

# Health Newsflash - *Special Edition* Top 100 Therapeutic Classes of 2008

## Top 10 Treated Conditions for 2008

We begin our Top 100 Therapeutic Classes Report by presenting the Top 10 Treated Health Conditions of 2008. The Top 100 Report (pages 9 & 10) is grouped by therapeutic classes, a term that represents a category of similar acting drugs used to treat a specific condition. The Top 10 Treated Health Conditions below are grouped by disease state or most common indication. Each condition may be comprised of several therapeutic classes.

For example, the common indication “High Cholesterol” consists of six therapeutic classes:

- HMG-CoA Reductase Inhibitors (e.g. Lipitor, Zocor, Crestor)
- HMG-CoA Reductase Inhibitor Combinations (e.g. Advicor)
- Fibric Acid Derivatives (e.g. Lipidil)
- Intestinal Cholesterol Absorption Inhibitors (e.g. Ezetrol)
- Bile Acid Sequestrants (e.g. Questran)
- Nicotinic Acid Derivatives (e.g. Niaspan)

### Top 10 Treated Health Conditions for 2008

#### Ranked by Total Cost

Cost Ranking	Health Condition	% of Total Spend
1	High Blood Pressure	11.2
2	High Cholesterol	10.0
3	Ulcer/Reflux	6.8
4	Diabetes	6.4
5	Depression	6.4
6	Antibiotics/Anti-Infectives	5.6
7	Rheumatoid Arthritis/Crohn's	5.3
8	Asthma/COPD	5.0
9	Pain, Narcotic Analgesics	2.9
10	NSAIDs – Pain & Inflammation	2.5
	<b>Total</b>	<b>62.1</b>

#### Ranked by Claims Volume

Claims Ranking	Health Condition	% of Total Claims
1	High Blood Pressure	13.5
2	Antibiotics/Anti-Infectives	9.1
3	Depression	7.1
4	Diabetes	5.8
5	High Cholesterol	5.7
6	Pain, Narcotic Analgesics	5.1
7	Asthma/COPD	4.5
8	Ulcer/Reflux	4.4
9	NSAIDs – Pain & Inflammation	3.8
10	Birth Control	3.8
	<b>Total</b>	<b>62.9</b>

The Top 10 Treated Health Conditions remain relatively unchanged from 2007 and account for almost exactly the same percentage of costs and claims as they did last year. The only notable change is that Birth Control has moved out of the Top 10 (ranking by total cost) in 2008 and has been replaced by NSAIDs for pain and inflammation.

On the following pages, we highlight the following groups of drugs from 2008:

- New Drugs that entered the Canadian market in 2008
- Top 10 Drugs for 2008 ranked by total spend
- Significant new generic entries in 2008

# Top 100 Therapeutic Classes of 2008

## High Cost Specialty Drugs Will Drive Future Drug Trend

As seen below, over half of the new drugs introduced in 2008 reveal a continuing focus on the development of high cost specialized drug therapies. These drugs have had a small impact on the therapeutic mix in 2008 but will have greater impact in 2009 and in future years. Many of these new drugs provide advantages over existing therapies and treatment for diseases that were previously untreatable; however, these benefits come with a significant price tag. Although we will continue to see a greater percentage of generic drugs being utilized and having a positive impact on reducing the trend factor, the new drugs that come to market will be highly specialized and extremely expensive. We have seen that the percentage of high cost claimants has increased dramatically in recent years and we expect this trend to continue with these types of new drugs coming to market.

## New Drugs to Watch in 2009

### Noteworthy New Drugs That Came to Market in 2008

Brand Name (generic name)	Manufacturer	Indication(s)	Annual Ingredient Cost/Patient*
<b>Revlimid</b> (lenalidomide)	Celgene	Myelodysplastic syndrome (MDS) & Multiple myeloma	\$95,300 - \$131,765
<b>Catena</b> (idebenone)	Santhera Pharmaceuticals	Friedreich's Ataxia	\$42,000-\$105,000
<b>Tasigna</b> (nilotinib)	Novartis Pharmaceuticals	Chronic myeloid leukemia (CML)	\$33,400 - \$70,270
<b>Vectibix</b> (panitumumab)	Amgen	Metastatic colorectal cancer	\$16,458 - \$49,374
<b>Volibris</b> (ambrisentan)	GlaxoSmithKline	Pulmonary arterial hypertension	\$48,749
<b>Stelara</b> (ustekinumab)	Janssen-Ortho	Chronic moderate to severe plaque psoriasis	\$22,155
<b>Intelence</b> (etravirine)	Janssen-Ortho	HIV/AIDS	\$7,957
<b>Stalevo</b> (levodopa/carbidopa/entacapone)	Novartis Pharmaceuticals	Parkinson's disease	\$2,409 - \$4,818
<b>Relistor</b> (methylnaltrexone)	Wyeth Canada	Opioid-induced constipation	\$4,389
<b>Olmotec</b> (olmesartan) & <b>Olmotec Plus</b> (olmesartan/HCTZ)	Schering-Plough	Mild to moderate hypertension	\$380 - \$760
<b>Zeftera</b> (ceftibiprole)	Janssen-Ortho	Complicated skin and skin structure infections (cSSSI)	\$295 - \$590 per 7-14 days of treatment
<b>Xarelto</b> (rivaroxaban)	Bayer	Prevention of venous thromboembolism (VTE) in patients undergoing hip/knee replacement surgery	\$147 - \$366 per 14-35 day course
<b>Pradax</b> (dabigatran)	Boehringer Ingelheim	Prevention of venous thromboembolism (VTE) in patients undergoing hip/knee replacement surgery	\$80 - \$290 per 10-35 day course
<b>Nevanac</b> (nepafenac)	Alcon	Eye drop for pain & inflammation following cataract surgery	\$20 per bottle

\*Pricing is obtained from ESI Canada's database (excludes retail markup and dispensing fees) and calculations are based on manufacturer's recommended dosing.

# Top 100 Therapeutic Classes of 2008

## 2008 Top 10 Drugs

The table below presents the Top 10 Drugs ranked by total cost for 2008.

Rank	Brand Name (Generic Name)	Common Use(s)	Annual Cost/Patient*
1	Lipitor (atorvastatin)	High cholesterol	\$640 to \$860
2	Crestor (rosuvastatin)	High cholesterol	\$525 to \$725
3	Remicade (infliximab)	Rheumatoid arthritis, psoriatic arthritis, Crohn's disease, ulcerative colitis, ankylosing spondylitis	\$27,800 to \$35,000
4	Enbrel (etanercept)	Rheumatoid arthritis, psoriatic arthritis, ankylosing spondylitis	\$20,000
5	Nexium (esomeprazole)	GI reflux, stomach ulcers	\$810
6	Effexor XR (venlafaxine) + generics	Depression, anxiety, panic disorders	\$220 to \$880
7	Norvasc (amlodipine)	High blood pressure	\$515 to \$760
8	Altace (ramipril) + generics	High blood pressure	\$190 to \$245
9	Pantoloc (pantoprazole) + generics	GI reflux, stomach ulcers	\$500
10	Advair (salmeterol/fluticasone)	Asthma, chronic obstructive pulmonary disease	\$960 to \$1635

\*Pricing is obtained from ESI Canada's database, generic pricing is used where applicable, and calculations are based on manufacturer's recommended dosing.

## Significant First Time Generics in 2008

Generic Name	Brand Product	Common Use(s)	Therapeutic Class	2008 Therapeutic Class Rank	
				By Cost	By Claims
Pantoprazole	Pantoloc	Ulcer/Reflux	Proton Pump Inhibitors	2	2
Apri 21/28	Marvelon	Birth Control	Combo Contraceptives - Oral	17	8
Previfem 21/28	Cyclen	Birth Control	Combo Contraceptives - Oral	17	8
Modafinil	Alertec	Narcolepsy, sleep apnea, shift work disorder	Stimulants – Misc.	26	45
Valacyclovir	Valtrex	Herpes infections	Herpes Agents – Purine Analogues	36	55
Quetiapine	Seroquel	Schizophrenia, Bipolar Disorder, Others	Dibenzothiazepines	47	54
Risperidone-ODT	Risperdal M-Tab	Schizophrenia, Bipolar Disorder, Others	Benzisoxazoles	90	79
Alfuzosin	Xatral	Benign Prostatic Hypertrophy (BPH)	Alpha-1 Adrenoreceptor Antagonists	93	78
Ciclopirox	Penlac	Fungal nail infections	Antifungals Topical	94	74
Galantamine	Reminyl	Alzheimer's disease	Cholinomimetics – ACHE Inhibitors	114	136
Brimonidine	Alphagan P	Glaucoma	Ophthalmic Selective Alpha-Adrenergic Agonists	274	201

# Top 100 Therapeutic Classes of 2008

## Therapeutic Class Highlights

Selected therapeutic classes from the Top 100 Therapeutic Classes Report that had significant increases or decreases in the average cost per claim in 2008 are highlighted in the following section.

### THERAPY CLASSES INCREASING TREND

#### 1. SMOKING CESSATION

##### Smoking Deterrents – GPI 62100

Drugs: Zyban, Champix and Nicotine Replacement (gums, patches, inhalers)

Notes: This therapeutic class had one of the largest increases in the average cost per prescription in 2008 (13%) due primarily to Champix (varenicline) acquiring more market share since its introduction in 2007. Champix's market share has essentially doubled (40.1% to 79.6%) in 2008. Like Zyban, Champix is available as an oral agent but in clinical trials was found to be superior at achieving and maintaining smoking cessation when compared to Zyban (bupropion).

#### 2. DIABETES

##### Human Insulin – GPI 271040

Drugs: Novolin insulins, Humulin insulins, NovoRapid, Humalog, Lantus, Levemir

Notes: This category continued to experience growth in 2008 with an increase to rank 23 by claim volume demonstrating an increased prevalence of diabetes and greater use of insulins than in 2007. The average cost per script increased by 8%, largely driven by newer insulin analogues which are priced at a premium to older agents due to longer durations of action and improved side effect profiles (e.g. less incidence of low blood sugars). NovoRapid and the long-acting agents, Lantus and Levemir, all increased their share of scripts in this category. All other products observed a decrease in their market share compared to last year.

#### Trends – Smoking Deterrents

	2007	2008
Claims Rank	109	66
% of Total Claims	0.19%	0.37%
Cost Rank	104	55
% of Total Cost	0.19%	0.41%
Avg. Cost Per Rx	\$61	\$69

#### Market Share – Smoking Deterrents (by % claims)

	2007	2008
Zyban	17.0%	4.7%
Champix	40.1%	79.6%
Nicotine Replacement (NRT)	42.9%	15.7%

#### Trends - Human Insulin

	2007	2008
Claims Rank	25	23
% of Total Claims	1.06%	1.12%
Cost Rank	13	13
% of Total Cost	1.52%	1.70%
Avg. Cost Per Rx	\$87	\$94

#### Market Share – Human Insulin (by % claims)

	2007	2008
Novolin Products	23.8%	21.6%
Humalog	21.1%	20.4%
NovoRapid	16.3%	18.4%
Humulin Products	18.1%	15.3%
Lantus	12.3%	14.9%
Levemir	8.4%	9.4%

# Top 100 Therapeutic Classes of 2008

## 3. CANCER

### Antineoplastic – Protein-Tyrosine Kinase (PTK) Inhibitors – GPI 215340

Drugs: Gleevec, Tarceva, Sprycel, Tasigna

Notes: Tasigna joined this class in 2008 which is indicated for the treatment of chronic myeloid leukemia (CML) and costs over \$70,000 per patient for a full year of treatment. While this class of medications has experienced increases in both claims and cost ranks, the average cost per script has decreased in 2008 by 6%. As seen below, this is the result of increased market share for Tarceva and Sprycel which are priced lower than the market leader Gleevec.

Trends – PTK Inhibitors

	2007	2008
Claims Rank	303	287
% of Total Claims	0.01%	0.01%
Cost Rank	54	49
% of Total Cost	0.42%	0.46%
Avg. Cost Per Rx	\$3,538	\$3,312

Market Share - PTK-Inhibitors (by % claims)

	2007	2008
Gleevec	88.5%	77.6%
Tarceva	7.8%	16.0%
Sprycel	3.8%	6.3%
Tasigna	0%	0.1%

#### Classes to Watch:

- **Multikinase Inhibitors (GPI 215330)** - includes the oral agents Sutent and Nexavar which are both indicated for metastatic renal cell carcinoma. Sutent is also indicated for gastrointestinal stromal tumors and Nexavar is also used for hepatocellular carcinoma. This class jumped from cost rank 172 in 2007 to rank 120 in 2008.
- **Vascular-Endothelial Growth Factor (VEGF) Inhibitors (GPI 213350)** - only the injectable drug Avastin belongs to this class which has become an important agent for metastatic colorectal cancer and recently received a new indication for advanced HER2-negative breast cancer. It now ranks 177 in terms of overall percentage spend, up from spot 232 in 2007.

## 4. MULTIPLE SCLEROSIS

### Multiple Sclerosis Agents – Monoclonal Antibodies – GPI 624050

Drug: Tysabri

Notes: Tysabri, an injectable biologic for the treatment of relapsing-remitting multiple sclerosis, is recommended as a second-line agent to interferons (Rebif, Avonex, and Betaseron) and Copaxone. Tysabri's cost (avg.\$35,000/patient/yr) is higher than that for first line agents (avg. \$20,000/patient/yr). This will increase costs for MS patients, however safety concerns have limited its uptake.

Trends - MS Monoclonal Antibody

	2007	2008
Claims Rank	407	345
% of Total Claims	0%	0%
Cost Rank	174	97
% of Total Cost	0.07%	0.21%
Avg. Cost Per Rx	\$2,944	\$3,012

Market Share – All MS Drugs (by % claims)

	2007	2008
Rebif	30.8%	27.5%
Copaxone	27.7%	29.4%
Avonex	22.3%	23.1%
Betaseron	17.5%	15.2%
Tysabri	1.7%	4.9%

# Top 100 Therapeutic Classes of 2008

## 5. BIOLOGICS FOR RHEUMATOID ARTHRITIS

### Tumor Necrosis Factor Alpha Blockers – GPI 525050

Drug: Remicade

Notes: Remicade, the only drug given by intravenous infusion in this category, has continued to increase in both claims and cost rank. Its rankings demonstrate the concept of a high cost drug (cost rank #6) for a small number of patients (claims rank #206). The claims rank is also impacted by the less frequent dosing of biologics compared to oral medications. The increases seen with Remicade have been driven primarily by its ever expanding list of indications which includes RA, Crohn's disease, ulcerative colitis, and psoriatic arthritis, to name a few. Also, the number of private infusion clinics has improved patient access to this biologic.

### Soluble Tumor Necrosis Factor Receptor Agents – GPI 662900

Drug: Enbrel

Notes: Enbrel has only experienced modest growth since 2007 with a 4% increase in the average cost per script. It remains the market leader in this category and has also benefited from an expanded indication list which now includes chronic plaque psoriasis. This indication is now covered as a general benefit by ODB which may further drive use among dermatologists especially following the market withdrawal of Raptiva.

### Anti-TNF-Alpha Monoclonal Antibodies – GPI 662700

Drug: Humira

Notes: Humira continues to show remarkable growth in 2008 now occupying nearly a quarter of claims in this category of biologics and has jumped 20 spots in cost ranking. New indications in 2006 and 2007 (e.g. psoriatic arthritis and Crohn's disease) have driven the utilization of this product in 2008. More recently, Humira added another new indication in 2008 for chronic plaque psoriasis which will drive future spend for this product.

Trends - Remicade

	2007	2008
Claims Rank	215	206
% of Total Claims	0.03%	0.04%
Cost Rank	10	6
% of Total Cost	1.85%	2.23%
Avg. Cost Per Rx	\$3,733	\$3,727

Trends - Enbrel

	2007	2008
Claims Rank	176	174
% of Total Claims	0.06%	0.06%
Cost Rank	11	11
% of Total Cost	1.83%	1.90%
Avg. Cost Per Rx	\$1,753	\$1,830

Trends - Humira

	2007	2008
Claims Rank	252	215
% of Total Claims	0.02%	0.03%
Cost Rank	44	24
% of Total Cost	0.52%	0.95%
Avg. Cost Per Rx	\$1,775	\$1,853

Market Share - Biologics for RA (by % claims)

	2007	2008
Enbrel	55.5%	46.8%
Remicade	26.3%	27.0%
Humira	15.4%	23.0%
Orencia	1.8%	2.6%
Kineret	0.9%	0.6%

# Top 100 Therapeutic Classes of 2008

## THERAPY CLASSES DECREASING TREND

### 1. ULCER/REFLUX

#### Proton Pump Inhibitors (PPIs) – GPI 492700

Drugs: Losec & generics (omeprazole), Pariet & generics (rabeprazole), Pantoloc & generics (pantoprazole), Prevacid, Nexium

Notes: This class of medications saw the introduction of generic Pariet (rabeprazole) in late 2007 and generic Pantoloc (pantoprazole) in early 2008. This resulted in a 7% decrease in the average cost per script in 2008 as generics took up market share. Interestingly, the remaining brand products, Prevacid and Nexium, maintained their market share and actually saw slight increases.

### 2. DIABETES

#### Thiazolidinediones (TZDs) – GPI 276070

Drugs: Avandia, Actos & generics (pioglitazone)

Notes: Generic Actos (pioglitazone) entered the market in late 2007 and quickly picked up market share from the brand product. In addition, negative results from recent clinical trials on Avandia showing an increased rate of cardiovascular mortality resulted in many patients switching to other antidiabetic agents – we have seen some Avandia users move to Actos but also other classes of drugs such as metformin.

### 3. ANTIPSYCHOTICS

#### Thienbenzodiazepines – GPI 591570

Drugs: Zyprexa & generics (olanzapine)

Notes: Zyprexa which is used for a variety of psychiatric disorders, lost its patent in 2007 and has been losing market share ever since. The generic accounted for over 60% of all scripts in 2008 lowering the average cost per script to \$139. Other highly utilized atypical antipsychotics also recently went generic (e.g. Seroquel and Risperdal) which will help lower overall costs for psychiatric conditions such as schizophrenia and bipolar disorder. We still have not seen significant uptake for new brand drugs such as Invega.

#### Trends - PPIs

	2007	2008
Claims Rank	2	2
% of Total Claims	3.65%	3.77%
Cost Rank	2	2
% of Total Cost	6.71%	6.36%
Avg. Cost Per Rx	\$112	\$104

#### Market Share - PPIs (by % claims)

	2007	2008
Generic omeprazole	14.8%	15.3%
Generic rabeprazole	0%	14.2%
Generic pantoprazole	0%	10.0%
Prevacid	14.7%	15.9%
Nexium	22.7%	23.0%

#### Trends - TZDs

	2007	2008
Claims Rank	49	64
% of Total Claims	0.50%	0.38%
Cost Rank	17	23
% of Total Cost	1.46%	0.97%
Avg. Cost Per Rx	\$178	\$158

#### Market Share - TZDs (by % claims)

	2007	2008
Actos	41.7%	17.6%
Generic pioglitazone	0.01%	40.7%
Avandia	58.3%	41.7%

#### Trends - Thienbenzodiazepines

	2007	2008
Claims Rank	106	110
% of Total Claims	0.19%	0.19%
Cost Rank	48	51
% of Total Cost	0.49%	0.43%
Avg. Cost Per Rx	\$157	\$139

#### Market Share - Thienbenzodiazepines (by % claims)

	2007	2008
Zyprexa	78.7%	39.1%
Generic olanzapine	21.3%	60.9%

# Top 100 Therapeutic Classes of 2008

## 4. SEDATIVE/HYPNOTIC

### Non-Benzodiazepine-GABA-Receptor Modulators – GPI 602040

Drugs: Imovane & generics (zopiclone), Starnoc

Notes: Almost a 12% decrease in the average cost per prescription was observed in this class in 2008 which resulted from generic zopiclone acquiring an additional 34% market share. The generic product has been interchangeable in many other provinces for some time now, however the introduction of Off-Formulary Interchangeability (OFI) in Ontario for this product sparked this increase in the use of the generic versus the brand.

#### Trends - Non-BDZ-GABA-Receptor Modulators

	2007	2008
Claims Rank	27	26
% of Total Claims	0.99%	1.06%
Cost Rank	42	46
% of Total Cost	0.55%	0.51%
Avg. Cost Per Rx	\$33	\$29

#### Market Share - Non-BDZ-GABA Receptor Modulators (by % claims)

	2007	2008
Imovane	40.0%	9.8%
Generic zopiclone	56.7%	90.2%
Starnoc	0.33%	0.01%

## 5. ULCER/REFLUX

### H-2 Antagonists – GPI 492000

Drugs: Zantac & generics (ranitidine), Pepcid & generics (famotidine), Tagamet & generics (cimetidine), Axid & generics (nizatadine)

Notes: As noted earlier, brand Zantac dropped its unit price by more than 80% to undercut the generic price. The brand market share subsequently increased by 14% which lowered the average cost per script in this class by ~15%.

#### Trends - H2 Antagonists

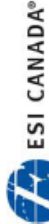
	2007	2008
Claims Rank	41	43
% of Total Claims	0.67%	0.60%
Cost Rank	45	59
% of Total Cost	0.51%	0.39%
Avg. Cost Per Rx	\$46	\$39

#### Market Share - H2 Antagonists (by % claims)

	2007	2008
Zantac	1.8%	15.5%
Generic ranitidine	87.6%	74.3%
Famotidine	5.1%	5.1%
Cimetidine	2.9%	2.9%
Nizatadine	2.6%	2.3%

## CONCLUSIONS

- Increases in expenditures on diabetic drugs demonstrate a shift to newer, more costly insulin products (e.g. Lantus, Levemir, NovoMix). The number of new drugs which could enter the market along with increased disease prevalence, could further increase costs for this condition.
- Top grossing biologics Remicade, Enbrel and Humira have continued to increase in use due to their ever expanding portfolio of indications. More high cost specialty drugs with multiple indications are anticipated.
- Oral cancer drugs occupy an increasing percentage of drug expenditures and magnify the public to private shift that is occurring. Also, the number of available treatment options increases the duration a patient can be treated and likewise, the costs.
- Recent generic drug entries helped lower drug costs and the upcoming generic pipeline shows significant promise. We are also entering the new era of brands competing with generics, which can also help decrease costs in most cases.



Therapy Class Ranking [Top 100 Ranked by Total Cost]  
 Prescriptions Filled from 01/2007 through 12/2007 compared to 01/2008 through 12/2008  
 NATIONAL

GPI	Therapy Class Name	Common Indications	# Claims Rank		% of Total Claims		Cost Rank		% of Total Cost		Avg Cost/Rx		% Change in Avg. Cost/Rx
			2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	
394000	HMG CoA Reductase Inhibitors	HIGH CHOLESTEROL	1	1	4.78%	4.88%	1	1	8.78%	8.76%	\$ 111.56	\$ 110.24	-1.01%
492700	Proton Pump Inhibitors	ULCER/REFLUX	2	2	3.65%	3.77%	2	2	6.71%	6.36%	\$ 111.55	\$ 103.83	-6.93%
581600	Selective Serotonin Reuptake Inhibitors (SSRIs)	DEPRESSION	4	4	3.17%	3.14%	3	3	3.47%	3.40%	\$ 66.35	\$ 66.52	0.25%
340000	Calcium Channel Blockers	HIGH BLOOD PRESSURE	9	9	2.11%	2.10%	5	4	3.07%	3.05%	\$ 88.14	\$ 89.17	1.16%
361000	ACE Inhibitors	HIGH BLOOD PRESSURE	3	3	3.58%	3.23%	4	5	3.33%	2.86%	\$ 59.59	\$ 54.37	-8.75%
525050	Tumor Necrosis Factor Alpha Blockers	RHEUMATOID ARTHRITIS	215	206	0.03%	0.04%	10	6	1.85%	2.23%	\$ 3,732.91	\$ 3,727.36	-0.15%
442099	Adrenergic Combinations	ASTHMA/COPD	26	28	1.06%	1.04%	6	7	2.04%	2.09%	\$ 116.97	\$ 123.05	5.20%
651000	Opioid Agonists	NARCOTIC ANALGESICS - pain	7	7	2.20%	2.43%	7	8	2.00%	2.06%	\$ 55.09	\$ 52.56	-4.60%
361500	Angiotensin II Receptor Antagonists	HIGH BLOOD PRESSURE	20	19	1.49%	1.60%	9	9	1.93%	2.06%	\$ 78.55	\$ 79.18	0.81%
581800	Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs)	DEPRESSION	18	15	1.75%	1.79%	8	10	1.99%	1.99%	\$ 68.85	\$ 66.50	-0.51%
662900	Soluble Tumor Necrosis Factor Receptor Agonists	RHEUMATOID ARTHRITIS	176	174	0.06%	0.06%	11	11	1.83%	1.90%	\$ 1,753.34	\$ 1,830.26	4.38%
726000	Anticonvulsants - Misc.	ANTICONSULSANT	31	25	0.96%	1.07%	15	12	1.50%	1.73%	\$ 95.43	\$ 99.20	3.95%
271040	Human Insulin	DIABETES	25	23	1.06%	1.12%	13	13	1.52%	1.70%	\$ 86.84	\$ 93.09	8.12%
624030	Multiple Sclerosis Agents - Interferons	MULTIPLE SCLEROSIS	178	181	0.06%	0.06%	12	14	1.64%	1.54%	\$ 1,600.66	\$ 1,640.14	2.47%
999100	Diabetic Supply	DIABETIC SUPPLY	23	24	1.12%	1.11%	16	15	1.50%	1.48%	\$ 81.69	\$ 82.03	0.42%
674060	Selective Serotonin Agonists 5-HT(1)	MIGRAINE	42	41	0.64%	0.62%	14	16	1.51%	1.41%	\$ 142.97	\$ 139.80	-2.22%
259900	Combination Contraceptives - Oral	BIRTH CONTROL	8	7	2.12%	2.22%	18	17	1.21%	1.20%	\$ 34.55	\$ 33.36	-3.46%
369940	Angiotensin II Receptor Antagonists & Thiazides	HIGH BLOOD PRESSURE	36	32	0.80%	0.89%	23	18	1.13%	1.13%	\$ 76.52	\$ 77.75	1.61%
300420	Bisphosphonates	OSTEOPOROSIS	28	29	0.99%	0.94%	21	19	1.18%	1.13%	\$ 71.97	\$ 74.25	3.17%
661000	Nonsteroidal Anti-inflammatory Agents (NSAIDs)	NSAIDs - pain and inflammation	5	5	2.59%	2.58%	19	20	1.19%	1.12%	\$ 27.78	\$ 26.56	-4.37%
422000	Nasal Steroids	ALLERGY	15	17	1.75%	1.59%	20	21	1.19%	1.10%	\$ 39.46	\$ 38.87	-1.50%
444000	Steroid Inhalants	ASTHMA/COPD	49	64	0.96%	0.91%	22	22	1.04%	0.99%	\$ 65.37	\$ 67.09	2.63%
276070	Thiazolidinediones	DIABETES	29	31	0.50%	0.38%	17	23	1.46%	0.97%	\$ 177.78	\$ 156.24	-11.00%
662700	Anti-TNF-alpha - Monoclonal Antibodies	RHEUMATOID ARTHRITIS	252	215	0.03%	0.03%	44	24	0.52%	0.85%	\$ 1,774.50	\$ 1,852.76	4.41%
661005	Cyclooxygenase 2 (COX-2) Inhibitors	NSAIDs - pain and inflammation	38	40	0.77%	0.67%	24	25	0.86%	0.86%	\$ 75.35	\$ 78.96	4.82%
614000	Stimulants - Misc.	ATTENTION DEFICIT DISORDER	47	45	0.54%	0.56%	27	26	0.82%	0.84%	\$ 92.53	\$ 92.77	0.26%
851580	Thienopyridine Derivatives	BLOOD FLOW ANTIPLATLET	63	62	0.37%	0.38%	28	27	0.82%	0.84%	\$ 133.62	\$ 134.88	0.94%
352000	Beta Blockers Cardio-Selective	HIGH BLOOD PRESSURE	11	10	2.07%	2.04%	28	28	0.84%	0.79%	\$ 24.47	\$ 23.67	-3.26%
272500	Biguanides	DIABETES	19	20	1.49%	1.59%	32	29	0.78%	0.78%	\$ 29.69	\$ 30.24	1.86%
035000	Clarithromycin	ANTIBIOTICS/ANTI-INFECTIVES	30	30	0.96%	0.93%	25	30	0.87%	0.77%	\$ 54.93	\$ 51.00	-7.15%
445050	Leukotriene Receptor Antagonists	ASTHMA/COPD	53	59	0.44%	0.41%	29	31	0.82%	0.77%	\$ 112.71	\$ 115.69	2.64%
393000	Intestinal Cholesterol Absorption Inhibitors	HIGH CHOLESTEROL	61	56	0.39%	0.42%	34	32	0.71%	0.77%	\$ 111.75	\$ 111.59	-0.54%
905500	Corticosteroids - Topical	TOPICAL ANTI-INFLAMMATORY	12	12	2.07%	1.97%	30	33	0.80%	0.76%	\$ 23.55	\$ 23.72	0.71%
824015	Granulocyte Colony-Stimulating Factors (G-CSF)	BLOOD DISORDERS	239	233	0.02%	0.02%	36	34	0.67%	0.74%	\$ 1,796.66	\$ 1,890.18	5.20%
050000	Fluoroquinolones	ANTIBIOTICS/ANTI-INFECTIVES	24	27	1.09%	1.05%	31	35	0.75%	0.72%	\$ 42.10	\$ 42.10	0.00%
124050	Hepes Agents - Purine Analogues	ANTIBIOTICS/ANTI-INFECTIVES	59	55	0.40%	0.43%	35	36	0.69%	0.72%	\$ 104.88	\$ 103.47	-1.34%
121099	Antiretroviral Combinations	HIV/AIDS	200	193	0.04%	0.05%	38	37	0.60%	0.69%	\$ 863.00	\$ 905.93	4.96%
259920	Triphasic Contraceptives - Oral	BIRTH CONTROL	21	22	1.23%	1.12%	33	36	0.71%	0.68%	\$ 35.34	\$ 37.08	4.91%
442010	Beta Adrenergics	ASTHMA/COPD	14	13	1.86%	1.82%	37	39	0.64%	0.60%	\$ 20.70	\$ 20.29	-1.99%
941000	Diagnostic Reagents	DIABETIC SUPPLY	65	61	0.37%	0.39%	39	40	0.57%	0.60%	\$ 93.20	\$ 94.70	1.61%
624000	Multiple Sclerosis Agents	MULTIPLE SCLEROSIS	233	230	0.02%	0.03%	43	41	0.54%	0.56%	\$ 1,343.90	\$ 1,333.69	-0.76%
403040	Selective cGMP Phosphodiesterase Type 5 Inhibitors	ERECTILE DYSFUNCTION	76	71	0.33%	0.33%	40	42	0.55%	0.56%	\$ 101.86	\$ 102.84	0.86%
525000	Inflammatory Bowel Agents	INFLAMMATORY BOWEL DISEASE	93	93	0.24%	0.24%	41	43	0.55%	0.55%	\$ 140.11	\$ 142.04	1.36%
012000	Aminopenicillins	ANTIBIOTICS/ANTI-INFECTIVES	10	11	2.08%	2.00%	51	44	0.44%	0.52%	\$ 12.88	\$ 15.96	23.06%
281000	Thyroid Hormones	THYROID DISORDERS	6	6	2.47%	2.54%	46	45	0.51%	0.51%	\$ 12.42	\$ 12.44	0.17%
602040	Non-Benzodiazepine - GABA-Receptor Modulators	SEDATIVE/HYPNOTIC	27	26	0.99%	1.06%	42	46	0.55%	0.51%	\$ 33.38	\$ 29.55	-11.47%
591530	Dibenzothiazepines	ANTI-PSYCHOTIC	60	54	0.39%	0.43%	50	47	0.48%	0.48%	\$ 71.50	\$ 68.40	-4.34%
659910	Codeine Combinations	NARCOTIC ANALGESICS - pain	13	14	1.91%	1.79%	47	48	0.50%	0.47%	\$ 15.76	\$ 16.07	1.96%
215340	Antineoplastic - Tyrosine Kinase Inhibitors	ANTICANCER	303	287	0.01%	0.01%	54	49	0.42%	0.46%	\$ 3,538.36	\$ 3,311.96	-6.40%
369918	ACE Inhibitors & Thiazide/Thiazide-Like	HIGH BLOOD PRESSURE	62	52	0.37%	0.44%	53	50	0.42%	0.46%	\$ 68.72	\$ 64.12	-6.68%
591570	Thienbenzodiazepines	ANTI-PSYCHOTIC	106	110	0.19%	0.19%	48	51	0.49%	0.43%	\$ 157.11	\$ 139.46	-11.23%
171000	Viral Vaccines	PREVENTATIVE VACCINES	75	77	0.33%	0.31%	49	52	0.47%	0.42%	\$ 86.42	\$ 84.69	-2.00%
563000	Antidepressants - Misc.	DEPRESSION	43	42	0.59%	0.61%	55	53	0.42%	0.42%	\$ 42.97	\$ 42.19	-1.82%
540000	Urinary Antispasmodics	BLADDER URINARY TRACT	82	84	0.29%	0.29%	56	54	0.41%	0.41%	\$ 86.80	\$ 87.77	1.11%
621000	Smoking Deterrants	SMOKING DETERRANTS	109	66	0.19%	0.37%	104	55	0.19%	0.41%	\$ 60.72	\$ 66.86	13.06%
300620	Ovulation Stimulants-Gonadotropins	INFERTILITY	186	185	0.05%	0.05%	59	36	0.40%	0.41%	\$ 447.14	\$ 478.00	6.90%
034000	Azithromycin	ANTIBIOTICS/ANTI-INFECTIVES	33	35	0.89%	0.84%	52	57	0.44%	0.41%	\$ 30.10	\$ 29.71	-1.27%
389000	Anaphylaxis Therapy Agents	ALLERGY	114	114	0.17%	0.17%	58	58	0.40%	0.40%	\$ 143.18	\$ 143.92	0.52%
492000	H-2 Antagonists	ULCER/REFLUX	41	43	0.67%	0.60%	45	39	0.51%	0.39%	\$ 46.30	\$ 39.40	-14.90%
392000	Fibric Acid Derivatives	HIGH CHOLESTEROL	69	70	0.35%	0.34%	57	60	0.41%	0.38%	\$ 70.66	\$ 66.65	-2.85%
441000	Bronchodilators - Anticholinergics	ASTHMA/COPD	96	88	0.23%	0.26%	70	61	0.32%	0.35%	\$ 84.18	\$ 83.71	-0.56%
214028	Aromatase Inhibitors	ANTICANCER	158	154	0.09%	0.09%	67	62	0.33%	0.35%	\$ 233.47	\$ 243.65	4.36%
994030	Inosine Monophosphate Dehydrogenase Inhibitors	ORGAN TRANSPLANT	16	16	1.80%	1.76%	62	64	0.35%	0.34%	\$ 11.86	\$ 11.78	-0.68%
571000	Benzodiazepines	ANTI-ANXIETY	203	205	0.04%	0.04%	69	65	0.33%	0.33%	\$ 519.82	\$ 533.69	2.67%
214050	UHRH Analogs	ANTICANCER	39	38	0.70%	0.70%	65	66	0.34%	0.33%	\$ 29.87	\$ 28.83	-3.49%



Therapy Class Ranking (Top 100 Ranked by Total Cost)  
 Prescriptions Filled from 01/2007 through 12/2007 compared to 01/2008 through 12/2008  
 NATIONAL

GPI	Therapy Class Name	Common Indications	# Claims Rank		% of Total Claims		Cost Rank		% of Total Cost		AVG Cost/Rx		% Change in Avg. Cost/Rx
			2007	2008	2007	2008	2007	2008	2007	2008			
240000	Estrogens	HORMONE REPLACEMENT	34	37	0.84%	0.77%	60	67	0.36%	0.33%	\$ 26.03	\$ 26.10	0.25%
040000	Tetracyclines	ANTIBIOTICS/ANTI-INFECTIVES	51	53	0.45%	0.43%	61	68	0.36%	0.32%	\$ 48.46	\$ 45.62	-5.86%
171099	Viral Vaccine Combinations	PREVENTATIVE VACCINES	70	76	0.35%	0.33%	63	69	0.35%	0.31%	\$ 60.61	\$ 60.15	-0.76%
661099	Nonsteroidal Anti-inflammatory Agent Combinations	NSAIDS - pain and inflammation	72	73	0.34%	0.33%	71	70	0.32%	0.30%	\$ 56.71	\$ 57.05	0.60%
376000	Thiazides and Thiazide-Like Diuretics	HIGH BLOOD PRESSURE	17	18	1.77%	1.68%	66	71	0.38%	0.36%	\$ 11.30	\$ 11.12	-1.58%
613540	ADHD Agent - Selective Norepinephrine Reuptake Inhibitor	ATTENTION DEFICIT DISORDER	144	139	0.10%	0.11%	79	72	0.28%	0.30%	\$ 165.50	\$ 166.54	0.62%
900500	Acne Products	ACNE	64	67	0.37%	0.36%	74	73	0.29%	0.29%	\$ 47.35	\$ 50.23	6.09%
260000	Progestins	HORMONE REPLACEMENT	52	58	0.44%	0.41%	72	74	0.30%	0.29%	\$ 41.47	\$ 43.04	5.71%
744000	Neuromuscular Blocking Agent - Neurotoxins	MUSCLE RELAXANT	229	229	0.02%	0.02%	81	75	0.27%	0.28%	\$ 650.54	\$ 675.36	3.82%
659900	Oploid Combinations	NARCOTIC ANALGESICS - pain	35	34	0.84%	0.85%	73	76	0.30%	0.28%	\$ 21.49	\$ 20.44	-4.95%
831010	Low Molecular Weight Heparins	BLOOD FLOW THINNERS	197	182	0.05%	0.06%	91	77	0.24%	0.28%	\$ 305.31	\$ 311.40	1.99%
231000	Androgens	HORMONE REPLACEMENT	124	129	0.14%	0.13%	76	78	0.29%	0.27%	\$ 128.43	\$ 130.71	1.77%
021000	Cephalosporins - 2nd Generation	ANTIBIOTICS/ANTI-INFECTIVES	50	51	0.46%	0.44%	66	79	0.34%	0.27%	\$ 42.95	\$ 36.51	-10.33%
213000	Antimetabolites	ANTICANCER	102	101	0.21%	0.22%	85	80	0.25%	0.27%	\$ 70.64	\$ 76.31	8.02%
751000	Central Muscle Relaxants	MUSCLE RELAXANT	45	44	0.56%	0.57%	80	81	0.27%	0.27%	\$ 29.26	\$ 28.94	-1.09%
415500	Antihistamines - Non-Sedating	ALLERGY	67	65	0.37%	0.36%	82	82	0.27%	0.27%	\$ 44.14	\$ 43.87	-0.60%
824010	Erythropoietins	BLOOD DISORDERS	251	257	0.02%	0.02%	75	83	0.29%	0.27%	\$ 966.94	\$ 1,000.46	3.47%
582000	Tricyclic Agents	DEPRESSION	32	33	0.94%	0.89%	77	84	0.29%	0.29%	\$ 18.37	\$ 18.16	-1.03%
900599	Acne Combinations	ACNE	57	63	0.40%	0.36%	84	85	0.25%	0.26%	\$ 36.04	\$ 42.56	11.89%
129900	Nucleoside Analog & Interferon Combinations	ANTIBIOTICS/ANTI-INFECTIVES	279	280	0.01%	0.01%	89	86	0.24%	0.25%	\$ 1,327.28	\$ 1,406.42	5.96%
994040	Microlide Immunosuppressants	ORGAN TRANSPLANT	213	213	0.03%	0.03%	86	87	0.23%	0.24%	\$ 468.85	\$ 455.35	-2.88%
114070	Triazoles	ANTIBIOTICS/ANTI-INFECTIVES	68	68	0.35%	0.36%	88	88	0.23%	0.24%	\$ 42.43	\$ 40.97	-3.45%
999000	Unclassified	UNCLASSIFIED	113	96	0.18%	0.24%	109	89	0.18%	0.24%	\$ 60.09	\$ 61.71	2.70%
590700	Benzodiazoles	ANTI-PSYCHOTIC	78	79	0.32%	0.30%	90	90	0.24%	0.24%	\$ 45.82	\$ 48.05	4.87%
612535	Fat Absorption Decreasing Agents	WEIGHT REDUCTION	148	163	0.09%	0.08%	76	91	0.28%	0.23%	\$ 179.31	\$ 181.13	1.01%
568510	5-Alpha Reductase Inhibitors	BENIGN PROSTATIC HYPERPLASIA	131	119	0.13%	0.16%	102	92	0.19%	0.23%	\$ 99.11	\$ 90.69	-9.11%
568520	Alpha 1-Adrenoceptor Antagonists	BENIGN PROSTATIC HYPERPLASIA	84	78	0.26%	0.31%	93	93	0.22%	0.23%	\$ 47.44	\$ 45.39	-4.31%
901500	Antifungals - Topical	TOPICAL ANTIBIOTICS/ANTI-INFECTIVES	74	74	0.33%	0.32%	94	94	0.22%	0.22%	\$ 40.05	\$ 42.27	5.55%
611099	Amphetamine Mixtures	ATTENTION DEFICIT DISORDER	150	140	0.09%	0.11%	103	95	0.19%	0.22%	\$ 123.02	\$ 120.05	-1.76%
249915	Estrogen & Androgen	ACNE	101	105	0.21%	0.20%	92	96	0.24%	0.21%	\$ 67.11	\$ 66.54	-0.84%
624050	Multiple Sclerosis Agents - Monoclonal Antibodies	MULTIPLE SCLEROSIS	407	345	0.00%	0.00%	174	97	0.07%	0.21%	\$ 2,944.36	\$ 3,011.62	2.28%
863300	Prostaglandins - Ophthalmic	GLAUCOMA	85	86	0.28%	0.27%	95	98	0.22%	0.21%	\$ 46.59	\$ 48.27	3.60%
121045	Antiretrovirals - Protease Inhibitors	HIV/AIDS	218	224	0.03%	0.03%	98	99	0.21%	0.21%	\$ 403.87	\$ 466.96	5.44%
905599	Topical Steroid Combinations	TOPICAL ANTI-INFLAMMATORY	115	117	0.16%	0.16%	99	100	0.20%	0.21%	\$ 75.71	\$ 80.88	6.83%
			<b>Top 100 Drug Classes</b>		<b>85.36%</b>		<b>85.31</b>		<b>\$ 63.31</b>		<b>\$ 64.65</b>		<b>2.12%</b>
			<b>Grand Total (All Drug Classes)</b>		<b>100%</b>		<b>\$ 58.31</b>		<b>\$ 59.69</b>				<b>2.37%</b>

Legend:

- Total Cost
  - GPI
  - Therapy Class Name
  - Common Indications
  - # Rx Rank
  - % of Total Rx
  - Cost Rank
  - % of Total Cost
  - AVG Cost/Rx
  - % Change in Avg Cost/Rx
- Total amount allowable which includes ingredient costs (cost plus markup) plus pharmacy dispensing fees.  
 Generic Product Indicator: Classifies drugs into similar therapy classes  
 Pharmaceutical name for a specific class of drugs  
 Familiar name for treating conditions for a Therapy Class of drugs  
 The rank of therapy classes according to the number of allowable prescriptions (claims) submitted  
 The percentage of claims within the therapy class compared to all therapy classes  
 The rank of therapy classes according to the cost of the prescriptions  
 The percentage of cost of the prescriptions within the therapy class compared to all therapy classes  
 Average Cost per Prescription: The average cost of all the prescriptions within the therapy class  
 The percentage of cost change for the prescriptions within a therapy class comparing the two date periods