



Health Newsflash

Top 100 Therapy Classes of 2006



Optimizing the Value of Drug and Dental Benefits

In this issue, we present our 2006 edition of ESI Canada's Top 100 Therapeutic Classes report. We have added several new sections to this year's edition and we hope you will find this report interesting and applicable to your business needs.

NEW DRUGS, INDICATIONS & GENERICS IN 2006

In this section, we highlight the following classes of drugs from 2006:

- Noteworthy new drugs that have entered the Canadian market which cost > \$1,000 per patient per year;
- Drugs that have received significant new indications; and
- Significant new generics that have entered the market

Noteworthy New Drugs & New Formulations

Brand name (generic name)	Manufacturer	Indication(s)	Avg. Annual Ingredient Cost/Patient*
Tysabri (natalizumab)	Biogen Idec	Multiple Sclerosis	\$36,000
Exjade (deferasirox)	Novartis	Iron chelator for chronic iron overload	\$30,000
Orencia (abatacept)	Bristol-Myers Squibb	Rheumatoid Arthritis	\$25,000
Revatio (sildenafil)	Pfizer	Pulmonary Arterial Hypertension	\$12,000
Prezista (darunavir)	Janssen-Ortho	AIDS/HIV	\$10,750
Baraclude (entecavir)	Bristol-Myers Squibb	Chronic Hepatitis B	\$8,500
Sebivo (telbivudine)	Novartis	Chronic Hepatitis B	\$6,500
Fosrenol (lanthanum carbonate)	Shire BioChem	Phosphate binder in end-stage renal disease	\$3,500
Azilect (rasagiline)	Teva Neuroscience	Parkinson's Disease	\$2,500
DDAVP Melt (desmopressin)	Ferring	Urinary incontinence	\$2,000
Nexavar (sorafenib)	Bayer	Kidney Cancer	\$7,350/ 6 wks
Sutent (sunitinib)	Pfizer	Gastrointestinal Stromal Tumors (GIST) & Kidney Cancer	\$7,330/ 6 wks
Gardasil (HPV vaccine)	Merck Frosst	Prevention of diseases caused by human papillomavirus (HPV)	\$435/ 3 doses

*Unless otherwise noted. Pricing is taken from ESI Canada's database and calculations are based upon manufacturer recommended dosing.

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Significant New Indications

Brand name (generic name)	Manufacturer	New Indication(s) in 2006	Previous Indication(s)	Avg. Annual Ingredient Cost/Patient*
Humira (adalimumab)	Abbott	Ankylosing spondylitis Psoriatic arthritis	Rheumatoid arthritis	\$20,000
Remicade (infliximab)	Centocor/Schering	Plaque psoriasis Psoriatic arthritis Pediatric Crohn's Ulcerative Colitis	Rheumatoid arthritis Ankylosing spondylitis Crohn's disease (adults)	\$35,000
Rituxan (rituximab)	Hoffman-La Roche	Rheumatoid arthritis	B cell non-Hodgkin's lymphoma	\$20,000
Tamiflu (oseltamivir)	Hoffman-La Roche	Prevention of flu in children	Prevention in adults Treatment in both children and adults	Treatment - \$39.00/ 5 days Prevention - \$54.60/ 14 days
Relenza (zanamivir)	GlaxoSmithKline	Prevention of flu in patients 7yrs and older	Treatment of flu	Treatment - \$37.00/ 5 days Prevention - \$51.80/ 14 days

*Unless otherwise noted. Pricing is taken from ESI Canada's database and calculations are based upon manufacturer recommended dosing.

New indications may lead to increased utilization of existing drugs. Biologics Humira and Remicade will be interesting to monitor, since not only do they have expanded indications, but require higher doses, as in the case of Remicade, which will drive up prescription drug costs (refer to Therapy Class Highlights, Biologics for Rheumatoid Arthritis). With the much talked about flu pandemic, it is important to note that both Tamiflu and Relenza have pursued additional indications in 2006 for prevention of flu in select patient populations.

Significant First Time Generics

(i.e., brand drugs that came off patent and generic versions are now being marketed)

Generic Name	Brand Product	Common Use(s)	Therapy Class Rank (by Total Ingredient Cost) & Name
ramipril	Altace	Cardiovascular drug	#3 - ACE Inhibitors
felodipine	Plendil/Renedil	Cardiovascular drug	#5 - Calcium Channel Blockers
venlafaxine XR	Effexor XR	Depression, Anxiety Disorder	#6 - Serotonin-Norepinephrine Reuptake Inhibitors
risperidone	Risperdal	Schizophrenia, dementia, bipolar disorder	#66 - Benzisoxazoles
tamsulosin	Flomax	Benign prostatic hyperplasia (BPH)	#82 - Alpha-1 Adrenoreceptor Antagonists
ondansetron	Zofran	Prevention of nausea and vomiting in cancer patients	#88 - 5-HT3 Receptor Antagonists
famciclovir	Famvir	Viral infections - shingles, herpes	#92 - Herpes Agents - Thymidine Analogues
pramipexole	Mirapex	Parkinson's disease	#111 - D2 Class Dopamine Receptor Agonists
mupirocin	Bactroban	Bacterial infections	#128 - Antibiotics - Topical
betahistine	Serc	Vertigo associated with Ménière's disease	#175 - Microvasodilators
bicalutamide	Casodex	Prostate cancer	#200 - Antiandrogens
ceftriaxone	Rocephin	Bacterial infections	#214 - Cephalosporins - 3 rd generation

The introduction of generics, especially for highly utilized products (e.g. Altace and Effexor XR), will help to decrease overall drug plan costs. For further information and some interesting trends on generics from 2006 please refer to the section "Generic Influence" under Therapy Class Highlights.

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TOP 100 THERAPY CLASSES

As in previous years, the top 100 report will be divided into two parts. First we will examine drug trends outside of Quebec and then secondly, in Quebec.

Methodology

The methodology used in this year's analysis has been the same as in 2005 (and 2004) in order to provide an accurate picture of drug utilization. As in previous years, rankings are sorted by total allowable ingredient cost, which reflects drug pricing, markup, and utilization. Using the allowable ingredient cost rather than the net cost (i.e. allowable professional fees plus ingredient costs minus member payment) eliminates the effects of differing plan designs and professional fees on drug utilization.

Ingredient cost and utilization are key drivers of the overall drug costs to private drug plans. This report also includes rankings by number of prescriptions, and new this year, percentage of total prescriptions. The number of prescriptions does not account for varied number of days supply; however, days supply generally remains consistent from year to year. Finally, we also examine the average ingredient cost per prescription and the percentage change in this parameter between 2005 and 2006.

The Top 100 Therapeutic Classes for Claims Outside Quebec

The attached top 100 report is grouped by therapy classes, a term that represents a category of similar acting drugs used to treat a specific condition. The *Top 5 Treated Health Conditions* below are grouped by disease state or most common indication. Each health condition may be comprised of several therapy classes.

For example, the common indication "High Cholesterol" consists of six therapy 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 5 Treated Health Conditions for 2006

The top 5 Treated Health Conditions ranked by total allowable ingredient costs (percent of total allowable ingredient cost) are:

1. High Blood Pressure (11.55%)
2. High Cholesterol (9.88%)
3. Arthritis & Pain (9.03%)
4. Gastrointestinal Ulcers & Reflux Disease (8.35%)
5. Depression (7.13%)

The top 5 treated conditions remain unchanged from previous years, and the ranking from 1-5 is similar to 2005, except for the Arthritis & Pain category due to the reasons mentioned below (has moved up from position 5 to 3 this year). The total costs attributed to treat these 5 conditions were 43.2% of total allowable ingredient costs in 2006, slightly up from 2005 where these conditions accounted for 42.6%. For comparison, percentages in 2004 and 2003 were 44.1% and 44.6%, respectively.

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*Note: This year, the Arthritis & Pain category includes the therapy class "Narcotic Analgesics"; in previous years this was not included. Because of this, the Health Condition "Arthritis & Pain" appears higher in ranking than it normally would. This methodology will be continued in subsequent editions of the Top 100 Newsflash.



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Top 100 Therapy Classes - Outside Quebec



THERAPY CLASS HIGHLIGHTS

In the following section, we highlight selected therapy classes from the Top 100 Report that had significant increases or decreases in average ingredient cost per prescription in 2006 vs. 2005. For a given disease state (e.g. diabetes) we do not highlight all therapy classes; only those classes that had significant changes compared to last year. The data in the summary tables below duplicates the 2005 and 2006 numbers found in the attached tables at the end of this report. The 2004 data comes from last year's Top 100 Report.

Optimizing the Value of Drug and Dental Benefits

DIABETES

Human Insulins – GPI 271040

- **Drug(s):** Novolin insulins, Humulin insulins, NovoRapid, Humalog, Lantus, Levemir
- **Notes:** Among the top 100 classes, this category had the largest percentage increase in average ingredient cost per prescription in 2006. The increased use of Lantus and Levemir, which cost significantly more per prescription than the older insulins (on average \$20-30 more/claim), is the most probable cause of the 25.88% increase observed in this category between 2005 and 2006. It should be noted however, that while these products are more expensive they may provide some advantages to certain patients. As long-acting basal insulins, they are typically taken once a day and do not have peaks in effect which means patients should experience less hypoglycemia (low blood sugars) during the night, a common side effect of intermediate acting insulins, like NPH. As well, these newer agents may also provide less weight gain than conventional agents, an often important goal in diabetic patients receiving insulin therapy.

- **Market Share (by ingredient cost paid):**
 - Novolin products 19.21%
 - Humalog 18.13%
 - Lantus 16.98%
 - NovoRapid 16.79%
 - Humulin products 15.39%
 - Levemir 13.50%

Human Insulin Trends:

	2004	2005	2006
Rx Rank	36	37	32
% Total Rxs	0.77%	0.77%	0.90%
Ing Cost Rank	28	27	18
% Total Ing Cost	0.78%	0.86%	1.20%
Avg Ing Cost/Rx	\$48.44	\$55.90	\$70.37





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Optimizing the Value of Drug and Dental Benefits

DEPRESSION

Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs) – GPI 581800

- Drug(s): Effexor, Effexor XR, generic venlafaxine XR
- Notes: While there was an increasing trend this year in this therapy class, the recent introduction of generic Effexor XR (venlafaxine XR) towards the end of 2006 will cause the generic market share to increase. This should cause a subsequent decrease in the average ingredient cost per prescription in 2007 and years to come.

- Market Share (by ingredient cost paid):
 - Brand 99.84%
 - Generic 0.16%

SNRI Trends:

	2004	2005	2006
Rx Rank	-	19	17
% Total Rxs	-	1.31%	1.75%
Ing Cost Rank	-	9	6
% Total Ing Cost	-	1.99%	2.71%
Avg Ing Cost/Rx	-	\$75.42	\$81.62

Antidepressants – Misc. – GPI 583000

- Drug(s): Wellbutrin SR, Wellbutrin XL, generic bupropion SR, generic maprotiline
- Notes: The introduction of generic Wellbutrin SR (bupropion SR) in 2005 continues to decrease the average ingredient cost per prescription for this class. Over the course of the last 3 years, it has decreased from \$67.40 in 2004 to \$38.84 this year (-42.37%). As noted in last year's Newsflash, this decreasing trend is also attributed to the departure of Effexor XR from this therapy class to its own therapy class – SNRIs above.

- Market Share (by ingredient cost paid):
 - Brand 56.85%
 - Generic 43.15%

Antidepressants - Misc. Trends:

	2004	2005	2006
Rx Rank	13	30	46
% Total Rxs	2.12%	0.92%	0.55%
Ing Cost Rank	8	22	52
% Total Ing Cost	2.97%	1.03%	0.41%
Avg Ing Cost/Rx	\$67.40	\$55.49	\$38.84

ORAL CANCER MEDICATIONS

Antineoplastic – Protein-Tyrosine Kinase Inhibitors – GPI 215340

- Drug(s): Gleevec, Iressa, Tarceva
- Notes: Gleevec is indicated for the treatment of chronic myeloid leukemia (CML) and gastrointestinal stromal tumors (GIST). Both Iressa and Tarceva are indicated for non small cell lung cancer (NSCLC) only. Iressa is no longer recommended for new patients because of lack of evidence for improved survival. However, both Gleevec and Tarceva are becoming more commonly used therapies capturing market share from older injectable products. These two oral agents are generally better tolerated than older injectable chemotherapy drugs and allow patients to be treated at home. However, this comes at increased cost to private payers as the majority of injectable cancer drugs are covered by the hospital/government budget.

- Market Share (by ingredient cost paid):
 - Gleevec 87.63%
 - Tarceva 11.80%
 - Iressa 0.57%

Antineoplastic – PTK Inhibitor Trends:

	2004	2005	2006
Rx Rank	339	320	323
% Total Rxs	0.00%	0.01%	0.01%
Ing Cost Rank	69	57	48
% Total Ing Cost	0.27%	0.38%	0.42%
Avg Ing Cost/Rx	\$3,467	\$3,473	\$4,068





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WOMEN'S HEALTH - BREAST CANCER

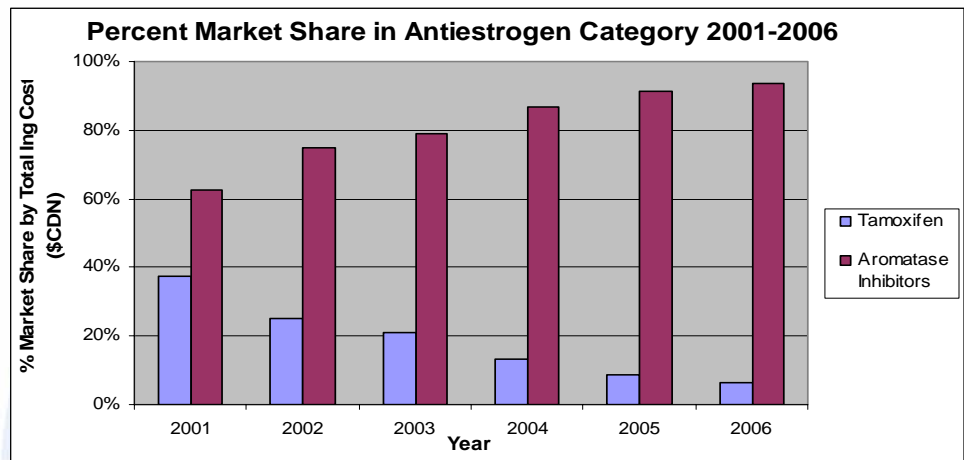
Aromatase Inhibitors - GPI 214028

- **Drug(s):** Arimidex, Aromasin, Femara
- **Notes:** The average ingredient cost per prescription increased from \$193.51 to \$230.13 in 2006 (+18.92%). The reason for this is that these drugs are now becoming more frequently used in the adjuvant setting (e.g. after surgery) in postmenopausal women with early breast cancer. Previously, tamoxifen was the standard of care, however, there is now evidence supporting these newer therapies, either in place of tamoxifen or following tamoxifen therapy. These agents do provide some advantages to patients; however they come at an increased cost - newer agents cost significantly more than generic tamoxifen (\$5.25/day vs. \$0.35-0.70/day).

- **Market Share** (by ingredient cost paid):
 - Arimidex 49.01%
 - Femara 38.93%
 - Aromasin 12.06%

Aromatase Inhibitor Trends:

	2004	2005	2006
Rx Rank	195	179	174
% Total Rx's	0.04%	0.06%	0.07%
Ing Cost Rank	109	85	72
% Total Ing Cost	0.17%	0.23%	0.29%
Avg Ing Cost/Rx	\$183.75	\$193.51	\$230.13



This table highlights how aromatase inhibitors have become the market leaders among the antiestrogens used for breast cancer. Percent market share has increased by over 30% between 2001 and 2006.





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BIOLOGICS FOR RHEUMATOID ARTHRITIS (RA) Soluble Tumor Necrosis Factor Receptor Agents - GPI 662900

- Drug(s): Enbrel
- Notes: The utilization and costs for Enbrel continued to increase in 2006 and this is likely due to the new indication for chronic plaque psoriasis. The recommended dosing for this new indication is often twice as frequent (and hence twice as expensive) than that used for rheumatoid arthritis (i.e., 50 mg twice weekly vs. 50 mg once weekly).

- Market Share among biologics used for RA (by ingredient cost paid):
 - Enbrel 46.52%
 - Remicade 43.94%
 - Humira 8.64%
 - Kineret 0.73%
 - Orencia 0.18%

Tumor Necrosis Factor Alpha Blockers – GPI 525050

- Drug(s): Remicade
- Notes: Remicade received approval for a total of 4 new indications in 2006 (see New Indications table) and continues to increase in prescription and ingredient cost ranking. With long-term Remicade use, reports suggest a 'dose creep' for RA and other indications where increased doses are needed after patients develop tolerance to starting doses. This ultimately drives up prescription costs as patients require larger doses to control their disease.

Enbrel Trends:

	2004	2005	2006
Rx Rank	199	192	184
% Total Rxs	0.04%	0.05%	0.05%
Ing Cost Rank	18	14	13
% Total Ing Cost	1.17%	1.35%	1.69%
Avg Ing Cost/Rx	\$1,383	\$1,438	\$1,634

Anti-TNF-alpha Monoclonal Antibodies – GPI 662700

- Drug(s): Humira
- Notes: Humira has seen a dramatic increase in ranking in 2006 which can be partially attributed to several new indications over the past year (e.g. ankylosing spondylitis, and psoriatic arthritis). It is also possible that Humira is stealing market share from the other biologics used for these conditions, likely in patients who have developed side effects or who have had an inadequate response with the market leaders.

Remicade Trends:

	2004	2005	2006
Rx Rank	251	247	234
% Total Rxs	0.02%	0.02%	0.02%
Ing Cost Rank	20	19	14
% Total Ing Cost	1.14%	1.25%	1.59%
Avg Ing Cost/Rx	\$3,323	\$3,433	\$3,682

Humira Trends:

	2004	2005	2006
Rx Rank	482	318	285
% Total Rxs	0.00%	0.01%	0.01%
Ing Cost Rank	266	103	65
% Total Ing Cost	0.01%	0.17%	0.31%
Avg Ing Cost/Rx	\$1,956	\$1,502	\$1,601





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GENERIC INFLUENCE

One common theme in each edition of our annual Top 100 Newsflash is the impact of generics and how they decrease the average ingredient cost per prescription in particular therapy classes. Some interesting trends with generics have been observed in 2006:

Azithromycin – GPI 034000

- **Drug(s):** Zithromax, generic azithromycin
- **Notes:** Generic Zithromax (azithromycin) initially became available in November 2005 but didn't impact this class until 2006. In 2006, this class has decreased by almost 23% in average ingredient cost per prescription which is due primarily to the generic product taking a bigger share of the market place. Because Zithromax is a common antibiotic used for numerous bacterial infections (e.g. pneumonia, ear infections, urinary tract infections, etc.), the impact of a generic entering the market can be significant.

- **Market Share** (by ingredient cost paid):
 - Brand 48.22%
 - Generic 51.78%

Azithromycin Trends:

	2004	2005	2006
Rx Rank	24	25	26
% Total Rxs	1.12%	1.14%	1.07%
Ing Cost Rank	29	31	41
% Total Ing Cost	0.77%	0.76%	0.52%
Avg Ing Cost/Rx	\$33.02	\$33.14	\$25.62

Acne Products – GPI 900500

- **Drug(s):** Accutane, Clarus (generic isotretinoin), Differin, Benzoyl peroxide products, Vitamin A products (Stieva-A, Retin-A), metronidazole (Metrogel)
- **Notes:** This class saw the introduction of a generic version of Accutane (Clarus – isotretinoin) in mid 2005. Interestingly, the manufacturer of Accutane decided to directly compete with this new generic version by lowering the brand price to the price of the generic version. These two occurrences have led to a drop in ingredient cost ranking from 42 to 61 this year, a drop from 0.53% to 0.35% in terms of overall ingredient costs, and lastly a 9% decrease in the average ingredient cost per prescription.

- **Market Share** (by ingredient cost paid):
 - Accutane 61.82 %
 - Differin 15.07%
 - Vitamin A products 12.43%
 - Clarus 6.95%
 - Benzoyl peroxide products 3.62%
 - Metronidazole 0.08%

Acne Product Trends:

	2004	2005	2006
Rx Rank	42	47	58
% Total Rxs	0.63%	0.53%	0.41%
Ing Cost Rank	35	42	61
% Total Ing Cost	0.63%	0.53%	0.35%
Avg Ing Cost/Rx	\$47.97	\$49.29	\$44.86





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5-HT3 Receptor Antagonists – GPI 502500

- **Drug(s):** Zofran, generic Zofran (ondansetron), Kytril, Anzemet
- **Notes:** Generic Zofran (ondansetron), which is used to prevent nausea and vomiting in patients undergoing chemotherapy, was introduced to the market in 2006. As Zofran is the market leader in this class, the introduction of a generic version at a lower cost has helped decrease total ingredient costs for this category of drugs. This decreasing trend is expected to continue in 2007.

• Market Share (by ingredient cost paid):

- Zofran 58.49%
- Generic Zofran 22.36%
- Kytril 15.91%
- Anzemet 3.24%

5-HT3 Receptor Antagonist Trends:

	2004	2005	2006
Rx Rank	174	174	171
% Total Rxs	0.07%	0.06%	0.07%
Ing Cost Rank	68	75	88
% Total Ing Cost	0.28%	0.26%	0.23%
Avg Ing Cost/Rx	\$202.19	\$200.55	\$178.78

SUMMARY

In summary, we would like to leave you with some final key points from the 2006 Top 100 Report and the top 10 drugs of 2006 outside of Quebec:

- The Top 5 Common Health Conditions remain unchanged for 2006.
- New indications for biologic products will continue to increase their use as this opens the door for more patients to be treated with these agents. This will increase overall costs to drug plans.
- The % of Total Rxs field suggests that the use of drugs for chronic conditions – e.g. high cholesterol, diabetes, and high blood pressure – is increasing likely due to our aging population and people living longer. Whereas for oral contraceptives, for example, we have observed a slight decrease overall.
- Generic versions of highly utilized drugs (e.g. Altace and Effexor XR) will help to decrease costs in their respective therapy classes.
- Shifts to newer products (e.g. Lantus, Levemir vs. older insulins; Arimidex and Femara vs. tamoxifen) will increase costs to plans in those disease states but may provide better patient outcomes.
- Oral cancer medications are increasing in use and we will likely see many more of these and other specialty medications in the future.

2006 Top 10 Chemical Entities by Ingredient Cost Paid (outside Quebec):

Rank	Drug Name	Common Use(s)	Avg. Annual Cost/Patient
1	Lipitor (atorvastatin)	High cholesterol	\$850
2	Effexor (venlafaxine) + generics	Depression, Anxiety/Panic Disorders	\$650
3	Altace (ramipril) + generics	Cardiovascular drug	\$350
4	Losec (omeprazole) + generics	GI reflux, stomach ulcers	\$800
5	Nexium (esomeprazole)	GI reflux, stomach ulcers	\$800
6	Norvasc (amlodipine)	Cardiovascular drug	\$700
7	Enbrel (etanercept)	Rheumatoid arthritis, psoriatic arthritis, psoriasis	\$25,000
8	Pantoloc (pantoprazole)	GI reflux, stomach ulcers	\$750
9	Remicade (infliximab)	Rheumatoid arthritis, psoriatic arthritis, Crohn's, Ulcerative colitis	\$35,000
10	Crestor (rosuvastatin)	High cholesterol	\$650





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Top 100 Therapy Classes - Quebec Only



The Top 100 Therapeutic Classes for Quebec Claims

The methodology used in this section is similar to the analysis performed for claims outside of Quebec. As Quebec does not separate the professional fee and the ingredient cost when submitting their claims to ESI Canada, this analysis has used total claim cost which includes the professional fee and ingredient costs rather than allowable ingredient costs alone.

Top 5 Treated Health Conditions for 2006

The top 5 Treated Health Conditions ranked by total allowable claim costs (percent of total allowable claim cost) are:

1. High Blood Pressure (11.76%)
2. High Cholesterol (10.87%)
3. Depression (7.58%)
4. Arthritis & Pain (7.37%)
5. Antibiotics/Anti-Infective (6.28%)

The Top 5 health conditions accounted for 43.86% of the total cost for all claims within Quebec in 2006. This year, we have observed an increase of 3.15% compared to 2005, when the top 5 conditions accounted for 40.71%. In 2004 and 2003, these Top 5 health conditions represented 42.0% and 42.5%, respectively.

Again, very similar trends are seen in Quebec claims versus outside of Quebec. The Depression category is ranked #3 in Quebec compared to #5 for the rest of Canada. Antibiotics/Anti-Infective category now rounds out the top 5 Health Conditions for Quebec, displacing GI Ulcers and Reflux Disease from the top 5.

THERAPY CLASS HIGHLIGHTS

SMOKING CESSATION PRODUCTS

Smoking Deterrents – GPI 621000

- Drug(s): Nicoderm, Habitrol, Nicorette gum, Nicorette inhaler, Zyban
- Notes: Over the last year, the total claim cost for this therapy class has increased; however there has been a dramatic decrease in the total number of prescriptions since last year. Because of this, there has been a large increase in the average claim cost per prescription in 2006 – a 237.77% increase! As Nicoderm is the market leader in this therapy class, the probable cause for this is that patients are now receiving larger quantities of patches at one time as opposed to testing the patch for a short period of time and receiving multiple prescriptions.

• Market Share (by total claim cost):

- Nicoderm: 85.75%
- Zyban: 5.61%
- Habitrol: 4.57%
- Nicorette gum: 3.85%
- Nicorette inhaler: 0.16%
- Generic transdermal nicotine: 0.05%

Smoking Deterrents Trends:

	2004	2005	2006
Rx Rank	29	33	74
% Total Rxs	0.90%	0.75%	0.28%
Claim Cost Rank	79	93	79
% Total Claim Cost	0.29%	0.22%	0.26%
Avg Claim Cost/Rx	\$12.33	\$11.75	\$39.70





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DEPRESSION

Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs) – GPI 581800

- Drug(s): Effexor, Effexor XR, generic venlafaxine XR
- Notes: The SNRI therapy class has jumped in claim cost rankings from 7 in 2005 to 4 in 2006. However, there was only a minor increase of 0.12% in the average claim cost per prescription. As mentioned previously, the recent introduction of generic Effexor XR (venlafaxin XR) will likely slow this increasing trend in years to come.

- Market Share (by total claim cost):
 - Brand 99.85%
 - Generic 0.15%

SNRI Trends:

	2004	2005	2006
Rx Rank	-	17	10
% Total Rxs	-	1.61%	2.30%
Claim Cost Rank	-	7	4
% Total Claim Cost	-	2.19%	3.00%
Avg Claim Cost/Rx	-	\$54.89	\$54.96

Antidepressants – Misc. – GPI 583000

- Drug(s): Wellbutrin SR, Wellbutrin XL, generic bupropion SR, generic maprotiline
- Notes: As observed outside of Quebec, the introduction of generic Wellbutrin SR (bupropion) in 2005 continues to decrease the average claim cost per prescription (-22.34%). As noted, this decrease can also be attributed to the departure of Effexor into its own therapy class (SNRIs above). It's also interesting to note the percentage market share brand Wellbutrin has in Quebec compared to the rest of Canada (84.50% vs. 56.85%) – likely a result of the 15-year rule on reimbursing brand prices in Quebec.

- Market Share (by total claim cost):
 - Brand 84.50%
 - Generic 15.50%

Antidepressants - Misc. Trends:

	2004	2005	2006
Rx Rank	11	28	53
% Total Rxs	2.38%	0.92%	0.41%
Claim Cost Rank	4	20	64
% Total Claim Cost	3.18%	1.08%	0.35%
Avg Claim Cost/Rx	\$52.02	\$47.26	\$36.70

DIABETES

Human Insulins – GPI 271040

- Drug(s): Novolin insulins, Humulin insulins, NovoRapid, Humalog, Lantus, Levemir
- Notes: As with the rest of Canada, the increased use of Lantus and Levemir in Quebec is responsible for an increasing trend in this category. Because of their potential clinical advantages and reduced fluctuations of blood sugar levels for patients, they have contributed to a 22.59% increase in average claim cost per prescription in human insulins from \$48.48 in 2005 to \$59.43 in 2006.

- Market Share (by total claim cost):
 - Humalog: 27.59%
 - Lantus: 22.21%
 - NovoRapid: 21.37%
 - Novolin products: 11.29%
 - Levemir: 11.05%
 - Humulin products: 6.49%

Human Insulin Trends:

	2004	2005	2006
Rx Rank	62	50	45
% Total Rxs	0.36%	0.45%	0.53%
Claim Cost Rank	65	45	33
% Total Claim Cost	0.35%	0.54%	0.75%
Avg Claim Cost/Rx	\$38.23	\$48.48	\$59.43





Health Newsflash

Top 100 Therapy Classes - Quebec Only



BIOLOGICS FOR RHEUMATOID ARTHRITIS (RA)

Enbrel, Remicade and Humira have seen increases in the average claim cost per prescription in Quebec as well. It is interesting to note that Remicade is the market leader in Quebec, whereas Enbrel occupies the biggest market share outside of Quebec. With more indications approved by Health Canada, we can expect that biologics will be stealing a bigger market share in the years to come.

• Market Share among biologics used for RA (by total claim cost):

- Remicade 50.75%
- Enbrel 40.64%
- Humira 7.86%
- Kineret 0.56%
- Orencia 0.19%

Soluble Tumor Necrosis Factor Receptor Agents – GPI 662900

- Drug(s): Enbrel
- Notes: Enbrel has also moved up in Quebec with an increase of 16.04% in the average claim cost per prescription. With multiple indications approved, Enbrel has jumped in ranking from 25 to 18 in 2006.

Enbrel Trends:

	2004	2005	2006
Rx Rank	207	194	196
% Total Rxs	0.03%	0.03%	0.04%
Claim Cost Rank	29	25	18
% Total Claim Cost	0.85%	1.01%	1.22%
Avg Claim Cost/Rx	\$1,150	\$1,205	\$1,399

Tumor Necrosis Factor Alpha Blockers – GPI 525050

- Drug(s): Remicade
- Notes: Remicade has jumped in claim cost ranking from 21 in 2005 to 13 in 2006 with an increase of 7.00% in the average claim cost per prescription.

Remicade Trends:

	2004	2005	2006
Rx Rank	301	276	245
% Total Rxs	0.01%	0.01%	0.02%
Claim Cost Rank	34	21	13
% Total Claim Cost	0.71%	1.03%	1.53%
Avg Claim Cost/Rx	\$3,245	\$3,485	\$3,729

Anti-TNF-alpha Monoclonal Antibodies – GPI 662700

- Drug(s): Humira
- Notes: Humira, like the other RA biologics, jumped in claim cost ranking from 129 to 90 with an increase in average claim cost per prescription of 3.69%.

Humira Trends:

	2004	2005	2006
Rx Rank	499	364	313
% Total Rxs	0.00%	0.00%	0.01%
Claim Cost Rank	288	129	90
% Total Claim Cost	0.01%	0.12%	0.24%
Avg Claim Cost/Rx	\$1,988	\$1,520	\$1,576





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ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD)

Miscellaneous Stimulants - GPI 614000

- Drug(s): Concerta, Ritalin, Ritalin SR, generic methylphenidate, Alertec, Biphentin
- Notes: Concerta continues to account for a larger portion of the market share in this category and is the main contributor to the 15.29% increase in average cost per prescription in 2006. The addition of Biphentin in early 2006 will also add to this increasing trend.

- Market Share (by total claim cost):
 - Concerta: 81.88%
 - Generic methylphenidate: 9.21%
 - Ritalin and Ritalin SR: 7.23%
 - Alertec: 1.32%
 - Biphentin: 0.37%

Miscellaneous Stimulants Trends:

	2004	2005	2006
Rx Rank	39	37	32
% Total Rxs	0.64%	0.72%	0.75%
Claim Cost Rank	33	26	21
% Total Claim Cost	0.74%	1.00%	1.14%
Avg Claim Cost/Rx	\$44.61	\$55.78	\$64.31

Selective Norepinephrine Reuptake Inhibitor (Strattera) - GPI 613540

- Drug(s): Strattera
- Notes: Strattera, introduced in late 2004, continues to increase in use among agents for ADHD and has seen an increase of 12.02% in the average claim cost per prescription.

Strattera Trends:

	2004	2005	2006
Rx Rank	-	191	143
% Total Rxs	-	0.04%	0.08%
Claim Cost Rank	-	141	87
% Total Claim Cost	-	0.10%	0.24%
Avg Claim Cost/Rx	-	\$114.72	\$128.51





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SUMMARY

In summary, here are the key points observed in the 2006 Top 100 Report for Quebec and the Top 10 drugs in Quebec for 2006:

- The Top 5 Common Health Conditions have slightly changed as Antibiotics/Anti-infectives has moved up into the Top 5 Conditions displacing GI Ulcers and Reflux Disease from the top 5.
- Overall trends are very similar to outside of Quebec except for the Smoking Deterrents therapy class.
- Biologic products will continue to increase in Quebec as they are in the rest of Canada - because of their multiple indications, there will be more patients using them.
- With newer drugs available in Human Insulins (Levemir and Lantus), we have observed a great increase in the total claim cost per prescription for this therapy class. This indicates a shift towards newer agents as they may bring added clinical value to patients.

2006 Top 10 Chemical Entities by Total Claim Cost (Quebec only):

Rank	Drug Name (Chemical Name)	Common Use(s)	Avg. Annual Cost/Patient
1	Lipitor (atorvastatin)	High cholesterol	\$850
2	Effexor XR (venlafaxine) + generics	Depression, anxiety disorders	\$650
3	Pantoloc (pantoprazole)	GI reflux, stomach ulcers	\$750
4	Norvasc (amlodipine)	Cardiovascular drug	\$700
5	Nexium (esomeprazole)	GI reflux, stomach ulcers	\$800
6	Crestor (rosuvastatin)	High cholesterol	\$650
7	Remicade (infliximab)	Rheumatoid arthritis	\$35,000
8	Altace (ramipril) + generics	Cardiovascular drug	\$350
9	Enbrel (etanercept)	Rheumatoid arthritis	\$25,000
10	Celexa (citalopram) + generics	Depression	\$300

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