



Division of Medicaid
Office of the Governor
State of Mississippi
DUR Board Meeting

September 29, 2005

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

September 29, 2005

Welcome

Old Business

**Approval of Previous DUR Board
Meeting Minutes**

Lew Anne Snow, RN

Updates

Dennis Smith, RPh

Sickle Cell Therapy Update

Cost Management Analysis

Pharmacy Program Update

Judith Clark, RPh

New Business

DUR Intervention

Dennis Smith, RPh

Overview of DUR Intervention Process

Osteoporosis Targeted Intervention

Prevention of Cardiovascular Events

Leigh Ann Ross, PharmD

Suggested Interventions

Third Quarter Criteria Recommendations

Utilization Analysis

Zelnorm[®] Utilization

Zofran[®] Utilization

Children's Medical Necessity Prior Authorization

**Black Box Warnings or Boxed
Warning Update**

Dennis Smith, RPh

Next Meeting Information

**Minutes of the March 31, 2005
Drug Utilization Review (DUR) Board Meeting**

Members Attending: Billy Brown , PharmD, Randy Calvert, RPh., Montez Carter, RPh., John Mitchell, M.D., Lee Montgomery, M.D., Joe McGuffee, RPh., Lee Anne Ross, PharmD., Rudy Runnels, M.D., Cynthia Undesser, M.D.,

Members Absent: Tim Alford, M.D., Clarence Dubose, RPh., Andrea Phillips, M.D.

Also Present: Judith Clark, RPh., Gay Gibson, R.N., Phillip Meredith, M.D., Sharon Barnett-Myers, Rich Robertson – DOM

Lew Anne Snow, R.N., Kathleen Burns, R.N., Sam Warman, RPh., HID

Dr John Mitchell called the meeting to order at 2:05p.m.

Approval of the minutes of last meeting (November 18, 2004): Dr. Undesser made a motion to accept the minutes as written. Montez Carter seconded the motion. All voted in favor of the approval.

Reports:

Update on Inappropriate Therapy for the Elderly

Sam Warman presented information about the following interventions regarding inappropriate therapy for the elderly:

- Inappropriate Therapy for the elderly: Ambien and Sonata
- Inappropriate Therapy for the elderly: long half-life Benzodiazepine Anxiolytics and Sedatives
- Inappropriate Therapy for elderly: Barbiturate Sedative/Hypnotics
- Inappropriate Therapy for elderly: certain Tertiary Tricyclic Amines

There were 697 educational intervention letters with attached response forms mailed to prescribers for the identified recipients. There were 919 fewer prescriptions written for the identified beneficiaries after intervention letters were mailed to physicians. This reduction in prescriptions resulted in a cost savings of about \$98.32 per beneficiary. No vote was taken on the recommendations at this time due to the implementation of a CNS program approved by DOM.

Effect of Recent News on Cox-2 Inhibitor Utilization:

Sam Warman presented a review on the utilization of COX-2 Inhibitors following the voluntary removal of Vioxx from the market in September 2004. The information presented showed that prescriptions for Celebrex and Bextra remained almost equal in number as prior to September 2004. There was a significant increase in the NSAID therapeutic class as well as narcotic analgesics. Judith Clark explained that the P&T Committee voted to leave the COX-2 inhibitors on prior authorization pending the FDA review of COX-2 inhibitors.

Antibiotic Utilization in Children:

Sam Warman presented a report regarding antibiotic and antihistamine utilization in children. Data from December 2003 through November 2004 for children 0-20 years of age was reviewed for total prescriptions per month for both antibiotic and antihistamine therapy. Using data from December 1, 2003 through December 31, 2003 as an example, there were 2,617 beneficiaries who received Zithromax and another antibiotic during this time period. After much general discussion the board asked that further review be done regarding duplicate antibiotic therapy in children. The DUR Board asked that the following information be included in the review:

- Specific geographical areas
- Review areas of care – i.e. ER visits vs. clinic or physician office visits
- ICD-9 codes assigned to visit
- Specific time frame of 72 hours to 5 days after initial antibiotic RX

Montez Carter made a motion that these interventions be revisited following an enhanced review. Dr. Undesser seconded the motion. All voted in favor of the motion.

Retrospective DUR Criteria Recommendations:

Sam Warman presented the following retrospective DUR criteria recommendations for the first quarter 2005:

- Narcotic/Sickle Cell/Hydroxyurea- The patient has sickle cell anemia and appears to be receiving only narcotics for associated pain. The patient may benefit from the addition of hydroxyurea for pain prevention.
 - Cynthia Undesser made a motion to accept this criteria recommendation. Leigh Ann Ross seconded the motion. All voted in favor of the motion.
- Estazolam/Azole Antifungals-Concomitant use of estazolam with CYP3A4 enzymes inhibitors, ketoconazole or itraconazole may result in estazolam toxicity.
Estazolam/ 3A4 inhibitors-Concomitant use of estazolam with drugs that exhibit significant inhibition of 3A4 metabolism may result in elevated estazolam concentrations.
Estazolam/certain CYP3A4 inducers-Concomitant use of estazolam with potent CYP3A4 enzyme inducers would decrease estazolam concentrations.
 - Dr. Montgomery motioned that the DUR Board recommend to the P&T Committee that estazolam be removed from the preferred drug list due to the extensive list of interactions/dangers associated with the medication. Dr. Montgomery also recommended that a list of the prescribers using this group of medications in the last 60 days be sent an appropriate letter. Joe McGuffee seconded the motion. All voted in favor of the motion.
- Valdecixib/therapeutic appropriateness-serious skin reactions have been reported in patients receiving Bextra. Valdecixib should be discontinued at the first appearance of a skin rash, mucosal lesions, or any sign of hypersensitivity. Valdecixib contains sulfa, and patients with a history of allergic reactions to sulfa may be at a greater risk of skin reactions.
Valdecixib/therapeutic appropriateness –Bextra is contraindicated for treatment of postoperative pain immediately coronary artery bypass surgery (CABG). Patients treated with valdecixib for pain following CABG have a higher risk for cardiovascular/thromboembolic events, deep surgical infections or sternal wound complications.

- Dr Montgomery motioned that the recommendations be approved. Dr. Montgomery also asked that DOM consider adding the following questions to the PA process for Bextra:
 - Does patient have an allergy to Sulfa?
 - Has patient had a CABG procedure within the last 6 months?
 Dr. Ross seconded the motion. All voted in favor of the motion.
- Celecoxib/ Overutilization- Recent clinical trials involving the use of this category to prevent colon polyps were halted due to an increased risk of CV events. Patients taking 400 mg of celecoxib twice a day have a 3.4 times greater risk of CV events compared to placebo and 2.5 times greater for 200 mg twice a day. The FDA is advising that all physicians prescribing celecoxib consider the evolving information in evaluating the risks and benefits for the individual patient. Ms. Clark stated the P&T Committee asked that the DUR Board consider placing a maximum dose allowed on all COX-2 inhibitors.
 - Dr. Montgomery made a motion to change the maximum quantity currently allowed by DOM from 150% of the recommended dose to 100% of the recommended dose. Joe McGuffee seconded the motion. Dr. Mitchell asked for a review of all NSAIDS and COX2 inhibitor prescriptions where the quantity dispensed was over the recommended maximum dose. Dr. Mitchell requested that the report include diagnosis information as well as physician specialty information.

Black Box Warnings and Updates:

Sam Warman presented black box warnings issued by the FDA concerning the following:

- Crestor- FDA issued a public health advisory describing revisions to the WARNINGS, DOSAGE AND ADMINISTRATION, CLINICAL PHARMACOLOGY, and PRECAUTIONS sections of the labeling. The revisions include results from a Phase 4 pharmacokinetic study in Asian-Americans and highlight important information on the safe use of Crestor to reduce the risk for serious muscle toxicity (myopathy/rhabdomyolysis), especially at the highest approved dose of 40 mg. At this time, the FDA is also making statements about the muscle and kidney safety of Crestor based on extensive review of available information.
- Agrylin- Shire and FDA notified healthcare professionals about changes to the CONTRAINDICATIONS and WARNINGS sections of the prescribing information for Agrylin (anagrelide hydrochloride), a medication approved for the treatment of thrombocythemia secondary to myeloproliferative disorders to reduce platelet count and the risk of thrombosis and to ameliorate associated symptoms including thrombohemorrhagic events. Pharmacokinetic studies have revealed an 8-fold increase in total exposure (AUC) to anagrelide hydrochloride in patients with moderate hepatic impairment. Use of anagrelide hydrochloride has not been studied in patients with severe hepatic impairment. Labeling changes include the contraindication to the use of Agrylin in patients with severe hepatic impairment. The WARNINGS section describes the need for dosage reduction in patients with moderate hepatic impairment and the necessity of monitoring these patients carefully for cardiovascular effects.
- Gabitril- FDA and Cephalon, Inc. notified healthcare professionals and the public that a Bolded Warning has been added to the labeling for Gabitril (tiagabine) to warn

prescribers of the risk of seizures in patients without epilepsy being treated with Gabitril. FDA has received reports of the occurrence of seizures in more than 30 patients prescribed Gabitril for conditions other than epilepsy. Most of these uses were in patients with psychiatric illnesses. Such off label prescribing is a common practice among physicians. Because of the risk of seizures, however, in addition to adding the Bolded Warning to product labeling, the sponsor has agreed to undertake an educational campaign, targeted to healthcare professionals and patients, in which such off-label use will be discouraged.

- Phenergan- FDA and Wyeth notified healthcare professionals of revisions to the CONTRAINDICATIONS, WARNINGS/Use in Pediatric Patients, and DOSAGE AND ADMINISTRATION sections of the prescribing information for Phenergan. Phenergan is contraindicated for use in pediatric patients less than two years of age because of the potential for fatal respiratory depression. Post marketing cases of respiratory depression including fatalities, have been reported with use of Phenergan in pediatric patients less than two years of age. Caution should also be exercised when administering Phenergan to pediatric patients two years of age and older. Dr. Mitchell asked if DOM was covering Phenergan prescriptions for children after this warning was issued by the FDA. Ms. Clark explained that DOM does not deny for Black Box Warnings.
 - Dr. Montgomery made a motion to send intervention letters containing the FDA black box warning to physicians who continue to prescribe Phenergan for children less than 24 months of age. Joe McGuffee requested that this information also be included in the DOM Bulletin as an educational alert. A motion was made by Dr. Undesser to accept both Dr. Montgomery's motion and to also include the request made by Joe McGuffee. Dr. Ross seconded the motion. All voted in favor of the motion.
- Estraderm-The Women's Health Initiative (WHI) study reported increased risks of myocardial infarction, stroke, invasive breast cancer, pulmonary emboli, and deep vein thrombosis in postmenopausal women (50-79 years of age) during 5 years of treatment with oral conjugated equine estrogens (CE 0.625 mg) combined with medroxyprogesterone acetate (MPA 2.5 mg) 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 4 years of treatment with oral conjugated equine estrogens plus medroxyprogesterone acetate relative to placebo. It is unknown whether this finding applies to younger postmenopausal women or to women taking estrogen alone. Other doses of oral conjugated estrogens with medroxyprogesterone acetate, and other combinations and dosage forms of estrogens and progestins were not studied in the WHI clinical trials and, in the absence of comparable data, these risks should be assumed to be similar.

Suggested Interventions:

Sam Warman presented several intervention recommendations. Each suggested intervention included the number of recipients identified during profile review as being at risk for the specific intervention. These suggested intervention included.

- Inappropriate Therapy for Elderly-long half-life benzodiazepine anxiolytics
- Inappropriate Therapy for Elderly-barbiturate sedative/hypnotic
- Inappropriate Therapy for Elderly- certain tertiary TCA's
- Inappropriate Therapy for Elderly- famotidine
- Inappropriate Therapy for Elderly- Sonata and Ambien
- Drug (actual) disease precaution – adverse cardiovascular effects COX-2 inhibitors
- Celecoxib/overutilization
- Valdecocib/therapeutic appropriateness

After much discussion, the DUR Board decided to postpone approval of the suggested interventions until after implementation of the CNS/DOM program.

Cost Analysis:

Sam Warman presented a brief cost management analysis report from January 1, 2005 through January 31, 2005. This report included the top 15 therapeutic classes by total cost of claims, the top 25 drugs based on number of claims and the top 25 drugs based on total claims cost for this time period. Dr Montgomery asked that the board be given a list of specific medications included under miscellaneous therapeutic agents and miscellaneous anticonvulsants for the next DUR Board meeting.

Academic Detailing:

Lew Anne Snow gave an overview of the new Academic Detailing program. Three new Medicaid Pharmacy Specialists, representing all areas of the state, were introduced to the DUR Board. Under the direction of the Division of Medicaid, the Medicaid Pharmacy Specialists will provide education regarding all aspects of the Mississippi Division of Medicaid pharmacy program to prescribing providers throughout the state

Pharmacy Updates:

Judith Clark, Director of Pharmacy Bureau, gave a brief report on recent pharmacy program expenditures. Mrs. Clark distributed a copy of the preferred drug list to the board members. She also provided the board members with a list of preferred vs. non-preferred antihistamines and antihistamine/decongestant combination products. A copy of the DUR Board by-laws was given to every Board member. Mrs. Clark reminded the board members of the attendance requirement addressed in the by-laws.

CNS presentation:

Judith Clark introduced Billy E. Jones, M.D., Medical Director and Frankie Rutledge, account manager for Comprehensive NeuroScience, Inc. Dr. Billy Jones gave the board an overview of the behavioral pharmacy management system. Supported by a grant from Eli Lilly, CNS will partner with the MS Division of Medicaid to encourage appropriate utilization of behavioral drugs.

There being no other business, Dr. Mitchell asked for a motion to adjourn the meeting. Joe McGuffee made a motion to adjourn. Leigh Ann Ross seconded the motion. All voted in favor of the motion. The meeting was adjourned at 4:15 p.m.

Respectfully submitted:
Health Information Designs

**Minutes of the June 23, 2005
Drug Utilization Review (DUR) Board Meeting**

Members Attending: Billy Brown, Pharm.D, Randy Calvert, RPh, Lee Anne Ross, Pharm.D, Rudy Runnels, M.D.

Members Absent: Tim Alford, M.D., Montez Carter, RPh, Clarence Dubose, RPh, John Mitchell, M.D., Lee Montgomery, M.D., Joe McGuffee, RPh, Andrea Phillips, M.D., Cynthia Undesser, M.D.

Also present: Judith Clark, RPh, Terri Kirby, RPh –DOM
Dennis Smith, RPH, Sam Warman, RPh, Lew Anne Snow, R.N., Kathleen Burns, R.N. – HID
Frankie Rutledge, Comprehensive Neuroscience, Inc

Due to the lack of a quorum of DUR Board members, including the absence of both the DUR Board Chairman and Co-Chairman, Judith Clark requested that Dr. Ross chair the meeting. Ms. Clark also stated that there would not be any motions made or voting during the meeting. The meeting was called to order at 2:15 p.m.

Reports:

CNS Update

Ms. Rutledge presented to the Board a handout regarding the Mississippi Behavioral Pharmacy Management System which was implemented November 4, 2004. This informative material was dated November 4, 2004 thru March 2005. Included was the timeline for implementation and ongoing research to be distributed to physicians. To date, 3,455 letters were mailed to all providers who had prescribed a behavioral medication within the past twelve months. These mail-outs included an orientation letter of the program. The ongoing project oversight and account management will continue monitoring core areas as directed by the State.

Updates:

Antibiotic Utilization in Children

Dennis Smith, RPh presented the Antibiotic Utilization in Children Report as requested by the Board from the March meeting. The data was collected from October 2004 thru December 2004, indicated that Zithromax was the most duplicated antibiotic with 2,474 duplications. These duplications were noted to be within a 72 hours of filling the first prescription. Conclusion indicated that over half of these duplications involved a hospital setting. Also the data indicated that the same prescribing physician wrote both prescriptions.

Hydroxyurea use in Sickle Cell Therapy

Dennis Smith presented data regarding the use of hydroxyurea in patients diagnosed with sickle cell anemia. Data from January 2005 thru March showed that 56.4% of Medicaid beneficiaries with a diagnosis of Sickle Cell received at least one Rx for a narcotic analgesic. The number of Sickle Cell beneficiaries receiving at least one prescription for Hydroxyurea during that same time-frame was 8.9%. The study indicated that Hydroxyurea seemed to be more useful in children but is widely used in all age groups.

Dr. Billy Brown commented on his involvement with the Sickle Cell patients at UMC. Ms. Clark stated that it would be of interest to identify if specialists are the physicians prescribing Hydroxyurea. She also noted that it would be helpful to know if there was standard protocol at UMC for treatment of Sickle Cell. The DUR board requested that HID identify the specialties of the physicians prescribing Hydroxyurea, the age of the beneficiaries as well the regional area of residence in the State for these Medicaid beneficiaries.

NSAID/Celebrex Utilization Analysis

Sam Warman, RPh presented a report regarding utilization of NSAID/COX-2 at doses which exceed the maximum daily dose normally prescribed. Mr. Warman stated that currently the quantity limits set by DOM was 150% of maximum daily dose indicated by First Data Bank. The quantity limits reviewed included 90 days worth of data and looked for diagnosis of osteoarthritis, rheumatoid arthritis, dysmenorrhea, fever, pain, and ankylosing spondylitis. As of July 1, 2005, DOM will set maximum daily dose at 100% as indicated by First Data Bank. Celebrex is included in the prior authorization process which monitors utilization above the maximum daily requirements.

Cost Management Analysis:

Dennis Smith presented a cost management analysis report including data from January 1, 2005 thru March 31, 2005.

Pharmacy Update:

Ms. Judith Clark, RPh, Director of Medicaid Pharmacy Bureau, presented the changes regarding the Pharmacy program to be implemented July 1, 2005. MS Clark Stated that the day supply of medication DOM will reimburse for will be changed from a 34-day supply to a 31-day supply. The Extension of Benefits authorization allowing up to 7 prescriptions will cease to exist and beneficiaries over the age of 21 may receive payment from Medicaid for a total of five (5) prescription with two (2) being Brand-name and three (3) generic. Medicaid has compiled a Maintenance Drug list which will allow the physician to write a 90 day supply of medications included on this list. Ms. Clark stated that this maintenance list would change on a periodic basis as Medicaid updated this list. DOM is working with both UMC and MS Department of Health in an effort to assist with the management Medicaid beneficiaries with HIV, AIDS and Hemophilia. MS. Clark stated that beneficiaries in Long Term Care facilities would be exempt from the prescription limits. She explained that children under 21 years of age would fall under the same guidelines as other beneficiaries but there would be a Medically Necessary prior authorization form that physicians could complete in order for children to receive necessary medications. The co-pay for all beneficiaries will be \$3.00 on all prescriptions with the exception of children, LTC and pregnant patients who are exempt from this co-pay. Ms. Clark explained that there is a list for all insulin products on DOM website which designates insulin as brand or OTC. Insulin designated as brand will be counted against brand name service limits, while insulin designated as OTC will not be counted against brand name service limits.

New Business

DUR Interventions

Dennis Smith, RPh presented an overview of the DUR intervention process to the Board. Dr. Ross suggested that beneficiaries with the diagnosis of osteopenia be included in future reviews and asked that long term therapy be evaluated in addition to the current 30-day therapy used in these reviews. Dr. Ross then presented information on the prevention of cardiovascular events. Dr. Ross stated that undiagnosed, untreated and uncontrolled hypertension places a strain on the entire health care delivery system and explained that encouragement of optimal treatment to goal could decrease this strain.

Black Boxed Warnings

Dennis Smith presented black box warnings issued by the FDA concerning the following:

- Trileptal- Novartis and FDA notified healthcare professionals about the revisions to the Warnings and Precautions sections of the prescribing information. The updated WARNINGS section describes serious dermatological reactions including Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) which has been reported in both children and adults. The PRECAUTIONS sections have been updated to include language regarding multi-organ hypersensitivity reactions with the use of Trileptal.
- FDA ALERT: Celebrex has been associated with an increased risk of serious adverse cardiovascular events in a long-term placebo controlled trial. FDA has requested that the package insert for all NSAIDs including Celebrex be revised to include the potential increased risk of CV events and the well described risk of serious and potentially life threatening gastrointestinal bleeding. FDA has also requested the package insert for all NSAIDs be revised to include a contraindication for use in patients immediately post op from CABG surgery
- Prescription Non-selective NSAIDs: FDA requests for revising product labeling to include:
 1. A black box warning regarding potentially serious adverse CV events and the potentially life-threatening GI adverse events
 2. A contraindication for use in patients who have recently undergone CABG surgery
 3. A medication guide for patients regarding the potential for CV and GI adverse events associated with the use of this class of drugs. The medication guide will be required to be given to patients at the time each prescription is dispensed.
- OTC Non-Selective NSAIDs- FDA will ask manufacturers of all OTC products containing ibuprofen to revise their labeling to include:
 1. More specific information about the potential CV and GI risks
 2. Instructions about which patients should seek the advice of a physician before using these drugs
 3. Stronger reminders about limiting the dose and duration of treatment in accordance with
 4. package instructions, unless otherwise advised by a physician
 5. A warning about skin reactions

6. It was also noted that Aspirin is a nonselective NSAID but due to other indications to reduce the risk of CV events, patients should remain under strict advice of their physicians in regard to this medication
- Novantrone prescribing information revisions regarding the increase risks of cardiotoxicity and secondary acute myelogenous leukemia (AML) May 24, 2005, Serona and FDA notified healthcare professional of revisions to the BOXED WARNINGS AND DOSAGE AND ADMINISTRATION sections indicated for the treatment of multiple sclerosis. This letter provided supplemental information regarding secondary acute myelogenous leukemia (AML) reported in MS patients with the use of Novantrone. It also included concerns regarding the risks of cardiotoxicity associated with Novantrone.

-

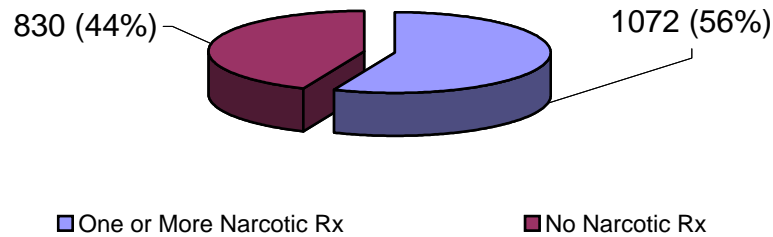
Judith Clark reported that there will be four (4) members on the current DUR Board whose term will end 6-30-05. She also reminded the Board a member must maintain a 50% attendance record to be able to remain on the DUR Board. She added that everyone should be respectful of those members who travel long distance to attend scheduled meetings as well as arrange their office schedules well in advance to accommodate the board meetings. Ms. Clark stated that appointment of the new DUR Board members was in process of approval.

The meeting was adjourned at 3:40 p.m.

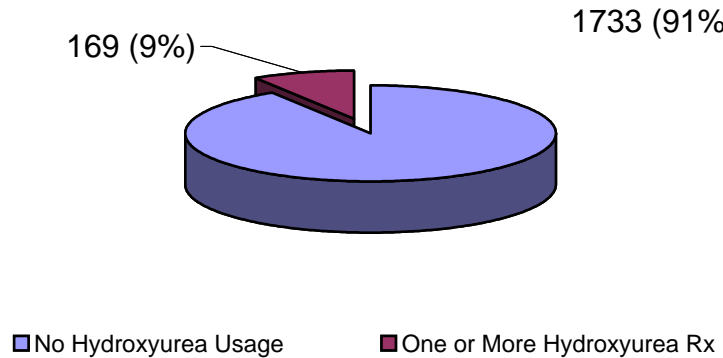
Respectfully submitted:
Health Information Designs

Review of Hydroxyurea Usage in Sickle Cell Anemia

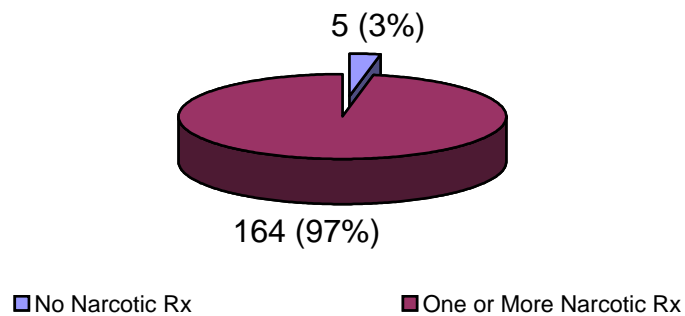
Recipients with Sickle Cell Anemia: Narcotic Analgesic Usage



Recipients with Sickle Cell Anemia: Hydroxyurea Usage



Narcotic Usage of Recipients with Sickle Cell Anemia who are on Hydroxyurea



MISSISSIPPI MEDICAID
Hydroxyurea Rx's by Physician Specialty
1/1/2005 to 8/26/2005

| <u>Specialty</u> | <u>Specialty Code</u> | <u># Rx's</u> |
|------------------|-----------------------|---------------|
| GP | A00 | 606 |
| Default | N/A | 175 |
| | ZZ0 | 60 |
| | EV0 | 26 |
| Pediatrician | E04 | 15 |
| Radiologist | O02 | 14 |
| Cardiologist | D01 | 8 |
| Internist | 12 | 8 |
| Hospital | ZA0 | 7 |
| Radiologist | S02 | 4 |
| GP | K00 | 4 |
| Radiologist | H02 | 3 |
| Pathologist | A03 | 2 |
| FP | 31 | 1 |
| Thoracic Surgeon | 10 | 1 |
| GP | E00 | 1 |

Recipients with Sickle Cell Anemia by Age
1/1/2005 to 8/26/2005

| <u>Age Range</u> | <u>Non-Hydroxyurea</u> | <u>Hydroxyurea</u> |
|------------------|------------------------|--------------------|
| 0- 5 | 400 | 1 |
| 6- 10 | 218 | 2 |
| 11- 15 | 194 | 8 |
| 16- 20 | 162 | 19 |
| 21 and over | 554 | 110 |

Recipients with Sickle Cell
Anemia by County
1/1/2005 to 8/26/2005

| <u>County Code</u> | <u>County</u> | <u># Recipients</u> |
|--------------------|---------------|---------------------|
| 25 | Hinds | 201 |
| 76 | Washington | 91 |
| | Unknown | 79 |
| 24 | Harrison | 75 |
| 18 | Forrest | 73 |
| 06 | Bolivar, East | 52 |
| 67 | Newton | 51 |
| 38 | Lauderdale | 46 |
| 44 | Lowndes | 43 |
| 45 | Madison | 38 |
| 14 | Coahoma | 37 |
| 30 | Jackson | 36 |
| 54 | Panola | 36 |
| 01 | Adams | 32 |
| 57 | Pike | 31 |

| <u>County Code</u> | <u>County</u> | <u># Recipients</u> |
|--------------------|-----------------|---------------------|
| 34 | Jones | 29 |
| 42 | Leflore | 29 |
| 75 | Warren | 28 |
| 82 | Yazoo | 25 |
| 26 | Holmes | 23 |
| 47 | Marshall | 23 |
| 13 | Clay | 22 |
| 22 | Grenada | 21 |
| 41 | Lee | 20 |
| 46 | Marion | 20 |
| 68 | Tallahatchie | 20 |
| 04 | Attala | 19 |
| 61 | Rankin | 19 |
| 17 | Desoto | 17 |
| 27 | Humphreys | 17 |
| 48 | Monroe | 17 |
| 15 | Copiah | 16 |
| 31 | Jasper | 16 |
| 43 | Lincoln | 16 |
| 53 | Oktibbeha | 16 |
| 62 | Scott | 13 |
| 80 | Winston | 13 |
| 09 | Chickasaw, East | 12 |
| 16 | Covington | 12 |
| 36 | Lafayette | 12 |
| 60 | Quitman | 12 |
| 72 | Tunica | 12 |
| 50 | Neshoba | 11 |
| 52 | Noxubee | 11 |
| 77 | Wayne | 11 |
| 23 | Hancock | 10 |
| 32 | Jefferson | 10 |
| 55 | Pearl River | 10 |
| 64 | Simpson | 10 |
| 65 | Smith | 10 |
| 74 | Walthall | 10 |
| 12 | Clarke | 9 |
| 58 | Pontotoc | 9 |
| 69 | Tate | 9 |
| 08 | Carroll | 8 |
| 10 | Choctaw | 8 |
| 07 | Calhoun | 7 |
| 20 | George | 7 |
| 63 | Sharkey | 7 |
| 79 | Wilkinson | 7 |
| 19 | Franklin | 6 |
| 21 | Greene | 6 |
| 03 | Amite | 5 |
| 05 | Benton | 5 |
| 33 | Jefferson Davis | 5 |
| 49 | Montgomery | 5 |

| <u>County Code</u> | <u>County</u> | <u># Recipients</u> |
|--------------------|-----------------|---------------------|
| 78 | Webster | 5 |
| 85 | | 5 |
| 02 | Alcorn | 4 |
| 11 | Claiborne | 4 |
| 35 | Kemper | 4 |
| 39 | Lawrence | 4 |
| 40 | Leake | 4 |
| 51 | Newton | 4 |
| 81 | Yalobusha | 4 |
| 66 | Stone | 3 |
| 73 | Union | 3 |
| 29 | Itawamba | 2 |
| 28 | Issaquena | 1 |
| 37 | Lamar | 1 |
| 56 | Perry | 1 |
| 59 | Prentiss | 1 |
| 84 | Chickasaw, West | 1 |
| 95 | Foster Children | 1 |

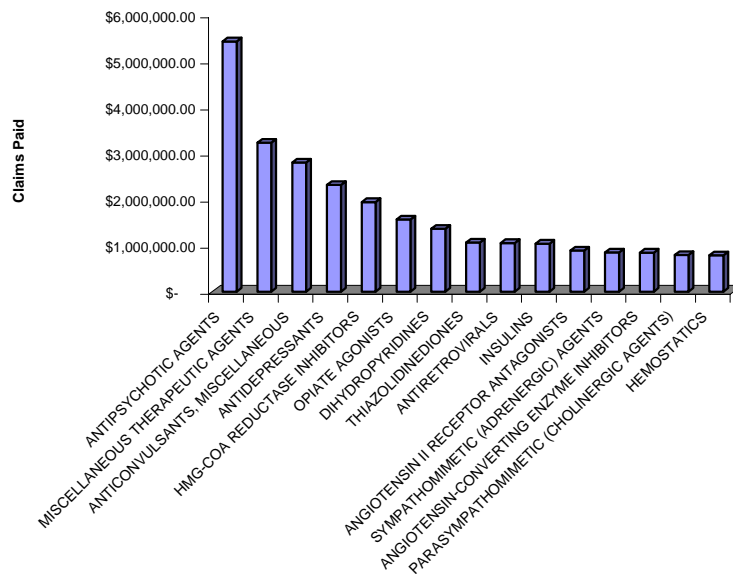
**MISSISSIPPI MEDICAID
Cost Management Analysis**

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

| AHFS Therapeutic Class | Rx | Paid | Paid/Rx | % Total Claims |
|--|---------|------------------|-------------|----------------|
| ANTIPSYCHOTIC AGENTS | 23,075 | \$ 5,431,128.99 | \$ 235.37 | 3.15% |
| MISCELLANEOUS THERAPEUTIC AGENTS | 26,990 | \$ 3,233,726.03 | \$ 119.81 | 3.69% |
| ANTICONVULSANTS, MISCELLANEOUS | 20,216 | \$ 2,804,100.12 | \$ 138.71 | 2.76% |
| ANTIDEPRESSANTS | 38,955 | \$ 2,317,474.73 | \$ 59.49 | 5.32% |
| HMG-COA REDUCTASE INHIBITORS | 19,268 | \$ 1,944,829.86 | \$ 100.94 | 2.63% |
| OPIATE AGONISTS | 52,060 | \$ 1,563,538.02 | \$ 30.03 | 7.11% |
| DIHYDROPYRIDINES | 21,622 | \$ 1,362,093.28 | \$ 63.00 | 2.95% |
| THIAZOLIDINEDIONES | 7,786 | \$ 1,067,126.23 | \$ 137.06 | 1.06% |
| ANTIRETROVIRALS | 1,967 | \$ 1,056,070.51 | \$ 536.89 | 0.27% |
| INSULINS | 12,011 | \$ 1,041,068.60 | \$ 86.68 | 1.64% |
| ANGIOTENSIN II RECEPTOR ANTAGONISTS | 15,332 | \$ 894,277.81 | \$ 58.33 | 2.09% |
| SYMPATHOMIMETIC (ADRENERGIC) AGENTS | 14,891 | \$ 851,390.85 | \$ 57.17 | 2.03% |
| ANGIOTENSIN-CONVERTING ENZYME INHIBITORS | 25,608 | \$ 847,422.19 | \$ 33.09 | 3.50% |
| PARASYMPATHOMIMETIC (CHOLINERGIC AGENTS) | 5,469 | \$ 792,473.38 | \$ 144.90 | 0.75% |
| HEMOSTATICS | 45 | \$ 786,595.80 | \$17,479.91 | 0.01% |
| TOTAL TOP 15 | 285,295 | \$ 25,993,316.40 | \$ 91.11 | 38.97% |

| | |
|------------------------|---------|
| Total Rx Claims | 732,172 |
| From 07/01/05-07/31/05 | |

**Top 15 Therapeutic Classes
Based on Total Cost of Claims**



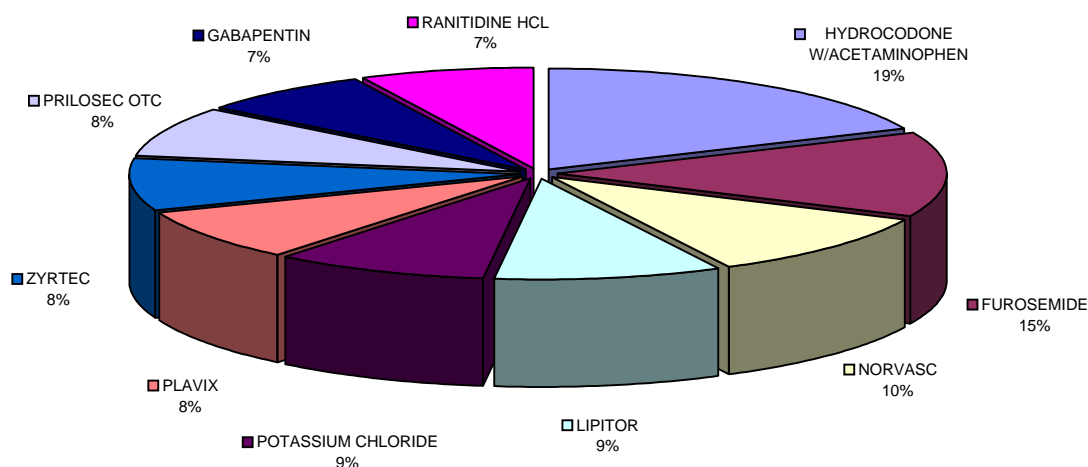
MISSISSIPPI MEDICAID
Cost Management Analysis

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

| Drug | AHFS Therapeutic Class | Rx | Paid | Paid/Rx |
|-------------------------------|---|---------|------------------|-----------|
| HYDROCODONE W/ACETAMINOPHEN | OPIATE AGONISTS | 18,754 | \$ 246,120.11 | \$ 13.12 |
| FUROSEMIDE | DIURETICS | 13,976 | \$ 83,525.60 | \$ 5.98 |
| NORVASC | DIHYDROPYRIDINES | 10,626 | \$ 609,417.76 | \$ 57.35 |
| LIPITOR | HMG-COA REDUCTASE INHIBITORS | 9,538 | \$ 857,207.57 | \$ 89.87 |
| POTASSIUM CHLORIDE | REPLACEMENT PREPARATIONS | 9,305 | \$ 152,351.76 | \$ 16.37 |
| PLAVIX | MISCELLANEOUS THERAPEUTIC AGENTS | 8,499 | \$ 1,049,154.30 | \$ 123.44 |
| ZYRTEC | SECOND GENERATION ANTIHISTAMINES | 8,472 | \$ 438,099.68 | \$ 51.71 |
| PRILOSEC OTC | PROTON-PUMP INHIBITORS | 8,085 | \$ 176,946.21 | \$ 21.89 |
| GABAPENTIN | ANTICONVULSANTS, MISCELLANEOUS | 7,451 | \$ 824,294.05 | \$ 110.63 |
| RANITIDINE HCL | HISTAMINE H2-ANTAGONISTS | 7,384 | \$ 143,930.57 | \$ 19.49 |
| SINGULAIR | MISCELLANEOUS THERAPEUTIC AGENTS | 7,295 | \$ 676,907.83 | \$ 92.79 |
| LISINAPRIL | ANGIOTENSIN-CONVERTING ENZYME INHIBITORS | 6,987 | \$ 198,277.78 | \$ 28.38 |
| HYDROCHLOROTHIAZIDE | DIURETICS | 6,817 | \$ 38,690.10 | \$ 5.68 |
| LOTREL | DIHYDROPYRIDINES | 6,510 | \$ 525,201.08 | \$ 80.68 |
| TOPROL XL | BETA-ADRENERGIC BLOCKING AGENTS | 6,331 | \$ 218,329.95 | \$ 34.49 |
| PROPOXYPHENE NAPSYLATE W/APAP | OPIATE AGONISTS | 6,274 | \$ 71,176.43 | \$ 11.34 |
| METFORMIN HCL | BIGUANIDES | 6,237 | \$ 186,857.28 | \$ 29.96 |
| SEROQUEL | ANTIPSYCHOTIC AGENTS | 5,772 | \$ 1,372,104.01 | \$ 237.72 |
| IBUPROFEN | NONSTEROIDAL ANTI-INFLAMMATORY AGENTS | 5,746 | \$ 43,868.62 | \$ 7.63 |
| LEXAPRO | ANTIDEPRESSANTS | 5,727 | \$ 419,572.29 | \$ 73.26 |
| ALBUTEROL | SYMPATHOMIMETIC (ADRENERGIC) AGENTS | 5,726 | \$ 54,841.56 | \$ 9.58 |
| ZOLOFT | ANTIDEPRESSANTS | 5,724 | \$ 531,275.69 | \$ 92.82 |
| ALPRAZOLAM | BENZODIAZEPINES (ANXIOLYTIC, SEDATIV/HYP) | 5,601 | \$ 44,990.89 | \$ 8.03 |
| CEPHALEXIN | CEPHALOSPORINS | 5,539 | \$ 86,363.15 | \$ 15.59 |
| RISPERDAL | ANTIPSYCHOTIC AGENTS | 5,341 | \$ 1,138,933.71 | \$ 213.24 |
| TOTAL TOP 25 | | 193,717 | \$ 10,188,437.98 | \$ 52.59 |

| | |
|------------------------|---------|
| Total Rx Claims | 732,172 |
| From 07/01/05-07/31/05 | |

Top 10 Drugs
Based on Number of Claims



**MISSISSIPPI MEDICAID
Cost Management Analysis**

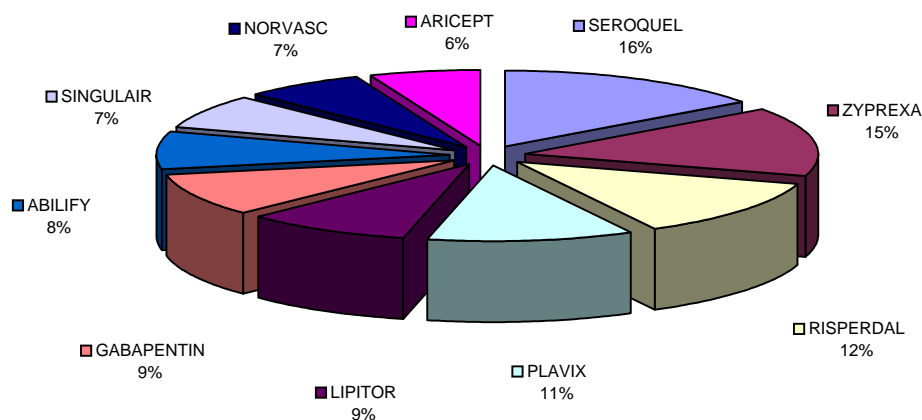
09/01/2005

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

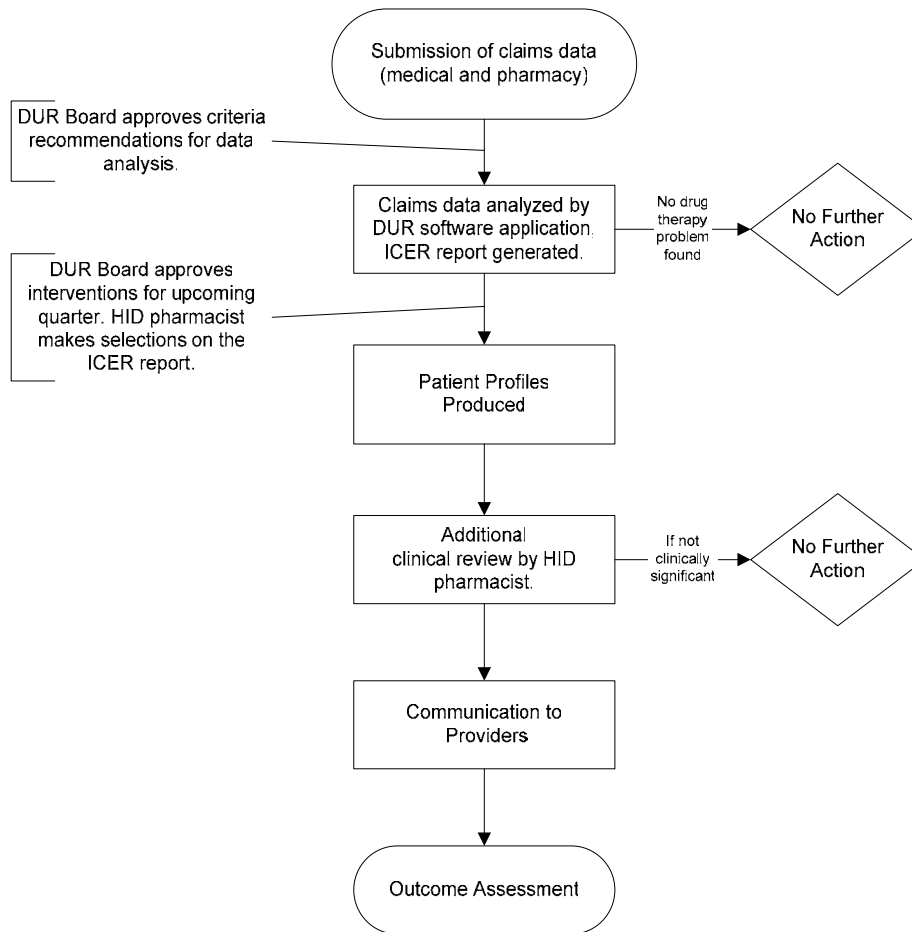
| Drug | AHFS Therapeutic Class | Rx | Paid | Paid/Rx | % Total Claims |
|---------------|---|---------|------------------|-----------|----------------|
| SEROQUEL | ANTIPSYCHOTIC AGENTS | 5,772 | \$ 1,372,104.01 | \$ 237.72 | 0.79% |
| ZYPREXA | ANTIPSYCHOTIC AGENTS | 3,709 | \$ 1,357,855.41 | \$ 366.10 | 0.51% |
| RISPERDAL | ANTIPSYCHOTIC AGENTS | 5,341 | \$ 1,138,933.71 | \$ 213.24 | 0.73% |
| PLAVIX | MISCELLANEOUS THERAPEUTIC AGENTS | 8,499 | \$ 1,049,154.30 | \$ 123.44 | 1.16% |
| LIPITOR | HMG-COA REDUCTASE INHIBITORS | 9,538 | \$ 857,207.57 | \$ 89.87 | 1.30% |
| GABAPENTIN | ANTICONVULSANTS, MISCELLANEOUS | 7,451 | \$ 824,294.05 | \$ 110.63 | 1.02% |
| ABILIFY | ANTIPSYCHOTIC AGENTS | 2,103 | \$ 741,035.39 | \$ 352.37 | 0.29% |
| SINGULAIR | MISCELLANEOUS THERAPEUTIC AGENTS | 7,295 | \$ 676,907.83 | \$ 92.79 | 1.00% |
| NORVASC | DIHYDROPYRIDINES | 10,626 | \$ 609,417.76 | \$ 57.35 | 1.45% |
| ARICEPT | PARASYMPATHOMIMETIC (CHOLINERGIC AGENTS) | 3,873 | \$ 555,459.71 | \$ 143.42 | 0.53% |
| ZOLOFT | ANTIDEPRESSANTS | 5,724 | \$ 531,275.69 | \$ 92.82 | 0.78% |
| LOTREL | DIHYDROPYRIDINES | 6,510 | \$ 525,201.08 | \$ 80.68 | 0.89% |
| ACTOS | THIAZOLIDINEDIONES | 3,288 | \$ 501,444.35 | \$ 152.51 | 0.45% |
| TOPAMAX | ANTICONVULSANTS, MISCELLANEOUS | 1,904 | \$ 481,329.76 | \$ 252.80 | 0.26% |
| AVANDIA | THIAZOLIDINEDIONES | 3,787 | \$ 462,882.01 | \$ 122.23 | 0.52% |
| ZOCOR | HMG-COA REDUCTASE INHIBITORS | 3,624 | \$ 459,389.20 | \$ 126.76 | 0.49% |
| ADVAIR DISKUS | SYMPATHOMIMETIC (ADRENERGIC) AGENTS | 2,953 | \$ 454,537.24 | \$ 153.92 | 0.40% |
| ZYRTEC | SECOND GENERATION ANTIHISTAMINES | 8,472 | \$ 438,099.68 | \$ 51.71 | 1.16% |
| LEXAPRO | ANTIDEPRESSANTS | 5,727 | \$ 419,572.29 | \$ 73.26 | 0.78% |
| FENTANYL | OPIATE AGONISTS | 1,712 | \$ 413,788.43 | \$ 241.70 | 0.23% |
| COREG | BETA-ADRENERGIC BLOCKING AGENTS | 3,672 | \$ 357,717.59 | \$ 97.42 | 0.50% |
| EFFEXOR XR | ANTIDEPRESSANTS | 2,592 | \$ 344,797.53 | \$ 133.02 | 0.35% |
| GEODON | ANTIPSYCHOTIC AGENTS | 1,203 | \$ 327,057.47 | \$ 271.87 | 0.16% |
| DEPAKOTE | ANTICONVULSANTS, MISCELLANEOUS | 2,144 | \$ 317,966.48 | \$ 148.31 | 0.29% |
| AMBIEN | ANXIOLYTICS, SEDATIVES & HYPNOTICS, MISC. | 3,698 | \$ 317,729.99 | \$ 85.92 | 0.51% |
| TOTAL TOP 25 | | 121,217 | \$ 15,535,158.53 | \$ 128.16 | 16.56% |

| | |
|------------------------|---------|
| Total Rx Claims | 732,172 |
| From 07/01/05-07/31/05 | |

**Top 10 Drugs
Based on Total Claims Cost**



Overview of Drug Utilization Review (DUR) Intervention Process



Steps:

- Paid Medicaid claims are submitted to HID on magnetic media by the client's drug benefit administrator.
- The full set of therapeutic DUR criteria are applied to each recipient record. The DUR Board reviews and approves these criteria.
- Initial Criteria Exception Report (ICER) is generated to aid in the selection of high risk profiles.
- Patient profiles are generated for the most clinically significant drug therapy conflicts. The types of interventions generated are based on the recommendations and approval of the DUR Board.
- Profiles are reviewed by pharmacist to verify clinical significance.
- Intervention letters and profiles are sent to appropriate providers.
- Activity and impact reports are delivered to DOM monthly and to the DUR board quarterly.

Targeted Disease Intervention “Osteoporosis and Corticosteroid Use”

The Problem

Osteoporosis is the reduction in bone mass and deterioration in bone architecture after age 40 that results in an increase in the fragility of bone and its susceptibility to fractures.¹ This disorder is recognized as a major public health problem because of its physical and socioeconomic consequences. In the United State, it is estimated that 16.8 million postmenopausal women have lost more than 10% of their peak adult bone mass, another 9.4 million have lost more than 25%, and 4.8 million have already suffered an osteoporotic fracture.² Statistics have shown that for every 10% of bone that is lost, the risk of fracture doubles.² These alarming statistics solidify the need for targeted education initiatives to better educate patients and providers of the potential health hazards associated with osteoporosis.

Bone mass increases during the first three decades of life; it approaches maximal (peak) levels in the late teen years, increases slightly during the third decade of life, and reaches its peak around 30 years.² Pathological conditions causing bone loss are estrogen or androgen deficiency, multiple myelomatosis, hyperparathyroidism, and hyperthyroidism.¹ Dual x-ray absorptiometry of lumbar spine and proximal femur provides reproducible values at important sites of osteoporosis-associated fracture.² These central sites are also more likely than peripheral sites to show a response to treatment and are preferred for baseline and serial management.² In order for these tests to be most reliable, the same instrument and technologist should be used to reduce variation.

In order to have effective preventive strategies, recognition of age-related and secondary causes of bone loss need to be addressed. Osteoporosis induced by glucocorticoid treatment results from suppression of osteoblast activity and decreased bone formation, with the possible contribution of an increase in bone resorption.¹

The intent of this targeted intervention is to alert prescribers of recipients at increased risk for adverse outcomes and to provide them with information, in the form of a complete drug history profile, to aid in the review of current medication therapy.

While the purpose of an Osteoporosis Targeted Disease Intervention Program is first to increase the appropriate use of medications that treat bone diseases, another purpose is to prevent age-related and secondary causes of bone loss. This can be achieved by identifying beneficiaries with diagnosis codes (ICD-9) for osteoporosis that are currently on chronic oral corticosteroid therapy. Educating providers and beneficiaries on methods to better ensure outcomes will be instrumental in a successful program.

¹ Rodan GA, Martin JT. Therapeutic Approaches to Bone Diseases. The American Association for the Advancement of Science 2000. 289:1508-14.

² American Association of Clinical Endocrinologists 2001 Medical Guidelines for Clinical Practice. The Prevention and Management of Osteoporosis. Endocrine Practice 2001. 7:293-312.

Methodology

Health Information Designs, Inc. (HID) has developed criteria for the evaluation. Recipients have to meet all criteria listed below in order to be selected for review and evaluation.

Osteoporosis and Oral Corticosteroid Criteria

1. Beneficiary must have a diagnosis at any time in their history of osteoporosis. The following ICD-9 diagnoses will be used:
 - 733.00 Osteoporosis Unspecified
 - 733.01 Senile Osteoporosis
 - 733.02 Idiopathic Osteoporosis
 - 733.03 Disuse Osteoporosis
 - 733.09 Other Osteoporosis
 - 733.90 Osteopenia
2. Beneficiaries must have NOT received any of the following drugs for the treatment of osteoporosis during the most recent 90 days:
 - Alendronate (Fosamax®)
 - Calcitonin ((Miacalcin®)
 - Estrogen replacement therapy (excluding oral contraceptives)
 - Etidronate (Didronel®)
 - Raloxifene (Evista®)
 - Risedronate (Actonel®)
 - Teriparatide (Forteo®)
 - Ibandronate (Boniva®)
3. The beneficiary must have received a 30-day supply of an oral corticosteroid drug during the most recent 90 days.

For the targeted intervention, the most recent 90-day period will be reviewed. Claims data will be evaluated against the criteria and cases will be identified for review. Beneficiary drug history profiles, along with any available diagnosis data, will be reviewed by an HID clinical pharmacist.

A complete drug history profile, along with any available diagnosis data, will be included with an intervention letter. The drug history profile will contain the following alert message:

The profile history indicates that the patient has a diagnosis of osteoporosis and is receiving corticosteroid therapy. Corticosteroid therapy in patients with osteoporosis may increase the risk of fractures due to decreased bone density

associated with corticosteroid use. This patient may be particularly at risk since they are not currently receiving treatment for osteoporosis.

Each educational letter will have a physician response form, which will ask the prescriber to indicate any action taken in response to the intervention letter and to rate the usefulness of the information. The response form will also contain a question asking if the recipient is currently taking calcium and vitamin D supplements, since these agents are used for prevention and treatment of osteoporosis. Response forms will be returned to HID for review and evaluation. A sample copy of the education letter and response form can be found at the end of this section.

A follow-up evaluation will be performed four months or 120 days after the educational letters are sent to determine if any recipients had therapy for osteoporosis added to their drug regimen or if oral corticosteroid therapy was discontinued.

Dr. John Doe

July 1, 2005

1 Medical Lane
Suite 1
Smalltown, MS 39000

Dear Dr. Doe,

Health Information Designs, Inc. in association with the Mississippi Division of Medicaid has recently implemented a targeted disease management program designed to improve medical outcomes. The program's goal is to share information with treating physicians about medication usage patterns that could potentially increase the risk of adverse outcomes. One way to achieve this goal is to identify potential drug therapy problems that may place patients at risk, particularly if multiple providers are identified. This program is educational in nature and allows you to incorporate the information provided into your continuing assessment of the patient's drug therapy requirements.

During a recent review of the enclosed drug history profile, *it appears your patient Jane Doe is receiving **Prednisone** and also has a diagnosis of osteoporosis.* Corticosteroid therapy in patients with osteoporosis may increase the risk of fractures due to decreased bone density associated with corticosteroid use. This patient may be particularly at risk since they are not currently receiving treatment for osteoporosis. In presenting this information to you, we recognize that the management of each patient's drug therapy depends upon an assessment of the patient's entire clinical situation about which we are not fully aware. The enclosed historical drug profile is provided for your review and evaluation and contains all prescription claims from all prescribers for the patient.

The success of this program is enhanced by the two-way exchange of information. Therefore, at your convenience, we would appreciate learning of your assessment of this information and of any action taken in response to this notice. Although participation in this program is voluntary, we find your feedback helpful in adjusting our program to address clinically important problems. Please complete the response form on the reverse side of this letter and return it in the enclosed envelope or fax it to the number at the bottom of the response form.

At the bottom of this letter are the specific prescriptions attributed to you by the dispensing pharmacy. In addition, if multiple prescribers are involved in the therapy identified above, each will receive this information. Thank you for your professional consideration.

RX#(s): [rx_no_a]

Sincerely,

W. Murray Yarbrough, M.D.
Medical Director
Health Information Designs

Case#: [case_no]

Enclosures

PREScriBER RESPONSE

Your response is voluntary, implies no penalty or liability, and is reviewed with strict confidentiality.

All information used to generate the enclosed letter, including prescriber identification, was obtained from pharmacy claims data. If there appears to be an error in the information provided, please note the discrepancy. Thank you for your cooperation.

1. This patient:
___ is under my care, however, I did not prescribe the following medication(s) that were attributed to my provider number.
___ has an appointment to discuss drug therapy.
___ is under my care, however, has not seen me recently.
___ is no longer under my care.
___ has never been under my care.
___ has recently expired.
___ is currently taking calcium and Vitamin D supplements.
2. I have reviewed the information provided and, I:
___ discontinued the following medication(s) _____.
___ initiated drug therapy with the following medication(s) _____.
___ reassessed and modified drug therapy.
___ have not modified patient's drug therapy because the benefits outweigh the risks.
___ have not modified patient's drug therapy because the potential interactions are not clinically significant.
___ have tried to modify the drug therapy, however, patient refuses to change medications.
___ have tried to modify the drug therapy, however, recurrence of symptom necessitates continuation of the medication.
3. I have reviewed the enclosed information and found it:
____ Very useful ____ useful ____ neutral ____ somewhat useful ____ not useful.
4. ___ Please check here if you would like to receive an updated historical drug profile for the patient in the future.

Comments: _____

[adress1] Case# [case_no]
Letter Type [letter_type]
[criteria]

Health Information Designs, Inc.
513 Liberty Rd. Suite 2A
Flowood, MS 39232
(800) 355-0486 ext 100
Fax (800) 459-2135

Patient Information

“Osteoporosis”

Risk Factors

Certain facts play a part in the development of osteoporosis or contribute to a person's likelihood of developing the disease. These are called “risk factors”. Many people with osteoporosis have several of these risk factors, but others with osteoporosis have no identified risk factors. There are some risk factors that you cannot change, and others that you can.

Risk factors you cannot change:

- *Gender*- Your chances of developing osteoporosis are greater if you are a woman. Women have less bone tissue and lose bone more rapidly than men because of the changes involved in menopause.
- *Age*- the older you are, the greater your risk of osteoporosis. Your bones become less dense and weaker as you age.
- *Body size*- small, thin-boned women are at greater risk.
- *Ethnicity*- Caucasian and Asian women are at highest risk. African-American and Latino women have a lower but significant risk.
- *Family History*- Susceptibility to fracture may be, in part, hereditary. People whose parents have a history of fractures also seem to have reduced bone mass and may be at risk for fractures.

Risk factors you can change:

- *Sex Hormones*- abnormal absence of menstrual periods (amenorrhea), low estrogen level (menopause), and low testosterone levels in men.
- *Anorexia*
- A lifetime diet low in calcium and vitamin D.
- Use of certain medications, such as glucocorticoids or some anticonvulsants.
- An inactive lifestyle or extended bed rest.
- Cigarette smoking.
- Excessive use of alcohol.

Osteoporosis

Osteoporosis is known as the “silent disease” because it happens without symptoms.

Things to Avoid!

- Do Not Smoke
- Do Not Drink a lot of alcohol

Things to Do!

- Exercise regularly
- Increase Calcium and Vitamin D intake

Sources of Calcium

- Low fat dairy products, such as milk, yogurt, cheese, and ice cream
- Dark green leafy vegetables, such as broccoli, collard greens, and spinach
- Sardines and salmon with bones
- Tofu
- Almonds
- Foods fortified with calcium, such as orange juice, cereals, and breads

Sources of Vitamin D

- Vitamin D supplementation to ensure a daily intake of between 400-800 IU of vitamin D is recommended

Fall prevention is a special concern for people with osteoporosis.

Some tips to help eliminate factors that lead to falls:

- Wear rubber-soled shoes for traction
- Use a cane or walker if needed for added stability
- Walk on grass when sidewalks are slippery
- Keep rooms free of clutter
- Avoid walking indoors with just socks
- Use a rubber bath mat in the shower

A DUR Approach to Prevention of Cardiovascular Events

Mortality and morbidity associated with cardiovascular disease continues to be a challenge in the Medicaid population of Mississippi. Few would dispute that aggressive treatment in line with the currently accepted standards of care and recommendations could have a significant positive impact on this problem.

For example, the JNC-7 report states that undiagnosed, untreated, and uncontrolled hypertension clearly places a substantial strain on the health care delivery system. Treatment of hypertension to goal could no doubt decrease this strain.

Following are several suggested DUR interventions which could play a role in encouraging optimal treatment aimed at preventing cardiovascular events.

1. Diabetes/Hypertension/Cardiovascular Drugs (Negating) Criteria #1536

Alert Message: This patient has a history of diabetes and hypertension and may benefit from the addition of an anti-hypertensive agent to reduce cardiovascular morbidity and mortality. The coexistence of these conditions imposes a need for a significantly lower goal blood pressure (130/80 mm Hg) than the goal recommended for a non-diabetic patient with hypertension (140/90 mm Hg). If lifestyle modifications alone are no longer effective consider JNC-7 pharmacologic treatment recommendations for the selection of the optimal anti-hypertensive therapy.

Util A

Insulin
Oral Hypoglycemic Agts.

Util B

Hypertension
(ICD9)

Util C (Negating)

ACEIs
ARBs
Beta Blockers
Calcium Channel Blockers
Anti-adrenergic - Centrally & Peripherally
Acting Agents
Alpha/Beta Adrenergic Blockers
Diuretics

References:

The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure, NIH Publication No. 03-5233, May 2003.
Arauz-Pacheco C, Parrott MA, Raskin P: The treatment of hypertension in adult patients with diabetes (Technical Review). *Diabetes Care* 25:134-147, 2002.

2. Certain Antihypertensive Agents/Post MI/Beta-blockers, ACEI & Aldosterone Antagonists Criteria#1607

Alert Message: This patient has a diagnosis of myocardial infarction and is on an anti-hypertensive medication. The current JNC-7 report recommends a beta-blocker, ACE inhibitor or an aldosterone antagonist as optimal antihypertensive therapy for hypertensive post myocardial infarction patients, if no contraindications are present.

Util A

Calcium Channel Blockers

Anti-adrenergic:

Centrally & Peripherally Acting Agents

Alpha/Beta Adrenergic Blockers

Diuretics

Util B

Post MI

Util C(Negating)

ACEIs

Aldosterone Antagonists

Beta Blockers

References:

The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure, NIH Publication No. 03-5233, May 2003.

3. Certain Antihypertensive Agents/Stroke/Thiazide diuretics & ACEI Criteria #1608

Alert Message: This patient has a history of stroke and is on an anti-hypertensive medication. The current JNC-7 report suggests that recurrent stroke rates are lowered by the combination of an ACE inhibitor and a thiazide-type diuretic, if no contraindications are present.

Util A

Calcium Channel Blockers

Anti-adrenergic:

Centrally & Peripherally Acting Agents

Alpha/Beta Adrenergic Blockers

ARBs

Beta Blockers

Util B

Stroke

Util C(Negating)

ACEIs

Diuretics

References:

The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure, NIH Publication No. 03-5233, May 2003.

4. Certain Antihypertensive Agents/Chronic Kidney Disease/ACEI & ARB Criteria #1609

Alert Message: This patient has a diagnosis of chronic kidney disease and is on an anti-hypertensive medication. The current JNC-7 report recommends an ACE inhibitor or angiotensin II receptor antagonist as optimal antihypertensive therapy in these patients, if no contraindications are present.

Util A

Calcium Channel Blockers

Anti-adrenergic:

Centrally & Peripherally Acting Agents

Alpha/Beta Adrenergic Blockers

Diuretics

Beta Blockers

Util B

Chronic Kidney Disease

Util C(Negating)

ACEIs

ARBs

References:

The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure, NIH Publication No. 03-5233, May 2003.

5. Diabetes/Proteinuria/Negating ACEI & ARB

Criteria #541

Alert Message: Diabetics (hypertensive and normotensive) with microalbuminuria may benefit from the addition of an ACE inhibitor or an ARB to their therapy to reduce the rate of progression of renal disease.

| | | |
|---------------|---------------|-----------------------|
| <u>Util A</u> | <u>Util B</u> | <u>Util C</u> |
| Diabetes | Proteinuria | ACEI |
| | | ARB |
| | | Pregnancy |
| | | Renal Artery Stenosis |

References:

The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure: The JNC 7 Report. JAMA. 2003;289(19):2560-71.
Standards of Medical Care for Patients with Diabetes Mellitus. Diabetes Care 2003;26:S33-S50.

6. Diabetes/Hypertension/Negating ACEI & ARB

Criteria #1493

Alert Message: Diabetics with hypertension and nephropathy may benefit from the addition of an ACE inhibitor or angiotensin receptor antagonist to their therapy to reduce the rate of progression to renal disease.

| | | |
|-----------------|------------------------|--------------------------|
| <u>Util A</u> | <u>Util B</u> | <u>Util C (Negating)</u> |
| Insulins | Hypertension (ICD-9's) | ACE Inhibitors |
| Diabetic Agents | | ARB's |
| | | Pregnancy |
| | | Renal Artery Stenosis |

References:

Micromedex Healthcare Series, Drugdex Drug Evaluations.
AHFS Drug Information, 2003
American Diabetes Association. Clinical Practice Recommendations. Position Statement. Diabetic Nephropathy. Diabetes Care. 26:(Suppl 1):S94-S98, 2003.

7. Diabetes/Hypertension or Diabetic Nephropathy/Negating ACEI & ARB

Criteria #1439

Alert Message: According to the JNC 7 report, the hypertension treatment goal for patients with diabetes is a blood pressure of < 130/80-mm Hg. In order to achieve this goal, multiple antihypertensive agents may be required. Adding an ACEI or an ARB should be considered if no contraindications are present. These agents also have been shown to delay the progression of nephropathy in diabetic patients with microalbuminuria.

| | | |
|-----------------|------------------------|--------------------------|
| <u>Util A</u> | <u>Util B</u> | <u>Util C (Negating)</u> |
| Insulins | Hypertension (ICD-9's) | ACE Inhibitors |
| Diabetic Agents | Diabetic Nephropathy | ARB's |

References:

The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure: The JNC 7 Report. JAMA. 2003; 289(19):2560-71.
Standards of Medical Care for Patients with Diabetes Mellitus. Diabetes Care 2003;26:S33-S50.

**Summary of Suggested Interventions
September 29, 2005**

1. Criteria #1536 ICER count: 689 beneficiaries
Diagnosis of DM and hypertension - May benefit from an antihypertensive agent.
2. Criteria #1607 ICER count: 66 beneficiaries
Diagnosis of MI and on an antihypertensive agent – Recommend a BB, ACEI or aldosterone antagonist.
3. Criteria # 1608 ICER count: 130 beneficiaries
History of stroke and on an antihypertensive agent – Recommend ACEI and thiazide diuretic.
4. Criteria # 1609 ICER count: 1,227 beneficiaries
Diagnosis of chronic kidney disease and on an antihypertensive agent – Recommend ACEI or ARB.
5. Criteria #541 ICER count: 8,590 beneficiaries (403 medium and high risk)
Diabetes with proteinuria – recommend ACEI or ARB.
6. Proposed Criteria #1493
Diabetes with hypertension and nephropathy – recommend ACEI or ARB.
7. Proposed Criteria #1439
Diabetes with hypertension and/or diabetic nephropathy – recommend ACEI or ARB.
8. Additionally, the Osteoporosis Targeted Intervention, if approved by the Board, will be reviewed within the same 90-day period.

MISSISSIPPI MEDICAID RETROSPECTIVE DUR CRITERIA RECOMMENATIONS THIRD QUARTER 2005

Recommendations

Approved Rejected

1. Tizanidine / CYP1A2 Inhibitors

Alert Message: Caution is recommended when considering concomitant use of tizanidine with other inhibitors of CYP1A2, such as antiarrhythmics (amiodarone, mexiletine, propafenone), cimetidine, fluoroquinolones (ciprofloxacin, norfloxacin) and ticlopidine. The concurrent use of these agents may increase the risk of profound hypotension, somnolence and dizziness.

Conflict Code: Drug/Drug Interaction

Drug/Disease:

| <u>Util A</u> | <u>Util B</u> | <u>Util C</u> |
|---------------|---------------|---------------|
| Tizanidine | Amiodarone | Ciprofloxacin |
| | Mexiletine | Norfloxacin |
| | Propafenone | Ticlopidine |
| | Cimetidine | |

References:

Granfors MT, Backman JT, Neuvonen M, et.al. Ciprofloxacin greatly increases concentrations and hypotensive effect of tizanidine by inhibiting its cytochrome P450 1A2-mediated presystemic metabolism. Clin Pharmacol Ther. 2004 Dec;76(6):598-606.

Zanaflex Prescribing Information, April 2005, Athena Neurosciences.

2. Overactive Bladder Medications / Therapeutic Duplication

Therapeutic duplication of medications to treat overactive bladder may be occurring.

Concomitant use of these drugs may cause additive adverse effects.

Conflict Code: TD – Therapeutic Duplication

Drug/Disease:

| <u>Util A</u> | <u>Util B</u> | <u>Util C</u> |
|---------------|---------------|---------------|
| Darifenacin | | |
| Solifenacin | | |
| Oxybutynin | | |
| Flavoxate | | |
| Tolterodine | | |
| Tropium | | |

References:

Facts & Comparisons, 2005 Updates.

Micromedex Healthcare Series, Drugdex Drug Evaluations, 2005.

3. Darifenacin / High Dose

Alert Message: Enablex (darifenacin) may be over-utilized. The recommended maximum dose is 15 mg per day.

Conflict Code: HD – High Dose

Drug/Disease:

| <u>Util A</u> | <u>Util B</u> | <u>Util C</u> |
|---------------|---------------|---------------|
| Darifenacin | | |

Maximum Dose: 15mg/day

References:

Facts & Comparisons, 2005 Updates.

Micromedex Healthcare Series, Drugdex Drug Evaluations, 2005.

Enablex Prescribing Information, Dec. 2004, Novartis Pharmaceuticals, Inc.

Recommendations**Approved** **Rejected****4. Darifenacin / Potent 3A4 Inhibitors**

Alert Message: The daily dose of Enablex (darifenacin), a CYP 3A4 substrate, should not exceed 7.5 mg when coadministered with a potent CYP3A4 inhibitor (e.g., ketoconazole itraconazole, ritonavir, nelfinavir, clarithromycin, and nefazodone). Exceeding the recommended dose during concurrent therapy may increase the risk of adverse effects of darifenacin.

Conflict Code: DD – Drug/Drug Interaction (ER-overutilization)

Drug/Disease:

| | | | |
|---------------|---------------|----------------|----------------|
| <u>Util A</u> | <u>Util B</u> | <u>Util C</u> | |
| Darifenacin | | Ketoconazole | Erythromycin |
| | | Itraconazole | Troleandomycin |
| | | Ritonavir | Indinavir |
| | | Nelfinavir | |
| | | Clarithromycin | |
| | | Nefazodone | |

Max Dose: 7.5mg

References:

Micromedex Healthcare Series, Drugdex Drug Evaluations, 2005.

Facts & Comparisons, 2005.

5. Darifenacin / Hepatic Impairment

Alert Message: The daily dose of Enablex (darifenacin) should not exceed 7.5 mg once daily for patients with moderate hepatic impairment. Darifenacin is not recommended for use in patients with severe hepatic impairment.

Conflict Code: ER - Overutilization

Drug/Disease:

| | | | |
|---------------|---------------|--------------------|--|
| <u>Util A</u> | <u>Util B</u> | <u>Util C</u> | |
| Darifenacin | | Hepatic Impairment | |

Max Dose: 7.5 mg

References:

Micromedex Healthcare Series, Drugdex Drug Evaluations, 2005.

Facts & Comparisons, 2005.

6. Darifenacin / CYP2D6 Substrates

Alert Message: Caution should be exercised when Enablex (darifenacin), a moderate 2D6 inhibitor, is used concomitantly with medications that are predominantly metabolized by CYP2D6 and which have a narrow therapeutic window (e.g. flecainide and thioridazine). Concurrent use with darifenacin may result in elevated plasma concentrations of the substrates and increase risk of adverse effects.

Conflict Code: DD – Drug/Drug Interaction

Drug/Disease:

| | | | |
|---------------|---------------|---------------|--|
| <u>Util A</u> | <u>Util B</u> | <u>Util C</u> | |
| Darifenacin | Flecainide | | |
| | Thioridazine | | |

References:

Facts & Comparisons, 2005 Updates.

Enablex Prescribing Information, Dec. 2004, Novartis Pharmaceuticals, Inc.

Recommendations**Approved** **Rejected****7. Darifenacin / Digoxin**

Alert Message: Caution should be exercised when Enablex (darifenacin) is used concomitantly with digoxin. Concurrent use of darifenacin (30mg daily) with digoxin (0.25mg) at steady state resulted in a 16% increase in digoxin exposure. Routine monitoring of digoxin should continue.

Conflict Code: DD – Drug/Drug Interaction

Drug/Disease:

| | | |
|---------------|---------------|---------------|
| <u>Util A</u> | <u>Util B</u> | <u>Util C</u> |
| Darifenacin | Digoxin | |

References:

Facts & Comparisons, 2004 Updates.

Enablex Prescribing Information, Dec. 2004, Novartis Pharmaceuticals, Inc.

8. Darifenacin / Narrow Angle Glaucoma

Alert Message: Enablex (darifenacin), an anticholinergic agent, should be used with caution in patients being treated for narrow-angle glaucoma and only when the potential benefits outweigh the risks. Darifenacin is contraindicated in patients with uncontrolled narrow-angle glaucoma.

Conflict Code: MC – Drug Actual Disease Precaution

Drug/Disease:

| | | |
|---------------|-----------------------|---------------|
| <u>Util A</u> | <u>Util B</u> | <u>Util C</u> |
| Darifenacin | Narrow-angle Glaucoma | |

References:

Facts & Comparisons, 2005 Updates.

Enablex Prescribing Information, Dec. 2004, Novartis Pharmaceuticals, Inc.

9. Darifenacin / Urinary Retention

Alert Message: Enablex (darifenacin), an anticholinergic agent, is contraindicated in patients with urinary retention or gastric retention and in patients who are at risk for these conditions.

Conflict Code: MC – Drug Actual Disease Precaution

Drug/Disease:

| | | |
|---------------|-------------------|---------------|
| <u>Util A</u> | <u>Util B</u> | <u>Util C</u> |
| Darifenacin | Urinary Retention | |
| | Gastric Retention | |

References:

Facts & Comparisons, 2005 Updates.

Enablex Prescribing Information, Dec. 2004, Novartis Pharmaceuticals, Inc.

10. Darifenacin / GI Obstruction-Decreased GI Motility

Alert Message: Enablex (darifenacin), an anticholinergic agent, should be administered with caution to patients with GI obstructive disorders because of the risk of gastric retention. Darifenacin, like other anticholinergic drugs, may decrease GI motility and should be used with caution in patients with severe constipation, ulcerative colitis, and myasthenia gravis.

Conflict Code: DB – Drug/Drug marker and/or Diagnosis

Drug/Disease:

| | | |
|---------------|---------------------------|---------------|
| <u>Util A</u> | <u>Util B</u> | <u>Util C</u> |
| Darifenacin | Ulcerative Colitis | |
| | Myasthenia Gravis | |
| | Intestinal Obstruction | |
| | Slow Transit Constipation | |

References:

Facts & Comparisons, 2005 Updates.

Enablex Prescribing Information, Dec. 2004, Novartis Pharmaceuticals, Inc.

Recommendations**Approved** **Rejected****11. Anticholinergic Agents / Therapeutic Duplication**

Alert Message: The concomitant use of anticholinergic agents may increase the frequency and/or severity of dry mouth, constipation, blurred vision and other anticholinergic adverse effects.

Conflict Code: TD – Therapeutic Duplication

Drug/Disease:

Util A

Util B

Util C

| | |
|-----------------|-----------------|
| Belladonna | Benzotropine |
| Atropine | Biperiden |
| Scopolamine | Procyclidine |
| Homatropine | Trihexyphenidyl |
| Tropicamide | Flavoxate |
| Hyoscyamine | Oxybutynin |
| Glycopyrrrolate | Tolterodine |
| Mepenzolate | Tropsium |
| Propantheline | Solifenacin |
| Dicyclomine | Orphenadrine |
| Clidinium | Darifenacin |

References:

Facts & Comparisons, 2005 Updates.

12. Solifenacin / High Dose

Alert Message: Vesicare (solifenacin) may be over-utilized. The recommended maximum dose is 10 mg per day. Higher doses have resulted in a higher incidence of adverse reactions.

Conflict Code: HD – High Dose

Drug/Disease:

Util A

Util B

Util C

Solifenacin

Maximum Dose: 10mg/day

References:

Facts & Comparisons, 2005 Updates.

Micromedex Healthcare Series, Drugdex Drug Evaluations, 2005.

13. Solifenacin / Hepatic Impairment

Alert Message: The daily dose of Vesicare (solifenacin) should not exceed 5.0 mg for patients with moderate hepatic impairment. Solifenacin is not recommended for use in patients with severe hepatic impairment.

Conflict Code: ER - Overutilization

Drug/Disease:

Util A

Util B

Util C

Solifenacin

Hepatic Impairment

Max Dose: 5.0 mg

References:

Facts & Comparisons, 2005.

Vesicare Prescribing Information, Nov. 2004 GlaxoSmithKline.

Recommendations**Approved** **Rejected****14. Solifenacin / Renal Impairment**

Alert Message: The daily dose of Vesicare (solifenacin) should not exceed 5.0 mg for patients with severe renal impairment (Ccr less than 30 mL/min). Significant increases in the AUC and elimination half-life have been noted with single oral doses of solifenacin 10 mg and have been correlated to the degree of renal impairment.

Conflict Code: ER - Overutilization

Drug/Disease:

Util A

Util B

Util C

Solifenacin

Chronic Renal Failure

Max Dose: 5.0 mg

References:

Facts & Comparisons, 2005.

Vesicare Prescribing Information, Nov. 2004 GlaxoSmithKline.

15. Solifenacin / Potent 3A4 Inhibitors

Alert Message: The daily dose of Vesicare (solifenacin), a CYP 3A4 substrate, should not exceed 5.0 mg when coadministered with a potent CYP3A4 inhibitor (e.g., ketoconazole, itraconazole, ritonavir, nelfinavir, clarithromycin, and nefazodone). Exceeding the recommended dose during concurrent therapy may increase the risk of adverse effects.

Conflict Code: DD – Drug/Drug Interaction

Drug/Disease:

Util A

Util B

Util C

Darifenacin

Ketoconazole

Erythromycin

Itraconazole

Troleandomycin

Ritonavir

Indinavir

Nelfinavir

Clarithromycin

Nefazodone

Max Dose: 5.0mg

References:

Facts & Comparisons, 2005.

Vesicare Prescribing Information, Nov. 2004 GlaxoSmithKline.

16. Solifenacin / Narrow Angle Glaucoma

Alert Message: Vesicare (solifenacin), an anticholinergic agent, should be used with caution in patients being treated for narrow-angle glaucoma and only when the potential benefits outweigh the risks. Solifenacin is contraindicated in patients with uncontrolled narrow-angle glaucoma.

Conflict Code: MC – Drug Actual Disease Precaution

Drug/Disease:

Util A

Util B

Util C

Solifenacin

Narrow-angle Glaucoma

References:

Facts & Comparisons, 2005 Updates.

Vesicare Prescribing Information, Nov. 2004 GlaxoSmithKline.

17. Solifenacin / Urinary Retention & Gastric Retention

Alert Message: Vesicare (solifenacin), an anticholinergic agent, is contraindicated in patients with urinary retention or gastric retention and in patients who are at risk for these conditions.

Conflict Code: MC – Drug Actual Disease Precaution

Drug/Disease:

Util A

Util B

Util C

Solifenacin

Urinary Retention

Gastric Retention

References:

Facts & Comparisons, 2005 Updates.

Vesicare Prescribing Information, Nov. 2004 GlaxoSmithKline.

Recommendations**Approved** **Rejected****18. Solifenacin / GI Obstruction-Decreased GI Motility**

Alert Message: Vesicare (solifenacin), an anticholinergic agent, should be administered with caution to patients with GI obstructive disorders because of the risk of gastric retention. Solifenacin, like other anticholinergic drugs, may decrease GI motility and should be used with caution in patients with constipation, ulcerative colitis, and myasthenia gravis.

Conflict Code: DB – Drug/Drug marker and/or Diagnosis

Drug/Disease:

| <u>Util A</u> | <u>Util B</u> | <u>Util C</u> |
|---------------|---------------------------|---------------|
| Solifenacin | Ulcerative Colitis | |
| | Myasthenia Gravis | |
| | Intestinal Obstruction | |
| | Slow Transit Constipation | |

References:

Facts & Comparisons, 2005 Updates.

19. Solifenacin / QT Prolongation & QT Prolongation Drugs

Alert Message: Vesicare (solifenacin) should be administered with caution to patients with a history of QT prolongation or on medications known to prolong the QT interval. A significant effect on QTc has been observed following the administration of solifenacin (10 or 30 mg) in healthy female volunteers. The QT prolonging effect was greater with the 30 mg dose as compared with the 10 mg dose and did not appear to be as great as that of the positive control moxifloxacin at its therapeutic dose.

Conflict Code: DB – Drug/Drug marker and/or Diagnosis

Drug/Disease:

| <u>Util A</u> | <u>Util B</u> | <u>Util C</u> |
|---------------|------------------------|----------------|
| Solifenacin | QT Prolongation ICD-9s | |
| | Quinidine | Thioridazine |
| | Procainamide | Mesoridazine |
| | Disopyramide | Droperidol |
| | Amiodarone | Pimozide |
| | Bretylium | Sotalol |
| | Dofetilide | Sparofloxacin |
| | | Moxifloxacin |
| | | Mefloquine |
| | | Tacrolimus |
| | | Gatifloxacin |
| | | Pentamidine |
| | | Ziprasidone |
| | | Chlorpromazine |
| | | Levofloxacin |

References:

Facts & Comparisons, 2005 Updates.

Vesicare Prescribing Information, Nov. 2004, GlaxoSmithKline.

Recommendations**Approved Rejected****20. Tolterodine IR & XL/High Dose**

Alert Message: Detrol/Detrol XL (tolterodine) may be over-utilized. The manufacturer's recommended dose is 4.0 mg daily.

Conflict Code: HD – High Dose

Drug/Disease:

Util A

Util B

Util C

Tolterodine

Max Dose: 4.0 mg

References:

Facts & Comparisons, 2005 Updates.

Detrol XL Prescribing Information, April 2004, Pfizer, Inc.

21. Tolterodine IR/Hepatic Impairment

Alert Message: The daily dose of Detrol or Detrol XL (tolterodine) should not exceed 2.0 mg for patients with significantly reduced hepatic or renal function.

Conflict Code: HD – High Dose

Drug/Disease:

Util A

Util B

Util C (Inclusive)

Tolterodine

Hepatic Impairment

Renal Impairment

Lanthanum

Sevelamer

Doxercalciferol

Paricalcitol

Calcitriol

Max Dose: 2.0 mg

References:

Facts & Comparisons, 2005 Updates.

Detrol XL Prescribing Information, April 2004, Pfizer, Inc.

22. Tolterodine//Potent 3A4 Inhibitors

Alert Message: The daily dose of Detrol/ Detrol XL (tolterodine), a CYP 3A4 substrate, should not exceed 2.0 mg when coadministered with a potent CYP3A4 inhibitor (e.g., ketoconazole itraconazole, erythromycin, clarithromycin, cyclosporine and vinblastine). Exceeding the recommended dose during concurrent therapy may increase the risk of adverse effects of tolterodine.

Conflict Code: HD - High Dose (drug/drug Interaction)

Drug/Disease:

Util A

Util B

Util C (Inclusive)

Tolterodine

Ketoconazole

Erythromycin

Itraconazole

Cyclosporine

Ritonavir

Troleandomycin

Nelfinavir

Indinavir

Clarithromycin

Vinblastine

Nefazodone

Cyclosporine

Max Dose: 2.0 mg

References:

Facts & Comparisons, 2005 Updates.

Detrol XL Prescribing Information, April 2004, Pfizer, Inc.

Detrol Prescribing Information, July 2003, Pfizer, Inc.

Recommendations**Approved** **Rejected****23. Oxybutynin/High Dose (Adults)**

Alert Message: Ditropan (oxybutynin immediate-release) may be over-utilized. The manufacturer's recommended maximum dose is 5 mg 4 times per day.

Conflict Code: HD – High Dose

Drug/Disease:

Util A

Util B

Util C

Oxybutynin IR

Age Range: 18 years and older

Max Dose: 20 mg/day

References:

Facts & Comparisons, 2005 Updates.

24. Oxybutynin/High Dose-Pediatric

Alert Message: Ditropan (oxybutynin immediate-release) may be over-utilized. The manufacturer's recommended maximum dose is 5 mg 3 times per day.

Conflict Code: HD – High Dose

Drug/Disease:

Util A

Util B

Util C

Oxybutynin IR

Age Range: 5 – 18 years

Max Dose: 15 mg/day

References:

Facts & Comparisons, 2005 Updates.

25. Oxybutynin Extended Release/High Dose

Alert Message: Ditropan XL (oxybutynin extended-release) may be over-utilized. The manufacturer's recommended maximum dose is 30 mg per day.

Conflict Code: HD – High Dose

Drug/Disease:

Util A

Util B

Util C

Oxybutynin XL

Max Dose: 30 mg/day

References:

Facts & Comparisons, 2005 Updates.

26. Oxybutynin Extended Release/Hepatic & Renal Impairment

Alert Message: Ditropan/Ditropan XL (oxybutynin) should be used with caution in patients with renal or hepatic impairment.

Conflict Code: DB – Drug-Drug Marker and/or Diagnosis

Drug/Disease:

Util A

Util B

Util C

Oxybutynin XL

Renal Impairment

Hepatic Impairment

References:

Facts & Comparisons, 2005 Updates.

27. Oxybutynin Transdermal / High Dose

Alert Message: Oxytrol (oxybutynin transdermal) may be over-utilized. The manufacturer's recommended dose is one 3.9 mg/day system applied twice weekly (every 3 to 4 days).

Conflict Code: HD – High Dose

Drug/Disease:

Util A Util B Util C

Oxybutynin XL

Max Dose: 3.9 mg/day

References:

Facts & Comparisons, 2005 Updates.

28. Oxybutynin/Contraindications

Alert Message: Ditropan (oxybutynin), an anticholinergic agent, is contraindicated in patients with urinary retention, gastric retention and other severe conditions of decreased gastrointestinal motility, uncontrolled narrow-angle glaucoma, paralytic ileus and in patients who are at risk for these conditions.

Conflict Code: MC - Drug (Actual) Disease Contraindication/Precaution

Drug/Disease:

Util A Util B Util C

Oxybutynin Urinary Retention
Gastric Retention
Paralytic Ileus

References:

Ditropan Prescribing Information, March 2003, OrthoMcNeil Pharmaceuticals Inc.

Micromedex Healthcare Series, Drugdex Drug Evaluations, 2005.

29. Oxybutynin / Disease State Precautions

Alert Message: Ditropan (oxybutynin), an anticholinergic agent, should be used with caution in patients with hyperthyroidism, cardiac arrhythmias, congestive heart failure, coronary heart disease, hiatal hernias, hypertension, autonomic neuropathy, ulcerative colitis and prostatic hypertrophy. Oxybutynin may aggravate the symptoms of these conditions.

Conflict Code: MC - Drug (Actual) Disease Contraindication/Precaution

Drug/Disease:

Util A Util B Util C

Oxybutynin Hyperthyroidism
Cardiac Arrhythmias
Congestive Heart Failure
Coronary Heart Disease
Hiatal Hernia
Hypertension
Ulcerative Colitis
Prostatic Hypertrophy

References:

Ditropan Prescribing Information, Mar. 2003, OrthoMcNeil Pharmaceuticals Inc.

Micromedex Healthcare Series, Drugdex Drug Evaluations, 2005.

30. Oxybutynin / GI Obstruction-Decreased GI Motility

Alert Message: Ditropan/Ditropan XL (oxybutynin), an anticholinergic agent, should be administered with caution to patients with GI obstructive disorders because of the risk of gastric retention. Oxybutynin, like other anticholinergic drugs, may decrease GI motility and should be used with caution in patients with severe constipation, ulcerative colitis, and myasthenia gravis.

Conflict Code: DB – Drug/Drug marker and/or Diagnosis

Drug/Disease:

| <u>Util A</u> | <u>Util B</u> | <u>Util C</u> |
|---------------|---------------------------|---------------|
| Oxybutynin | Ulcerative Colitis | |
| | Myasthenia Gravis | |
| | Intestinal Obstruction | |
| | Slow Transit Constipation | |

References:

Facts & Comparisons, 2005 Updates.

31. Oxybutynin/GERD

Alert Message: Ditropan/Ditropan XL/Oxytrol (oxybutynin) should be used with caution in patients who have gastrointestinal reflux or who are concurrently taking drugs (such as bisphosphonates) that can cause or exacerbate esophagitis.

Conflict Code: DB – Drug/Drug marker and/or Diagnosis

Drug/Disease:

| <u>Util A</u> | <u>Util B</u> | <u>Util C</u> |
|---------------|-----------------|---------------|
| Oxybutynin | GERD | |
| | Bisphosphonates | |
| | Potassium | |
| | NSAIDS | |
| | Iron | |
| | Quinidine | |
| | Doxycycline | |
| | Clindamycin | |
| | Tetracycline | |
| | Trimethoprim | |

References:

Facts & Comparisons, 2005 Updates.

Ditropan Prescribing Information, March 2004, OrthoMcNeil Pharmaceuticals, Inc.

Oxytrol Prescribing Information, Feb. 2003, Watson Pharma, Inc.

32. Flavoxate/High Dose

Alert Message: Flavoxate may be overutilized. The manufacturer's recommended maximum dose is 800 mg (200 mg 4 times a day).

Conflict Code: HD – High Dose

Drug/Disease:

| <u>Util A</u> | <u>Util B</u> | <u>Util C</u> |
|---------------|---------------|---------------|
| Flavoxate | | |

Max Dose: 800mg/day

References:

Facts & Comparisons, 2005 Updates.

33. Flavoxate/Contraindications

Alert Message: Flavoxate, an anticholinergic agent, is contraindicated in patients who have pyloric or duodenal obstruction, obstructive intestinal lesions or ileus, achalasia, GI hemorrhage, or obstructive uropathies of the lower urinary tract.

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

Drug/Disease:

| <u>Util A</u> | <u>Util B</u> | <u>Util C</u> |
|---------------|---|---------------|
| Flavoxate | Pyloric Obstruction | |
| | Duodenal Obstruction | |
| | Obstructive Intestinal Lesions or Ileus | |
| | Achalasia | |
| | GI Hemorrhage | |
| | Urinary obstruction | |

References:

Facts & Comparisons, 2005 Updates.

34. Flavoxate/Glaucoma

Alert Message: Flavoxate should be used with caution in patients who have glaucoma.

Flavoxate is an anticholinergic agent and use in these patients may aggravate the condition.

Conflict Code: DB – Drug/Drug Marker and/or Diagnosis

Drug/Disease:

| <u>Util A</u> | <u>Util B</u> | <u>Util C</u> |
|---------------|---------------|---------------|
| Flavoxate | Glaucoma | |
| | Brimonidine | |
| | Apraclonidine | |
| | Dipivefrin | |
| | Levobunolol | |
| | Betaxolol | |
| | Metipranolol | |
| | Carteolol | |
| | Timolol | |
| | Pilocarpine | |

References:

Micromedex Healthcare Series, Drugdex Drug Evaluations, 2005.

Facts & Comparisons, 2005 Updates.

35. Trosipium / High Dose

Alert Message: Sanctura (trosipium) may be over-utilized. The manufacturer's recommended daily dose is 20 mg twice daily.

Conflict Code: HD – High Dose

Drug/Disease:

| <u>Util A</u> | <u>Util B</u> | <u>Util C</u> |
|---------------|---------------|---------------|
| Trosipium | | |

Max Dose: 40mg/day

References:

Sanctura Prescribing Information, July 2004, Odyssey Pharmaceuticals, Inc.

Facts & Comparisons, 2005 Updates.

36. Trospium // Renal Impairment

Alert Message: The daily dose of Sanctura (trospium) should not exceed 20 mg once daily at bedtime for patients with severe renal impairment (Ccr less than 30 mL/min). A 4.5-fold and 2-fold increase in mean AUC and Cmax respectively and the appearance of an additional elimination phase with a long half-life (33hr) was detected in patients with severe renal sufficiency.

Conflict Code: ER - Overutilization

Drug/Disease:

Util A

Util B

Util C

Trospium

Chronic Renal Failure

Max Dose: 20 mg/day

References:

Facts & Comparisons, 2005.

Sanctura Prescribing Information, July 2004, Odyssey Pharmaceuticals, Inc.

37. Trospium / Urinary & Gastric Retention

Alert Message: Sanctura (trospium), an anticholinergic agent, is contraindicated in patients with urinary retention or gastric retention and patients at risk for these conditions

Conflict Code: MC – Drug Actual Disease Contraindication/Precaution

Drug/Disease:

Util A

Util B

Util C

Trospium

Urinary Retention

Gastric Retention

References:

Facts & Comparisons, 2005 Updates.

Sanctura Prescribing Information, July 2004, Odyssey Pharmaceuticals, Inc.

38. Trospium / Narrow Angle Glaucoma

Alert Message: Sanctura (trospium), an anticholinergic agent, should be used with caution in patients being treated for narrow-angle glaucoma and only when the potential benefits outweigh the risks. Trospium is contraindicated in patients with uncontrolled narrow-angle glaucoma.

Conflict Code: MC – Drug Actual Disease Contraindication/Precaution

Drug/Disease:

Util A

Util B

Util C

Solifenacin

Narrow-angle Glaucoma

References:

Facts & Comparisons, 2005 Updates.

Sanctura Prescribing Information, July 2004, Odyssey Pharmaceuticals, Inc.

39. Trospium / GI Obstruction-Decreased GI Motility

Alert Message: Sanctura (trospium) should be administered with caution to patients with GI obstructive disorders because of the risk of gastric retention. Trospium, like other anticholinergic drugs, may decrease GI motility and should be used with caution in patients with ulcerative colitis, intestinal atony and myasthenia gravis.

Conflict Code: MC – Drug Actual Disease Contraindication/Precaution

Drug/Disease:

Util A

Util B

Util C

Darifenacin

Ulcerative Colitis

Myasthenia Gravis

Intestinal Atony

References:

Facts & Comparisons, 2005 Updates.

40. Trospium/Drugs Eliminated by ATS

Alert Message: Sanctura (trospium) is eliminated via active tubular secretion and possesses the potential for pharmacokinetic interactions with other drugs that are eliminated by the same route (e.g., digoxin, procainamide, morphine, vancomycin, metformin, and tenofovir). Coadministration of trospium with drugs that are eliminated by active tubular secretion may increase the serum concentration of trospium and/or the coadministered drug because of competition for this elimination pathway. Careful patient monitoring is recommended

Conflict Code: DD – Drug/Drug Interaction

Drug/Disease:

| | | |
|---------------|---------------|---------------|
| <u>Util A</u> | <u>Util B</u> | <u>Util C</u> |
| Trospium | Digoxin | Vancomycin |
| | Procainamide | Metformin |
| | Morphine | Tenofovir |

References:

Facts & Comparisons, 2005.

Sanctura Prescribing Information, July 2004, Odyssey Pharmaceuticals, Inc.

41. Telithromycin / Pimozide

Alert Message: The concurrent use of Ketek (telithromycin) and pimozide is contraindicated due to increased risk of cardiotoxicity (e.g., QT prolongation, torsades de pointes, cardiac arrest). Although no formal drug interaction studies have been conducted, telithromycin may inhibit pimozide CYP 3A4-mediated metabolism causing elevated plasma levels. Both agents are known to cause QTc prolongation.

Conflict Code: DD – Drug/Drug Interaction

Severity: 1 - Major

Drug/Disease:

| | | |
|---------------|---------------|---------------|
| <u>Util A</u> | <u>Util B</u> | <u>Util C</u> |
| Telithromycin | Pimozide | |

References:

Ketek Prescribing Information, Oct. 2004, Aventis Pharmaceuticals, Inc.

Physicians' Desk Reference, Micromedex Healthcare Series, 2005.

42. Atypical Antipsychotics/ / FDA Approved Indications

Alert Message: The atypical antipsychotics are not approved for the treatment of behavioral disorders in elderly patients with dementia. The FDA has determined that patients with dementia treated with atypical antipsychotics are at an increased risk of death compared to placebo. In analysis of seventeen placebo-controlled studies of four drugs in this class, the rate of death for those elderly patients with dementia was about 1.6 to 1.7 times that of placebo.

Conflict Code: TA - Therapeutic Appropriateness (Black Box Warning)

Drug/Disease:

| | | |
|---------------|---------------|--------------------------|
| <u>Util A</u> | <u>Util B</u> | <u>Util C (Negating)</u> |
| Clozapine | | Schizophrenia |
| Risperidone | | Bipolar |
| Olanzapine | | |
| Quetiapine | | |
| Ziprasidone | | |
| Aripiprazole | | |

Age Range: 65 year of age or older

References:

MedWatch: FDA Safety Information and Adverse Event Reporting Program, 2005.

Micromedex Healthcare Series, Drugdex Drug Evaluations, 2005.

Physicians' Desk Reference, Micromedex Healthcare Series, 2005.

Analysis of Zelnorm® (tegaserod) Utilization

Introduction

Zelnorm® is indicated for use in female patients diagnosed with constipation-predominant irritable bowel syndrome. Manufacturer labeling recommends six mg twice daily for four to six weeks with the option of another four to six course of treatment, if necessary.

Additionally, Zelnorm® is indicated for use in patients less than 65 years of age diagnosed with idiopathic chronic constipation. Again, the recommended dosage is six mg twice daily. It is also recommended that periodic reassessment for treatment should be conducted.

Method

Utilization data was gathered through RxExplorer®, which searches through paid claims data submitted to HID by the fiscal agent. Three unique searches were conducted covering a one year period from 8/27/2004 to 8/26/2005. The search parameters are listed below:

1. Zelnorm® utilization in female patients diagnosed with irritable bowel syndrome.
2. Zelnorm® utilization in patients younger than 65 years of age and diagnosed with constipation.
3. Total Zelnorm® utilization without regard to age, sex, or diagnosis.

Results

The table below shows the results of the searches conducted.

| Search number (See Method section) | Unique Recipients | Total Rx | Total Dollars Spent | Average number of RX/recipient |
|---------------------------------------|----------------------|----------|------------------------|--------------------------------------|
| 1 | 954 | 3,210 | \$509,674.94 | 3.36 |
| 2 | 722 | 1,815 | \$284,154.89 | 2.51 |
| 3 | 3,964 | 11,978 | \$1,863,211.62 | 3.02 |

Analysis

The above results suggest that beneficiaries received, on average, three prescriptions yearly for Zelnorm®, regardless of indication. The data also indicates that 2,288 recipients (57%) received this agent in the absence of an approved indication. Two common unlabeled uses of Zelnorm® identified by prior authorization submissions to HID are gastroparesis and GERD. Interestingly, utilization data suggest 291 unique recipients with gastroparesis received 1,051 prescriptions during the same one year period (3.6 RX/recipient). When studying the number of recipients receiving Zelnorm®

with a diagnosis of GERD, the results indicate that many recipients who receive this drug for an approved indication are co-diagnosed with GERD. Detailed analysis shows 319 beneficiaries who are also diagnosed with GERD, IBS, or chronic constipation, received 999 prescriptions for Zelnorm®.

Based on its indications, Zelnorm® appears to be a drug indicated for “PRN” use rather than a maintenance drug similar to those used for hypertension, diabetes, etc. Therefore, more detailed analysis was conducted on each search by intersecting total utilization for the drug regardless of age, sex, and diagnosis with each indication-specific search. A quantifier of those only receiving greater than 90 days of medication in a calendar year was also added.

The results for those female recipients diagnosed with constipation-predominant IBS and receiving Zelnorm for more than 90 days in a one year period showed that 307 beneficiaries (32%) met this criterion. In fact 188 of 307 beneficiaries (61%) received Zelnorm for 180 days or more in the one year period studied.

Of those 722 beneficiaries receiving Zelnorm® for idiopathic chronic constipation, 292 (40%) received greater than three months supply in a one year period, and 165 of the 292 (57%) received six months supply or more in the same period.

Recommendations

Based on manufacturer labeling and results of the analysis above, HID recommends that beneficiaries be able to receive Zelnorm® appropriately and without restriction up to 3 months in a calendar year. However, any Zelnorm® prescription exceeding the 90th day should require a clinical review through the prior authorization process.

Zofran® (ondansetron) Utilization Analysis

Introduction

Selective 5-hydroxytryptamine 3 (5-HT³) receptor antagonists are anti-nauseant and anti-emetic agents with little or no affinity for other serotonin receptors. Serotonin receptors of the 5-HT³ type are located peripherally on vagal nerve terminals and enteric neurons in the GI tract, and centrally in the chemoreceptor trigger zone. During chemotherapy, mucosal cells from the small intestine release serotonin, which stimulates the 5-HT³ receptors. This evokes vagal-afferent discharge, inducing vomiting. 5-HT³ antagonists have little effect on blood pressure.

The 5-HT³ inhibitors are effective therapy for their approved indications. However, due to their significant cost it is important that proper utilization be encouraged. The goal of this analysis is to evaluate utilization trends among Mississippi Medicaid recipients and explore possible interventions to encourage utilization which is consistent with the product labeling.

Indications and Usage

1. Prevention of nausea and vomiting associated with highly emetogenic cancer chemotherapy, including cisplatin ≥ 50 mg/m².
2. Prevention of nausea and vomiting associated with initial and repeat courses of moderately emetogenic cancer chemotherapy.
3. Prevention of nausea and vomiting associated with radiotherapy in patients receiving total body irradiation, single high-dose fraction to the abdomen, or daily fractions to the abdomen.
4. Prevention of postoperative nausea and/or vomiting. As with other antiemetics, routine prophylaxis is not recommended for patients in whom there is little expectation that nausea and/or vomiting will occur postoperatively. In patients where nausea and/or vomiting must be avoided postoperatively, Zofran® tablets, ODT (Orally disintegrating tablets), and oral solution are recommended even where the incidence of postoperative nausea and/or vomiting is low.

Although not approved, this medication is also commonly prescribed for nausea and/or vomiting associated with other conditions, such as pregnancy. Incidentally, this agent is classified in pregnancy category B.

Mississippi Medicaid Claims

| Zofran Claims from 01/01/05 to 08/26/05 | | | |
|---|--------------|-----------------------|-----------------|
| Generic Name | Rx Num | Total Cost | Cost/Claim |
| Zofran ODT | 458 | \$235,627.80 | \$514.47 |
| Zofran Oral Tablets | 1,857 | \$1,370,022.61 | \$737.76 |
| Zofran Oral Solution | 32 | \$12,752.54 | \$398.52 |
| TOTAL | 2,347 | \$1,618,402.95 | \$689.56 |

Data Observations

A total of 1,245 patients received at least one prescription for Zofran[®] within the date range above. Of these 1,245 patients, 185 received one or more prescriptions for a quantity greater than 30 tablets. The conditions for which this agent is indicated do not generally require long term daily therapy. Depending upon the chemotherapy regimen being deployed, treatment may occur once weekly, bi-weekly, etc. In some cases, radiotherapy may occur on a daily basis for up to 3 weeks. For post-operative nausea and vomiting, antiemetic treatment is generally required for no more than a few days.

In 612 of the recipients receiving a Zofran[®] prescription, a diagnosis indicating pregnancy was found. Although it is possible that some of these patients had other conditions, such as chemotherapy-induced or post-operative nausea and vomiting, anecdotal evidence seems to indicate that this medication is commonly used for pregnancy-induced nausea.

Conclusions

Although this medication is clearly an important agent in the treatment of cancer chemotherapy-related and post-operative nausea and vomiting, it also offers a significant opportunity for cost savings through the encouragement of proper utilization.

Recommendations

In light of the utilization patterns and high cost associated with this medication, quantity limits are recommended for Zofran[®]. An adjudication edit for this quantity limit would allow for clinical review of the diagnosis and length of therapy. The intent of this method would be to discourage the use of this agent for non-approved conditions and to encourage dosage and length of therapy consistent with the diagnosis.

More specifically, the quantity limits below, based on the strength being used are suggested.

| Dosage Form | 4 mg tablet or ODT | 8 mg tablet or ODT | 24 mg tablet | 4 mg/ml oral solution |
|---------------------------------------|---------------------------|---------------------------|---------------------|------------------------------|
| Monthly qty allowed without PA | Up to 10 | Up to 10 | Up to 5 | Up to 100 ml |
| Monthly qty requiring PA | 11 or greater | 11 or greater | 6 or greater | 101 ml or greater |

Children's Medical Necessity Prior Authorization

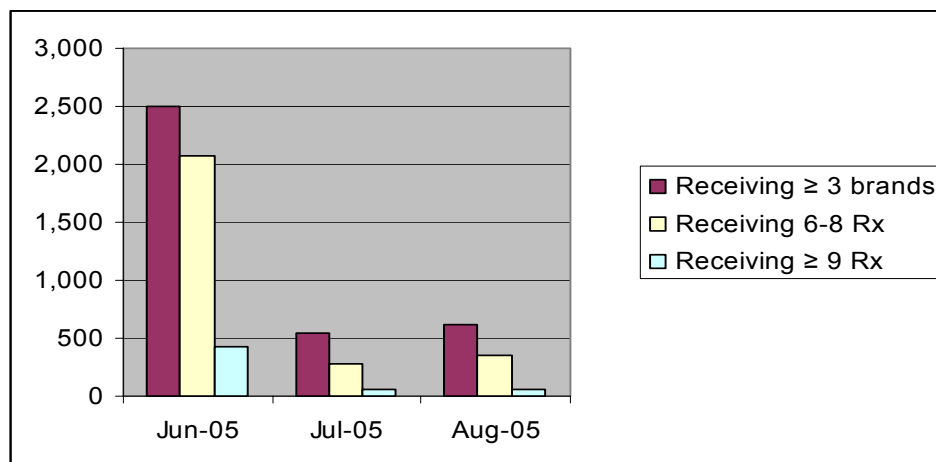
Legislation passed during the 2005 legislative session included several changes to the Medicaid Pharmacy Program effective July 1, 2005. The number of prescriptions reimbursed by Medicaid for non-institutionalized beneficiaries was reduced from five per month with an additional two through prior authorization to a limit of five per month with no more than two being for brand-name medications.

The only exception to this benefit limit is the number of drugs for beneficiaries under the age of 21 years when deemed medically necessary. This exception requires submission and approval of a Children's Medical Necessity prior authorization. A copy of this form is included in this packet for your reference.

Analysis of Claims

In order to evaluate the impact of this new prior authorization, the following analysis was conducted. This information includes only recipients who are under 21 years of age.

| No. of children: | June 2005 | July 2005 | August 2005 |
|---------------------------|-----------|-----------|-------------|
| Receiving 0-5 Rx | 70,700 | 67,093 | 73,959 |
| Receiving ≥ 3 brands | 2,505 | 550 | 611 |
| Receiving 6-8 Rx | 2,070 | 283 | 349 |
| Receiving ≥ 9 Rx | 428 | 56 | 54 |



While the number of children receiving five or less prescriptions has remained fairly stable at approximately 70,000 per month, a marked decrease in the number of children receiving more than two brands or more than five total prescriptions per month is observed.

Diagnostic Information

In reviewing prescription utilization among children, submitted diagnoses were compared between patients receiving nine or more prescriptions per month and all children.

Top 20 Diagnoses by Recipient Count

| Rank | All Children | Children receiving ≥ 9 Rx per month |
|------|------------------------------------|--|
| 1 | Routine Checkup | Upper Respiratory Infection |
| 2 | Unspecified Essential Hypertension | Asthma |
| 3 | Type II Diabetes | Attention Deficit Disorder |
| 4 | Upper Respiratory Infection | Fever |
| 5 | Benign Essential Hypertension | Convulsions |
| 6 | Acute pharyngitis | Otitis Media |
| 7 | Otitis media | Acute Pharyngitis |
| 8 | Urinary Tract Infection | Routine Checkup |
| 9 | Chronic Airway Obstruction | Acute Bronchitis |
| 10 | Abdominal Pain | Oppositional Defiant Disorder |
| 11 | Asthma | Allergic Rhinitis |
| 12 | Myopia | Cough |
| 13 | Fever | Esophageal Reflux |
| 14 | Allergic Rhinitis | Cerebral Palsy |
| 15 | Type I Diabetes | Contact Dermatitis |
| 16 | Attention Deficit Disorder | Extrinsic Asthma |
| 17 | General Symptoms | Constipation |
| 18 | Screening for STD | Bronchitis Unspecified |
| 19 | Pregnancy | Myopia |
| 20 | Hypermetropia | Depressive Disorder |

Generally, children who are on nine or more monthly medications tend to have chronic disorders which often require management by multiple physicians and complex medication regimens. With this increased complexity comes increased risk of drug-drug interactions, adverse drug events and confusion for the patient or caregiver.

Observations and Conclusions

Several conclusions regarding the effect of the policy changes on children can be drawn from the analysis of claims data.

1. The number of children exceeding the prescription limits, both brand and total, has decreased significantly since the implementation of the policy.
2. Based on diagnosis data, children well-exceeding the prescription limits are generally being treated for chronic disease states.
3. Since the implementation of the Children's Medical Necessity prior authorization and the clinical drug regimen review it requires, many opportunities have been identified for more efficient medication therapy.

The following is the actual claims profile of a 16 year old Medicaid recipient.

| Date Dispensed | Medication Name | Qty Dispensed | Days Supply | Cost |
|---|-------------------------------|---------------|-------------|----------|
| 08/18/05 | ZYRTEC 10 MG TABLET | 60 | 30 | \$121.02 |
| 08/15/05 | QVAR 80 MCG INHALER | 7.3 | 30 | \$69.61 |
| 08/15/05 | SINGULAIR 10 MG TABLET | 30 | 30 | \$90.91 |
| 08/15/05 | NASONEX 50 MCG NASAL SPRAY | 17 | 30 | \$71.83 |
| 08/15/05 | COMBIVENT INHALER | 14.7 | 30 | \$78.79 |
| 08/15/05 | SEREVENT DISKUS 50 MCG | 60 | 30 | \$98.53 |
| 08/15/05 | ALBUTEROL 90 MCG INHALER | 17 | 16 | \$10.16 |
| 08/15/05 | XOPENEX 1.25 MG/3 ML SOLUTION | 72 | 5 | \$62.41 |
| 08/03/05 | AMBIEN 10 MG TABLET | 30 | 30 | \$93.43 |
| 08/03/05 | SEROQUEL 200 MG TABLET | 90 | 30 | \$500.87 |
| 08/01/05 | RANITIDINE 150 MG TABLET | 30 | 30 | \$8.17 |
| 08/01/05 | XANAX XR 3 MG TABLET | 30 | 30 | \$150.18 |
| 08/01/05 | CYMBALTA 60 MG CAPSULE | 30 | 30 | \$100.01 |
| 08/01/05 | TRILEPTAL 300 MG TABLET | 186 | 31 | \$388.91 |
| August 1 through 8/18 totals: 12 brands and 2 generics at a total cost of \$1844.83. | | | | |

| Date Dispensed | Medication Name | Qty Dispensed | Days Supply | Cost |
|--|------------------------------|---------------|-------------|----------|
| 07/30/05 | HYDROXYCHLOROQUINE 200 MG TB | 60 | 30 | \$33.65 |
| 07/18/05 | METRONIDAZOLE 250 MG TABLET | 40 | 13 | \$8.31 |
| 07/05/05 | XANAX XR 3 MG TABLET | 30 | 30 | \$150.18 |
| 07/05/05 | SEROQUEL 200 MG TABLET | 90 | 30 | \$514.41 |
| July totals: 2 brands and 2 generics at a total cost of \$ 706.55 | | | | |

| Date Dispensed | Medication Name | Qty Dispensed | Days Supply | Cost |
|-----------------------|-------------------------------|----------------------|--------------------|-------------|
| 06/30/05 | NEXIUM 40 MG CAPSULE | 60 | 30 | \$262.69 |
| 06/30/05 | RANITIDINE 150 MG TABLET | 30 | 30 | \$7.17 |
| 06/28/05 | COMBIVENT INHALER | 14.7 | 15 | \$72.65 |
| 06/27/05 | PROMETHAZINE/CODEINE SYRUP | 180 | 8 | \$14.65 |
| 06/27/05 | ZOFRAN 8 MG TABLET | 10 | 3 | \$357.16 |
| 06/27/05 | ZELNORM 6 MG TABLET | 60 | 30 | \$158.96 |
| 06/27/05 | XOPENEX 1.25 MG/3 ML SOLUTION | 144 | 28 | \$126.41 |
| 06/27/05 | SEROQUEL 100 MG TABLET | 30 | 30 | \$94.94 |
| 06/27/05 | HYOSCYAMINE 0.375 MG TAB SA | 60 | 30 | \$31.85 |
| 06/27/05 | MOBIC 15 MG TABLET | 30 | 30 | \$125.75 |
| 06/21/05 | RESTASIS 0.05% EYE EMULSION | 32 | 20 | \$93.48 |
| 06/21/05 | SEREVENT DISKUS 50 MCG | 28 | 30 | \$49.95 |
| 06/20/05 | PRILOSEC OTC 20 MG TABLET | 60 | 30 | \$35.40 |
| 06/20/05 | ANAMANTLE HC CREAM KIT | 20 | 1 | \$141.33 |
| 06/18/05 | AMBIEN 10 MG TABLET | 30 | 30 | \$97.27 |
| 06/18/05 | IPRATROPIUM BR 0.02% SOLN | 125 | 20 | \$17.41 |
| 06/18/05 | SEROQUEL 200 MG TABLET | 60 | 30 | \$347.37 |
| 06/17/05 | NEXIUM 40 MG CAPSULE | 30 | 15 | \$138.41 |
| 06/17/05 | ZOFRAN 8 MG TABLET | 3 | 2 | \$109.86 |
| 06/17/05 | TRIMETHOBENZAMIDE 300 MG CAP | 16 | 3 | \$18.19 |
| 06/10/05 | ZYRTEC 10 MG | 30 | 30 | \$64.88 |

| | | | | |
|--|-----------------------------------|------|----|----------|
| | TABLET | | | |
| 06/10/05 | PREDNISON 20 MG TABLET | 20 | 10 | \$5.90 |
| 06/10/05 | PROMETHEGAN 50 MG SUPPOS | 12 | 4 | \$50.15 |
| 06/10/05 | TRILEPTAL 300 MG TABLET | 120 | 30 | \$235.65 |
| 06/10/05 | XANAX XR 3 MG TABLET | 30 | 30 | \$151.52 |
| 06/10/05 | HYDROXYCHLOROQU INE 200 MG TB | 60 | 30 | \$33.65 |
| 06/10/05 | CYMBALTA 60 MG CAPSULE | 30 | 30 | \$104.08 |
| 06/09/05 | ZOMIG 5 MG TABLET | 12 | 12 | \$218.45 |
| 06/09/05 | MIGRAZONE CAPSULE | 24 | 3 | \$13.17 |
| 06/08/05 | RELPA 40 MG TABLET | 6 | 3 | \$98.51 |
| 06/08/05 | COMBIVENT INHALER | 14.7 | 15 | \$74.22 |
| 06/08/05 | QVAR 80 MCG INHALER | 14.6 | 24 | \$140.20 |
| 06/08/05 | XOPENEX 1.25 MG/3 ML SOLUTION | 144 | 28 | \$126.41 |
| 06/08/05 | TIZANIDINE HCL 4 MG TABLET | 150 | 30 | \$122.40 |
| 06/08/05 | SINGULAIR 10 MG TABLET | 30 | 30 | \$94.66 |
| 06/08/05 | NYSTOP 100,000 UNITS/GM POWDER | 15 | 15 | \$28.07 |
| 06/08/05 | ZODERM 8.5% CLEANSER | 400 | 20 | \$64.43 |
| 06/08/05 | GABAPENTIN 800 MG TABLET | 150 | 30 | \$404.00 |
| 06/08/05 | NASONEX 50 MCG NASAL SPRAY | 17 | 30 | \$74.65 |
| June totals: 27 brands and 12 generics at a total cost of \$ 4405.90. | | | | |

| Date Dispensed | Medication Name | Qty Dispensed | Days Supply | Cost |
|-----------------------|--------------------------------|----------------------|--------------------|-------------|
| 05/26/05 | NYSTOP 100,000 UNITS/GM POWDER | 15 | 15 | \$28.07 |
| 05/26/05 | MOBIC 15 MG TABLET | 30 | 30 | \$125.75 |
| 05/26/05 | ACETAMINOPHEN/COD #4 TABLET | 15 | 5 | \$8.28 |
| 05/26/05 | HYOSCYAMINE 0.375 MG TAB SA | 60 | 30 | \$31.85 |
| 05/26/05 | MINOCYCLINE 100 MG CAPSULE | 60 | 30 | \$42.85 |
| 05/26/05 | SEROQUEL 200 MG TABLET | 60 | 30 | \$347.37 |
| 05/26/05 | SEROQUEL 100 MG TABLET | 30 | 30 | \$91.65 |
| 05/25/05 | SEREVENT DISKUS 50 MCG | 28 | 30 | \$46.76 |
| 05/25/05 | ANAMANTLE HC CREAM KIT | 20 | 1 | \$130.57 |
| 05/24/05 | FLEXTRA-650 TABLET | 30 | 7 | \$20.99 |
| 05/18/05 | PREDNISONE 10 MG TABLET | 45 | 12 | \$7.24 |
| 05/18/05 | FLEXTRA-650 TABLET | 30 | 7 | \$20.99 |
| 05/16/05 | CEPHADYN TABLET | 40 | 20 | \$20.75 |
| 05/16/05 | SSKI 1 GM/ML SOLUTION | 30 | 10 | \$14.56 |
| 05/16/05 | ZODERM 8.5% CLEANSER | 400 | 20 | \$64.43 |
| 05/14/05 | CYMBALTA 60 MG CAPSULE | 30 | 30 | \$104.08 |
| 05/14/05 | TRILEPTAL 300 MG TABLET | 60 | 30 | \$119.85 |
| 05/14/05 | XANAX XR 3 MG TABLET | 30 | 30 | \$151.52 |
| 05/14/05 | AMBIEN 10 MG TABLET | 30 | 30 | \$97.27 |
| 05/13/05 | TRAMADOL HCL-ACETAMINOPHEN TAB | 24 | 4 | \$25.55 |
| 05/07/05 | SINGULAIR 10 MG TABLET | 30 | 30 | \$90.50 |
| 05/07/05 | ZYRTEC 10 MG TABLET | 30 | 30 | \$64.88 |
| 05/07/05 | GABAPENTIN 800 MG TABLET | 150 | 30 | \$404.00 |
| 05/07/05 | TIZANIDINE HCL 4 MG TABLET | 150 | 30 | \$122.40 |
| 05/07/05 | NEXIUM 40 MG CAPSULE | 30 | 30 | \$138.41 |
| 05/07/05 | HYDROXYCHLOROQUINE 200 MG TB | 60 | 30 | \$33.65 |
| 05/05/05 | VANAMIDE 40% CREAM | 85 | 10 | \$49.88 |
| 05/05/05 | DIFLORASONE 0.05% CREAM | 60 | 10 | \$89.46 |
| 05/05/05 | RELPAK 40 MG TABLET | 6 | 3 | \$98.51 |

| | | | | |
|--|---------------------------|----|----|----------|
| 05/03/05 | TRAZODONE 50 MG TABLET | 60 | 20 | \$8.36 |
| 05/03/05 | ZADITOR 0.025% EYE DROPS | 5 | 15 | \$62.69 |
| 05/03/05 | PROMETHAZINE 25 MG TABLET | 12 | 2 | \$8.99 |
| 05/03/05 | ADVAIR 500/50 DISKUS | 60 | 30 | \$209.07 |
| 05/03/05 | LIDODERM 5% PATCH | 30 | 30 | \$161.61 |
| 05/03/05 | FLEXTRA-650 TABLET | 30 | 7 | \$20.99 |
| May totals: 18 brands and 13 generics at a total cost of \$3,063.78 | | | | |

Boxed Warning Update

Code of Federal Regulations definition for Black Box:

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 or 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.

Duragesic (fentanyl transdermal system)

Audience: Pain Specialists, Oncologists and other healthcare professionals
[Posted 07/08/2005] Janssen and FDA notified healthcare professionals of changes to the BOXED WARNING/WARNINGS, CONTRAINDICATIONS, PRECAUTIONS, and DOSAGE AND ADMINISTRATION sections of the prescribing information for Duragesic. These changes include important safety information in the following areas of the labeling: Use Only in Opioid-Tolerant Patients, Misuse, Abuse and Diversion, Hypoventilation (Respiratory Depression), Interactions with CYP3A4 Inhibitors, Damaged or Cut Patches, Accidental Exposure to Fentanyl, Chronic Pulmonary Disease, Head Injuries and Intracranial Pressure, Interactions with Other CNS Depressants, and Interactions with Alcohol and Drugs of Abuse.