmacy Bureau Director; Paige Clayton, Pharm.D., DOM DUR Coordinator; Terri Kirby, RPh., DOM Clinical Pharmacist;
HID Staff: Ashleigh Holeman, Pharm.D, Project Manager; Leslie Leon, Pharm.D, Clinical Pharmacist; Kathleen Burns, Call Center Manager

Call to order:
Dr. Mark Reed, Interim Chairman of the Board, called the meeting to order at 2:10p.m. Dr. Reed asked for a motion to accept the minutes from the past two meetings, February 19, 2009 and May 21, 2009, and the criteria from the last meeting in one vote rather than reading through all of the items individually. Dr. Donahoe made the motion to accept the recommendation with a second from Dr. Strong. All voted in favor of the motion.

Dr. Reed asked for Dr. Holeman to continue with the new business at hand instead of reviewing the former two business meetings as those present have formally received this presentation.

Cost Management Analysis:
Dr. Holeman began the presentation with the Top 15 Therapeutic Classes by total cost of claims dating March 1, 2009 thru May 31, 2009. The Top Therapeutic class remains Antipsychotic Agents. The Top 25 drugs based on the number of claims continues to be led by hydrodocone-acetaminophen during the reported time span. Ms. Clark noted that with the DUR Board driven edits on these agents along with the benzodiazepines that DOM has noticed a 10% drop in claims with possibly a 20 to 25% drop for future reports which has gone beyond DOM's expectations with the new quantity limits set by the Board. Ms. Clark asked HID to continue to monitor this by preparing a report for the Board at the next meeting. The Top 25 Drugs based on total claims cost was led by Singulair® which was reported as appropriate for the season reviewed.

Pharmacy Program Update:
Dr. Clayton explained the new electronic PA process which will be implemented soon. This has been a lengthy process for both HID and DOM to address, but in the near future a physician may submit his PAs electronically eliminating the need for the paper process, saving valuable time for the provider. The Suboxone®/Subutex® new PA with its criteria has met all of the required steps for approval from the pharmacy and legal departments of Medicaid and is now awaiting approval from the Executive Division of Medicaid. Dr. Holeman passed out a copy of both for the Board's viewing per the request of Dr.

Clayton. Ms. Clark there have been some policy changes in Medicaid so that lengthened the process of developing and approving the buprenorphine PA criteria and form. The criteria were reviewed. Dr. Reed asked should there be a vote from the Board at this time and Ms. Clark answered no, as it had already been discussed and approved by the Board at a previous meeting. Continuing with the Pharmacy Updates, Dr. Clayton reminded the Board that the 2009-2010 Synagis® PA criteria were also awaiting Executive approval, as this season brings many changes as recommended by the new AAP guidelines.

Benefit of Prophylactic PPI use in Asthmatics:

Dr. Holeman addressed PPI use in asthmatics with the data gathered by HID for the calendar year of 2008. She noted that it has become a common practice for prescribers to use a PPI prophylactically in those beneficiaries whose asthma is not well controlled, even if they are not experiencing acid reflux symptoms. A recent government study indicated that such use does not improve asthma control in these patients. The data analyzed by HID for this report clearly showed an overwhelming majority (76%) of Mississippi Medicaid asthmatic beneficiaries that received a PPI in 2008 also had a GERD diagnosis. Even though this report does not indicate that this is a problem in the Mississippi Medicaid population, HID recommended the development of a RDUR criterion to identify those beneficiaries diagnosed with asthma receiving a PPI without a corresponding diagnosis, such as GERD. This intervention would result in an educational letter to the prescribing physician of the PPI to inform them of recent findings indicating that the prophylactic use of PPI's in asthmatics provides no additional benefits but results in higher health care costs. Dr. Reed asked for a motion to approve the HID-submitted RDUR criterion. Dr. Donahoe made the motion with a second from Dr. Strong. All voted in favor of the motion.

Carisoprodol Utilization Update:

Dr. Holeman noted that based on directives from the DUR Board and the P&T Committee, The Division of Medicaid began requiring a prior authorization for carisoprodol-containing products on July 1, 2008. Carisoprodol is used frequently by poly-drug abusers, especially those dependent on opioids. This troubling trend, coupled with the FDA-approved labeling generated the need for this prior authorization requirement. The purpose of this report was to analyze the effectiveness of this prior authorization process and to investigate whether there had been an increase in cyclobenzaprine utilization. Dr. Holeman commented that prior to the implementation of this process, the top prescribers for carisoprodol were identified and a visit was made to each physician by the HID Academic Detailers to alert them of this new implementation by Medicaid. The physicians were supplied with a tapering schedule to permit them to discontinue their chronic patients on carisoprodol. A very favorable report was presented to the Board noting a decrease of claims from 8526 down to 19 indicating a 99% decrease following the implementation of the PA process. The claims cost for cyclobenzaprine increased by 17% which was an expected increase. It is evident with this data that the Division of Medicaid took the proper steps in reigning in potential misuse of carisoprodol products at the expense of the state.

Lipid Screening and Cardiovascular Health in Childhood: New AAP Cholesterol screening and Treatment Recommendations:

Due to the growing epidemic of obesity, Type 2 Diabetes Mellitus, hypertension and cardiovascular disease in children, the American Academy of Pediatrics felt an urgent need to address the issue of dyslipidemia in the pediatric population. Based on a directive from DOM and the DUR Board, HID developed two Medicaid Prescribing updates to be delivered to prescribers by the Academic Detailers. They will also be available, along with others on additional topics, by a link from the Division of Medicaid website. One of these updates will highlight the updated treatment recommendations found within the new AAP clinical report on lipid screening and treatment in children 8 years old and above. The other will provide an overview of metabolic syndrome. Dr. Donahoe asked for Dr. Bastian's input in this material before it was approved as this is his field of expertise. Dr. Bastian commented that this was a good base-line start for a physician who might not have access to a Pediatric Endocrinologist in his area. He also informed the Board of the benefit of Omega 3 or fish oil supplements in the diet of this population. Ms. Clark said that DOM will look into adding this to the preferred OTC list to facilitate use of this product. Dr. Reed asked for other discussions on the Medicaid Prescriber Update material. After much review the Board was asked to make a motion to accept these prescribing updates which HID prepared for physicians. Dr. Donahoe made a motion to accept as stands with a second from Ms. Veazey. All voted in favor of the motion.

Other Criteria Recommendations:
After review of the submitted criterion by Dr. Holeman, Dr. Reed asked for an inclusive vote of all criteria in one vote. Mr. Merritt motioned that it be accepted with a second from Ms. Veazey. All voted in favor of the motion.

Dr. Clayton asked for a moment from the Board to address the H1N1 Flu which seems to be present across the State. She noted that DOM had processed over 600 claims for Tamiflu® since August 1, 2009. Medicaid wants to ensure the ease of obtaining the needed medication for their beneficiaries without enabling abuse of the medication. This being said there was evidence in claims that physicians were writing for more than the recommended dosage by the manufacturer, which might indicate that some physicians were prescribing enough medication in one prescription for multiple family members. With this fraudulent practice and the fact that there might be a decline in availability of these medications, DOM is asking the Board for directions to limit each prescription to 750mg per claim. There is already a limit of two fills per year on these products. There was discussion led by Ms. Veazey as to the exempt status of LTC facilities. Even though it does not affect her facility, she noted that there might be a need in other facilities should there be an outbreak in these facilities. Dr. Donahoe made a motion in favor of limiting each claim to 750mg with exemption status for LTC beneficiaries. This was seconded by Ms. Veazey and all voted in favor of this recommendation. The next item Dr. Clayton wanted addressed by the Board was the product Voltaren Gel which is supplied as three or five tubes per box. The DOM quantity limit on topical preparations is two packages for every rolling 31 days. This has caused a hardship on pharmacists trying to fill this medication as packaged as they receive the denial edit of the two-package size

limit. After much discussion, the Board recommended that DOM remove the two-package size limit on Voltaren Gel®, allowing two 300gm boxes or one 500gm box. DOM will implement this change in the near future.

Ms. Clark thanked the members for their support to DOM and the Board . She also added that since some personnel changes have been made within the pharmacy bureau, all calls will be answered by the main switchboard. She has asked for these calls to be forwarded to the appropriate areas that will handle the questions at hand.

Dr. Reed reminded the Board of the next meeting on November 19, 2009. The meeting was adjourned at 3:15p.m.

Respectfully Submitted:
Health Information Designs, Inc.

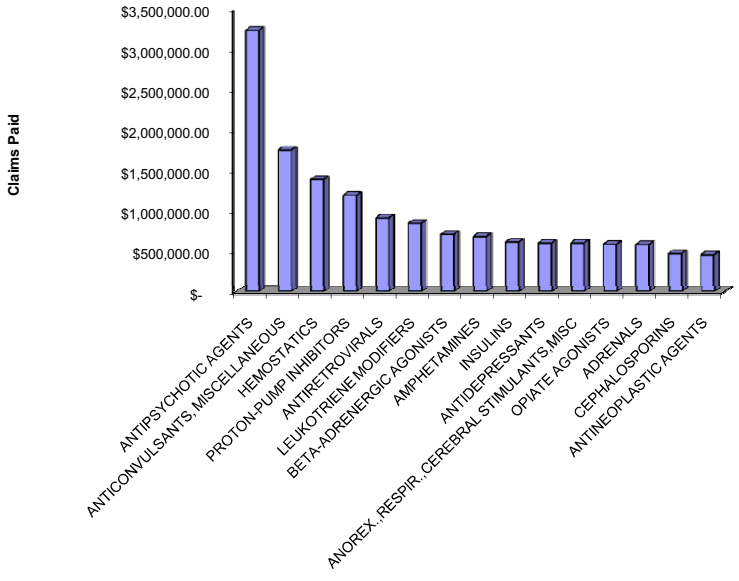
MISSISSIPPI MEDICAID
Cost Management Analysis

TOP 15 THERAPEUTIC CLASSES BY TOTAL COST OF CLAIMS FROM 06/01/09-06/30/09

AHFS Therapeutic Class	Rx	Paid	Paid/Rx	% Total Claims
ANTIPSYCHOTIC AGENTS	10,929	$ 3,225,782.68	$ 295.16	3.00%
ANTICONVULSANTS, MISCELLANEOUS	12,346	$ 1,748,951.19	$ 141.66	3.39%
HEMOSTATICS	47	$ 1,386,506.59	$29,500.14	0.01%
PROTON-PUMP INHIBITORS	7,487	$ 1,191,099.22	$ 159.09	2.06%
ANTIRETROVIRALS	1,139	$ 910,327.06	$ 799.23	0.31%
LEUKOTRIENE MODIFIERS	7,324	$ 846,331.59	$ 115.56	2.01%
BETA-ADRENERGIC AGONISTS	10,087	$ 707,887.12	$ 70.18	2.77%
AMPHETAMINES	4,726	$ 680,920.02	$ 144.08	1.30%
INSULINS	3,800	$ 614,335.36	$ 161.67	1.04%
ANTIDEPRESSANTS	14,345	$ 601,624.44	$ 41.94	3.94%
ANOREX.,RESPIR.,CEREBRAL STIMULANTS,MISC	4,469	$ 601,363.33	$ 134.56	1.23%
OPIATE AGONISTS	27,736	$ 586,593.46	$ 21.15	7.62%
ADRENALS	7,996	$ 583,963.01	$ 73.03	2.20%
CEPHALOSPORINS	8,831	$ 471,152.72	$ 53.35	2.43%
ANTINEOPLASTIC AGENTS	853	$ 455,803.68	$ 534.35	0.23%
TOTAL TOP 15	122,115	$ 14,612,641.47	$ 119.66	33.56%

Total Rx Claims	363,903
From 06/01/09-06/30/09	

Top 15 Therapeutic Classes
Based on Total Cost of Claims



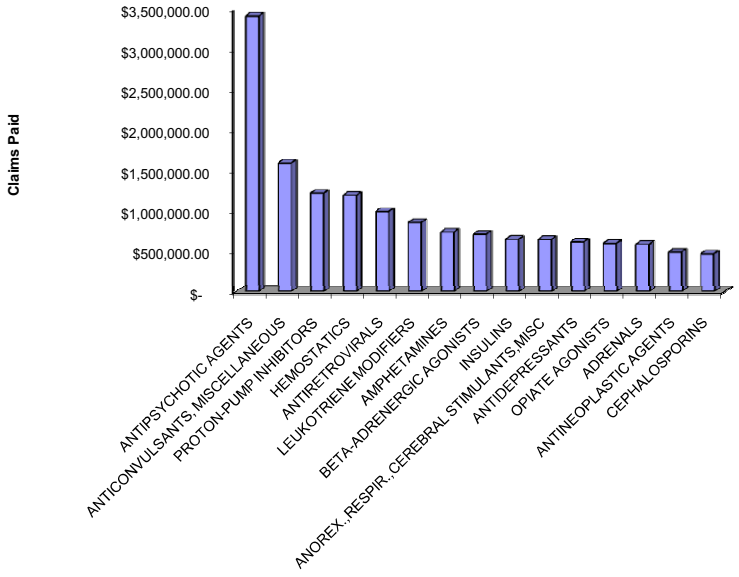
MISSISSIPPI MEDICAID
Cost Management Analysis

TOP 15 THERAPEUTIC CLASSES BY TOTAL COST OF CLAIMS FROM 07/01/09-07/31/09

AHFS Therapeutic Class	Rx	Paid	Paid/Rx	% Total Claims
ANTIPSYCHOTIC AGENTS	11,241	$ 3,403,190.49	$ 302.75	3.02%
ANTICONVULSANTS, MISCELLANEOUS	12,641	$ 1,588,331.77	$ 125.65	3.39%
PROTON-PUMP INHIBITORS	7,777	$ 1,218,540.27	$ 156.69	2.09%
HEMOSTATICS	59	$ 1,192,061.87	$20,204.44	0.02%
ANTIRETROVIRALS	1,228	$ 990,414.55	$ 806.53	0.33%
LEUKOTRIENE MODIFIERS	7,334	$ 856,670.59	$ 116.81	1.97%
AMPHETAMINES	5,039	$ 736,168.06	$ 146.09	1.35%
BETA-ADRENERGIC AGONISTS	10,163	$ 709,116.73	$ 69.77	2.73%
INSULINS	3,969	$ 649,884.63	$ 163.74	1.07%
ANOREX.,RESPIR.,CEREBRAL STIMULANTS,MISC	4,727	$ 647,539.25	$ 136.99	1.27%
ANTIDEPRESSANTS	15,048	$ 616,682.34	$ 40.98	4.04%
OPIATE AGONISTS	29,023	$ 597,929.49	$ 20.60	7.79%
ADRENALS	7,969	$ 585,742.12	$ 73.50	2.14%
ANTINEOPLASTIC AGENTS	887	$ 489,032.99	$ 551.33	0.24%
CEPHALOSPORINS	8,856	$ 467,382.42	$ 52.78	2.38%
TOTAL TOP 15	125,961	$ 14,748,687.57	$ 117.09	33.82%

Total Rx Claims	372,477
From 07/01/09-07/31/09	

Top 15 Therapeutic Classes
Based on Total Cost of Claims



Health Information Designs, Inc.
10/21/2009

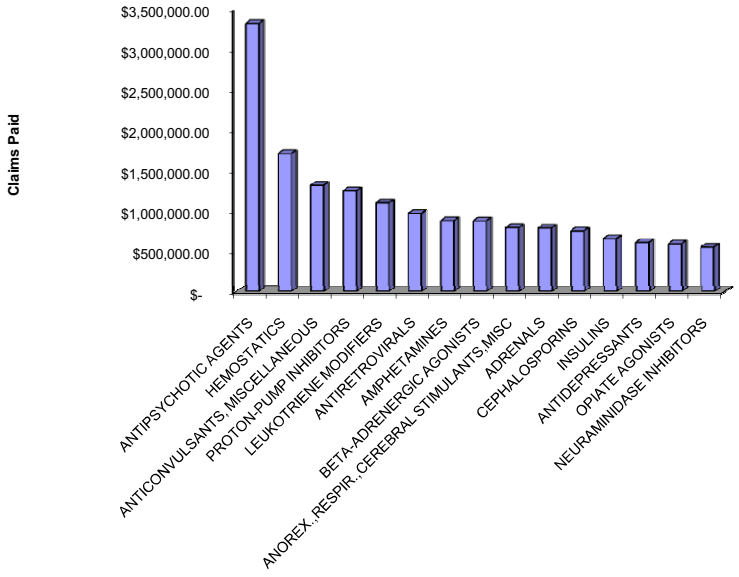
MISSISSIPPI MEDICAID
Cost Management Analysis

TOP 15 THERAPEUTIC CLASSES BY TOTAL COST OF CLAIMS FROM 08/01/09-08/31/09

AHFS Therapeutic Class	Rx	Paid	Paid/Rx	% Total Claims
ANTIPSYCHOTIC AGENTS	11,051	$ 3,310,726.78	$ 299.59	2.56%
HEMOSTATICS	57	$ 1,706,841.30	$29,944.58	0.01%
ANTICONVULSANTS, MISCELLANEOUS	12,489	$ 1,314,348.56	$ 105.24	2.89%
PROTON-PUMP INHIBITORS	8,018	$ 1,248,295.99	$ 155.69	1.86%
LEUKOTRIENE MODIFIERS	9,041	$ 1,096,668.11	$ 121.30	2.10%
ANTIRETROVIRALS	1,184	$ 966,720.38	$ 816.49	0.27%
AMPHETAMINES	6,053	$ 878,721.90	$ 145.17	1.40%
BETA-ADRENERGIC AGONISTS	14,072	$ 875,562.89	$ 62.22	3.26%
ANOREX.,RESPIR.,CEREBRAL STIMULANTS,MISC	5,844	$ 793,458.85	$ 135.77	1.35%
ADRENALS	11,507	$ 787,946.11	$ 68.48	2.67%
CEPHALOSPORINS	13,043	$ 751,640.39	$ 57.63	3.02%
INSULINS	3,959	$ 654,232.05	$ 165.25	0.92%
ANTIDEPRESSANTS	14,744	$ 610,798.70	$ 41.43	3.42%
OPIATE AGONISTS	29,577	$ 592,962.25	$ 20.05	6.86%
NEURAMINIDASE INHIBITORS	6,349	$ 552,496.11	$ 87.02	1.47%
TOTAL TOP 15	146,988	$ 16,141,420.37	$ 109.81	34.07%

Total Rx Claims	431,413
From 08/01/09-08/31/09	

Top 15 Therapeutic Classes
Based on Total Cost of Claims



MISSISSIPPI MEDICAID
Cost Management Analysis

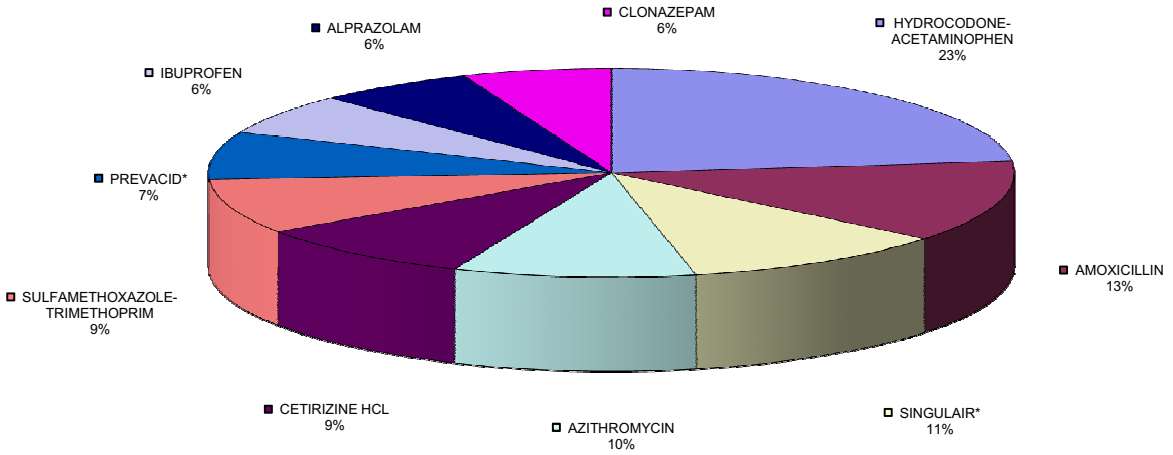
TOP 25 DRUGS BASED ON NUMBER OF CLAIMS FROM 06/01/09-06/30/09

Drug	AHFS Therapeutic Class	Rx	Paid	Top 200 Rank
HYDROCODONE-ACETAMINOPHEN	OPIATE AGONISTS	15,830	$ 217,640.22	1
AMOXICILLIN	PENICILLINS	8,613	$ 77,891.48	5
SINGULAIR*	LEUKOTRIENE MODIFIERS	7,314	$ 844,981.64	4
AZITHROMYCIN	MACROLIDES	6,601	$ 193,845.21	6
CETIRIZINE HCL	SECOND GENERATION ANTIHISTAMINES	6,213	$ 127,588.79	~
SULFAMETHOXAZOLE-TRIMETHOPRIM	SULFONAMIDES (SYSTEMIC)	5,810	$ 72,215.06	39
PREVACID*	PROTON-PUMP INHIBITORS	5,015	$ 901,429.87	7
IBUPROFEN	NONSTEROIDAL ANTI-INFLAMMATORY AGENTS	4,335	$ 32,117.96	18
ALPRAZOLAM	BENZODIAZEPINES (ANXIOLYTIC,SEDATIV/HYP)	4,314	$ 29,479.26	8
CLONAZEPAM	BENZODIAZEPINES (ANTICONVULSANTS)	4,050	$ 31,328.34	24
CEFDINIR	CEPHALOSPORINS	4,001	$ 293,849.72	68
AMOX TR-POTASSIUM CLAVULANATE	PENICILLINS	3,801	$ 203,869.59	32
ALBUTEROL SULFATE	BETA-ADRENERGIC AGONISTS	3,454	$ 105,968.49	67
RISPERIDONE	ANTIPSYCHOTIC AGENTS	3,337	$ 330,961.91	140
ACETAMINOPHEN-CODEINE	OPIATE AGONISTS	3,162	$ 26,616.98	43
PROAIR HFA*	BETA-ADRENERGIC AGONISTS	2,951	$ 127,951.27	14
CEPHALEXIN	CEPHALOSPORINS	2,946	$ 45,570.75	22
MUPIROCIN	ANTIBACTERIALS (SKIN & MUCOUS MEMBRANE)	2,910	$ 109,379.70	107
PROMETHAZINE HCL	PHENOTHIAZINE DERIVATIVES	2,837	$ 34,443.27	59
AMLODIPINE BESYLATE	DIHYDROPYRIDINES	2,607	$ 18,085.22	~
LORAZEPAM	BENZODIAZEPINES (ANXIOLYTIC,SEDATIV/HYP)	2,578	$ 16,835.42	23
NYSTATIN	ANTIFUNGALS (SKIN & MUCOUS MEMBRANE)	2,561	$ 32,797.78	142
LISINOPRIL	ANGIOTENSIN-CONVERTING ENZYME INHIBITORS	2,554	$ 12,217.19	2
ED A-HIST	PROPYLAMINE DERIVATIVES	2,455	$ 19,431.89	~
CITALOPRAM HBR	ANTIDEPRESSANTS	2,451	$ 27,471.63	25
TOTAL TOP 25		112,700	$ 3,933,968.64	

Total Rx Claims From 06/01/09-06/30/09	363,903

** Indicates preferred products on Preferred Drug List*

Top 10 Drugs
Based on Number of Claims



MISSISSIPPI MEDICAID
Cost Management Analysis

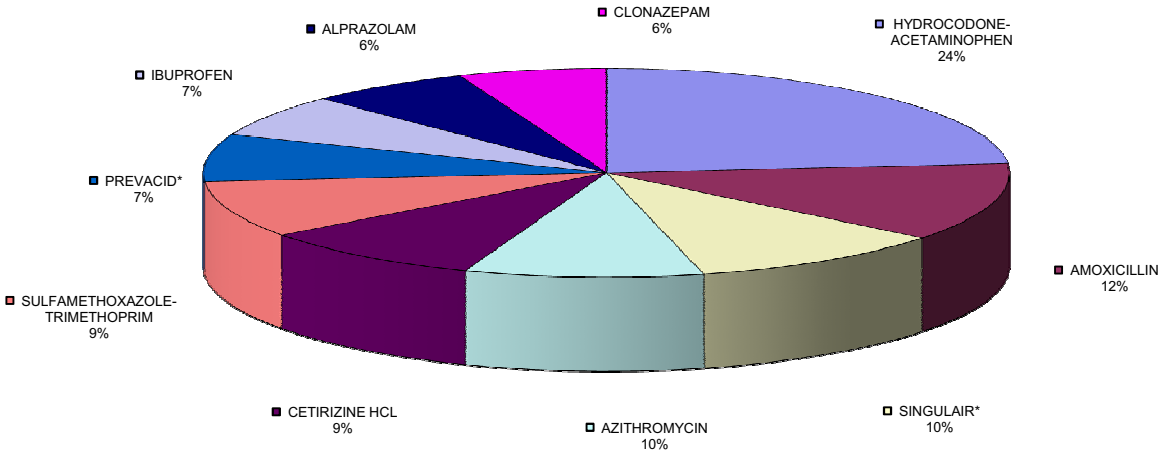
TOP 25 DRUGS BASED ON NUMBER OF CLAIMS FROM 07/01/09-07/31/09

Drug	AHFS Therapeutic Class	Rx	Paid	Top 200 Rank
HYDROCODONE-ACETAMINOPHEN	OPIATE AGONISTS	16,592	$ 233,702.13	1
AMOXICILLIN	PENICILLINS	8,537	$ 75,679.67	5
SINGULAIR*	LEUKOTRIENE MODIFIERS	7,323	$ 855,438.20	4
AZITHROMYCIN	MACROLIDES	6,716	$ 197,221.01	6
CETIRIZINE HCL	SECOND GENERATION ANTIHISTAMINES	6,445	$ 133,813.44	~
SULFAMETHOXAZOLE-TRIMETHOPRIM	SULFONAMIDES (SYSTEMIC)	6,205	$ 77,485.03	39
PREVACID*	PROTON-PUMP INHIBITORS	5,141	$ 929,377.62	7
IBUPROFEN	NONSTEROIDAL ANTI-INFLAMMATORY AGENTS	4,638	$ 34,682.39	18
ALPRAZOLAM	BENZODIAZEPINES (ANXIOLYTIC,SEDATIV/HYP)	4,580	$ 31,451.69	8
CLONAZEPAM	BENZODIAZEPINES (ANTICONVULSANTS)	4,168	$ 31,673.60	24
CEFDINIR	CEPHALOSPORINS	3,808	$ 280,728.61	68
AMOX TR-POTASSIUM CLAVULANATE	PENICILLINS	3,582	$ 192,613.36	32
RISPERIDONE	ANTIPSYCHOTIC AGENTS	3,425	$ 344,531.07	140
ALBUTEROL SULFATE	BETA-ADRENERGIC AGONISTS	3,391	$ 112,143.31	67
ACETAMINOPHEN-CODEINE	OPIATE AGONISTS	3,280	$ 27,994.75	43
CEPHALEXIN	CEPHALOSPORINS	3,128	$ 48,642.99	22
PROAIR HFA*	BETA-ADRENERGIC AGONISTS	3,049	$ 132,450.27	14
MUPIROCIN	ANTIBACTERIALS (SKIN & MUCOUS MEMBRANE)	3,024	$ 113,829.87	107
PROMETHAZINE HCL	PHENOTHIAZINE DERIVATIVES	2,885	$ 34,875.33	59
AMLODIPINE BESYLATE	DIHYDROPYRIDINES	2,831	$ 19,416.64	~
LORAZEPAM	BENZODIAZEPINES (ANXIOLYTIC,SEDATIV/HYP)	2,702	$ 17,363.24	23
ED A-HIST	PROPYLAMINE DERIVATIVES	2,700	$ 21,631.21	~
LISINOPRIL	ANGIOTENSIN-CONVERTING ENZYME INHIBITORS	2,649	$ 12,763.75	2
NYSTATIN	POLYENES	2,583	$ 33,064.62	142
RANITIDINE HCL	HISTAMINE H2-ANTAGONISTS	2,570	$ 64,755.28	50
TOTAL TOP 25		115,952	$ 4,057,329.08	

Total Rx Claims From 07/01/09-07/31/09	372,477

** Indicates preferred products on Preferred Drug List*

Top 10 Drugs
Based on Number of Claims



MISSISSIPPI MEDICAID
Cost Management Analysis

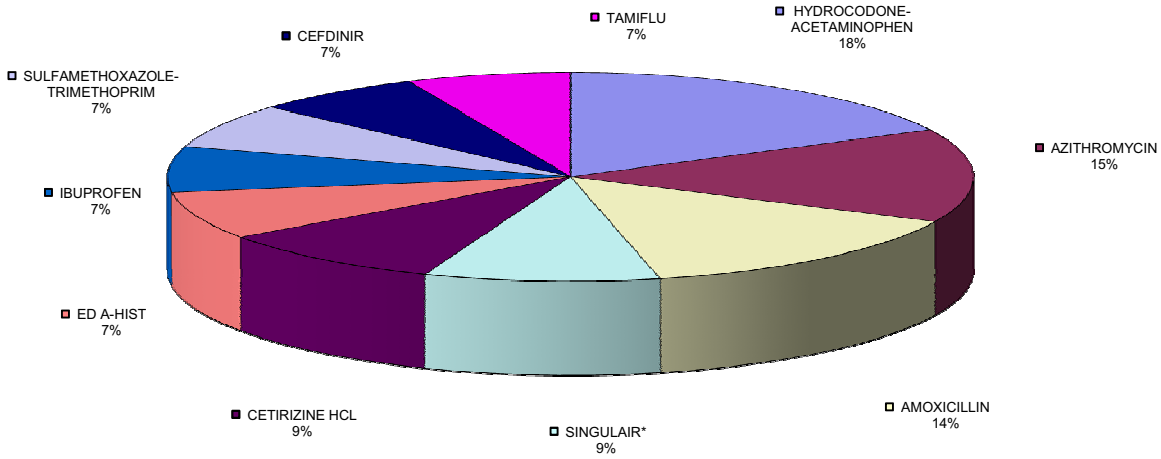
TOP 25 DRUGS BASED ON NUMBER OF CLAIMS FROM 08/01/09-08/31/09

Drug	AHFS Therapeutic Class	Rx	Paid	Top 200 Rank
HYDROCODONE-ACETAMINOPHEN	OPIATE AGONISTS	16,855	$ 234,132.34	1
AZITHROMYCIN	MACROLIDES	13,945	$ 411,197.46	6
AMOXICILLIN	PENICILLINS	13,781	$ 129,984.08	5
SINGULAIR*	LEUKOTRIENE MODIFIERS	9,032	$ 1,095,397.45	4
CETIRIZINE HCL	SECOND GENERATION ANTIHISTAMINES	8,958	$ 185,691.61	~
ED A-HIST	PROPYLAMINE DERIVATIVES	7,094	$ 58,436.03	~
IBUPROFEN	NONSTEROIDAL ANTI-INFLAMMATORY AGENTS	6,821	$ 55,055.83	18
SULFAMETHOXAZOLE-TRIMETHOPRIM	SULFONAMIDES (SYSTEMIC)	6,676	$ 84,582.75	39
CEFDINIR	CEPHALOSPORINS	6,531	$ 499,178.99	68
TAMIFLU	NEURAMINIDASE INHIBITORS	6,289	$ 548,704.82	80
AMOX TR-POTASSIUM CLAVULANATE	PENICILLINS	5,324	$ 293,015.72	32
ALBUTEROL SULFATE	BETA-ADRENERGIC AGONISTS	5,279	$ 174,266.96	67
PREVACID*	PROTON-PUMP INHIBITORS	5,217	$ 941,272.09	7
ALPRAZOLAM	BENZODIAZEPINES (ANXIOLYTIC,SEDATIV/HYP)	4,503	$ 31,005.03	8
PROAIR HFA*	BETA-ADRENERGIC AGONISTS	4,197	$ 184,642.32	14
CLONAZEPAM	BENZODIAZEPINES (ANTICONVULSANTS)	4,062	$ 30,733.54	24
PROMETHAZINE HCL	PHENOTHIAZINE DERIVATIVES	3,781	$ 43,691.20	59
RISPERIDONE	ANTIPSYCHOTIC AGENTS	3,521	$ 345,210.09	140
ACETAMINOPHEN-CODEINE	OPIATE AGONISTS	3,521	$ 29,149.11	43
CEPHALEXIN	CEPHALOSPORINS	3,517	$ 54,682.28	22
MUPIROCIN	ANTIBACTERIALS (SKIN & MUCOUS MEMBRANE)	3,187	$ 119,485.34	107
NYSTATIN	POLYENES	2,730	$ 33,410.61	142
CONCERTA*	ANOREX.,RESPIR.,CEREBRAL STIMULANTS,MISC	2,671	$ 404,681.13	34
AMLODIPINE BESYLATE	DIHYDROPYRIDINES	2,649	$ 18,282.45	~
LISINOPRIL	ANGIOTENSIN-CONVERTING ENZYME INHIBITORS	2,608	$ 12,768.67	2
TOTAL TOP 25		152,749	$ 6,018,657.90	

Total Rx Claims From 08/01/09-08/31/09	431,413

** Indicates preferred products on Preferred Drug List*

Top 10 Drugs
Based on Number of Claims



MISSISSIPPI MEDICAID
Cost Management Analysis

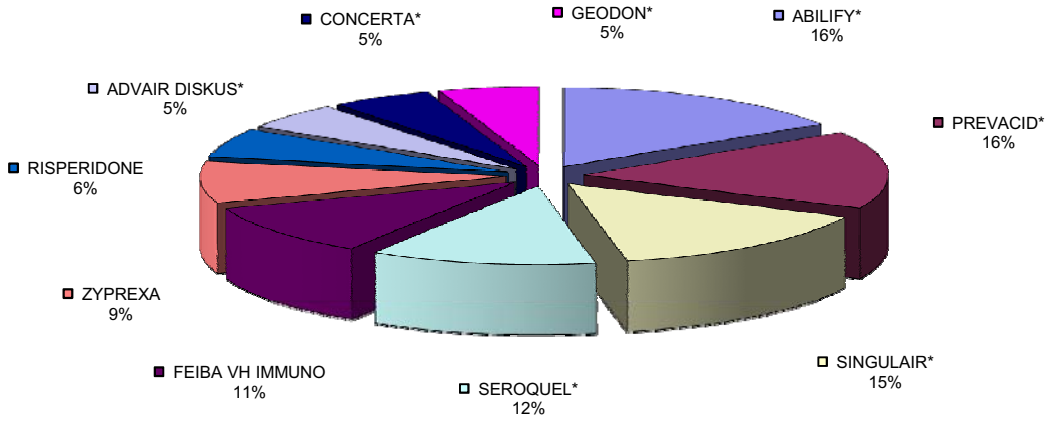
TOP 25 DRUGS BASED ON TOTAL CLAIMS COST FROM 06/01/09-06/30/09

Drug	AHFS Therapeutic Class	Rx	Paid	Top 200 Rank
ABILIFY*	ANTIPSYCHOTIC AGENTS	1,820	$ 902,861.02	12
PREVACID*	PROTON-PUMP INHIBITORS	5,015	$ 901,429.87	5
SINGULAIR*	LEUKOTRIENE MODIFIERS	7,314	$ 844,981.64	7
SEROQUEL*	ANTIPSYCHOTIC AGENTS	1,789	$ 675,644.26	6
FEIBA VH IMMUNO	HEMOSTATICS	6	$ 599,242.44	~
ZYPREXA	ANTIPSYCHOTIC AGENTS	788	$ 485,658.09	15
RISPERIDONE	ANTIPSYCHOTIC AGENTS	3,337	$ 330,961.91	24
ADVAIR DISKUS*	BETA-ADRENERGIC AGONISTS	1,492	$ 305,148.79	4
CONCERTA*	ANOREX.,RESPIR.,CEREBRAL STIMULANTS,MIS	2,045	$ 301,250.05	33
GEODON*	ANTIPSYCHOTIC AGENTS	717	$ 298,989.58	45
PULMICORT*	ADRENALS	933	$ 298,123.74	55
CEFDINIR	CEPHALOSPORINS	4,001	$ 293,849.72	17
TOPIRAMATE	ANTICONVULSANTS, MISCELLANEOUS	1,098	$ 288,059.66	~
DEXTROAMPHETAMINE-AMPH	AMPHETAMINES	1,360	$ 243,027.35	~
EXJADE	HEAVY METAL ANTAGONISTS	51	$ 241,238.69	~
PLAVIX*	PLATELET-AGGREGATION INHIBITORS	1,471	$ 220,725.62	3
LAMOTRIGINE	ANTICONVULSANTS, MISCELLANEOUS	938	$ 220,645.81	20
HYDROCODONE-ACETAMINOI	OPIATE AGONISTS	15,830	$ 217,640.22	1
EFFEXOR XR*	ANTIDEPRESSANTS	1,090	$ 210,539.15	8
AMOX TR-POTASSIUM CLAVU	PENICILLINS	3,801	$ 203,869.59	10
LIPITOR*	HMG-COA REDUCTASE INHIBITORS	1,742	$ 201,507.46	1
VYVANSE*	AMPHETAMINES	1,478	$ 196,846.25	96
AZITHROMYCIN	MACROLIDES	6,601	$ 193,845.21	3
HELIXATE FS	HEMOSTATICS	9	$ 193,513.48	~
ATRIPLA	ANTIRETROVIRALS	131	$ 192,166.36	39
TOTAL TOP 25		64,857	$ 9,061,765.96	

Total Rx Claims	363,903
From 06/01/09-06/30/09	

** Indicates preferred products on Preferred Drug List*

Top 10 Drugs
Based on Total Claims Cost



MISSISSIPPI MEDICAID
Cost Management Analysis

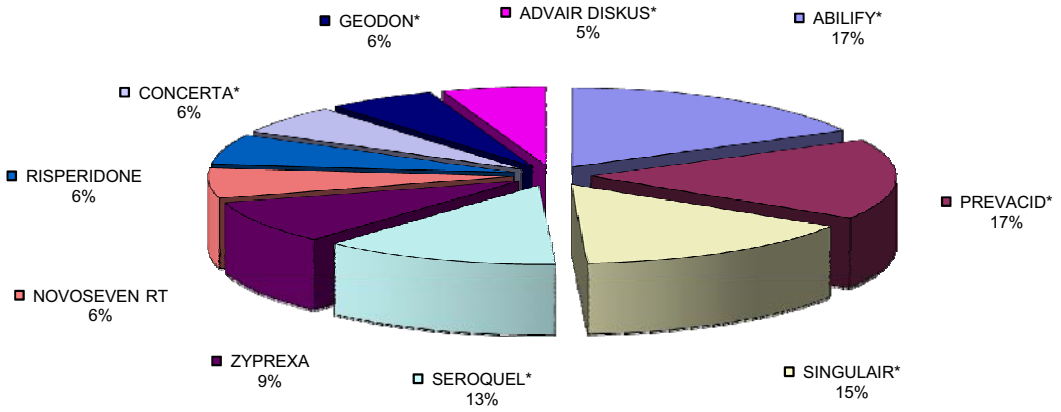
TOP 25 DRUGS BASED ON TOTAL CLAIMS COST FROM 07/01/09-07/31/09

Drug	AHFS Therapeutic Class	Rx	Paid	Top 200 Rank
ABILIFY*	ANTIPSYCHOTIC AGENTS	1,903	$ 982,036.47	12
PREVACID*	PROTON-PUMP INHIBITORS	5,141	$ 929,377.62	5
SINGULAIR*	LEUKOTRIENE MODIFIERS	7,323	$ 855,438.20	7
SEROQUEL*	ANTIPSYCHOTIC AGENTS	1,788	$ 705,341.93	6
ZYPREXA	ANTIPSYCHOTIC AGENTS	811	$ 499,883.00	15
NOVOSEVEN RT	HEMOSTATICS	12	$ 346,078.32	~
RISPERIDONE	ANTIPSYCHOTIC AGENTS	3,425	$ 344,531.07	24
CONCERTA*	ANOREX.,RESPIR.,CEREBRAL STIMULANTS,MIS	2,207	$ 335,433.40	33
GEODON*	ANTIPSYCHOTIC AGENTS	769	$ 320,720.86	45
ADVAIR DISKUS*	BETA-ADRENERGIC AGONISTS	1,505	$ 309,400.83	4
PULMICORT*	ADRENALS	933	$ 307,150.54	55
CEFDINIR	CEPHALOSPORINS	3,808	$ 280,728.61	17
DEXTROAMPHETAMINE-AMPH	AMPHETAMINES	1,488	$ 268,213.57	~
FEIBA VH IMMUNO	HEMOSTATICS	6	$ 247,668.75	~
PLAVIX*	PLATELET-AGGREGATION INHIBITORS	1,561	$ 234,210.14	3
LAMOTRIGINE	ANTICONVULSANTS, MISCELLANEOUS	966	$ 234,006.47	20
HYDROCODONE-ACETAMINOI	OPIATE AGONISTS	16,592	$ 233,702.13	1
TOPIRAMATE	ANTICONVULSANTS, MISCELLANEOUS	1,280	$ 230,362.99	~
ATRIPLA	ANTIRETROVIRALS	148	$ 224,539.76	39
VYVANSE*	AMPHETAMINES	1,661	$ 220,063.83	96
EFFEXOR XR*	ANTIDEPRESSANTS	1,120	$ 213,941.35	8
RISPERDAL CONSTA	ANTIPSYCHOTIC AGENTS	258	$ 209,557.06	129
EXJADE	HEAVY METAL ANTAGONISTS	46	$ 203,841.32	~
LIPITOR*	HMG-COA REDUCTASE INHIBITORS	1,766	$ 203,013.02	1
OMEPRAZOLE	PROTON-PUMP INHIBITORS	2,153	$ 202,456.92	4
TOTAL TOP 25		58,670	$ 9,141,698.16	

Total Rx Claims	372,477
From 07/01/09-07/31/09	

** Indicates preferred products on Preferred Drug List*

Top 10 Drugs
Based on Total Claims Cost



MISSISSIPPI MEDICAID
Cost Management Analysis

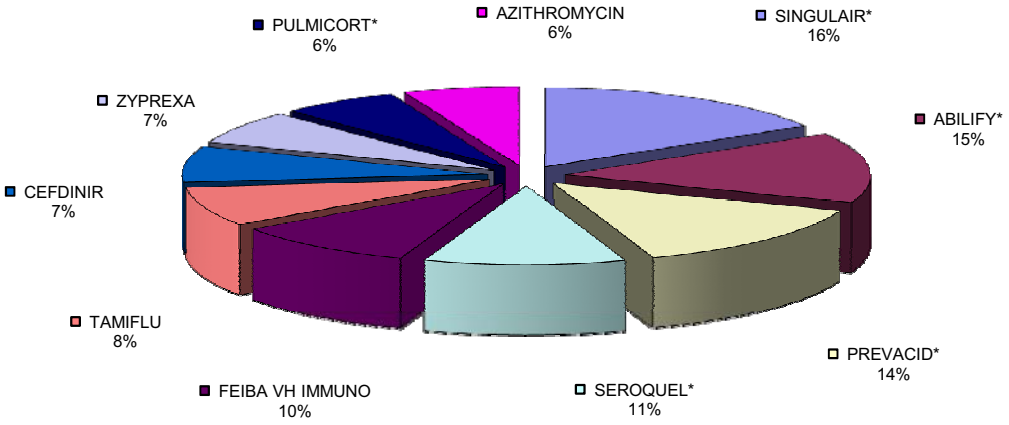
TOP 25 DRUGS BASED ON TOTAL CLAIMS COST FROM 08/01/09-08/31/09

Drug	AHFS Therapeutic Class	Rx	Paid	Top 200 Rank
SINGULAIR*	LEUKOTRIENE MODIFIERS	9,032	$ 1,095,397.45	7
ABILIFY*	ANTIPSYCHOTIC AGENTS	1,881	$ 973,482.40	12
PREVACID*	PROTON-PUMP INHIBITORS	5,217	$ 941,272.09	5
SEROQUEL*	ANTIPSYCHOTIC AGENTS	1,780	$ 717,450.52	6
FEIBA VH IMMUNO	HEMOSTATICS	7	$ 660,718.29	~
TAMIFLU	NEURAMINIDASE INHIBITORS	6,289	$ 548,704.82	122
CEFDINIR	CEPHALOSPORINS	6,531	$ 499,178.99	17
ZYPREXA	ANTIPSYCHOTIC AGENTS	748	$ 458,588.46	15
PULMICORT*	ADRENALS	1,292	$ 421,839.69	55
AZITHROMYCIN	MACROLIDES	13,945	$ 411,197.46	3
CONCERTA*	ANOREX.,RESPIR.,CEREBRAL STIMULANTS,MIS	2,671	$ 404,681.13	33
RISPERIDONE	ANTIPSYCHOTIC AGENTS	3,521	$ 345,210.09	24
DEXTROAMPHETAMINE-AMPH	AMPHETAMINES	1,870	$ 332,630.98	~
ADVAIR DISKUS*	BETA-ADRENERGIC AGONISTS	1,638	$ 328,190.02	4
AMOX TR-POTASSIUM CLAVU	PENICILLINS	5,324	$ 293,015.72	10
GEODON*	ANTIPSYCHOTIC AGENTS	706	$ 284,438.36	45
VYVANSE*	AMPHETAMINES	2,116	$ 278,689.43	96
NOVOSEVEN RT	HEMOSTATICS	10	$ 269,694.20	~
EXJADE	HEAVY METAL ANTAGONISTS	47	$ 234,974.96	~
HYDROCODONE-ACETAMINOI	OPIATE AGONISTS	16,855	$ 234,132.34	1
FOCALIN XR*	ANOREX.,RESPIR.,CEREBRAL STIMULANTS,MIS	1,663	$ 232,754.05	113
PLAVIX*	PLATELET-AGGREGATION INHIBITORS	1,539	$ 231,588.20	3
NASONEX*	CORTICOSTEROIDS (EENT)	2,224	$ 223,695.38	42
ATRIPLA	ANTIRETROVIRALS	144	$ 219,239.31	39
STRATTERA*	CENTRAL NERVOUS SYSTEM AGENTS, MISC.	1,168	$ 211,373.31	78
TOTAL TOP 25		88,218	$ 10,852,137.65	

Total Rx Claims	431,413
From 08/01/09-08/31/09	

** Indicates preferred products on Preferred Drug List*

Top 10 Drugs
Based on Total Claims Cost



Drug Utilization Review (DUR): An Overview of OBRA 90

Overview

"The Omnibus Budget Reconciliation Act of 1990 (OBRA 90) is the compromise of federal budget legislation that integrated both House and Senate versions of the federal budget. The objective of section 4401 of OBRA 90 is to save taxpayer money by reducing the cost of drug therapy for Medicaid patients. The legislation's approach to achieving this savings is through reducing the amount that Medicaid pays for pharmaceuticals and increasing pharmacist responsibility for patient outcomes with drug therapy."[1]

OBRA 90 required each state to establish a Drug Utilization Review (DUR) program for outpatient medications within the Medicaid program by January 1, 1993. This program consists of 3 parts:

- Prospective drug review
- Retrospective drug use review
- Educational program

Prospective DUR

OBRA 90 requires that pharmacists perform Point of Sale (POS) review of drug therapy prior to filling or delivering a prescription to a recipient. Prospective DUR is significant because it increases the pharmacist's responsibility for patient outcomes with drug therapy[1]. The review must include screening for the following drug therapy problems:

- Therapeutic duplication
- Drug-disease contraindication
- Drug-drug interaction
- Incorrect drug dosage
- Incorrect drug duration
- Drug-allergy interaction
- Clinical abuse/misuse

If a drug therapy problem is identified the pharmacist must take appropriate action. The pharmacist must also counsel or attempt to counsel Medicaid recipients on new prescriptions. If the recipient or the recipient's caregiver refuses counseling, documentation of this refusal is required.

Retrospective DUR

Retrospective DUR is an educational tool to help physicians and pharmacists:
"…identify and reduce the frequency of patterns of fraud, abuse, gross overuse, or inappropriate or medically unnecessary care, among physicians, pharmacists, and Medicaid recipients, or associated with specific drugs or groups of drugs." [2]

Retrospective DUR include using predetermined standards (clinical criteria) to monitor the following areas:

- Therapeutic appropriateness
- Overutilization and underutilization
- Appropriate use of generic products

- Therapeutic duplication
- Drug-disease contraindication
- Drug-drug interaction
- Incorrect drug dosage
- Incorrect drug duration
- Clinical abuse/misuse

Clinical criteria, used in the DUR program must be developed from:

- Peer reviewed medical literature; and/or
- American Hospital Formulary Service Drug Information; and/or
- United States Pharmacopeia Drug Information; and/or
- American Medical Association Drug Evaluations[4]

The purpose of retrospective DUR is to prevent future drug utilization problems. Therefore, State retrospective DUR programs must introduce educational programs to improve care and preserve Medicaid dollars.

Educational Program

"The state plan must provide for ongoing educational outreach programs that, using DUR Board data on common drug therapy problems, educate practitioners on common drug therapy problems with the aim of improving prescribing and dispensing practices." [2] The educational program must include the following interventions:

- Dissemination of information to physicians and pharmacists in the State concerning the duties and powers of the DUR Board and the basis for the standards used in assessing drug use
- Written, oral, or electronic reminders containing patient specific or drug specific information (or both) and suggested changes in prescribing or dispensing practices
- Face to face discussions, with follow up discussions when necessary, between health care professionals proficient in appropriate drug therapy and selected prescribers and pharmacists who have been targeted for educational intervention on optimal prescribing
- Intensified review or monitoring of selected prescribers or dispensers

DUR Board

State DUR Board Requirement and member qualifications

Each State is required to establish a DUR Board consisting of health care professionals who have recognized knowledge and expertise in at least one of the following areas:

- Clinically appropriate prescribing of covered outpatient drugs
- Clinically appropriate dispensing of outpatient drugs
- Drug use review, evaluation, and intervention
- Medical quality assurance

Board Composition

The Board must consist of at least one-third but not more than 51 percent physicians, and at least one-third of the Board members must be pharmacists. These physicians and pharmacists must be actively practicing and licensed.

Medicaid Agency/DUR Board relationship

It is the responsibility of the Medicaid agency to ensure that the DUR program is operational. The state Medicaid Agency has the authority to accept or reject any recommendation or decision of the DUR Board.

DUR Board Role

- Review and make recommendations on clinical criteria submitted
- Evaluate the use of the clinical criteria
- Identify and develop educational topics if education of practitioners on common drug therapy problems is needed to improve prescribing or dispensing practices
- Make recommendations as to which mix of the interventions would most effectively lead to improvement in the quality of drug therapy
- Periodically re-evaluate and, if necessary, modify the interventions
- Review annual CMS report

Medicaid Agency or Agency's Contractor Role

- Submit clinical criteria to the DUR Board for its review and recommendations prior to applying them to drug claims data
- Once the clinical criteria is approved by the Board apply it to drug claims data in order to generate reports that identify patterns of fraud, abuse, gross overuse, or inappropriate or medically unnecessary care.
- Carry out the educational programs and interventions specified by the Board

OBRA 90 is significant for pharmacists because it identified pharmaceutical care as a means of achieving Medicaid cost savings and increased the pharmacists' responsibility for patient outcomes with drug therapy[1]. "The goal of the State's DUR program must be to ensure appropriate drug therapy, while permitting sufficient professional prerogatives to allow for individualized drug therapy."

1. Brushwood DB: OBRA 90 and Managed Care Pharmacy. Drug Benefit Trends 7(8): 34-39, 42, 1995. © 1995 SCP Communications, Inc.
2. The Omnibus Budget Reconciliation Act of 1990. 57 FR 49408 (Nov. 2, 1992)
3. The Omnibus Budget Reconciliation Act of 1990. 59 FR 48824 (Sept. 23, 1994)
4. This reference is no longer available; CMS has yet to define a successor at the time of printing.

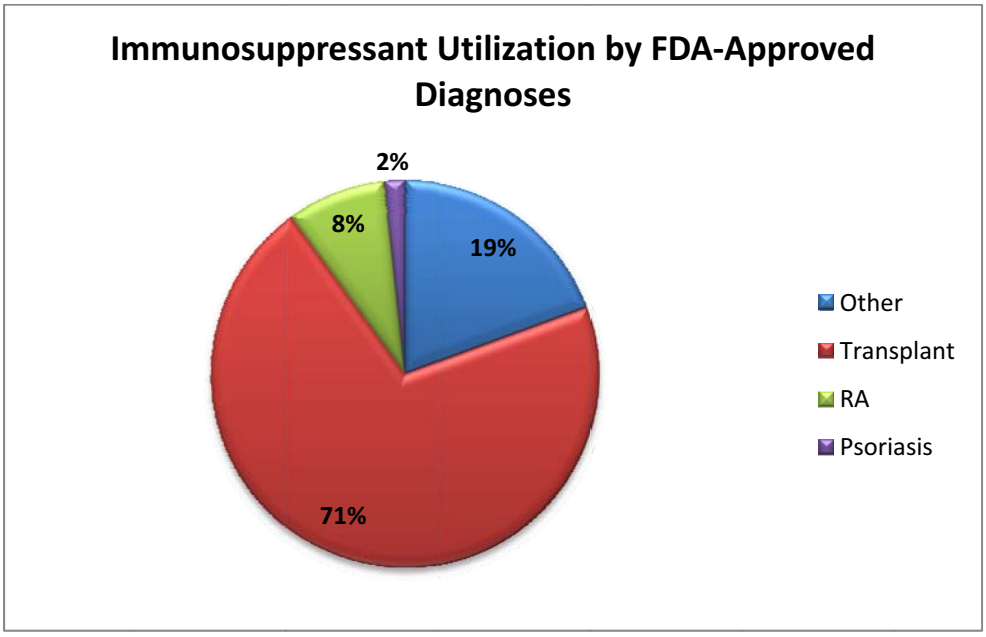
Prior Authorization Status of Immunosuppresants

Prior to the development of cyclosporine in the 1980s, immunosuppressive therapy for the prevention of organ rejection consisted of systemic doses of corticosteroids and azathioprine, as well as antilymphocyte globulin. After this introduction to the pharmaceutical market, organ transplantation became more commonplace. As understanding of the immune system has grown, so has the development of newer immunosuppressive therapies. An immunologic basis has also been found for the pathophysiology for several disease states, such as myasthenia gravis, rheumatoid arthritis, systemic lupus erythematosus, and ulcerative colitis. Consequently, immunosuppressants are many times successful in treating these disease states.

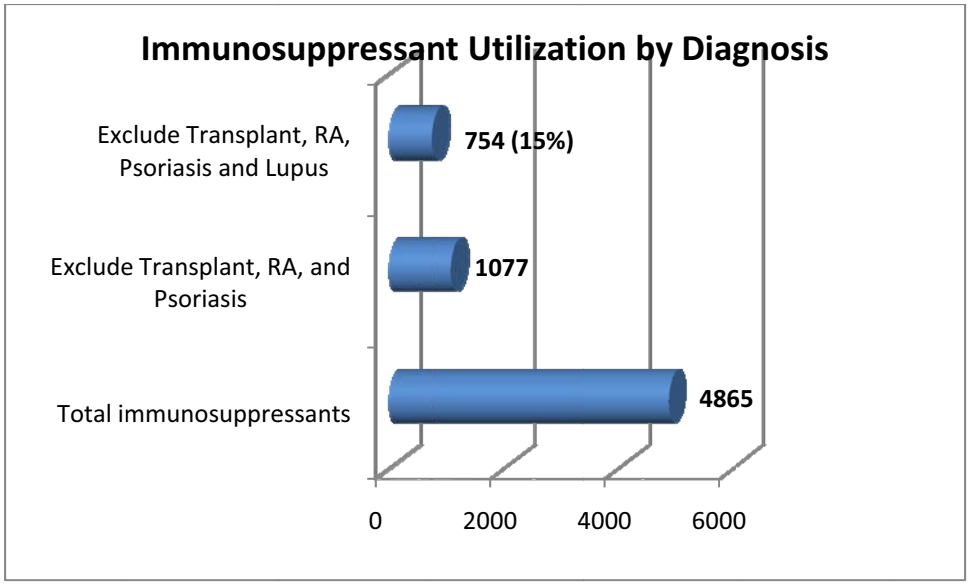
Mississippi Medicaid currently requires prior authorization for the immunosuppressant therapeutic class. Each medication and its approved diagnoses are provided in the chart below.

Medication	FDA-approved Indication
Cyclosporine	Transplant rejection prophylaxis Psoriasis Rheumatoid Arthritis
Azathioprine	Transplant rejection prophylaxis Rheumatoid arthritis
Cellcept® (mycophenolate)	Transplant rejection prophylaxis
Prograf® (tacrolimus)	Transplant rejection prophylaxis
Rapamune® (sirolimus)	Transplant rejection prophylaxis

HID gathered utilization data for fiscal year 2008 (7/1/08 – 6/30/09) for the immunosuppressants. This data was then analyzed to determine if these agents were being used appropriately based on diagnoses. The results are provided below.



As the chart above shows, 81% of all immunosuppressant utilization is for an approved diagnosis: 71% for transplant rejection prophylaxis, 8% for rheumatoid arthritis, and 2% for psoriasis. The remaining claims that could not be traced to an FDA-approved diagnosis were analyzed further to determine what diagnoses were present that might require immunosuppressive therapy. Those diagnoses identified were: lupus, ulcerative colitis, nephrotic syndrome, atopic dermatitis, and aplastic anemia, among others. The immunosuppressant data was analyzed once more, excluding those claims that could be attributed to an FDA-approved diagnosis as well as systemic lupus erythematosus, the most commonly found unapproved indication. The chart below illustrates the findings.



Once those claims had been excluded, there were 754 claims still remaining for beneficiaries who did not have one of the identified diagnoses. This constituted approximately 15% of all immunosuppressant utilization for FY2008.

Conclusion

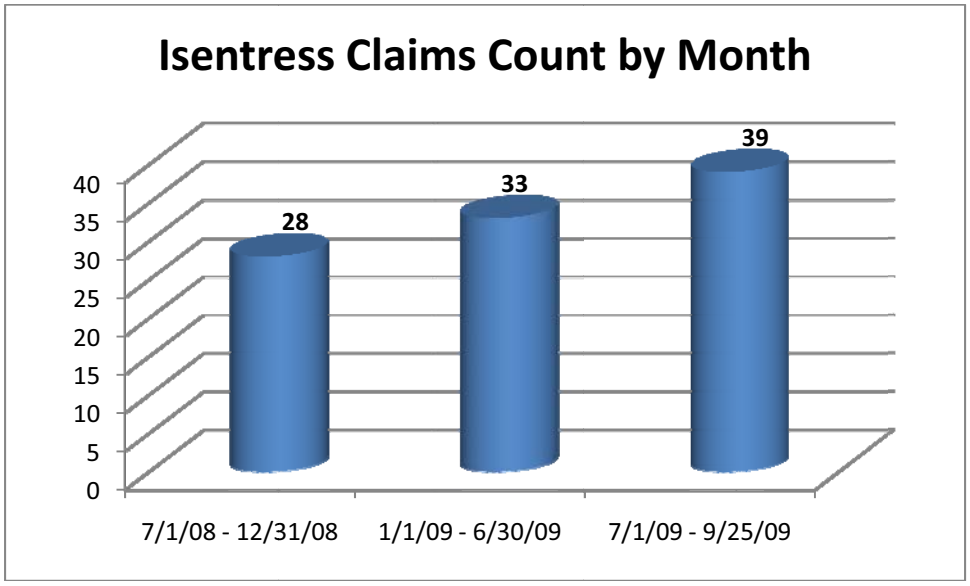
Growing knowledge of the immune system has led to increased development and application of immunosuppressive therapy in a variety of conditions and diseases, such as transplant rejection prophylaxis, rheumatoid arthritis, psoriasis, lupus, and others. Based on the information presented above, an overwhelming majority of immunosuppressant utilization in Mississippi Medicaid beneficiaries can be attributed to either an FDA-approved indication or a commonly accepted unapproved indication. DOM seeks the DUR Board's counsel regarding whether the prior authorization requirement should be lifted for the immunosuppressant class.

Appropriate Place in Therapy for Isentress®

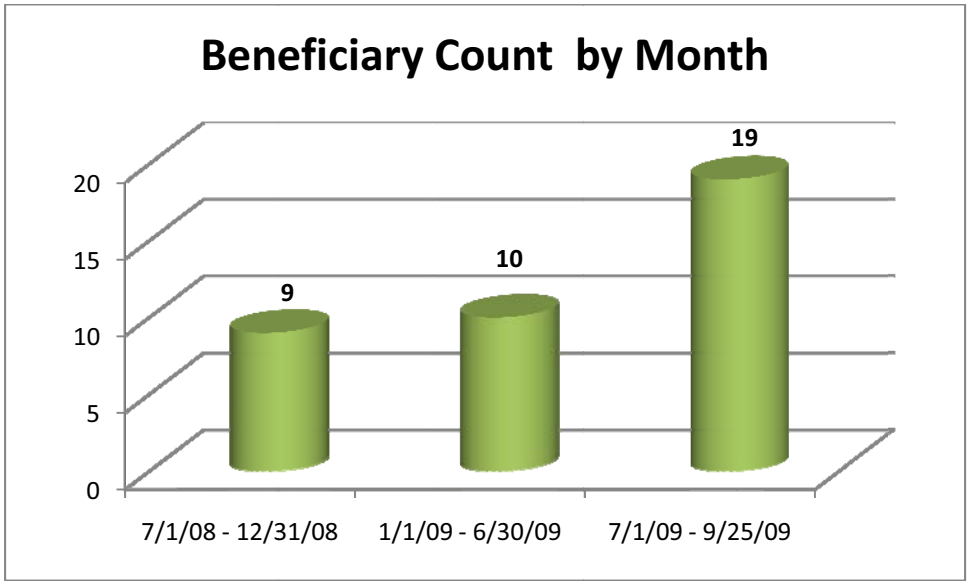
Isentress® (raltegravir) is an antiretroviral agent for the treatment of human immunodeficiency virus (HIV) infection. It is the first in a class of antiretrovirals called HIV integrase strand transfer inhibitors, which are designed to slow the advancement of HIV infection by blocking the HIV integrase enzyme needed for viral multiplication. Isentress® was approved by the FDA on October 12, 2007 for the treatment of HIV infection in combination with other antiretroviral agents in adults with evidence of HIV replication despite ongoing antiretroviral therapy who are either treatment-experienced or have HIV-1 strains resistant to multiple protease inhibitors. However, Isentress® gained FDA-approval for use in treatment-naive patients in July 2009. For FY2009, Mississippi Medicaid spent $337,754.68 on Isentress® at the point of sale.

Recently, the AIDS Healthcare Foundation sent letters to all state AIDS Drug Assistance Program (ADAP) and Medicaid directors requesting that Isentress® be placed on prior authorization in order to control costs while still ensuring access to the agent for those patients whom it is medically necessary. This letter is part of AHF's advocacy campaign challenging Merck and Co. Pharmaceuticals over the inflated price of Isentress®. AHF alleges that Isentress® was priced appropriately when it was only FDA-approved as salvage (not first-line) therapy, but that the price of the product rose significantly once it gained FDA-approval in treatment-naïve patients. According to the AHF letter, Isentress® alone costs as much as an entire three drug regimen of Viread®, Emtriva® and Sustiva®, making it the most expensive treatment option for first-line use in HIV patients. As such, AHF recommends that the product should require prior authorization to encourage use of Isentress® in only those patients for whom there is a documented need for it.

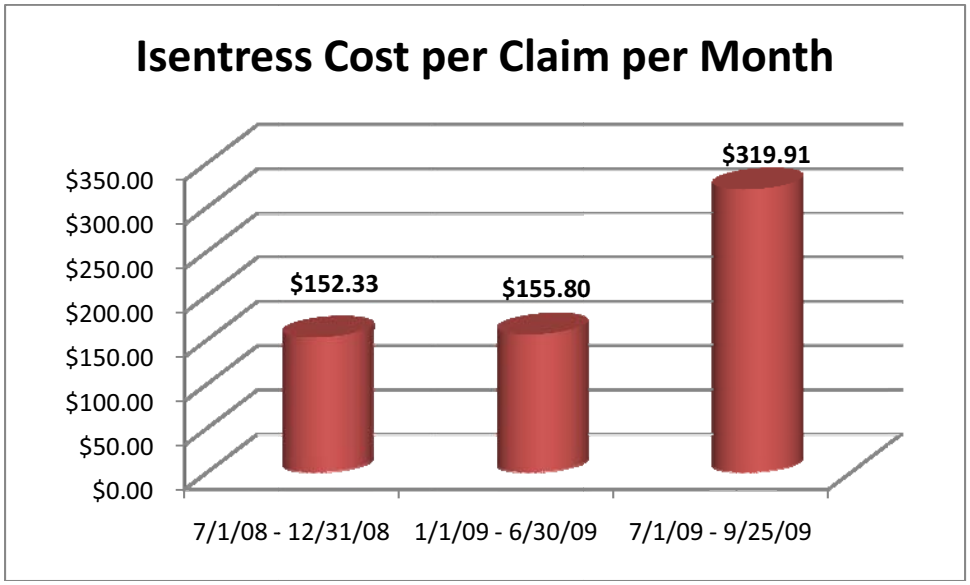
Based on the letter from AHF, DOM asked HID to conduct claims analyses of Isentress® utilization. Utilization data was gathered for three periods of time and compared to determine if there was any change in the rate of utilization or the product cost. The results of these analyses are provided below.



For the three time periods analyzed, there was a steady increase in the average number of claims per month for Isentress® of approximately 18%, even after the expanded indication for first-line therapy in July 2009.



The number of Mississippi Medicaid beneficiaries receiving Isentress® has grown over time. From 1/1/09 to 6/30/09, there was an 11% increase in the average number of beneficiaries per month receiving prescriptions for Isentress® as compared to the prior six months. However, a much sharper increase was seen in the third period of time analyzed, which corresponds to the expanded indication in July 2009. An increase of 90% was found in the average number of beneficiaries per month receiving prescriptions for Isentress® as compared to the previous time period studied.



The primary allegation of AHF is that Merck substantially increased the price of Isentress® once it gained FDA approval for use in treatment-naïve HIV patients. After this approval, the average cost per claim per month for Mississippi Medicaid beneficiaries doubled as compared to the previous six months, lending support to AHF claims.

Conclusion

Isentress® is the first agent in a new therapeutic class for the treatment of HIV. Although it was initially approved only as salvage therapy in treatment-experienced HIV patients, it recently obtained expanded FDA-approval for use as first-line therapy in treatment-naïve patients. This approval, according the AHF, led to a marked increase in the retail price of Isentress®. Consequently, AHF has asked all state ADAP and Medicaid directors to require prior authorization for Isentress® to control costs while still ensuring product availability for those beneficiaries who need this treatment option. Based on the information above, HID and DOM seek the counsel of the DUR Board members regarding prospective prior authorization of Isentress®.

Alzheimer's Agents: A Mississippi Medicaid Utilization Review

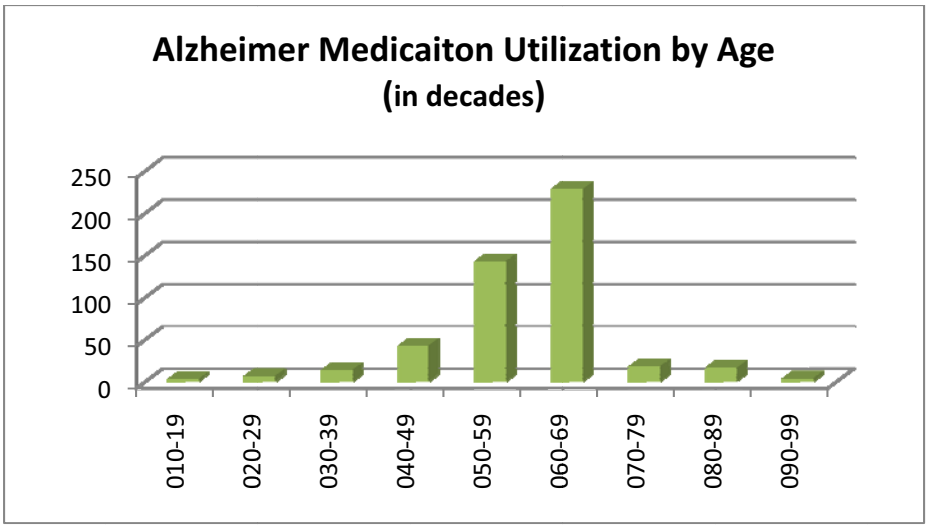
Alzheimer's disease is a gradually progressive dementia affecting both cognition and behavior. Although the exact pathophysiology of AD is unknown, current theories point towards the cholinergic system and glutamate levels as possible culprits. Because there is no cure for AD, the primary goal of medication treatment is to delay the progression of symptoms in hopes of preserving some level of functional ability. The most recent and common treatment options for AD include cholinesterase inhibitors and a NMDA glutamate receptor antagonist, based on the pathophysiological theories mentioned above.

At the October 2009 Mississippi Medicaid Pharmacy and Therapeutics Committee Meeting, it was noted by committee members that utilization of the Alzheimer's agents was rather high, considering that most beneficiaries who would require a medication of this type should be Medicare eligible and receiving pharmacy coverage through Medicare Part D. The P&T committee asked that the DUR Board analyze this utilization further, to determine what the demographics of the Mississippi Medicaid population receiving these medications looked like.

Based on this directive, HID gathered Mississippi Medicaid claims data for FY2009 to analyze utilization of the Alzheimer's agents. Once data was gathered, it was analyzed based on age and gender. The results are provided below.

Product	Claims Count	Total DOM Cost
Aricept	2109	$386,139.33
Exelon	212	$42,131.90
Galantamine	13	$1,113.19
Namenda	1116	$165,016.20
Totals	**3450**	**$594,400.62**

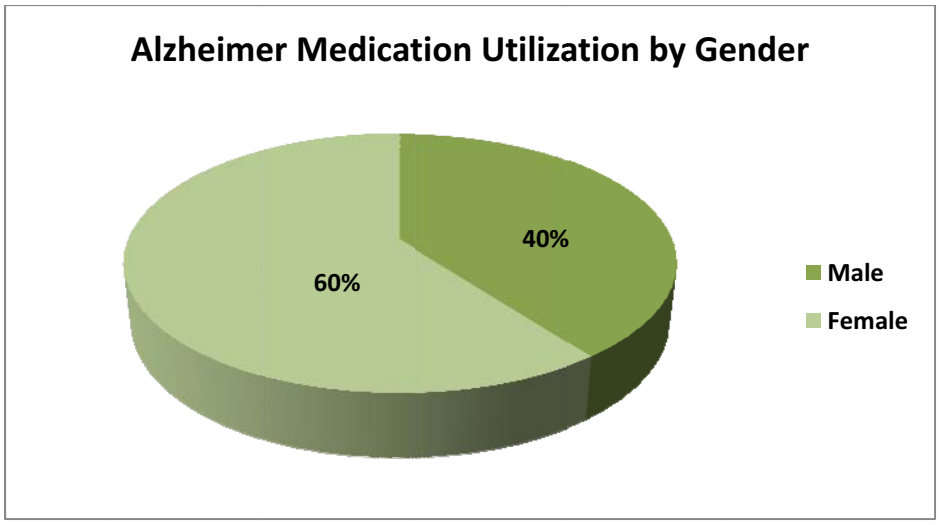
For FY2009, there were a total of 3,450 claims for 478 beneficiaries for Alzheimer's agents. This led to a total cost to DOM of $594,400.62.



As the chart above shows, the largest amount of utilization of these medications occurred in those beneficiaries ages 60-69, which is consistent with the fact that most cases of AD present after the age of 65. One of the main concerns of P&T Committee members was that Mississippi Medicaid beneficiaries generally should not be receiving these medications through Medicaid pharmacy coverage but rather through Medicare Part D. However, 53% of those beneficiaries ≥60 years old who received one of these medications were actually under the age of 65, meaning that they were not eligible for Medicare Part D. This left 125 beneficiaries ≥ 65 years of age who received an Alzheimer's agent through Mississippi Medicaid pharmacy coverage. One explanation for the presence of claims for this age group in Mississippi Medicaid is that some beneficiaries did not pay enough in Medicare taxes in their lifetime to be eligible for Medicare; therefore, their claims fall through to Medicaid for coverage.

Another concern recognized by DOM is the number of beneficiaries under the age of 50 receiving one of these agents, considering that Alzheimer's disease is primarily a disease of the elderly. There were a total of 67 beneficiaries under the age of 50 who received an Alzheimer's agent during FY2009. Of these, 3 had an appropriate diagnosis of Alzheimer's disease. The most common diagnoses found include:

- Intracranial injury
- Dementia
- Schizophrenia
- Depression



Of those beneficiaries who received an Alzheimer's agent in FY2009, 60% were female. This is in agreeance with national trends, as AD does seem to occur in women more than men.

Conclusion

Concerns were raised at the October 2009 P&T Committee meeting based on the utilization rate of the Alzheimer's agents. Since most Mississippi Medicaid beneficiaries over the age of 65 should be receiving pharmacy coverage through Medicare Part D, the P&T committee requested that the DUR board review the utilization of this class to determine if these medications were being used appropriately. Based on the information presented, it appears that there may be some inappropriate utilization in younger beneficiaries who do not have an Alzheimer's disease diagnosis. DOM requests the DUR Board's counsel whether age limits should be implemented for this class at the point of sale.

MISSISSIPPI MEDICAID
RETROSPECTIVE DRUG UTILIZATION REVIEW
CRITERIA RECOMMENDATIONS
4th QUARTER 2009

Criteria Recommendations	*Approved*	*Rejected*

1. Asenapine / Overutilization _____ _____

Alert Message: The recommended starting and target dose of Saphris (asenapine) for the treatment of schizophrenia is 5 mg sublingually twice daily. In controlled trials, there was no suggestion of added benefit with a higher dose, but there was a clear increase in certain adverse reactions. The safety of doses above 10 mg twice daily has not been evaluated in clinical trials.

Conflict Code: ER - Overutilization
Drug/Disease:

Util A	Util B	Util C (Include)
Asenapine		Schizophrenia

Max Dose 10 mg/day

Reference:
Saphris Prescribing Information, August 2009, Schering-Plough.

2. Asenapine / Overutilization _____ _____

Alert Message: The recommended starting dose of Saphris (asenapine) for the treatment of bipolar disorder is 10 mg sublingually twice daily. The dose can be decreased to 5 mg twice daily if there are adverse effects. The safety of doses above 10 mg twice daily has not been evaluated in clinical trials.

Conflict Code: ER - Overutilization
Drug/Disease:

Util A	Util B	Util C (Include)
Asenapine		Bipolar Disorder

Max Dose: 20 mg/day

Reference:
Saphris Prescribing Information, August 2009, Schering-Plough.

3. Asenapine / Nonadherence _____ _____

Alert Message: Nonadherence to the prescribed therapy with Saphris (asenapine) may lead to decreased patient outcomes and additional medical cost.

Conflict Code: LR - Nonadherence
Drug/Disease:

Util A	Util B	Util C
Asenapine		

Reference:
Saphris Prescribing Information, August 2009, Schering-Plough.

Criteria Recommendations ***Approved Rejected***

4. Asenapine / Seizures _____ _____
Alert Message: Saphris (asenapine) should be used with caution in patients with a history of seizures or other conditions that potentially lower the seizure threshold.

Conflict Code: DB – Drug/Drug and/or Drug/Disease Warning
Drug/Disease:

Util A	Util B	Util C
Asenapine	Seizures	
	Convulsions	
	Epilepsy	
	Alzheimer's	
	Anticonvulsants	

Reference:
Saphris Prescribing Information, August 2009, Schering-Plough.

5. Asenapine / Orthostatic Hypotension _____ _____
Alert Message: Saphris (asenapine) can produce hypotension and syncope due to its alpha-1 adrenergic antagonist activity. Asenapine should be used with caution in patients with known cardiovascular disease, cerebrovascular disease, or conditions that predispose a patient to hypotension (e.g., dehydration, hypovolemia, and antihypertensive medications) and the elderly.

Conflict Code: DB - Drug/Drug and/or Drug/Disease Marker
Drugs/Disease:

Util A	Util B	Util C
Asenapine	Heart Failure	CCBs
	Myocardial Infarction	ARBs
	Conduction Abnormalities	Diuretics
	Dehydration	Antiadrenergic Antihypertensives
	Hypovolemia	Beta Blockers
	ACE Inhibitors	

References:
Saphris Prescribing Information, August 2009, Schering-Plough.

6. Asenapine / Hyperprolactinemia _____ _____
Alert Message: Saphris (asenapine) like other dopamine-2 antagonists can elevate prolactin levels initially and during chronic administration. Prolactin elevating agents may cause galactorrhea, amenorrhea, gynecomastia, impotence, and decreased bone density.

Conflict Code: MC – Drug (Actual) Disease Precaution
Drugs/Disease:

Util A	Util B	Util C
Asenapine	Hyperprolactinemia	
	Galactorrhea	
	Amenorrhea	
	Gynecomastia	
	Impotence	
	Osteoporosis	

References:
Saphris Prescribing Information, August 2009, Schering-Plough.

Criteria Recommendations ***Approved Rejected***

7. Asenapine / Fluvoxamine _____ _____

Alert Message: Caution should be exercised when co-administering Saphris (asenapine), a CYP1A2 substrate, with the potent CYP1A2 inhibitor fluvoxamine. Concurrent therapy with the agents may result in elevated asenapine plasma concentrations and risk of adverse effects.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Disease:

Util A	Util B	Util C
Asenapine	Fluvoxamine	

References:
Saphris Prescribing Information, August 2009, Schering-Plough.

8. Asenapine / Paroxetine _____ _____

Alert Message: Caution should be exercised when co-administering Saphris (asenapine), a weak CYP2D6 inhibitor, with paroxetine (a CYP2D6 substrate and potent inhibitor). Coadministration of paroxetine 20 mg with asenapine 5mg twice daily has been shown to result in an almost a 2-fold increase in paroxetine exposure. Asenapine may also enhance the inhibitory effects of paroxetine on its own metabolism.

Conflict Code: DD – Drug/Drug Interaction
Drugs/Disease:

Util A	Util B	Util C
Asenapine	Paroxetine	

References:
Saphris Prescribing Information, August 2009, Schering-Plough.

9. Asenapine / QT Prolongation Drugs _____ _____

Alert Message: Saphris (asenapine) has been shown to cause a 2 to 5 msec increase in the QTc interval. Asenapine use should be avoided in patients with congenital long QT syndrome, a history of cardiac arrhythmias, bradycardia, hypokalemia or hypomagnesemia, and in patients receiving any drug that prolongs the QTc interval (e.g., Class IA & III antiarrhythmics, antipsychotics, macrolides and fluoroquinolones).

Conflict Code: DD - Drug/Drug Interaction
Drugs/Disease:

Util A	Util B			
Asenapine	Foscarnet	Perphenazine	Pentamidine	Paliperidone
	Fosphenytoin	Fluphenazine	Pimozide	Ziprasidone
	Alfuzosin	Granisetron	Quetiapine	Amitriptyline
	Amantadine	Haloperidol	Quinidine	Amoxapine
	Amiodarone	Ibutilide	Ranolazine	Clomipramine
	Arsenic Trioxide	Indapamide	Risperidone	Desipramine
	Atazanavir	Isradipine	Salmeterol	Doxepin
	Azithromycin	Itraconazole	Sertraline	Imipramine
	Chloral Hydrate	Ketoconazole	Solifenacin	Nortriptyline
	Chlorpromazine	Lapatinib	Sotalol	Protriptyline
	Clozapine	Levofloxacin	Tacrolimus	Trimipramine
	Disopyramide	Lithium	Tamoxifen	Propafenone
	Dofetilide	Methadone	Telithromycin	Procainamide
	Dolasetron	Moexipril/HCTZ	Thioridazine	Gemifloxacin
	Droperidol	Moxifloxacin	Tizanidine	Fluoxetine
	Erythromycin	Nicardipine	Tolterodine	
	Felbamate	Nilotinib	Vardenafil	
	Flecainide	Octreotide	Venlafaxine	
	Fluconazole	Ondansetron	Voriconazole	

References:
Saphris Prescribing Information, August 2009, Schering-Plough.

Criteria Recommendations ***Approved Rejected***

10. Asenapine / QT Prolongation (ICD-9s) _____ _____

Alert Message: Saphris (asenapine) has been shown to cause a 2 to 5 msec increase in the QTc interval. Asenapine use should be avoided in patients with congenital long QT syndrome, a history of cardiac arrhythmias, bradycardia, hypokalemia or hypomagnesemia, and in patients receiving any drug that prolongs the QTc interval (e.g., Class IA & III antiarrhythmics, antipsychotics, macrolides and fluoroquinolones).

Conflict Code: MC – Drug (Actual) Disease Warning/Precaution
Drugs/Disease:

Util A	Util B
Asenapine	QT Prolongation
	Cardiac Arrhythmias
	Bradycardia
	Hypokalemia
	Hypomagnesemia

References:
Saphris Prescribing Information, August 2009, Schering-Plough.

11. Propoxyphene / Black Box Warning _____ _____

Alert Message: Propoxyphene-containing products should not be prescribed to patients who are suicidal or addiction prone. Many propoxyphene-related deaths have occurred in patients with histories of emotional disturbances, suicidal ideation or attempts, or misuse of tranquilizers, alcohol, and other CNS-active drugs.

Conflict Code: MC – Drug (Actual) Disease Warning (Black Box Warning)
Drug/Disease:

Util A	Util B	Util C
Propoxyphene	Suicidality	
	Addiction	

References:
FDA News & Events, FDA Takes Action on Darvon, other Pain Medications Containing Propoxyphene. July 7, 2009. Available at: www.fda.gov/NewsEvent/Newsroom/PressAnnoucements/ucm170769.htm
Facts & Comparisons, 2009 Updates.

12. Propoxyphene / Black Box Warning _____ _____

Alert Message: The maximum recommended dose of propoxyphene napsylate is 600 mg per day and 390 mg per day for propoxyphene hydrochloride. Exceeding the maximum dose of propoxyphene may result in accumulation of the parent compound and the active metabolite causing an increased risk of adverse reactions and sometimes fatal overdose. Fatalities within the first hour of overdosage are not uncommon.

Conflict Code: ER – Overutilization – Black Box Warning
Drug/Disease:

Util A	Util B	Util C
Propoxyphene		

Max Dose: 600mg/day napsylate and 390mg/day hydrochloride

References:
FDA News & Events, FDA Takes Action on Darvon, other Pain Medications Containing Propoxyphene. July 7, 2009. Available at: www.fda.gov/NewsEvent/Newsroom/PressAnnoucements/ucm170769.htm
Facts & Comparisons, 2009 Updates.

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

13. Propoxyphene / CNS Depressants (Black Box) _____ _____

Alert Message: Propoxyphene-containing products should be prescribed with caution in patients receiving other CNS depressants (e.g. tranquilizers, antidepressants, opiates and antipsychotics) or who use alcohol in excess. Concurrent use may lead to additive CNS depression.

Conflict Code: DD – Drug/Drug Interaction **(Black Box Warning)**
Drug/Disease:

Util A	Util B	Util C
Propoxyphene	Opioid Analgesics	
	Phenothiazines	
	Sedative/Hypnotics	
	Anxiolytics	
	Anticonvulsants	
	Antipsychotics	
	Muscle Relaxants	

References:
FDA News & Events, FDA Takes Action on Darvon, other Pain Medications Containing Propoxyphene. July 7, 2009. Available at: www.fda.gov/NewsEvent/Newsroom/PressAnnoucements/ucm170769.htm
Facts & Comparisons, 2009 Updates.

FDA Updates

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.

Colchicine (marketed as Colcrys)
FDA notified healthcare professionals of the approval of the first single-ingredient oral colchicine product, Colcrys, for the treatment of familial Mediterranean fever (FMF) and acute gout flares and of two previously uncharacterized safety concerns associated with the use of colchicine. Oral colchicine has been used for many years as an unapproved drug with no FDA-approved prescribing information, dosage recommendations, or drug interaction warnings.
FDA analyzed safety data for colchicine from adverse events reported to the Agency, the published literature, and company-sponsored pharmacokinetic and drug interaction studies. This analysis revealed cases of fatal colchicine toxicity reported in certain patients taking standard therapeutic doses of colchicine and concomitant medications that interact with colchicine, such as clarithromycin. These reports suggest that drug interactions affecting the gastrointestinal absorption and/or hepatic metabolism of colchicine play a central role in the development of colchicine toxicity. Data submitted supporting the safety and efficacy of Colcrys in acute gout flares demonstrated that a substantially lower dose of colchicine was as effective as the higher dose traditionally used. Moreover, patients receiving the lower dose experienced significantly fewer adverse events compared to the higher dose.

Based on this information, FDA has included important safety considerations in the approved prescribing information to assure safe use of Colcrys and is providing background information, a data summary and recommendations in this alert.

Cellcept
FDA and Roche notified healthcare professionals that cases of Pure Red Cell Aplasia (PRCA) have been reported in patients treated with CellCept. The WARNINGS and ADVERSE REACTIONS sections of the CellCept Prescribing Information have been revised to reflect this new safety information.
PRCA is a type of anemia in which there is a selective reduction of red blood cell precursors on bone marrow examination. Patients with PRCA may present with fatigue, lethargy, and/or abnormal paleness of the skin (pallor). In some cases, PRCA was found to be reversible with dose reduction or cessation of CellCept therapy. In transplant patients, however, reduced immunosuppression may place the graft at risk.

Dextroamphetamine Saccharate, Amphetamine Aspartate, Dextroamphetamine Sulfate and Amphetamine Sulfate (Mixed Salts of a Single Entity Amphetamine Product) Tablets
Barr Laboratories, Inc. issued a voluntary recall of Dextroamphetamine Saccharate, Amphetamine Aspartate, Dextroamphetamine Sulfate and Amphetamine Sulfate (Mixed Salts of a Single Entity Amphetamine Product) 20mg Tablets, 100 count bottles, lot number 311756. The product is being recalled because the affected lot may contain some tablets exceeding weight requirements which may lead to super-potent tablets.
Clinically significant adverse reactions to a supratherapeutic dose could include cardiovascular, neurologic, psychiatric and gastrointestinal reactions. Customers who have this lot in their possession are instructed to cease using the product and return it to their pharmacy/distributor.

Orlistat (marketed as Alli and Xenical): Early Communication about an Ongoing Safety Review
FDA notified healthcare professionals and patients that it is reviewing new safety information regarding reports of liver-related adverse events in patients taking orlistat. Orlistat is marketed in the United States as a prescription product, Xenical, and as an over-the-counter (OTC) product, Alli. Between 1999 and October 2008, 32 reports of serious liver injury, including 6 cases of liver failure, in patients using orlistat were submitted to FDA's Adverse Event Reporting System. The most commonly reported adverse events described in the 32 reports of serious liver injury were jaundice, weakness, and abdominal pain. FDA is reviewing other data on suspected cases of liver injury submitted by the manufacturers of orlistat, analysis of these data is ongoing and no definite association between liver injury and orlistat has been established at this time. FDA is not advising healthcare professionals to change their prescribing practices with orlistat. Consumers currently taking Xenical should continue to take it as prescribed and those using over-the-counter Alli should continue to use the product as directed.

Levemir Insulin (Novo Nordisk)
FDA is reminding the public that stolen vials of the long-acting insulin Levemir made by Novo Nordisk Inc. still may be on the market. Evidence gathered to date suggests that the stolen insulin was not stored and handled properly and may be dangerous for people to use. FDA has received multiple reports of patients who suffered an adverse event due to poor control of glucose levels after using a vial from one of the stolen lots.

Intelence (etravirine)
Tibotec Therapeutics and FDA notified healthcare professionals of revisions to the WARNINGS AND PRECAUTIONS section of the prescribing information for Intelence (etravirine). There have been postmarketing reports of cases of Stevens-Johnson syndrome, toxic epidermal necrolysis and erythema multiforme, as well as hypersensitivity reactions characterized by rash, constitutional findings, and sometimes organ dysfunction, including hepatic failure. Intelence therapy should be immediately discontinued when signs and symptoms of severe skin or hypersensitivity reactions develop.

Tumor Necrosis Factor (TNF) Blockers (marketed as Remicade, Enbrel, Humira, Cimzia, and Simponi) Updated
FDA notified healthcare professionals that it has completed its analysis of tumor necrosis factor (TNF) blockers and has concluded that there is an increased risk of lymphoma and other cancers associated with the use of these drugs in children and adolescents. This new safety information is now being added to the Boxed Warning for these products. FDA has also identified new safety information related to the occurrence of leukemia and new-onset psoriasis in patients treated with TNF blockers. The current prescribing information for TNF blockers does contain a warning for malignancies, but does not specifically mention leukemia. FDA is also requiring updates to the current Medication Guide to help patients understand the risks associated with TNF blocker therapy.

Myfortic (mycophenolic acid)
Novartis and FDA notified healthcare professionals that cases of Pure Red Cell Aplasia (PRCA) have been reported in patients treated with Myfortic. The WARNINGS and ADVERSE REACTIONS sections of the Myfortic Prescribing Information have been revised to reflect this new safety information.
PRCA is a type of anemia in which there is a selective reduction of red blood cell precursors on bone marrow examination. Patients with PRCA may present with fatigue, lethargy, and/or abnormal paleness of the skin (pallor). In some cases, PRCA was found to be reversible with dose reduction or cessation of Myfortic therapy. In transplant patients, however, reduced immunosuppression may place the graft at risk.

Tysabri (natalizumab)
FDA continues to receive reports of progressive multifocal leukoencephalopathy (PML) in patients receiving Tysabri. Tysabri was approved by the FDA for the treatment of relapsing forms of multiple sclerosis (MS) in November 2004 and for moderately to severely active Crohn's disease in January 2008. From July 2006, (when Tysabri marketing resumed) to September 8, 2009, 13 reported cases of Tysabri-related PML were confirmed worldwide in patients being treated for MS with Tysabri monotherapy. There have been no postmarketing reports of PML in patients treated with Tysabri for Crohn's disease. Less than 2% of Tysabri use in the U.S. has been in patients with Crohn's disease. Based on available data from the U.S. and outside of the U.S., the current rate of PML in patients who have received at least 24 infusions ranges from 0.4 to 1.3 per 1,000 patients.
The risk for developing PML appears to increase with the number of Tysabri infusions received. At this time, the FDA is not requiring changes regarding PML to the Tysabri prescribing information or to the Tysabri risk management plan, called the TOUCH Prescribing Program.

Tamiflu (oseltamivir) for Oral Suspension: Potential Medication Errors
FDA issued a Public Health Alert to notify prescribers and pharmacists about potential dosing errors with Tamiflu (oseltamivir) for Oral Suspension. U.S. health care providers usually write prescriptions for liquid medicines in milliliters (mL) or teaspoons, while Tamiflu is dosed in milligrams (mg). The dosing dispenser packaged with Tamiflu has markings only in 30, 45 and 60 mg. The Agency has received

reports of errors where dosing instructions for the patient do not match the dosing dispenser. Health care providers should write doses in mg if the dosing dispenser with the drug is in mg. Pharmacists should ensure that the units of measure on the prescription instructions match the dosing device provided with the drug.

Sitagliptin (marketed as Januvia and Janumet) - acute pancreatitis

FDA notified healthcare professionals and patients of revisions to the prescribing information for Januvia (sitagliptin) and Janumet (sitagliptin/metformin) to include information on reported cases of acute pancreatitis in patients using these products. Eighty-eight post-marketing cases of acute pancreatitis, including two cases of hemorrhagic or necrotizing pancreatitis in patients using sitagliptin, were reported to the Agency between October 2006 and February 2009. It is recommended that healthcare professionals monitor patients carefully for the development of pancreatitis after initiation or dose increases of sitagliptin or sitagliptin/metformin. Sitagliptin has not been studied in patients with a history of pancreatitis. Therefore, it is not known whether these patients are at an increased risk for developing pancreatitis and the medication should be used with caution and with appropriate monitoring in patients with a history of pancreatitis. Considerations for healthcare professionals, information for patients, and a Data Summary are provided.

Exjade (deferasirox) - Early Communication

FDA notified healthcare professionals of an Early Communication regarding an ongoing review of safety issues with Exjade (deferasirox). New safety data suggests there may be a greater number of adverse events and deaths in patients using Exjade who are over sixty years old who have myelodysplastic syndrome (MDS). Exjade, an iron chelator, is an oral medication approved in 2005 for patients aged two and older with chronic anemia (low red blood cell counts) and iron overload as a result of receiving blood transfusions.

FDA is working with Novartis to add new information in the Contraindications, Warnings, and Precautions sections of the prescribing information, to alert healthcare professionals of the risks and adverse events, including acute renal failure and gastrointestinal hemorrhages that in rare cases, especially in older patients with blood-related malignancies and/or low platelet counts, have been fatal.

Neocate Infant Specialized Formula - Recall

Nutricia and FDA notified healthcare professionals of the voluntary recall of one lot [# P91877] of the specialized infant formula product, Neocate, a hypoallergenic dry powder formula distributed to pharmacies, health care professionals and consumers nationwide. Due to a blending error, Neocate contained protein levels lower than that declared on the label. Although short-term consumption of product from the affected batch is very unlikely to cause immediate nutritional issues, longer term consumption might influence the healthy growth curve in certain infants. Neocate is not intended for general use and is usually given to infants in the care of health care professionals.

The affected cans were distributed between September 1 and September 11, 2009 and the lot number can be found at the bottom of each can and on the right hand side of the case label.

Heparin: Change in Reference Standard

FDA notified healthcare professionals and patients of a change to heparin, effective October 1, 2009, which will include a new reference standard and test method used to determine the potency of the drug and able to detect impurities that may be present in heparin. The change, which will also harmonize the USP unit dose with the WHO International Standard unit dose, will result in approximately a 10% reduction in the potency of the heparin marketed in the United States.

This may have clinical significance in some situations, such as when heparin is administered as a bolus intravenous dose and an immediate anticoagulant effect is clinically important. Healthcare providers should be aware of the decrease in heparin potency as they monitor the anticoagulant effect of the drug; more heparin may be required to achieve and maintain the desired level of anticoagulation in some patients.
There will be simultaneous availability of heparin manufactured to meet the "old" and "new" USP monograph, with potential differences in potency. Products using the new "USP unit" potency definition are anticipated to be available on or after October 8. FDA is working with the manufacturers of heparin to ensure that an appropriate identifier is placed on heparin made under the new USP monograph. Most manufacturers will place an "N" next to the lot number. FDA is also working with the heparin manufacturers to study the impact of this variation in potency and will make the results available when the studies have concluded.

Relenza (zanamivir)
GlaxoSmithKline (GSK) and FDA notified healthcare professionals of a report of the death of a patient with influenza who received Relenza (zanamivir) Inhalation Powder which was solubilized and administered by mechanical ventilation. Relenza (zanamivir) Inhalation Powder is not intended to be reconstituted in any liquid formulation and is not recommended for use in any nebulizer or mechanical ventilator.
GSK is aware that Relenza Inhalation Powder is being removed from its FDA-approved packaging and dissolved in various solutions for the purpose of nebulizing zanamivir for inhalation by patients with influenza who are unable to take oral medications or unable to inhale Relenza Inhalation Powder using the Diskhaler. Relenza or zanamivir for nebulization have not been approved by the FDA. The safety, effectiveness, and stability of zanamivir use by nebulization have not been established.
Relenza Inhalation Powder should only be used as directed in the prescribing information by using the Diskhaler device provided with the drug product. Relenza Inhalation Powder is a mixture of zanamivir active drug substance and lactose drug carrier. This formulation is not designed or intended to be administered by nebulization. There is a risk that the lactose sugar in this formulation can obstruct proper functioning of mechanical ventilator equipment.

Dexferrum (iron dextran injection) - Labeling change
American Regent and FDA notified healthcare professionals that anaphylactic-type reactions, including fatalities, have followed the parenteral administration of iron dextran injection. The Boxed Warning has been modified to recommend administering a test dose prior to the first therapeutic dose and observing for signs or symptoms of anaphylactic-type reactions during administration of Dexferrum. Fatal reactions have followed the test dose of iron dextran injection, even in situations where the test dose was tolerated. Patients with a history of drug allergy or multiple drug allergies may be at increased risk of anaphylactic-type reactions. It is recommended that resuscitation equipment and personnel trained in the detection and treatment of anaphylactic-type reactions be readily available during Dexferrum administration.